Mahatma Gandhi National Rural Employment Guarantee Act

A Catalyst for Rural Transformation

Sonalde Desai, Prem Vashishtha and Omkar Joshi

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IHDS INDIA HUMAN DEVELOPMENT SURVEY

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Foreword

India has initiated massive economic development and safety net programmes over the past two decades. It has, for example, moved from universal food subsidies to targeted food subsidies and back again to a near-universal programme. Some programmes have been able to target beneficiaries more easily, for example conditional cash transfers for hospital delivery. And others have been ambitious in their design, scale and reach, as for example the rural safety net provided by the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), a nationwide rural public works programme that costs India about 1 percent of GDP and works on the principle of self-selection (workers have access to 100 days of public employment a year when they choose).

When such programmes are initiated, there is often tremendous political pressure for a quick rollout, and only over time is the need for evaluations felt. But by then evaluations can be difficult since for comparison purposes the data collection for evaluation should ideally start before the programme starts. In such situations, household surveys can tell us how beneficiaries have responded and whether the programme has had its intended effect.

Household surveys by the National Council of Applied Economic Research have been filling this need since NCAER's inception in 1956. The India Human Development Survey (IHDS), the basis for this report on MGNREGA, is particularly useful because it is a panel survey, periodically interviewing the same households. Conducted in 2004–05 and 2011–12 (with earlier partial data available for 1993–94), the IHDS is a collaboration between the National Council of Applied Economic Research and the University of Maryland. The data are released to the scientific community through the Interuniversity Consortium for Political and Social Science Research (www.icpsr.umich.edu).

The IHDS fills two unique needs. First, as a data collection exercise by India's largest and oldest independent think tank, it allows independent and unbiased policy research, particularly for evaluation purposes. Second, as an ongoing activity encompassing data on topics as diverse as livelihoods, health and education, it can help evaluate many different programmes. The high data quality and the breadth of topics the IHDS covers have already led to its use by more than 4,000 academics worldwide.

The availability of the IHDS is fortuitous for evaluating programmes like MGNREGA, which affect many aspects of household well-being. The first IHDS was conducted in 2004–05, just before MGNREGA was started. The second was in 2011–12, after MGNREGA had been extended to all rural districts. Thus, it offers a unique opportunity for programme evaluation.

This research report addresses such challenging questions as who participates in MGNREGA and whether it provides the income protection against poverty that it is designed to provide.

What is its role in shaping the income security and well-being of men, women and children in rural households? How is the availability of the programme affecting the transformation of rural labour markets?

As India continues its march towards economic prosperity, independent, rigorous assessments of this type will be increasingly required to ensure that public policy and programmes stay on the right track and make needed course corrections. NCAER remains committed to collecting, providing and analysing scientific, independent and unbiased data that can help in this process.

Shekhar Shah
Director-General
National Council of
Applied Economic Research

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Preface

Since 2000 India has experienced rapid economic growth and a sharp decline in poverty. But employment has grown far more slowly. And although agriculture contributes only 18% to the Indian economy, it continues to employ 47% of the workers. This large proportion disguises unemployment, as it reflects crowding of workers—particularly women—into seasonal or poorly paying work, such as collecting forest produce.

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) of 2005, which emerged in response to this growing dilemma, provides 100 days of work to any rural household that demands it. MGNREGA incites strong passions. Activists demanding the right to work see the programme as a panacea for rural poverty, particularly if it can reach all sections of rural society. Many economists worry, however, about the programme's ineffectiveness and unintended consequences, including labour shortages.

This issue has become particularly relevant in mid-2015. The poor rabi harvest of early 2015 may well extend into the kharif season in late 2015. Whether MGNREGA can alleviate rural distress remains an open question. On the one hand, it provides a pro-poor mechanism to deliver social safety nets without complicated targeting of benefits. On the other hand, its potential side effects may make it less effective than direct subsidies in the form of cash transfers. And given the rapid economic transformation overtaking rural India, the fundamental justification for an employment guarantee programme requires re-examination.

Research on MGNREGA's reach, functioning and consequences has been hampered by lack of data on the rural economy before and after the programme's implementation. Thus, despite considerable passions for and against MGNREGA, empirical evidence about its efficacy remains limited at best. Most studies either cover a limited geographical area or rely on econometric inferences using poorly suited data. In this report we use data from a survey of over 26,000 rural households that were interviewed twice, once in 2004–05 before MGNREGA's passage and again in 2011–12, after the programme had been extended nationwide.

The India Human Development Survey (IHDS), part of a collaborative programme between the National Council of Applied Economic Research (NCAER) and University of Maryland, is the only large panel survey in India to interview the same households at two points in time. Covering all states and union territories except for Andaman, Nicobar and Lakshadweep, it collected data on income, employment and a variety of dimensions of household well-being. It spanned 1,503 villages and also collected data on village infrastructure, prevalent wages, and MGNREGA implementation. While the sample was nationally representative at its inception in 2004–05, about 10% of the rural households were lost to follow up—some because they migrated, others because they were unavailable for interview.

However, a 90% recontact rate is considered quite high by international standards, and the remaining sample compares well on a variety of key parameters with other data sources such as the Census and National Sample Surveys.

MGNREGA, one of the most creatively designed programmes in India, has a bottom-up, demand-driven structure with built-in social audits, a process described in detail in chapter 1. Chapter 2 explores programme participation among individuals, households and communities and suggests that although the programme is open to all interested households, its structure makes it more attractive to the poor than to the rich. Despite this pro-poor bent, MGNREGA appeals to all sections of rural society except for the richest fifth. MGNREGA seems to fail, however, in its geographic reach, with some states far more likely to provide work under the programme than others. Local political economies also affect programme implementation, creating tremendous variation between villages within the same state.

Although only 25% of the households in our sample participate in MGNREGA and half of these earn less than ₹4,000 a year, the programme provides an important source of income for the participants, lifting many of them out of poverty. Since MGNREGA work substitutes for other possible activities, its poverty reduction potential requires careful analysis, a topic we address in chapter 3.

Chapter 4 examines the transformation of rural labour markets over the period of MGNREGA implementation. Our results show that on the surface, MGNREGA has virtually no impact on rural employment patterns since it fails to add to the number of days that individuals work. But it seems to attract individuals who were previously employed in less productive work, thereby raising their incomes. Views on public works programmes differ. For workers, these programmes provide a new opportunity, but for employers they are a source of competition for labour. We explore these conflicting perspectives in chapter 4.

MGNREGA, by providing work on demand, creates employment opportunities during periods when other work is not available. And through bank payments it also generates financial inclusion for non-banked households. Examination of household debt in chapter 5 finds that MGNREGA participation decreases reliance of rural households on moneylenders who charge usurious interest rates and improves these households' ability to obtain formal credit. MGNREGA also seems to be associated with lower child labour and better education outcomes for children.

MGNREGA offers equal wages to men and women. Women's employment in MGNREGA is high, and for nearly half the women participants the programme provides the first opportunity to earn cash income. Chapter 5 also explores gender consequences of MGNREGA participation and finds a substantial increase in women's control over resources and improvement in women's ability to make independent decisions about their health.

Despite its many positive outcomes, the programme remains limited in its reach. Although the poor are far more likely than the rich to work in MGNREGA, nearly 70% of the poor remain outside its purview. Chapter 6 explores this work rationing and argues that unless the programme expands its reach, its benefits will remain limited.

One of the challenges facing MGNREGA in the coming years is likely to be its fundamental philosophy. Should MGNREGA simply provide a social safety net? Or should it also improve productivity by building infrastructure? Our concluding chapter discusses this and other challenges facing MGNREGA.

Sonalde Desai

Acknowledgments

This report is an integral part of a broader project, India Human Development Survey (IHDS), and the result of a 12-year collaboration between the National Council of Applied Economic Research (NCAER) and the University of Maryland. This project began in a desire to bear witness to the transformation of Indian society by collecting ground-level data. When the project began in 2003, we did not anticipate the nature and magnitude of social, economic and policy changes India would undergo. And yet even today, it feels as if this transformation has only just begun, and we are poised to catch a wave whose magnitude is unknown. It is our hope to document these changes as they affect the lives of people and to provide data to strengthen intelligent policy design through the next decade.

The IHDS, conducted in 2004–05 and 2011–12, is the only nationwide panel survey in India that covers both urban and rural households and is spread across the length and breadth of the nation. It began in 2004–05 with interviews of 41,554 households in 1,503 villages and 971 urban blocks. These households were reinterviewed in 2011–12, including the households that split from the original family but were still located in the same area, resulting in a survey of 42,152 households and 204,577 individuals in 2011–12—including 83% of the original households and 2,134 new households.

When we began this project, it was with trepidation and hope: Trepidation that we would not manage to conduct a survey of high quality, that we might not be able to reinterview the same households and that our energy and funding would fail us between the two rounds of the survey. And hope that we were creating a public resource that will bring its own reward.

Our fears were overblown; our hopes were exceeded beyond our imagination. The IHDS today is a premier public resource being used by over 4,000 users in academia, government and private sector worldwide. We expect that its use will only grow with the 2011–12 data just entering the public domain.

We have been fortunate in our collaborators, advisors, and funders. A large number of researchers, staff and students at both NCAER and University of Maryland have contributed to ensuring the quality of the data. Our interviewers and collaborating data collection agencies have poured their hearts and souls into conducting interviews with multiple members of each household and making repeat visits to trace the same households. Space does not allow us to name all the researchers, field investigators, and collaborating agencies but a list is given at the end of this report.

Here we express particular thanks to two individuals without whom this enterprise would not have succeeded: Mr. Surajit Baruah, who coordinated data entry and checking, and Ms. Deepa S., who kept the wheels moving during the course of this project. We thank our home institutions NCAER and the University of Maryland for encouraging this

work. We are particularly thankful to NCAER Director-General Shekhar Shah for his constant support.

This work has been carried out since its inception under the guidance of an advisory committee led by Dr. Pronab Sen, chairman of the National Statistical Commission, India. The advisory committee consists of eminent academics, representatives of concerned ministries, and members of civil society. We are grateful for their unstinting support and constructive advice.

We received support from various ministries and departments of the government of India throughout this survey. The erstwhile Planning Commission helped us frame the broad research themes while providing logistical support. Planning departments in different states provided logistical support as needed. We are particularly grateful to the government of Assam for supporting our survey teams during a period of political turmoil.

We thank our funders for their leap of faith that the first large panel survey in India was both feasible and desirable. This report was prepared with a grant from The Poorest Areas Civil Society initiative (PACS). The underlying data collection was supported by two grants from the U.S. National Institutes of Health (R01HD041455 and R01HD061048) and The Ford Foundation, while a grant from the Knowledge Partnership Programme (KPP) of the UK Government, implemented by IPE Global, provided support to ensure early dissemination of the data. This support is gratefully acknowledged.

Most of all we appreciate the grace and hospitality with which our respondents shared their lives and experiences time and again. In spite of the time burden these interviews placed on them, their generosity has humbled us. We hope that this report and other research based on the IHDS data will contribute to public discourse in a way that rewards the faith they placed in us to communicate their hopes and fears.

Bruce Ross-Larson and the editorial team at Communications Development Incorporated and Mr. Jagbir Singh Punia at NCAER were extremely helpful in ensuring the quality of this report. However, the responsibility for any errors of judgment and interpretation lies with the authors, but the three of us, as Principal Investigators of this project, take the sole responsibility for the quality of the data.

Sonalde Desai
Amaresh Dubey
Reeve Vanneman

August 2015

Abbreviations

Adhaar	Unique identification card given to all Indian residents
Adivasi	Preferred terminology for Scheduled Tribes
APO	Assistant Programme Officer
BPL	Below poverty line
CEGC	Central Employment Guarantee Council
CFT	Cluster Facilitation Team
Dalit	Preferred terminology for Scheduled Castes
DPC	District Programme Coordinator
DPO	District Programme Officer
EGA	Employment Guarantee Assistant
EGS	Employment Guarantee Scheme
FGT	Foster-Greer-Thorbecke
FY	Financial year
GoI	Government of India
GP	Gram Panchayat
GPS	Global Positioning System
GRS	Gramin Rozgar Sahayak
GS	Gram Sabha
HDPI	Human Development Profile of India Survey (precursor to IHDS fielded in 1993–94)
IEC	Information education and communication
IHDS	India Human Development Survey
INRM	Integrated National Resource Management
IT	Information technology
Mate	Work site supervisor
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MoRD	Ministry of Rural Development
MPC	Marginal propensity to consume
NCAER	National Council of Applied Economic Research
NEGF	National Employment Guarantee Fund
NFSA	National Food Security Act
NMT	National Management Team
NREGA	National Rural Employment Guarantee Act, frequent acronym for MGNREGA
NSDP	Net state domestic product
NSS	National Sample Surveys
OB	Opening balance
PAG	Programme Advisory Group
PCC	Per capita consumption
PIA	Project implementing agencies

PO	Programme Officer
PRI	Panchayat Raj Institution
PSU	Primary sampling unit
SAGs	State Advisory Groups
SAU	Social Audit Unit
SC	Scheduled Castes
SEGC	State Employment Guarantee Council
SEGF	State Employment Guarantee Fund
SET	State Employment Team
SGRY	Sampoorna Gramin Rozgar Yoajana
SHGs	Self-Help Groups
ST	Scheduled Tribes
TPDS	Targeted Public Distribution System

Executive Summary

The Mahatma Gandhi National Rural Employment Guarantee Act (2005) aims to enhance livelihood security for all adults willing to perform unskilled manual labour in rural areas. Any household is entitled to 100 days of employment in a financial year at a minimum daily wage rate. Work can be split among household members, but workers must be at least 18 years old.

The Act envisages not only an immediate livelihood (through employing unskilled labour) but also long-term livelihood opportunities by creating sustainable assets in rural areas. This contributes to enhancing national resources (through water conservation, drought proofing, renovating water bodies, rural connectivity and so forth) and furthering sustainable development.

MGNREGA's planning process is unique among India's government programmes. As a demand-driven, rights-based programme, it begins at the village level. In a public meeting of the village community, the Gram Sabha, individuals and households register their interest in obtaining work. This information is consolidated by the lowest-level governance structure, the Gram Panchayat, which then prepares a list of projects to submit to the intermediate Panchayat at the block level to get project sanction. Thus, the initiative for developing projects rests with local government in response to grassroots demands.

Once projects are approved at the block level, at least 50 percent of MGNREGA works must be implemented by the Gram Panchayat, with at least 60 percent of the expenditure as wages. All workers must be allocated work within five kilometers of their residences. For those who must travel farther, a 10% wage increment is provided to cover transportation costs. If too few workers demand work within a given Gram Panchayat, the programme officer at the block level must ensure that these workers are accommodated in nearby areas. Thus, the Gram Panchayat and the programme officer at the block level (responding to the intermediate Panchayat) have the primary responsibility for implementation of the programme.

The availability of funds rose about 25% between 2008–09 and 2009–10, but fell sharply after 2011–12. Funds use after 2010–11 has shown consistent improvement. But completion of projects undertaken has not improved. The ratio of works completed to total works taken up reached a peak at 51% in 2010–11 and fell sharply thereafter. One reason for this dismal performance seems to be the cumulative effect of projects left incomplete while new projects were added to the MGNREGA annual plan. Improving technical capacity at the ground level for project formulation and implementation will improve infrastructure creation under MGNREGA.

The poor are more likely to work in MGNREGA

Before MGNREGA was launched, about 42% of the surveyed rural population was below the poverty line. Among the

rural poor, 30% of households participate in MGNREGA, compared with 21% of the non-poor. Among the households in the top consumption quintile, only 10% participate.

These figures suggest that MGNREGA is far more likely to attract the poor than the non-poor. MGNREGA is also more likely to attract workers with lower education levels who cannot find other work. Among households in which no adult is literate, about 30% of households participate in MGNREGA, compared with only 13% in households in which at least one adult is a college graduate.

MGNREGA is also important to the non-poor: Three-fourths of MGNREGA participating households are not poor. For these households, MGNREGA provides an important source of income during lean seasons or emergencies. Unfortunately, 70% of the poor are not able to find work in MGNREGA, mostly due to poor programme implementation and work rationing.

The poor and the socially vulnerable (agricultural wage labourers, adivasis, dalits and other backward classes and landless, marginal and small farmers) have dominated MGNREGA participation. And MGNREGA was instrumental in reducing poverty among these groups. The programme reduced poverty overall by up to 32% and prevented 14 million people from falling into poverty. MGNREGA has had greater impact in less developed areas, but low participation seems to constrain its potential to alleviate poverty, especially in the least developed areas and among socially vulnerable groups.

Why do the remaining 70% of the poor not participate in MGNREGA? One major explanation is that work is not easily available. More than 70% of rural households in IHDS claim that they did not participate in MGNREGA because not enough work was available. In states with a stronger programme, 60% of poor households participate, while in low-prevalence states barely 11% of poor households participate. Improving state-level implementation could thus have a tremendous impact on the ability of poor households to obtain MGNREGA work.

Understanding vulnerability

MGNREGA's success depends on the participation of the rural poor. But to what extent do vulnerable households participate in MGNREGA? Does MGNREGA discriminate against some vulnerable and poor? How significant is MGNREGA income to participating vulnerable and poor households?

Of rural households, 20.6% were vulnerable or poor in 2011–12, of which 31% participated in MGNREGA. Since MGNREGA coverage of rural households was barely 24.4% in 2011–12, poor or vulnerable participants constitute no more than 6% of rural households. Still, MGNREGA's 6% share of the rural poor means the poor represent nearly a quarter (24%) of its share of all rural households. Although both vulnerable and non-vulnerable households participate in MGNREGA, the proportion of vulnerable households is greater among participants than among nonparticipants.

MGNREGA in a changing rural labour market

While farming remains at the core of rural Indian life, increasingly greater proportions of men and women participate in non-farm work. The proportion of men aged 15–59 working solely in agriculture fell from 41% in 2004–05 to 31% in 2011–12. The decline for women was smaller, from 40% to 35%. Many men and women combine farm work with non-farm labour, even without MGNREGA. Only 13% of rural men

and 10% of rural women ages 15–59 work in MGNREGA. Average number of days worked in MGNREGA is less than four days at the population level. Thus MGNREGA is a very small part of the rural labour market. About 45% of female MGNREGA workers were either not working or worked only on a family farm in 2004–05. This suggests that MGNREGA may well be the first opportunity many women have to earn cash income.

Rural wages rose sharply between 2004–05 and 2011–12, but the increase has been greater at the top of the wage distribution than at the bottom. Men's daily wages for agricultural work grew by 50% between 2004–05 and 2011–12, those for women by 47%. Although growth in rural wages is somewhat higher in states with a higher level of MGNREGA participation, wage growth is spread throughout the country, and on the whole MGNREGA plays only a modest role in wage increases.

Reliance on moneylenders declining

Villages and households that participate in MGNREGA started with a high degree of reliance on moneylenders for loans, and their use of moneylenders has fallen sharply. Whereas 48% of MGNREGA participants who had obtained loans in the previous five years borrowed from moneylenders in 2004–05, only 27% did so in 2011–12. Borrowing from moneylenders is typically a last resort since their usurious rates—often as high as 10% a month—make this an extremely expensive form of credit, typically used only by poor households who cannot qualify for formal credit.

This sharp reduction in borrowing from moneylenders is due to several factors:

- Overall financial inclusion has risen. Regardless of MGNREGA participation, between 2004–05 and 2011–12 the proportion of rural households relying on moneylenders fell from 39% to 22% of households that took out a loan; borrowing from moneylenders in even low-intensity villages fell from 31% to 18%.
- Nonparticipating households in villages where neighbours participate saw the percentage of borrowing from moneylenders fall from 38% to 21%. Greater financial inclusion associated with MGNREGA programme expansion may reduce the profits and incentives for moneylenders to continue to lend, reducing borrowing for participants and nonparticipants alike.
- MGNREGA participants are most likely to benefit, with those borrowing from moneylenders declining from 48% to 27%. The difference-in-difference—measuring the improvement among MGNREGA participants over their neighbours from the same village who do not participate in MGNREGA—is as great as four percentage points. The ability to obtain work in emergencies or in periods of great need seems to reduce reliance on moneylenders.

Substantial individual and social effects on patterns of borrowing from moneylenders result in a large total effect, reducing reliance on moneylenders among MGNREGA households by nine percentage points over low-intensity villages.

This decline in "bad" borrowing is accompanied by a rise in "good" borrowing from such sources as banks, credit societies and self-help groups. While formal credit rose for all households, the increase was particularly striking for MGNREGA participants—from 24% to 34%, or nearly a 50% increase. MGNREGA's focus on direct payment to participants through formal sources may account for this. Once MGNREGA workers open a bank account and learn

to navigate formal banking systems, they may more readily obtain formal credit.

This transformation is also reflected in the interest rates paid by households. Average annual interest rates paid by borrowers in low-intensity villages fell from 30% to 26% a year. This decline may stem from the striking credit expansion in rural India. But the interest rate in MGNREGA villages for both participants and nonparticipating neighbours fell even more. This decline relates directly to a shift from high-interest loans from moneylenders for all households and a shift towards formal credit for MGNREGA households.

As the credit climate improved for rural households, the proportion of households taking out loans also rose. Some studies with small samples have found that MGNREGA participation reduces debt burden. But IHDS instead finds a slightly positive relationship between MGNREGA participation and a household's propensity to borrow. The proportion of households that took out any loan over the five years preceding the survey rose from 45% in 2004–05 to 52% in 2011–12 in low-intensity villages but rose even faster, from 56% to 69%, for MGNREGA households.

This growth in formal borrowing reduces the amount of high-interest borrowing that creates a long-term debt cycle. MGNREGA diminishes reliance on bad debt and increases financial inclusion. And in the two years since 2011–12, electronic payments into recipients' bank accounts have become the norm. So we expect to see an even greater expansion of formal credit among MGNREGA participants.

Children's education improves

Rising school enrolment rates are one of the greatest achievements of modern Indian society. Today almost all children attend school at some point in their lives. One of the most hopeful indicators is the shrinking gaps in enrolment by income, caste, religion and gender. MGNREGA may have played a role in closing these gaps. Children from MGNREGA households are more likely to attain higher education levels and have improved learning outcomes than their peers from non-MGNREGA households. Other studies have confirmed these results.

Given the poverty of MGNREGA households, it is not surprising that 6- to 14-year-old children from these households completed fewer classes—about 0.4 years of education fewer—than children from low-participation villages, and about 0.14 classes fewer than children from nonparticipant households in MGNREGA villages before MGNREGA implementation. With rising enrolments, education levels for children in all three groups grew between 2004–05 and 2011–12, but the MGNREGA households overshot nonparticipants within the same village and almost caught up with the children from low-participation villages.

What accounts for these improvements in education outcomes? MGNREGA income might be used for buying books or getting private tuition for children, thereby improving their skills. But education expenditures, enrolment in private schools and access to private tutoring seem not to benefit from MGNREGA participation. While financial investments in children's education have risen in MGNREGA households, they have risen even more for nonparticipating families.

In 2004–05, children from MGNREGA households spent on average four hours less a week in educational activities than those in low-intensity villages and one hour less than their nonparticipating neighbours. By 2011–12, they had caught up. Perhaps

MGNREGA helps reduce child labour, thereby improving education outcomes. Although child labour is difficult to measure and available statistics show only a very small percentage of children participating in wage work, for children employed in these activities it presents a substantial time burden. About six percent of children ages 11–14 years were engaged in wage work in 2004–05 among MGNREGA households, but this proportion dropped to four percent in 2011–12, while the proportion in the labour force among nonparticipants held steady at 2–3%.

MGNREGA participation empowers women

For nearly 45% of the women workers in MGNREGA, this may be their first cash earning activity. A vast quantity of Indian and international literature has identified access to paid work as a key determinant of a rise in women's bargaining power within the household. Qualitative studies of women workers in MGNREGA note significant enhancement in their self-esteem, power within the household and control over resources.

- In 2004–05 about 79% of women from female participant households had cash on hand. But by 2011–12 their access to cash had gone up to 93%, the highest in the four groups.
- Only nine percent of the women in this group had a bank account in 2004–05. This proportion had risen to 49% by 2011–12, far outstripping all other groups, among whom less than 30% have a bank account. Given the emphasis of the programme on making direct bank payments, this is not surprising. But it also reflects a tremendous increase in women's financial inclusion.

The growth in women's ability to freely seek health care rose from 66% to 80% in female participant households, whereas for all other households it rose by barely 10 percentage points. In 2011–12, women from households in which women worked in MGNREGA were the most likely to feel free to visit a health centre alone.

How do we explain these empowering effects of MGNREGA participation for women? Many of the female MGNREGA participants were either not employed in 2004–05 or employed only on a family farm or in a family business. MGNREGA provided them with a unique opportunity to earn cash income, which was instrumental in empowering them.

MGNREGA's impact limited by work rationing

Despite MGNREGA's universal nature, not all interested households can get the full 100 days of work. This phenomenon is called work rationing and occurs at different stages of the process, including getting a job card, getting any work at all and getting the full entitlement. Increasing participation, particularly in states with poor implementation, is required if MGNREGA is to achieve its full potential.

While a quarter of rural households participate in the programme, nearly 60% of them would like to work more days but are unable to find work. Of the households that did not participate, 19% would have liked to participate but could not find work. This widespread direct rationing affects all sections of society—about 29% of all rural households—but is particularly pervasive in some regions.

The rationing rate for days of work is high for all households but particularly high for the poorest. In the lowest income quintile (2011–12 income), 92% of households experience rationing of days of work, whereas only 88% of the

highest income quintile do so. Among interested households (those that applied for a job card and do not express lack of interest in MGNREGA work), households in the lowest income quintile worked only 23 days a year when they worked in MGNREGA, while those in the highest income quintile worked for 29 days. But much of this difference is due to the poor performance of states like Bihar and Odisha, where many poor people live. This inequality is somewhat moderated at the population level due to pro-poor targeting. While the middle-income quintiles work a few days more than the highest and the lowest, these differences are slight—a few days a year.

Will need to monitor MGNREGA's long-term impact

Beyond the individuals that participate in the programme, MGNREGA affects the whole community. We have identified some of its impacts in this report, such as improvements in financial inclusion and its effect on the use of moneylenders by both participating and nonparticipating households. Increased wage employment of women may bring with it longer-term changes in women's empowerment and public visibility that may affect society as a whole. Most importantly, some planned programme changes, particularly investments in high-quality infrastructure, may affect farm productivity and further improve incomes. To understand the impact of programme innovations will require longer-term monitoring and before-and-after data for the same villages and households.

CHAPTER 1

Mahatma Gandhi National Rural Employment Guarantee Act and Its Implementation

Prem Vashishtha, P.K. Ghosh, Omkar Joshi

"The hungry millions ask for one poem—invigorating food. They cannot be given it. They must earn it. And they can earn only by the sweat of their brow."

(Mahatma Gandhi, Young India, 13th October, 1921, p. 326)

Public works programmes are not new. As early as 1870, public works emerged as a safety net against famines in India.[1] With them arose the desire to distinguish between protective public works and productive public works, since only productive public works were considered appropriate for financing through borrowing.[2] Since then, India has engaged in several public works programmes, particularly in times of famine. The largest such experiment, the Maharashtra Employment Guarantee Scheme (EGS), began as a drought relief programme in the 1970s but continued as an anti-poverty programme. The EGS served as a model for the advocacy of a rural employment programme in the early 2000s. Following the 2000 drought in Rajasthan, a strong people's movement emerged with a demand for jobs to provide drought relief.[3] In a separate but related development, the Supreme Court of India also expressed an opinion in response to public interest litigation linking the right to food to the right to work and asked for speedy implementation as well as expansion of Sampoorna Gramin Rozgar Yojana (Total Rural Employment Scheme), the precursor of MGNREGA.

These grassroots demands came as middle-income countries (Argentina, Chile and Mexico) and poor countries (Rwanda and Ethiopia) alike were experimenting with their own versions of public works programmes.[1] A growing economy combined with rising inequality to make it politically desirable to implement a programme with broad appeal, giving rise to the Mahatma Gandhi National Rural Employment Guarantee Act.[4]

Background and intent

The National Rural Employment Guarantee Act (NREGA) was passed by the parliament in 2005 and came into force on February 2, 2006. It was renamed Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in October 2009. Prior to MGNREGA, several programmes/schemes had been initiated by the Government of India for raising the productive employment of unemployed and underemployed rural labourers.[5] These programmes could not generate employment for rural labour on a large enough scale to make a noticeable dent in unemployment and poverty.[6,7] In view of the declining elasticity of employment in agriculture and a rapidly rising rural work force, it became imperative to create a programme that would ensure a minimum level of employment to rural unskilled labourers. With this intent, the Government of India enacted the NREGA in 2005 (Box 1.1).[3,8]

Box **1.1** **The Mahatma Gandhi National Rural Employment Guarantee Act of 2005**

THE NATIONAL RURAL EMPLOYMENT GUARANTEE ACT OF 2005
No. 42 of 2005 [5th September, 2005.]

An Act to provide for the enhancement of livelihood security of the households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled manual work and for matters connected therewith or incidental thereto.

Source: See Government of India 2005.

Mandate

The Act aims to enhance livelihood security for all adults willing to perform unskilled manual labour in rural areas. Any household is entitled to 100 days of employment in a financial year at a minimum wage rate as notified by the state government. Work can be split among household members, but workers must be at least 18 years old. The Act takes a rights-based approach rather than simply offering a market employment opportunity. The Act has a legal provision for claiming unemployment allowance if a household does not receive work within 15 days of applying for a job.

MGNREGA seeks to achieve inclusive growth of rural areas by offering social protection and livelihood security. This goal is facilitated through democratic empowerment of those at the bottom of rural society, especially dalits, adivasis, and women.

Highlights

MGNREGA has a bottom-up, demand-driven structure with the following features:

- MGNREGA legally guarantees employment to any adult in rural areas who is willing to undertake casual manual/unskilled labour.[10] This guarantee provides a minimum of 100 days of work combined for all the job-seeking adults in a household.
- The manual unskilled job pays the statutory minimum wage, thus helping to stop labour exploitation.[11]
- An adult who has not received a job within 15 days of applying is entitled to unemployment allowance. The state government bears the fiscal burden for its failure to act on time (Appendix A1.1).[12]
- The programme follows a bottom-up approach of planning for employment creation, with substantial involvement of Panchayat Raj Institutions (PRIs) as stakeholders (Appendix A1.2).[13]
- The Act envisages not only immediate livelihood (through employing unskilled labour) but also long-term livelihood opportunities by creating sustainable assets in rural areas. This aspect contributes to enhancing the national resource base (through water conservation, drought proofing, renovating water bodies, rural connectivity and so forth) and furthering sustainable development.
- Review, monitoring, effective implementation and social audit are integral parts of the Act. Strict vigilance over work progress and quality through monitoring (with wide representation from different levels) and social audit brings transparency and accountability at almost every level. Legislation provides for the creation of the necessary institutions for this systemic programme feature.[14]

- MGNREGA operates like a centrally sponsored scheme with certain built-in incentives to states.[15] Most of the cost (at least 75%) is covered by the central government and a small part by the states (Appendix A1.1).[16] In both conceptualization and employment generation, MGNREGA presents a big shift from a typical "relief-works mode" to an integrated national resource management (INRM) approach. It focuses on developing land and harnessing rainwater through watershed management, resulting in sustainable gain in farm productivity and livelihood.
- MGNREGA optimizes resources by converging its works with other important schemes, thus avoiding waste and inefficient utilisation of financial and human resources.[17,18]
- A great merit of MGNREGA is its dynamic implementation strategy, which provides feedback from the field on strengths and weaknesses in planning, revision and capacity.[19]
- The central government and the states commit to informing people through the parliament and state legislatures about MGNREGA status and progress.

Paradigm shift

MGNREGA presents a big paradigm shift in four ways:

- *Rights-based approach:* MGNREGA guarantees a minimum level of employment and livelihood security to households.
- *Bottom-up approach:* Formulation and implementation of development plans follow a bottom-up approach at all three PRI tiers. This approach is supported by a strong technical system at all levels.
- *Sustainability:* MGNREGA adopts an INRM approach, focusing on sustainability (Appendix A1.3).
- *Convergence:* MGNREGA converges programmes/schemes with other departments and ministries (Appendix A1.4).

Phased implementation

To cover the entire country as efficiently as possible, MGNREGA was implemented in three stages, beginning in February 2006 with the 200 most backward rural districts in India. In April 2007, 130 more districts were added, and the remaining 296 rural districts were added in September 2007.

MGNREGA governance structure

MGNREGA's governance structure provides various institutional bodies and key stakeholders from the village to the national level with roles and responsibilities in planning, implementation and monitoring (Table 1.1).[20,21]

Planning

MGNREGA's planning process is unique among India's government programmes. As a demand-driven, rights-based programme, it begins at the village level. In a public meeting of the village community, the Gram Sabha, individuals and households interested in obtaining work register their interest. This information is consolidated by the lowest-level governance structure, Gram Panchayat, which then prepares a list of projects to submit to the intermediate Panchayat at the block level to get project sanction. Thus, the initiative for developing projects rests with the local government in response to grassroots demands (Appendix A1.2).

Implementation

Once projects are approved at the block level, at least 50 percent of MGNREGA works must be implemented by the Gram Panchayat, with at

Table 1.1 **Governance structure of MGNREGA**

Functional aspect	Governing institution				
	Panchayat Raj Institutions				
	Tier I	Tier II	Tier III	State government	Central government
Planning					
Main activity/ institution	GS/GP	Intermediate Panchayat/ block level	• District Panchayat • DPC/ Deputy Commissioner	State government	GoI, MoRD
Supporting activity/ expertise	Help from CFTs for a cluster of GPs	• PO • CFTs • APO (INRM and convergence activity to be taken up by CFTs)	DPO	• SEGC • SEGF (to ensure its plan is in sync with MGNREGA provision)	• CEGC • NEGF (to check and approve if plan submitted is in sync with MGNREGA provision)
Implementation					
Main activity/ institution	GP (muster rolls, registration, job cards)	Intermediate Panchayat	District Panchayat DPC (labour budget)	State government (provide funds for SEGF, GRS, PO, staff for CFTs)	• MoRD • CEGC (empaneling PIA for state governments, support for expertise and for innovation)
Supporting activity/ expertise	• GRS (site management, execution of work) • Mate (for every 50 workers) (measurements, accounts, generating awareness among job seekers)	PO (social audit unit, CFT)	DPC (Project sanction, ratification and fixation of priority as provided by GS; appointing PIAs, coordination of IEC, entry in MGNREGAsoft)	SEGC (to advise state governments on implementation, dissemination of information, achievements/shortcomings of MGNREGA)	• CEGC (to advise MoRD, facilitate dissemination) • Making rules and guidelines for MGNREGA) • Ensuring convergence with other ministries and departments • NMT • PAG • Develop guidelines • Analyze issues in planning and implementation • Support to state governments in implementation • Setting up advisory boards for high poverty states.
Monitoring					
Main activity/ institution	Village level: GP GP level: GS	Blocks/intermediate Panchayat (monitor work of GPs, PIAs)	District Panchayat	SEGC • Monitoring system	CEGC • Establishing a control monitoring system
Supporting activity	GP: Preparation of annual report	PO (watch and register cases of violation of MGNREGA norms)	• DPC (monitor work of POs, PIAs) • POs • Consolidation of block plans	• Grievance redress • Preparing report on MGNREGA to be presented by the state government to the state legislature	• Review monitoring • Preparing annual report for MoRD to be presented to the parliament

Note: APO, Assistant Programme Officer; CEGC, Central Employment Guarantee Council; CFT, Cluster Facilitation Team; DPC, District Programme Coordinator; DPO, District Project Officer; GoI, Government of India; GRS, Gramin Rozgar Sahayak; GS/GP, Gram Sabha/Gram Panchayat; IEC, Information, Education and Communication; INRM, Integrated National Resource Management; MoRD, Ministry of Rural Development; NEGF, National Employment Guarantee Fund; NMT, National Monitoring Team; PAG, Programme Advisory Group; PIA, Project/Programme Implementing Agencies; PO, Project Officer; SEGC, State Employment Guarantee Council; SEGF, State Employment Guarantee Fund.

Source: Authors' compilation from Ministry of Rural Development 2013b.

least 60 percent of the expenditure as wages. All workers must be allocated work within 5 kilometers of their residences. For those who must travel farther, a 10% wage increment is provided to cover transportation costs. If too few workers demand work within a given Gram Panchayat, the programme officer at the block level must ensure that these workers are accommodated in nearby areas. Thus, the Gram Panchayat and the programme officer at the block level (responding to the intermediate Panchayat) have the primary responsibility for implementation.

Monitoring

The programme has a variety of monitoring structures in place, ranging from local civil society institutions that carry out social audits to the district programme officer, State Employment Guarantee

Table **1.2** **Monitoring MGNREGA implementation**

Level/tier of monitoring	Agency responsible for monitoring
Tier I	
• Village • Gram Panchayat	• Gram Panchayat (GP) (also performs social audit) • Gram Sabha (GS) (annual report is prepared by GP)
Tier II (Block/intermediate Panchayat)	
• Works done by GPs and other PIAs • GPs work for the entire block	• Programme officer (PO) • Also registers case against those violating MGNREGA Act standards) • Block Panchayat
Tier III	
• Work of POs and PIAs • MGNREGA's work for the entire block	• District Programme Coordinator (DPC) • District Panchayat (also consolidates annual block plans)
State level	
• Evaluating scheme within state • Monitoring redress mechanism • Suggesting improvements in redress mechanism	• State Employment Guarantee Council (SEGC) (also prepares annual report to be presented in the state legislature by the state government)
Centre level	
• Establishment of a central evaluation and monitoring system • Reviewing monitoring and redress mechanism • Monitoring implementation of the Act	• Central Employment Guarantee Council (CEGC) (also prepares annual report to be presented to the parliament by the central government)

Note: PIAs are project/programme implementing agencies.

Source: Ministry of Rural Development 2013b.

Council and Central Employment Guarantee Council (Table 1.2). These institutions monitor work progress and quality as well as payment. Final information is collated into an annual report to the people by the Ministry of Rural Development (MoRD); detailed village-level information also is available on a special programme website.[22]

MGNREGA performance

The chapters that follow examine MGNREGA performance from a micro perspective by using the household-level data of the India Human Development Survey (IHDS) rounds I and II. This section provides an overview of administrative data at the national level.

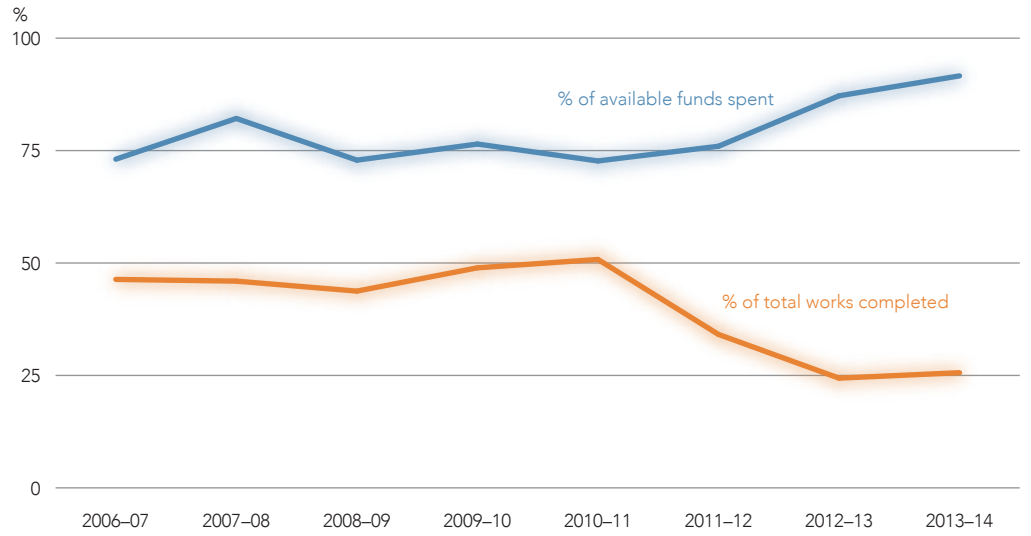
Financial and physical performance

The availability of funds rose about 25% between 2008–09 and 2009–10,[23] but fell sharply after 2011–12 (Appendix A1.5). On the other hand, fund utilisation after 2010–11 has shown consistent improvement. But physical performance (completion of projects undertaken) has not improved commensurately. The ratio of works completed to total works taken up reached a peak at 51% in 2010–11 and fell sharply thereafter (Figure 1.1). One reason for this dismal performance seems to be the cumulative effect of projects left incomplete while new projects were added to the MGNREGA annual plan.

Job card and household participation

Adult household members willing to perform manual unskilled labour can register with Gram Panchayat and receive a job card within 15 days of registration. The next step for a household is to specify the maximum number of days along with details of the

Figure **1.1** **Use of available funds and percentage of works completed**



Source: See Ministry of Rural Development 2012a, 2015.

month it would be available for work. If MGNREGA implementation is perfect, all eligible households that apply for a job card should receive job cards, and those who demand work should be allotted work.

According to MoRD data, MGNREGA implementation is almost perfect up to this stage. All who applied for a job card received one. Furthermore, 99.9% of households that demanded work were allotted work. These figures are not supported by large sample surveys such as National Sample Surveys (NSS) (66th round, 2009–10) and IHDS-II (2011–12). IHDS-II data show that 48% of rural households applied for job cards, but only 44% received them, and NSSO data show that only about 81% of the households that demanded work were allotted work.[25]

Participation rates

MoRD data show that

- Participation varies widely across states. Some of the smaller states and union territories have much higher participation rates than the 2011–12 national average. The same is true of smaller northeastern states, except Assam. The larger states with participation rates at or close to the national average are Jharkhand, Kerala, Madhya Pradesh and Uttarakhand. The larger states with significantly higher participation than the national average are Chhattisgarh (62.4%), Himachal Pradesh (38.5%), Rajasthan (47.6%), Tamil Nadu (66.6%) and West Bengal (39.9%) (Appendix A1.6).
- States with low MGNREGA participation fall into two categories, those where other opportunities replace demand for MGNREGA and those where governance structure is poorly developed and hence MGNREGA work is not available. Some of the richer states, such as Gujarat, Maharashtra and Punjab, may have higher market wages, lowering demand for MGNREGA work. Maharashtra, despite its experience in implementing the Employment Guarantee Scheme, has a participation rate of 11.4%, far below the national average.[26] Many poor states also have low participation rates, including states like Bihar (10.5%) that have suffered from

poor programme implementation in many fields. For these states, low MGNREGA participation represents a lost opportunity to provide employment security to the poor.[27]

- According to the official data, overall MGNREGA participation has declined over recent years, from 30.0% in 2011–12 to 27.8% in 2013–14 (Figure 1.2) The number of individuals who worked in MGNREGA has fallen from 5.06 crore in 2011–12 to 4.79 crore in 2013–14. The number of days worked for each household fell from a high of 54 days a year in 2009–10 to 43 days a year in 2011–12 but has recovered slightly to 46 days a year in 2012–14 (Figure 1.3).[28,29,30]

Administrative data overestimate participation rates

The corresponding figures from (66th round, 2009–10) and IHDS-II (2011–12) are 24.2% and 24.4% respectively.[25,31] While the NSS and IHDS-II estimates are quite close, the MoRD estimate is higher; the NSS 68th-round MGNREGA participation rate may be lower due to the way the questions are phrased.[32]

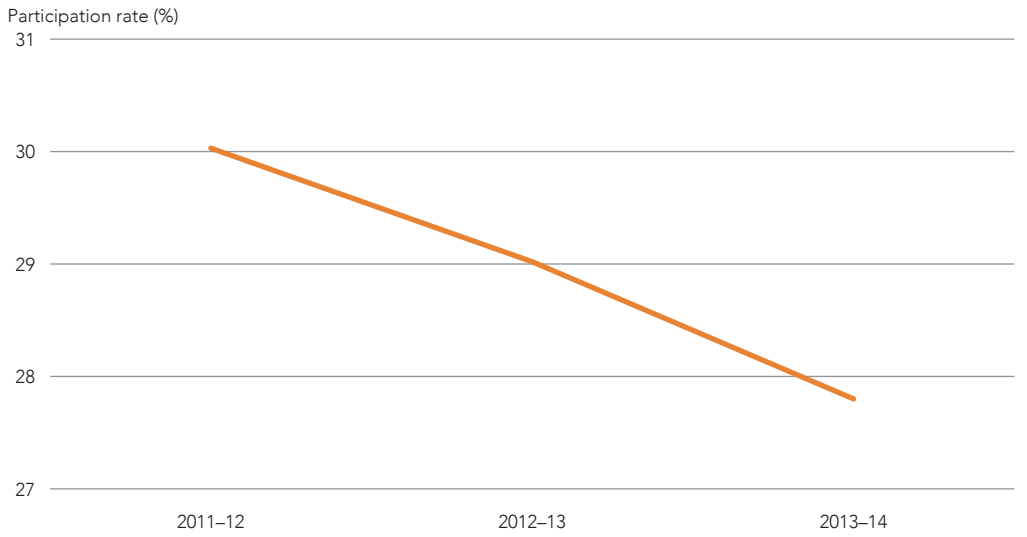
Part of the discrepancy between the administrative statistics and household survey–based statistics may arise from differences in recording data. When two brothers live in the same home, for example, they may ask for two separate job cards. By contrast, NSS and IHDS-II surveys define a household as individuals who reside and eat together. By this definition, the two brothers in the example above are part of the same household or joint family. IHDS-II found that about five percent of the households have more than one MGNREGA card. So while IHDS-II records fewer households as participating in MGNREGA (24.4% against 30.0% in administrative data), it also records a greater number of days worked for each household (47 days for a participating household versus 43 days in administrative data).

MGNREGA employment and its distribution

Employment trends

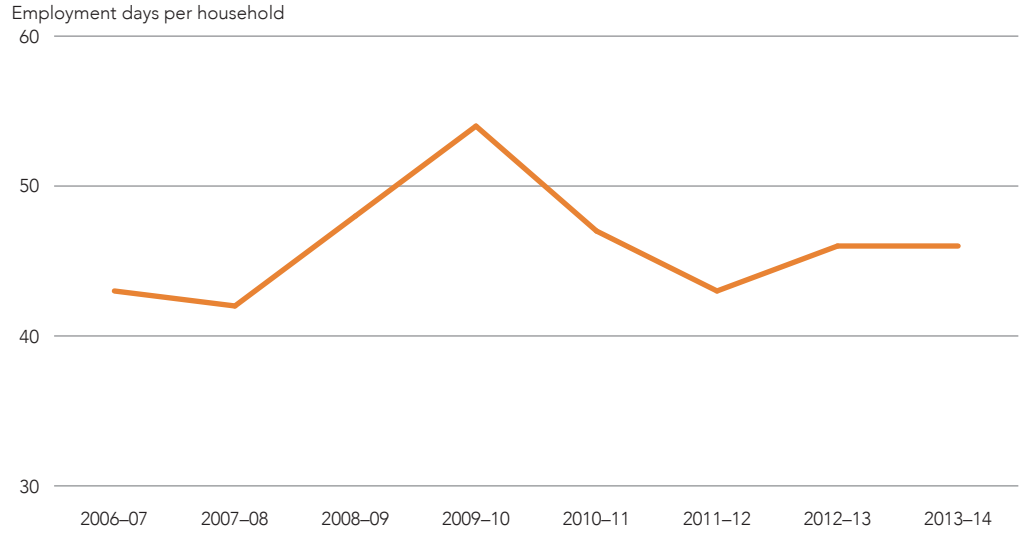
An area of major concern should be the decline in absolute levels of MGNREGA employment and also the decline in the number of households benefiting from

Figure **1.2** **A sharp decline in participation rates**



Source: See Ministry of Rural Development 2012a, 2013a, 2014.

Figure **1.3** **Employment days per household peaked and then declined**



Source: See Ministry of Rural Development 2010, 2012a, 2013a, 2014.

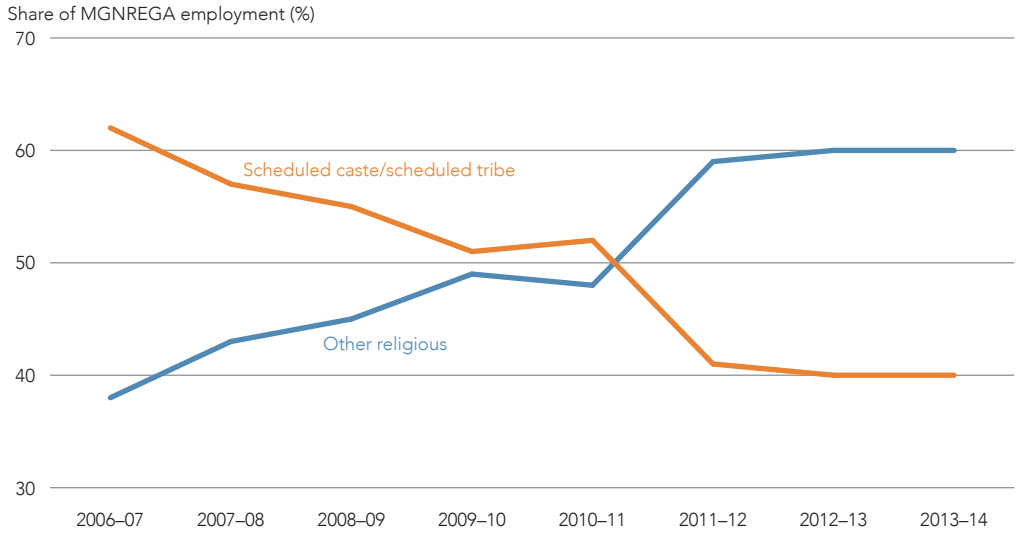
it. The number of households receiving employment dropped from 5.26 crore in FY 2009–10 to only 4.79 crore in 2013–14. The corresponding guaranteed employment levels were 283.59 crore and 220.22 crore days, respectively. Since this decline coincided with a relatively slow period of growth in the Indian economy, it would be difficult to argue that other employment opportunities reduced demand for MGNREGA work. Employment days for each participating household reached a peak at 54 in 2009–10 and declined thereafter to 46 in 2013–14 (Figure 1.3 and Appendix A1.7).

Employment of vulnerable groups

MGNREGA guidelines require states to take special care of vulnerable groups (disabled, aged, single women, tribal groups and so forth) by organizing them into labour groups to train them to articulate demand for MGNREGA work and by keeping open some labour-intensive work at all times to provide them with work on demand. The guidelines also require job cards of a distinct colour to help provide these groups with special protection.[34] Action on these guidelines is still to be observed at the ground level, however.[35]

- Scheduled castes and tribes together achieved 145.19 crore employment days in 2009–10, which fell to 88.02 crore days in 2013–14, a decline of 64% in four years (Figure 1.4 and Appendix A1.8).[30]
- As Box 1.2 documents, MGNREGA work is particularly important for women who often have fewer opportunities for other work than men. Consequently, despite an absolute decline in MGNREGA participation, the share of women in total employment has risen (Figure 1.5).[33]
- The drop in total employment and employment days per household, along with the rising share of women in total employment, implies a falling share of male employment. Reasons for this are not clear. Perhaps women find it easier to participate as the programme becomes familiar. Or, diminishing MGNREGA opportunities combined with rising wages and opportunities in nonagricultural work, such as construction, may pull

Figure **1.4** **Share of scheduled castes and tribes in MGNREGA employment declined after 2010–11**



Source: See Ministry of Rural Development 2010, 2012a, 2013a, 2014.

Box **1.2** **MGNREGA as a brick in building a livelihood**

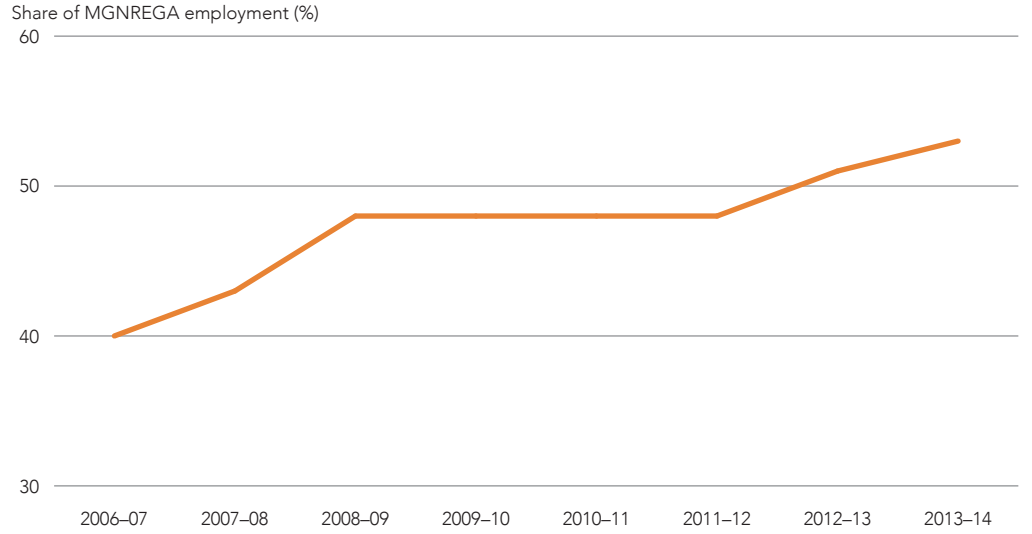
Kusum Bai Bunkar, age 44, is a dalit widow from Rajasthan. She married at age 15 and has two sons and one daughter. Her elder son married six years ago and set up his own home, and the younger daughter is married. So Kushum Bai lives with her unmarried son, who works sometimes in a tent house where he works as caretaker managing rental of utensils and other items for wedding celebrations.

Kusum Bai's husband was paralysed six years ago and, despite treatment, died six months ago. While her husband was alive, she managed household needs by working in MGNREGA and in house construction (Kamatani) and by performing agricultural labour. She had some savings, but it was spent within the first three years of her husband's illness.

But last year, no MGNREGA work was executed in the village. She faced a lot of problems running the household, because she did not have any land and other wage work did not provide her a sufficient number of days of employment. But this year work has started up again and she is looking forward to working in MGNREGA, which will also help her to pay back loans taken for her husband's treatment and after his death. Because MGNREGA work hours are shorter than those in private labour, on MGNREGA work days she also finds some extra time to work on other small jobs and earn additional money.

Source: Interviews by IHDS staff. Names and photographs were changed to protect respondents' privacy.

Figure **1.5** **Share of women in MGNREGA employment rose**



Source: Authors' calculations from Ministry of Rural Development 2010, 2012a, 2013a, 2014.

men away from MGNREGA and into other activities if they are farther away from the village.

Days of employment and wage expenditure

Although the average employment generated per household is far below the maximum of 100 days per household per year, a small proportion of households is still able to achieve this target (Figure 1.6). At the national level, no more than 3.5% of households could get 100 days of employment in 2013–14, 3.2% in 2012–13 and less than 3% (2.83%) in 2011–12. The mean level of employment per household in the past three years (2011–12, 2012–13 and 2013–14) has been 41 days nationally. Only a few states (Andhra Pradesh, Bihar, Maharashtra and Tamil Nadu) have done better than the national average consistently during the past three years. But this does not necessarily indicate better-than-average performance in generating employment: Bihar and Maharashtra rank very low in proportion of households participating in MGNREGA.

Wage-material ratio

Almost all states except Jammu and Kashmir meet the wage–material ratio norm of a minimum 60% of project cost. At the national level, the wage share was more than 72% of the project cost: 72.2% in 2011–12, 76.4% in 2012–13 and 75.6% in 2013–14 (Figure 1.7).[36]

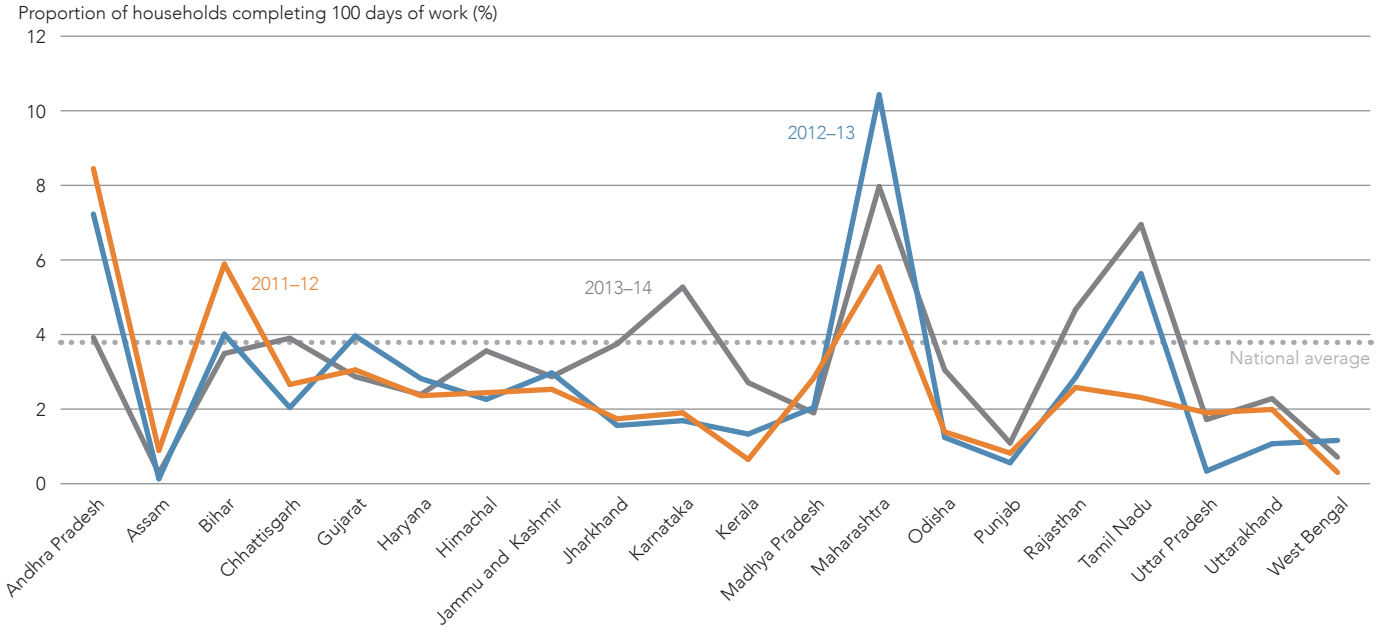
Share of administrative cost

According to MGNREGA guidelines, administrative costs should not exceed 6% of project cost. Most states and union territories observe this norm (Figure 1.8). Andhra Pradesh is the only large state where administrative costs as part of project costs were as high as 10.45% in 2012–13 and 9.37% in 2013–14. In some small union territories, this proportion is abnormally high. At the national level, the administration cost is less than 5%.[30]

Based on the summary of MGNREGA performance in Box 1.3, two major concerns with MGNREGA's performance are:

- A substantial decline in participation rate and overall employment generation.

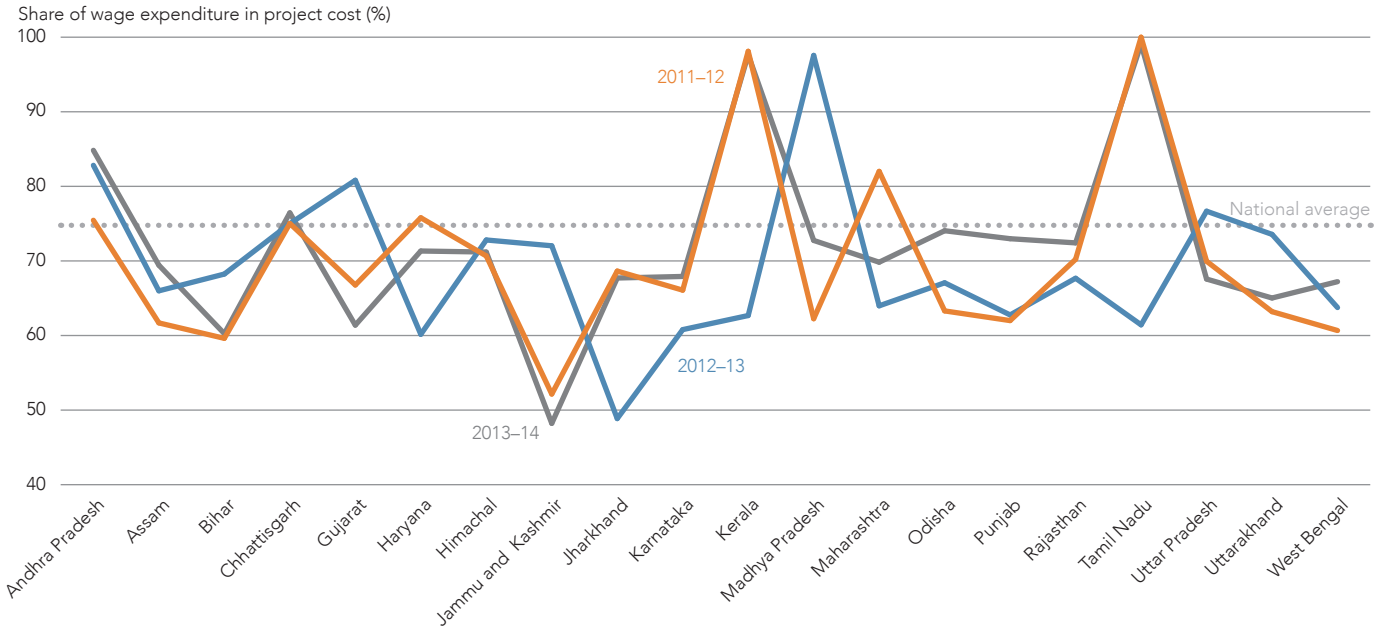
Figure **1.6** **Proportion of households completing 100 days of work**



Note: All figures cover up to December of the financial year.

Source: Authors' calculations from Ministry of Rural Development 2012a, 2013a, 2014.

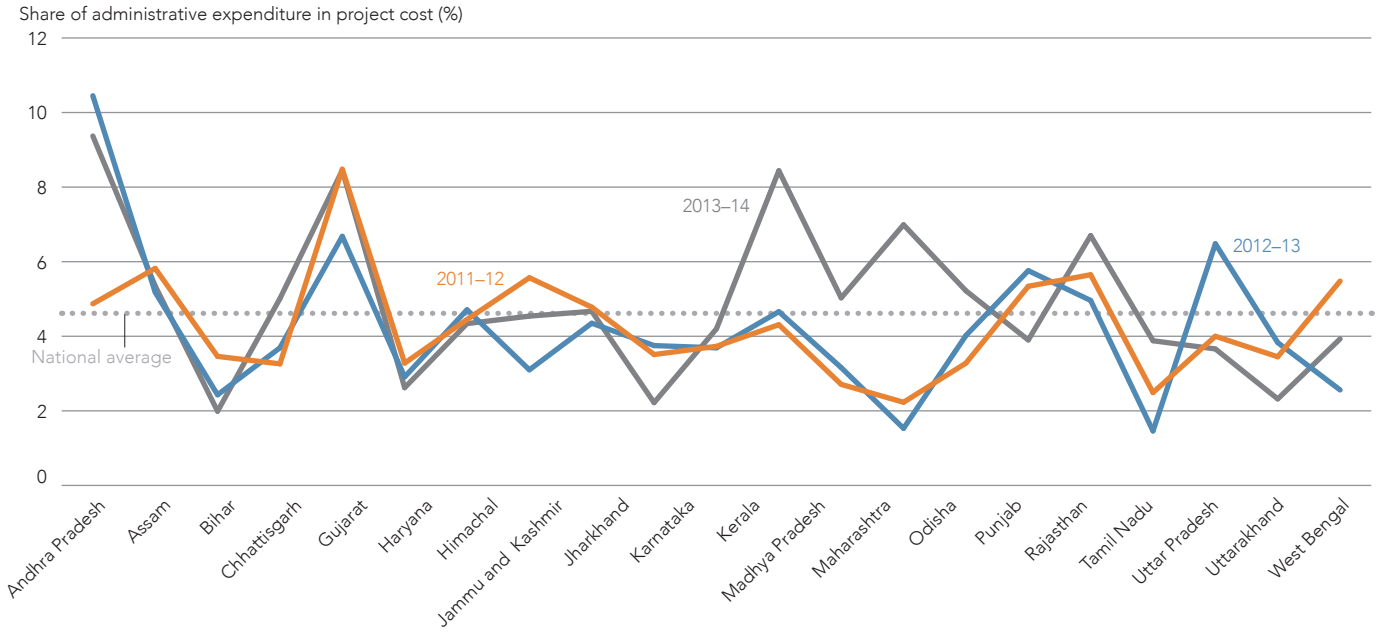
Figure **1.7** **Share of wage expenditure in project cost**



Note: All figures cover up to December of the financial year.

Source: Authors' calculations from Ministry of Rural Development 2012a, 2013a, 2014.

Figure **1.8** **Share of administrative expenditure in project cost**



Note: All figures cover up to December of the financial year.

Source: Authors' calculations from Ministry of Rural Development 2012a, 2013a, 2014.

Box **1.3** **MGNREGA performance based on administrative data**

Deteriorating financial and physical performance. The gap between financial and physical performance has been widening, particularly since 2011–12, attributable to the cumulative effect of incomplete projects and the simultaneous addition of new projects to the Annual Plan of MGNREGA.

Unrealistic claims of work allotment on demand. From the administrative data, almost every household got work when demanded. This does not match National Sample Surveys (NSS) observations, which show that nearly 20% of households that demanded work did not get it.

Overestimation of participation rate. MoRD data indicate a participation rate of 30.03% compared with 24.2% (NSSO) and 24.4% (IHDS-II). MoRD overestimates the participation rate by 20%, but some of the discrepancy may arise from differences in what is defined as a household.

Decline in employment per household. After reaching a peak of 54 days in 2009–10, MGNREGA employment per household declined to 46 days in 2013–14, a decline of 8.

Decline in share of scheduled caste and tribe employment. Total employment in MGNREGA declined from 283.6 lakh days in 2009–10 to 220.2 lakh days in 2013–14. The share of scheduled caste and tribe employment also fell from 51% to 40% over the same period.

Rising share of female labour at the cost of partial withdrawal of male labour from MGNREGA. A decline in absolute employment levels with a concurrent rise in the share of female labour (from 48% in 2009–10 to 53% in 2013–14) suggests a partial withdrawal of male labour from MGNREGA.

Low proportion of households getting a full 100 days of work. Barely 3.5% of households could get the full 100 days of work in MGNREGA in 2013–14, indicating weak efforts to generate employment and lack of capacity to create projects and keep them ready for those who demand work.

Favourable wage-project cost ratio and low administrative expenditure. The wage-project cost ratio was 72% at the national level for the recent years, well above the prescribed minimum of 60%. The administrative expenditure was barely 5% against the norm of 6% of project cost.

Note: IHDS, India Human Development Survey; NSSO, National Sample Surveys Office. This is only a brief summary of some of the main aspects of MGNREGA. For an anthology of research studies on MGNREGA, see MoRD 2012a.

- A decline in physical and financial efficiency—particularly physical efficiency.[37]

The first concern may result from lack of enthusiasm for employment generation on the part of local leadership (at GP/GS level) or a lack of capacity to formulate suitable projects. The Government of India and the state governments need to strengthen their efforts to create awareness among rural labourers and vulnerable groups to demand work and also strengthen the GP's capacity for project formulation through cluster facilitation teams. Some of the recent administrative reforms seem geared towards addressing these issues.

MGNREGA on the ground

Despite considerable research on MGNREGA, we do not fully understand whether or how it has changed the living situation of ordinary people. Most studies examine the programme after its implementation without considering the situation before the programme was initiated. Without appropriate comparison, it is not possible to fully appreciate how MGNREGA shapes the social and economic fabric of rural India or how the programme is itself shaped by conditions on the ground.

This report attempts to fill this gap by examining data from a household survey conducted before and after programme implementation. The India Human Development Survey (IHDS) is part of a collaborative research programme between the National Council of Applied Economic Research (NCAER) and the University of Maryland. This survey covers over 42,000 households spread across all states and union territories, with over 28,000 households in rural India. The same households were surveyed first in 2004–05 before the Act was passed and then again in 2011–12, allowing us to trace the changes in people's lives associated with MGNREGA. The survey is described in greater detail in Appendix I, along with details of sample design and the variables used in IHDS-II. We also illustrate some of the quantitative findings by in-depth interviews with participant and nonparticipant households as well as local officials to understand challenges on the ground. Box 1.4 illustrates some of the challenges in meeting competing demands of accountability and ensuring work completion and quality of infrastructure.

Notes

1. Subbaro et al. 2013.
2. Raychaudhuri and Habib 1982.
3. Chopra 2011.
4. Pankaj 2012.
5. The following schemes were being implemented before the advent

Box 1.4 Technical challenges beset work completion

Technical and management challenges often lead to incomplete MGNREGA projects. In interviews with IHDS staff, a Panchayat Secretary in Madhya Pradesh explained the reason one of the wells being constructed under Kapildhara, a subscheme of MGNREGA, was abandoned.

When well construction began, there was a lot of enthusiasm since it was expected that the well would provide irrigation water. The project was sanctioned with an estimated cost of ₹339,000. However, at about 12 feet, the workers encountered black soil that started collapsing when it came in contact with the air. This meant that the width of the well had to increase, and the workers had to shovel extra mud, increasing the work required to complete the well by at least 30 person days. The subdivisional officer responsible for technical input recognized the problem and approved additional funds, bringing the project's total budget to ₹411,000. But this revision was questioned at the district level, and the original budget was restored. Since the work could not be completed with the budgeted amount, the well was abandoned.

MGNREGA: National Rural Employment Programme; Rural Landless Employment Guarantee Programme and Jawahar Rozgar Yojana. When MGNREGA came into effect, Sampoorna Grami Rozgar Yojana (SGRY) was implemented throughout India.

6. World Bank 2011.
7. SGRY also could not generate more than an average of 20 employment days to households below poverty line. This employment generation was based on the amount of resources allocated to SGRY and not on a guarantee to the poor for a minimum level of employment or livelihood.
8. Dreze and Khera 2011.
9. Government of India 2005.
10. MGNREGA is fundamentally different from other schemes. It was created by an Act of Parliament with a legal guarantee and cannot be eliminated by mere bureaucratic decision.
11. Employing a person at below the statutory minimum wage was termed "forced labour" by the Hon'ble Karnataka High Court in September 2011. The stay against this was turned down by the Hon'ble Supreme Court in January 2012.
12. Each State must create a state employment guarantee fund (SEGF) to finance unemployment allowance and other related expenses.
13. This aspect will be discussed further in the section on governance structure.
14. The required institutions are the Central Employment Guarantee Councils at the central government level and State Employment Guarantee Councils at the state level in all states, wherever applicable. The Act also provides for setting up the National Employment Guarantee Fund at the central level and its counterparts at the state level, state employment guarantee funds.
15. An interesting part of the funding pattern and financial responsibility of state and central government is that it incentivises states to generate employment for unskilled rural labour on a massive scale with special focus on scheduled castes and tribes and women. The programme has a built-in mechanism to provide more efficient states with more funding, generating healthy competition among states to perform.
16. For details of cost sharing between the central government and the state governments, see Appendix A1.1.
17. Implementation guidelines have been issued from time to time to raise efficiency and make MGNREGA embrace natural resource management rather than limit the scope to a relief programme.
18. Convergence/integration with integrated national resource management (INRM) and other schemes.
19. The required changes have been brought out from time to time through operational guidelines issued by the Ministry of Rural Development. The establishment of support systems and the creation of skilled teams such as the Cluster Facilitation Team or the Task Force at the Gram Panchayat/block level, the State Employment Team (SET) at the state level and the National Management Team (NMT) at the central level attests to the commitment to create the institutions necessary to implement such a massive programme.
20. The key stakeholders in MGNREGA are: Wage seekers; Gram Sabha (GS); three-tiered Panchayat Raj Institutions (PRIs), especially the Gram Panchayat (GP); programme officer at the block level; district programme coordinator (DPC);

state government; Ministry of Rural Development (MoRD); civil society; other stakeholders (line departments, convergence departments, self-help groups and so forth); see MoRD 2012.

21. Government of India 2013a.
22. http://164.100.129.6/Netnrega/nrega-reportdashboard/index.html#.
23. By 2008, MGNREGA had been implemented in all districts.
24. Ministry of Rural Development 2015.
25. Ministry of Rural Development 2012b.
26. Datar 2007.
27. Malla 2014.
28. Ministry of Rural Development 2012a.
29. Ministry of Rural Development 2013a.
30. Ministry of Rural Development 2014.
31. Joshi et al. 2015.
32. Imbert and Papp 2011.
33. Ministry of Rural Development 2010.
34. Ministry of Rural Development 2013b.
35. Khera 2011.
36. For some states and union territories, such as Andaman and Nicobar, Dadra and Nagar Haveli, Daman and Diu, data are not available for all of the past three years.
37. Despite the decline in physical efficiency, something positive has emerged through asset creation in MGNREGA. About 30% of works undertaken are for soil and water conservation to support sustainable livelihoods. The Government of India has now made it mandatory to spend 60% of the project funds in a district on works "directly related to agriculture and allied activities through development of land, water and trees" (Ministry of Rural Development 2013b, p. 50).

Appendix A1.1 Share of wage expenditure between central and state governments

Expenditure	Central government (% share)	State government (% share)*
Wages of unskilled manual workers	100	—
Cost of material	75	—
Wages of skilled and semiskilled workers	—	25
Administrative expenses to be determined by Government of India (salary and allowances of the project officer and staff)	100	—
Employment Guarantee Council		
Central Employment Guarantee Council	100	—
State Employment Guarantee Council	—	100
Unemployment allowance if state government unable to provide wage employment on time	—	100

* Each state is to form a state employment guarantee fund (SEGF).

Source: Derived from Ministry of Rural Development 2012.

Appendix A1.2 Framework for development plan at Gram Panchayat/block level

Step 1: Identification of needs

- Keep habitation level in sync with integrated national resource management
- Focus on scheduled castes, scheduled tribes, marginal and small farmers and the landless labourers national resource-cum-social mapping to be done. To be facilitated by Cluster Facilitation Team and Task Force in consultation with all stakeholders.

Step 2: Identification of resource envelope

- Estimate resources available from different source (state as well as centre) under different schemes such as Integrated Child Development Services, Integrated Watershed Programme, Rashtriya Krishi Vikas Yojana, Nirmal Bharat Abhiyan, National Drinking Water Programme, and plans of Gram Panchayats and resources.

Step 3: Preparation of draft development plan

- Cluster Facilitation Teams and Task Force to help prepare a plan, matching available resources and the list of priority projects.
- Elements to be undertaken under MGNREGA which become part of the labour budget.

Step 4: Approval by Gram Sabha

- Draft plan to be approved by GS and the suggestions incorporated, if any.
- Step 5: Plan finalization
- Plan with MGNREGA components to be discussed in GS as well as GP. The priority list of GS is to be maintained.

Note: The changes in the planning process and the related governance aspects have been effected through operational guidelines by the MoRD.

Source: See Ministry of Rural Development 2013a—Operational Guideline 4th edition, p. 50.

Appendix A1.3 Cluster facilitation teams and convergence

MoRD has provided for states to have cluster facilitation teams (CFTs) for a cluster of GPs. CFTs will be established in blocks that need a more intensive planning exercise to meet the objectives of MGNREGA. For example, the areas/blocks with a high proportion of landless agricultural labourers, SC, STs and other vulnerable groups may be made a priority for setup of CFTs. Such blocks will have at least three CFTs. Each CFT will benefit a cluster of GPs and will be accountable to each GP within its cluster. Since the MGNREGA embraces the concept of integrated national resource management (INRM), the jurisdiction of a CFT is worked out broadly to cover a mini-watershed and local aquifers, or an area of approximately 15,000 hectares. Each CFT will have four specialists to handle the following four tasks:

- Community mobilization
- Soil and moisture conservation
- Agriculture and allied activities
- Management information systems and information/communications technology

In bigger blocks, there could be more than three CFTs. One of the CFTs will be designated as having the assistant project officer/team leader/coordinator. The project officer will be the overall supervisor of CFTs; at the same time, CFTs will be accountable to GPs also within their own cluster.

With the expertise of the CFTs, development plans at GP and at block level should improve considerably in terms of addressing vulnerable groups within different clusters and sustainability in project development in the INRM framework.

Convergence

Another aspect introduced in the planning process is the convergence of MGNREGA projects and those carried out under other schemes. While the main objective of MGNREGA schemes is achieving sustainable livelihoods, these others aim also to improve human development indicators.

Source: Compiled from Ministry of Rural Development 2013a-operational guideline 4th edition, p. 30–31.

Appendix A1.4 MoRD's steps for convergence and collaboration with other ministries and departments

Activity	Concerned programme/ministry/department
Construction of individual household latrines	Total Sanitation Campaign (Nirmal Bharat Abhiyan), Ministry of Drinking Water and Sanitation
Construction of Anganwadi centres	Integrated Child Development Services, Ministry of Women and Child Development
Registration of work demands of MGNREGA workers	Anganwadi sahayikas (to help register workers)
Construction of village playfields	Scheme: Panchayat Yuva Krida Aur Khel Abhiyan, Department of Sports and Youth Affairs
Watershed-related activity	Programme: Integrated Watershed Management Programme, Department of Land Resources
Planting host plants of silkworms	Ministry of Textiles
Planting rubber trees	Schemes of Rubber Board and Ministry of Commerce
Seeking services for raising efficiency in implementation of • Timely payment of wages through banks and post offices • Expenditure internet connectivity at Gram Panchayat level • Expediting seeding of Adhaar numbers of MGNREGA workers in MGNREGAsoft	Review with • Department of Financial Services • Department of Posts • Department of Telecommunications • Unique Identification Authority of India

Source: Compiled from Ministry of Rural Development 2014, p. 29–30.

Appendix A1.5 Use of available funds and percentage of works completed

Year	Total funds available (including OB) in ₹ crore	Expenditure (₹ crore)	Total funds available (including OB) at constant 2011–12 prices (₹ crore)	Annual growth of funds available in 2011–12 prices (%)	Expenditure as % of available funds	Total works taken up* (100,000)	Works completed	Works completed as % of total works taken up
2006–07	12,074	8,823	17,655		73.1	8.4	3.9	46.4
2007–08	19,306	15,857	26,578	50.5	82.1	17.9	8.2	46.0
2008–09	37,397	27,250	47,352	78.2	72.9	27.8	12.1	43.8
2009–10	49,579	37,905	59,092	24.8	76.5	46.2	22.6	48.9
2010–11	54,172	39,377	59,029	–0.1	72.7	51.0	25.9	50.8
2011–12	48,806	37,073	48,806	–17.3	76.0	80.8	27.6	34.1
2012–13	45,631	39,778	42,485	–13.0	87.2	104.6	25.5	24.4
2013–14	42,216	38,672	36,820	–13.3	91.6	94.1	24.1	25.6

Note: Crore, 10 million.

***** Total works taken up = Spillover works + New works.

Source: Derived from Ministry of Rural Development 2013.

Appendix A1.6 Participation rate and poverty ratio, by state

State	Participation rate (%) (2011–12)	Poverty estimates (%) (2011–12)
Andhra Pradesh	35.1	9.2
Arunachal Pradesh	2.2	34.7
Assam	24.9	32.0
Bihar	10.5	33.7
Chhattisgarh	62.4	39.9
Gujarat	12.1	16.6
Haryana	9.1	11.2
Himachal Pradesh	38.5	8.1
Jammu and Kashmir	27.8	10.4
Jharkhand	33.3	37.0
Karnataka	20.8	20.9
Kerala	34.1	7.1
Madhya Pradesh	35.0	31.7
Maharashtra	11.4	17.4
Meghalaya	77.9	11.9
Odisha	17.0	32.6
Punjab	7.3	8.3
Rajasthan	47.6	14.7
Sikkim	58.6	8.2
Tamil Nadu	66.6	11.3
Tripura	91.9	14.1
Uttar Pradesh	28.5	29.4
Uttarakhand	32.9	11.3
West Bengal	39.9	20.0
Goa	8.7	5.1
Total	31.2	21.9

Source: Planning Commission poverty estimates in 2013 and MoRD 2013.

Appendix A1.7 Decline in national participation rate in MGNREGA

Year	Total rural households (crore)	Total rural households worked in MGNREGA (crore)	Participation rate (%)*
2011–12	16.86	5.06	30.0
2012–13	17.19	4.99	29.0
2013–14	17.23	4.79	27.8

Note: Crore, 10 million.

** Participation rate = Total rural households worked in MGNREGA ÷ Total rural households. Total rural households in 2011–12 per 2011 Population Census. For other years, the compound annual growth rate of rural households for the period 2001–11 was used to estimate total rural households.

Source: Authors' calculations from IHDS.

Appendix A1.8 Total employment generated and shares of women, scheduled castes and scheduled tribes

Year	Number of households provided employment (crore)	Total employment days generated (100,000)	Average employment days per households	Share of scheduled castes and tribes in employment (%)	Share of women in employment (%)
2006–07	2.10	90.50	43	61	40
2007–08	3.39	143.59	42	56	43
2008–09	4.51	216.32	48	54	48
2009–10	5.26	283.59	54	51	48
2010–11	5.49	257.15	47	52	48
2011–12	5.06	218.76	43	41	48
2012–13	4.99	230.48	46	40	51
2013–14	4.79	220.22	46	40	53

Note: Crore, 10 million.

Source: Ministry of Rural Development 2010, 2015.

Appendix A1.9 Share (%) of wage expenditure, by state

State	2013–14	2012–13	2011–12
Andhra Pradesh	84.8	82.8	75.5
Arunachal Pradesh	66.9	91.0	100.0
Assam	69.4	66.0	61.7
Bihar	60.3	68.2	59.6
Chhattisgarh	76.5	75.0	75.0
Gujarat	61.4	80.8	66.8
Haryana	71.3	60.2	75.8
Himachal Pradesh	71.2	72.8	70.7
Jammu and Kashmir	48.2	72.0	52.2
Jharkhand	67.7	48.9	68.6
Karnataka	67.9	60.8	66.1
Kerala	97.7	62.7	98.1
Madhya Pradesh	72.8	97.6	62.3
Maharashtra	69.8	64.0	82.0
Manipur	79.2	79.8	99.8
Meghalaya	76.7	81.1	69.8
Mizoram	88.3	71.6	81.8
Nagaland	78.7	85.3	35.6
Odisha	74.1	67.1	63.3
Punjab	73.0	62.8	62.0
Rajasthan	72.4	67.7	70.2
Sikkim	61.7	73.3	68.2
Tamil Nadu	99.1	61.4	100.0
Tripura	76.5	99.2	62.4
Uttar Pradesh	67.6	76.7	70.0
Uttarakhand	65.0	73.6	63.2
West Bengal	67.2	63.8	60.7
Andaman and Nicobar	98.3	73.5	99.7
Dadra and Nagar Haveli	..	99.5	..
Daman and Diu	..	0.0	..
Goa	79.1	..	80.3
Lakshadweep	78.8	0.0	97.9
Puducherry	100.0	81.9	100.0
Chandigarh	..	100.0	..
Total	75.6	76.4	72.2

Note: Figures cover up to December of the financial year.

Source: Ministry of Rural Development 2012, 2013, 2014.

Appendix A1.10 Share (%) of administrative expenditure, by state

State	2013–14	2012–13	2011–12
Andhra Pradesh	9.4	10.5	4.9
Arunachal Pradesh	5.1	2.5	82.6
Assam	5.4	5.2	5.8
Bihar	2.0	2.4	3.5
Chhattisgarh	5.0	3.7	3.3
Gujarat	8.5	6.7	8.5
Haryana	2.6	2.9	3.3
Himachal Pradesh	4.3	4.7	4.5
Jammu and Kashmir	4.5	3.1	5.6
Jharkhand	4.7	4.4	4.8
Karnataka	2.2	3.8	3.5
Kerala	4.2	3.7	3.7
Madhya Pradesh	8.4	4.7	4.3
Maharashtra	5.0	3.2	2.7
Manipur	7.0	1.5	2.2
Meghalaya	5.6	3.8	2.6
Mizoram	5.1	5.2	6.8
Nagaland	3.1	0.0	0.0
Odisha	3.3	4.0	5.2
Punjab	3.9	5.8	5.3
Rajasthan	6.7	5.0	5.7
Sikkim	6.0	6.1	6.5
Tamil Nadu	3.9	1.5	2.5
Tripura	4.9	3.4	3.4
Uttar Pradesh	3.7	6.5	4.0
Uttarakhand	2.3	3.8	3.5
West Bengal	3.9	2.6	5.5
Andaman and Nicobar	17.3	15.1	10.9
Dadra and Nagar Haveli	..	..	..
Daman and Diu	..	0.0	..
Goa	2.7	8.2	9.0
Lakshadweep	32.7	20.1	11.0
Puducherry	5.6	5.4	1.4
Chandigarh	..	0.0	..
Total	5.0	4.6	4.3

Note: Figures cover up to December of the financial year.

Source: Ministry of Rural Development 2012, 2013, 2014.

CHAPTER 2

Who Participates in MGNREGA?

Omkar Joshi, Sonalde Desai, Dinesh Tiwari

"We should be ashamed of resting, or having a square meal, so long as there is one able-bodied man or woman without work or food."

(Mahatma Gandhi, Young India, 6th October, 1921, p. 314)

MGNREGA serves the disparate goals of providing minimum income security to every rural household and at the same time ensuring that the programme helps the poor. But can a universal programme be "pro-poor"? MGNREGA advocates argue that a demand-driven, self-selecting programme can accomplish both goals.

Targeting benefits to the poor does not necessarily work. The Targeted Public Distribution System (TPDS), which provides subsidised grains to the poor, has committed enormous errors of inclusion and exclusion, leading many researchers to suggest that it is impossible to identify the poor.[1,2] But MGNREGA relies on two key features to ensure that it reaches the poor without getting mired in the challenges of identifying the poor:

MGNREGA provides manual work. MGNREGA typically undertakes public works involving road construction, land levelling, cleaning and deepening ponds and so forth—activities that would not interest individuals who can find non-manual work elsewhere.

MGNREGA strives to register disadvantaged groups. The programme makes special efforts to register dalits, adivasis, widows, destitutes and differently abled individuals. This focused registration drive does, however, face the same challenges of inclusion and exclusion as other targeting efforts.

Despite MGNREGA's bottom-up, demand-driven, self-selecting design, there is still a substantial unmet demand for work within MGNREGA, so rationing of work may exclude the poor.[3] This chapter examines the extent to which MGNREGA is pro-poor and manages to serve the objectives spelled out in the MGNREGA Act and subsequent guidelines:

1. Ensuring livelihood security for the most vulnerable people living in rural areas by providing employment opportunities for unskilled manual work.[4]
2. Empowering marginalised communities, especially women, scheduled castes and tribes, through rights-based legislation.

Careful analysis is required to evaluate MGNREGA

Many studies use National Sample Surveys (NSS) data to understand who participates in MGNREGA work. But since NSS surveys are cross-sectional, they do not readily clarify this with precision. NSS collects information on MGNREGA participation and on consumption expenditure, allowing us to examine whether MGNREGA participation is concentrated among households with low consumption expenditure. But since MGNREGA income raises households'

consumption expenditure, it would be easy to confuse positive programme impact with capture of MGNREGA work by non-poor households.

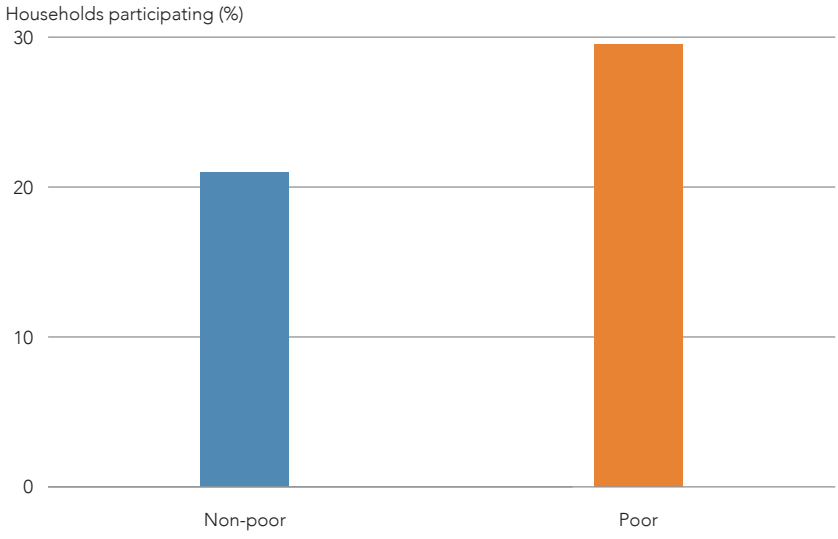
Fortunately we can avoid this conflation of cause and effect by using data from the India Human Development Surveys (IHDS), described in greater detail in Appendix I. The IHDS surveys were conducted in 2004–05, just before MGNREGA was implemented, and again in 2011–12. By comparing the same households at two points in time, we can determine whether households that were poor before MGNREGA was implemented are more likely to participate in the programme than those who were not poor.

The poor are more likely to work in MGNREGA

Before MGNREGA was launched, about 42% of the total surveyed rural population was below the poverty line. Among the rural poor from IHDS-I, 30% of households participate in MGNREGA, compared with 21% of the non-poor (Figure 2.1).[5] Among the households in the top consumption quintile, only 10% participate.

These figures suggest that MGNREGA is far more likely to attract the poor than the non-poor. MGNREGA is also more likely to attract workers with lower education levels who cannot find other work. Among households in which no adult is literate, about 30% of households participate in MGNREGA, compared with only 13% in households in which at least one adult is a college graduate (Figure 2.2).

Figure **2.1** **Percentage of households participating in MGNREGA by poverty status before programme implementation**



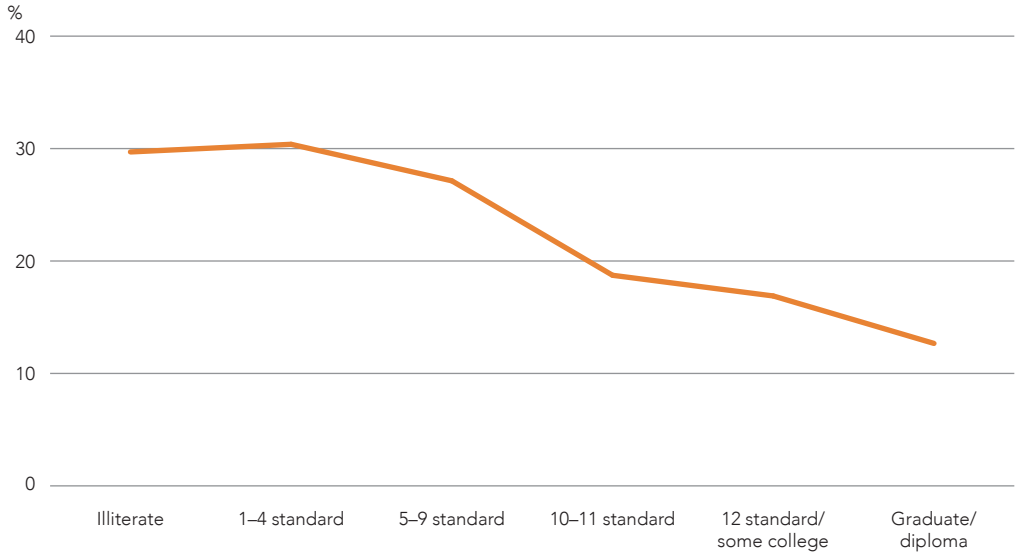
Source: Authors' calculations from IHDS.

MGNREGA is also important to the non-poor

Although MGNREGA is self-targeting in that it attracts poor households, it enjoys broad appeal. If MGNREGA functioned simply as an antipoverty tool, support for the programme would have eroded, given India's spectacular success in reducing rural poverty from 41.8% to 25.7% between 2004–05 and 2011–12.[6] But MGNREGA is important to a wide spectrum of the Indian population. Although a greater proportion of poor households participates in MGNREGA (31% of the poor vs. 23% of the non-poor), three-fourths of MGNREGA participating households are non-poor. This is because with declining poverty, only 21% of rural IHDS households (and 25% of individuals) are poor. About 48% of MGNREGA participants are in the lowest two quintiles of the consumption expenditure distribution, while about 31% are in the highest two quintiles (Figure 2.3).

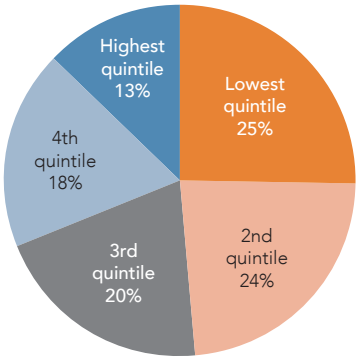
A number of factors may contribute to programme participation among better-off households. First, even if they are above the official poverty line, most rural households are not particularly rich. In 2004–05, about 75% of households had per capita monthly incomes lower than ₹1,300.[7] This figure rose to about ₹1,900 a month in 2011–12, but

Figure 2.2 **Education and MGNREGA participating households (%)**



Source: Authors' calculations from IHDS.

Figure 2.3 **Distribution of MGNREGA participants by consumption level**



Source: Authors' calculations from IHDS.

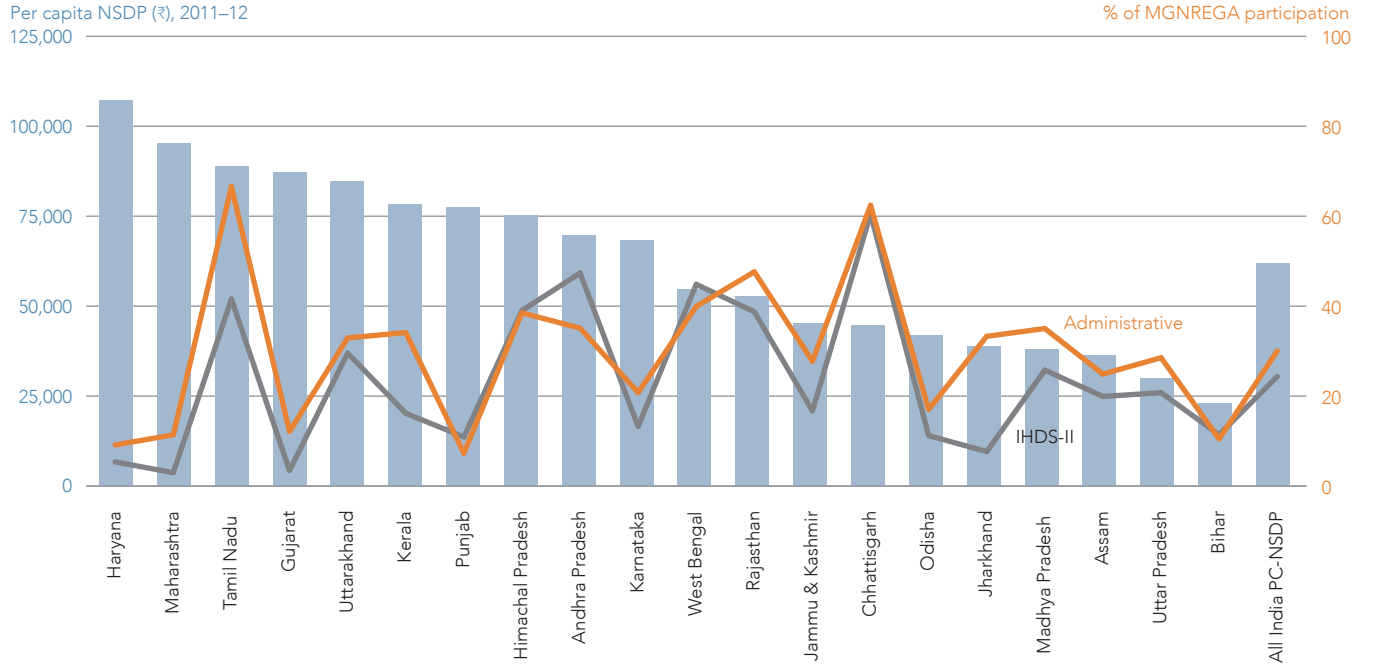
daily wages of ₹100 or more are still important for these households. Second, MGNREGA work appeals particularly to households with very small farms; about 42% of MGNREGA participants own farms that contain 1 hectare or less. These cultivators have little work outside of the peak harvesting season and tend to supplement their meagre farm incomes with any available labour. In 2011–12, average annual incomes for these marginal farmers were lower than ₹25,000.

This observation has two major implications for public policy. First, MGNREGA work could be readily used during periods of emergency, such as droughts, to provide supplemental work. Second, public support for the MGNREGA programme in rural areas rests on its benefits to a broad spectrum of the population.

At the level of households, the poorest are most likely to participate in MGNREGA, but this pro-poor bent is far less pronounced at the state level (Figure 2.4).

The correlation between MGNREGA participation and per capita net state domestic product, as an indicator of state prosperity, is very weak. In Maharashtra and Chhattisgarh, we see the clear negative relationship between prosperity and participation that we would expect. By contrast, in some prosperous states, such as Andhra Pradesh and Tamil Nadu, participation is high, while in poor states such as Bihar participation is low. This pattern suggests that MGNREGA implementation

Figure **2.4** **Per capita net state domestic product and MGNREGA participation**



Note: Per capita state domestic product calculated by authors from Census data and Indiastat. Administrative data from Ministry of Rural Development 2015 and IHDS MGNREGA participation rates from IHDS survey data.

reflects state-level priorities rather than actual programme demand. We present MGNREGA participation rate based on both administrative data and IHDS-II data for comparison purposes. (Note that small state samples for IHDS reduce the reliability of IHDS estimates at state level, particularly for small states like Manipur, Mizoram and Nagaland, leading to greater divergence between the two lines for these small states).

MGNREGA seems to be reaching disadvantaged groups

MGNREGA guidelines recommend increasing participation of historically excluded groups such as dalits and adivasis[8] by conducting special registration drives and providing these households with information about their right to employment. Dalit and adivasi households are indeed more likely than forward castes to participate in MGNREGA, and the participation rate for dalit households is more than double that of forward-caste households as shown in Appendix A2.1a. Although we expect lower participation of forward-caste households due to their higher incomes and education, the data also point to success in reaching out to marginalised groups.[9]

But who applied for MGNREGA work and did not get it? In the initial phase, some households could not be accommodated in community projects. Disadvantaged households thus might have had even higher participation rates had more work been available.

IHDS-II also asked who had applied for and received work cards. Descriptive statistics show that about 52% of households did not ask for a MGNREGA card, and of the 48% that applied, 44% received the card. Since an increasingly

greater proportion of households is excluded at each step of the process (getting a card, looking for MGNREGA work and actually finding work), it is possible that in spite of the greater efforts at providing cards to marginalised groups, they may be excluded from getting work, thereby reducing programme effectiveness. But descriptive statistics presented below show that this is not the case. If work is limited and any rationing is taking place, officials are more likely to have favoured marginalised households (Box 2.1). It is possible that many privileged households asked for cards simply as insurance and never actually looked for work. But regardless of the reasons, it is heartening to see little evidence of discrimination against dalit and adivasi households.

Many forward-caste and affluent households also received MGNREGA work, even in villages with less-advantaged households looking for work. To some extent, this may represent some elite local capture of the programme, to which we return in chapter 6.

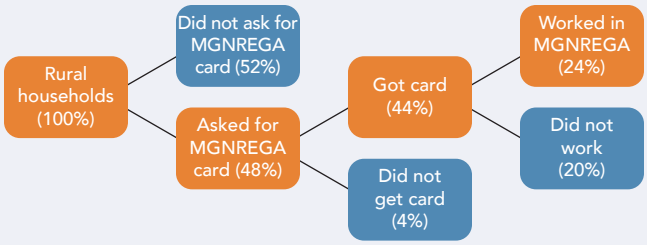
MGNREGA is a key element of household survival strategy

MGNREGA guarantees employment to households and not to individuals. Households choose who among their members will use the household work allocation, which member will participate in market-based activities and which member will focus on household farm or domestic work. However, the programme structure shapes the household decision-making process. MGNREGA is probably the only employment in which men and women, as well as the young and the old, are paid equally and in some cases, MGNREGA may be the only work available to women and the elderly (Box 2.2).[10] MGNREGA also provides for on-site childcare, although it is frequently not available.[11] The Act mandates that one-third of work be reserved for women.

These features have led to high female participation rates in MGNREGA. IHDS shows that 9% of Indian women aged 15 and older participate in MGNREGA, compared with 12% of men, and 43% of MGNREGA workers are women. This difference is far smaller than one would see in other types of work. For example, 52% of rural men over age 18 participate in non-MGNREGA work, compared with 22% of women, and only 31% of workers are women.[12] MGNREGA also assists older workers. Most rural Indian wage workers participate in manual labour, either as agricultural wage labourers or as nonagricultural workers. Most of these jobs have heavy physical demands. Employers thus tend to prefer younger workers, resulting in a sharp drop in wage

Box 2.1 Distribution of households by access to MGNREGA card and use

- 68% of households in the most affluent quintile of household assets never requested a MGNREGA card, compared with only 47% in the poorest asset quintile.
- 67% of the forward-caste households never requested a MGNREGA card, compared with less than 40% of scheduled caste/tribe households.
- Among those who request the MGNREGA card, almost everyone seems to get it, and scheduled caste/tribe or poor households are not more likely to be excluded.



work for older workers. By contrast, MGNREGA welcomes middle-aged and older workers (Figure 2.5).

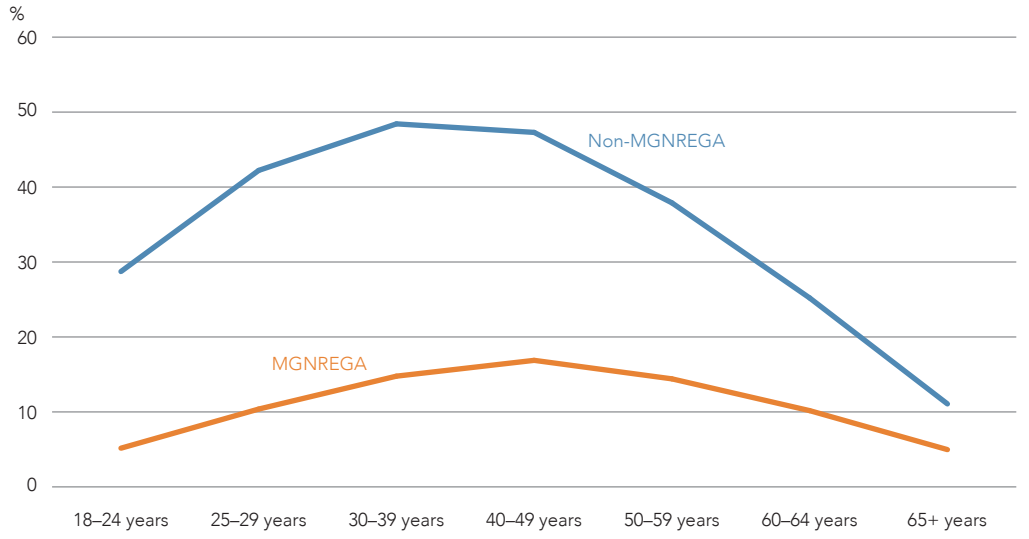
A better-educated individual has more job opportunities and is in a better position to escape poverty. Since MGNREGA offers only casual, temporary, unskilled labour opportunities, a less-educated person is more likely to turn to MGNREGA for employment. IHDS data corroborate this fact: About 52% of MGNREGA participants are illiterate.[13] Only four percent of participants have any education above higher secondary. Our analyses show that when households must choose which members will participate in MGNREGA, they are far more likely to choose a less-educated brother than a more educated one.

A glass half empty

Appendix A2.1a shows that 31% of the poor and 23% of the non-poor in 2011–12 participate in MGNREGA. Why do the remaining 70% of the poor not participate in MGNREGA?

One major explanation is that work is not easily available.[14,15] Over 70% of rural households in IHDS claim that they did not participate in MGNREGA because not enough work was available. We divided the states into three categories (low, medium, and high participation) on the basis of their MGNREGA participation intensity from administrative data from the Ministry of Rural Development. Less than 20% of rural households participate in MGNREGA in Bihar, Gujarat, Haryana, Punjab and Maharashtra, while over 40% of households in Chhattisgarh, Rajasthan and Tamil Nadu participate. Participation also appears to be high in smaller north-eastern states like Mizoram, Manipur and Nagaland. Other states lie in the middle. These state level differences are not simply a function of higher incomes and better market opportunities that might reduce household demand for MGNREGA work. Even the poor in the low implementation states are not able to find MGNREGA work. In states with a stronger programme, 60% of poor households participate, while in

Figure **2.5** **Older individuals are more likely to drop out of other wage work than from MGNREGA work**



Source: Authors' calculations from IHDS.

Box **2.2** **MGNREGA is often the only work available to the elderly, particularly women**

Tara Bai, age 60, Rajasthan.

Tara Bai and her husband Sohan Lal Ji Sharma, age 65, live in a kutcha house and have a total of 2.4 acres of land. Out of this, they have distributed 1.8 acres between two sons who are living separately. Tara Bai cultivates the remaining .6 acres. Land is an important source of grain for the family but produces very little. Last year they received 300 kg of wheat from the field; maize production was almost zero last year, and wheat production was lower than usual due to rain just before harvesting. Tara Bai and her husband each receive old-age pensions of ₹500 a month.

Tara Bai also worked as an agricultural wage labourer for 20 days last year, but this year she was able to work only 16 days, as her age and associated minor illnesses make it difficult to find work.

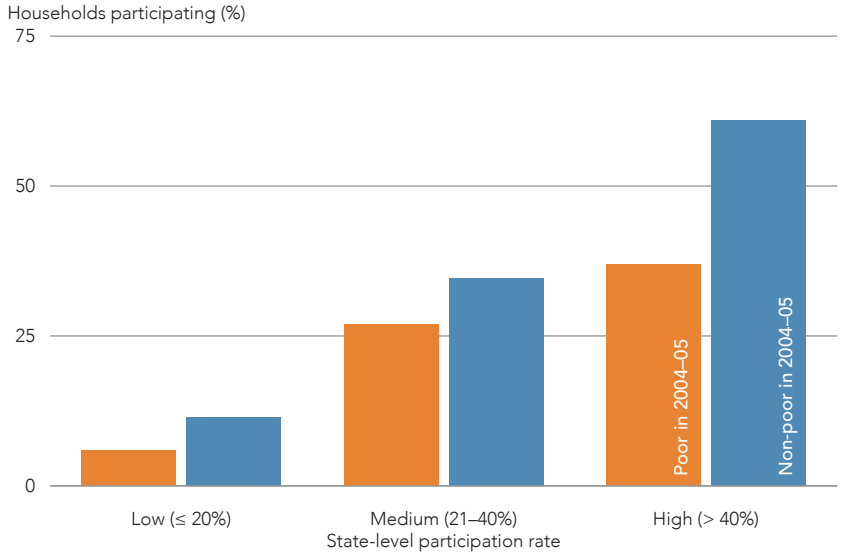
Source: Interviews by IHDS staff. Names and photographs are changed to protect respondents' privacy.

low-prevalence states barely 11% of poor households participate (Figure 2.6). Improving state-level implementation may thus have a tremendous impact on the ability of poor households to obtain MGNREGA work.

Local implementation challenges hinder access the most. Even in states with high coverage, many villages lack MGNREGA programmes, while with an interested and active Gram Panchayat, even in states with poor implementation, some villages manage to secure MGNREGA work. A typical IHDS sample contains about 20 households per village. Thus, when none of the IHDS households participate in MGNREGA, it is rarely by chance. As much as 27% of the IHDS population lived in villages where none of the sample households participated in MGNREGA in the prior year.

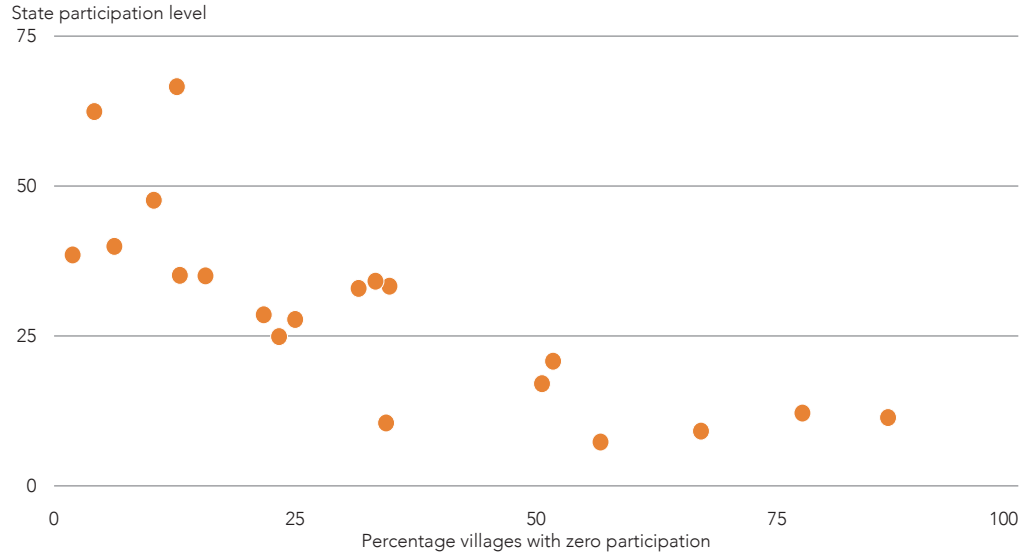
As Figure 2.7 shows, even in states where overall MGNREGA participation rate is high, there are villages where no sample household worked in MGNREGA. For example, although Rajasthan has high overall MGNREGA participation rate (about 48% based on administrative data provided by the Ministry of Rural Development), about 11% of the sample villages did not contain a single MGNREGA participating household. As the case study reported in Box 2.3 notes, effective wage rate in some villages may be lower due to the

Figure **2.6** **MGNREGA participation for poor and non-poor households, by state-level MGNREGA participation rate**



Source: Authors' calculations from IHDS. State participation levels based on administrative data from Ministry of Rural Development.

Figure **2.7** **Percentage of villages with no MGNREGA participants, by state participation level**

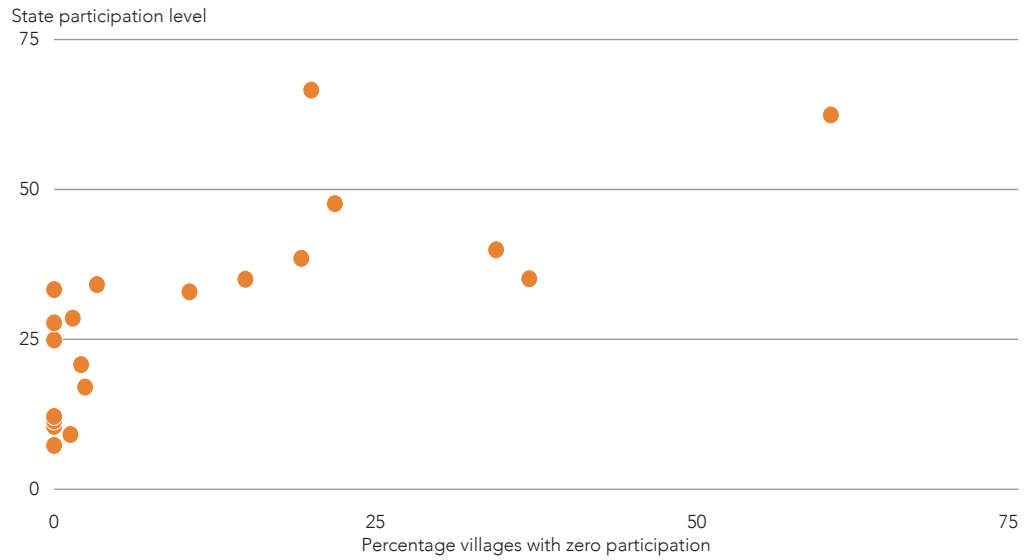


Source: Authors' calculations from IHDS.

nature of the soil and requirement that certain minimum amount of work must be performed per day. This may reduce both participation and implementation of MGNREGA in that village. By contrast, even in states with poor overall implementation, we find villages where a large number of IHDS households work in MGNREGA programmes (Figure 2.8).

The authors' analysis of variance in MGNREGA participation using IHDS data suggest that variation in MGNREGA participation across villages explains the most difference in programme participation. Differences

Figure **2.8** **Percentage of villages with at least 60% MGNREGA participation, by state participation level**



Source: Authors' calculations from IHDS.

Box **2.3** **Local practices make a tremendous difference in MGNREGA participation**

Munshi Lal Dhakad, Rajasthan.

Munshi Lal Dhakad belongs to the Other Backward Class. He has passed 5th class and is about 40 years old. He has two sons and two daughters. His older son works in a hotel at Chittorgarh and the rest are studying at school. Munshi has 2.8 acres of land that the family cultivates—the main income source for the household.

About five years ago, Munshi got his job card and opened a bank account with ₹100. He demanded MGNREGA work several times. Every time he was told that his name was not on the muster roll. He was assured that in the next muster roll the panchayat would add his name, but his name never appeared, so Munshi decided not to ask for work.

Munshi also said that since the area around his village has a rocky surface, it often took two days to complete the minimum work requirement so workers earned only ₹60–70 per day, and payment was often delayed. So he decided not to work in MGNREGA.

Source: Interviews by IHDS staff. Names and photographs are changed to protect respondents' privacy.

across states explain about 17% of the variation, across districts in the same state about 22% and across villages in the same district about 36%. The remainder, 25%, is due to differences among individuals in the same village.

How do we account for this strong village effect? Research on local governance notes that decentralization of decision making by itself does not ensure better governance.[16] The lowest-level governance unit, the Gram Panchayat—consisting of a single village or a cluster of villages—has primary responsibility for generating demand for MGNREGA projects and implementing at least 50% of MGNREGA works. The results suggest that local political economies may substantially impact the ability of the poor to access MGNREGA work.

Is geographic targeting feasible?

Lack of access to the programme in many states suggests that implicit rationing is already taking place. Could programme performance be improved by directing greater resources to the poorest areas, thereby increasing access of the poor to MGNREGA work? This could work if the poor were mostly concentrated in specific geographic areas.

The Government of India has made several attempts to identify the poorest areas. The last such effort by The Planning Commission in 2003 involved ranking districts based on agricultural wages, output per worker and the scheduled caste/tribe proportion of the population.[17] However, geographic targeting by district may well miss most of the poor, partly because of size disparity among districts (Box 2.4). For example, Dang in Gujarat was at the top of the list of backward districts, but far more poor people live in nearby Vadodara, which is far richer but considerably larger in size. A recent Ministry of Rural Development exercise in identifying the poorest

Box 2.4 Will limiting rural employment guarantees to the 200 poorest districts improve targeting?

Probably not.

MGNREGA is a universal programme providing 100 days of employment to any adult member of a rural household who seeks work. The government remains committed to a universal programme. But public debate centres on reducing spending while improving efficiency. Some suggest that targeting the 200 poorest districts would be more efficient than universal coverage because it could provide a safety net to the most vulnerable households while reducing administrative costs and inefficiencies.

But IHDS survey results suggest that targeting districts is likely to be ineffective—and that targeting households may be better.

Why? Because most of the nation's vulnerable population lives outside the 200 most backward districts. So targeting districts is not feasible without drastically altering the intent of the programme and the social contract behind it.

Myths about geographic targeting

Myth: People in the 200 poorest districts are far more disadvantaged than those in other districts.

Fact: While households in the poorest districts are somewhat more disadvantaged than those in the rest of the country, many households in the rest of the country are also highly disadvantaged.

Myth: A focus on the poorest districts can target marginalised groups such as scheduled castes and tribes.

Fact: While 38% of the population of the 200 most backward districts consists of scheduled castes and tribes, 33% of the population in rest of the districts is scheduled castes and tribes. Since the rest of the districts cover greater proportion of India, about two-thirds of the scheduled caste and tribe population lives outside the most backward districts.

Myth: Most of the poor live in the poorest districts.

Fact: 69% of the poor live outside the poorest districts.

Myth: Employment guarantees are not crucial to those living outside the poorest rural districts where other work is available.

Fact: While 28.4% of households in the poorest districts participate in MGNREGA, 22.8% of those in other districts also benefit, and programme earnings add to their household incomes.

Source: Authors' calculations from IHDS.

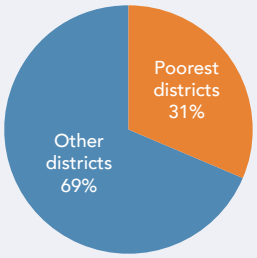
In the other districts, 23% of adults have no education

Highest level of education for adult members	Poorest districts (%)	Other districts (%)	All (%)
None	30	23	25
1–4 standard	9	7	7
4–5 standard	8	9	9
6–9 standard	23	27	26
10–11 standard	12	13	13
12 standard or some college	10	11	11
Graduate/diploma	9	10	10
Total	100	100	100

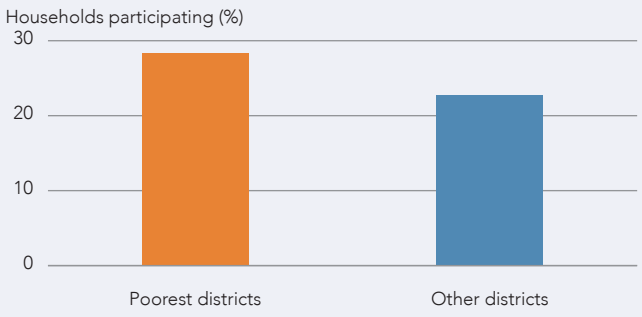
Marginalised groups are spread around the country

Caste/religion category	Poorest districts (%)	Other districts (%)	All (%)
Forward caste	14.99	17.11	16.48
Other backward class	36.2	39.03	38.2
Dalit/scheduled caste	26.06	23.47	24.24
Adivasi/scheduled tribe	11.7	9.57	10.2
Muslim	10.79	8.68	9.31
Christian, Sikh, Jain	0.25	2.15	1.59
Total	100	100	100

More poor people live outside the poorest districts



Outside the poorest districts, one in five households participates in MGNREGA



blocks may yield better results because it focuses on smaller area and hence may be more precise in targeting. But given the rapid changes in Indian society and economic conditions, we may find it difficult to develop accurate criteria to identify the poorest areas for targeting employment and use them over the long term.

Notes

1. Kumar 2010.
2. Sahu and Mahamallik 2011.
3. Dutta, Murgai, Ravallion, and van de Walle 2014.
4. This focus on vulnerable populations was enhanced through phased implementation, with the first 200 districts chosen on the basis of backwardness as measured by (high) proportion of scheduled caste/tribe individuals, (low) agricultural output per worker and (low) agricultural wages per day).
5. Poverty is defined by per capita monthly consumption according to the Tendulkar poverty line for 2004–05, established by The Planning Commission.
6. The Planning Commission 2013.
7. All figures are in 2011–12 constant rupees.
8. Desai and Dubey 2011.
9. Desai and Dubey 2011.
10. However, some discrimination against women and the elderly exists where payment is based on piecework, particularly when the norms for work to be performed are demanding.
11. Khera and Nayak 2009.
12. Wage work includes agricultural, nonagricultural and salaried work. There is no restriction on the minimum number of hours individuals must work to be defined as workers.
13. It includes missing education data as well.
14. Das 2015.
15. Dutta, Murgai, Ravallion, and van de Walle 2012.
16. Mansuri and Rao 2013.
17. The Planning Commission 2003.

Appendix A2.1a Household-level MGNREGA participation, by household characteristics

Household characteristics	Households in sample (%)	Household participation in NREGA (%)			Distribution of MGNREGA participant and nonparticipant households	
		No	Yes	Total	Nonparticipants	Participants
All India	100	75.6	24.4	100	100	100
Place of residence (2011–12)						
More developed village	46.1	79.6	20.4	100	48.5	38.5
Less developed village	54.0	72.2	27.8	100	51.5	61.5
Social groups (2011–12)						
Forward caste	17.2	85.3	14.7	100	19.4	10.4
Other backward class	37.1	78.7	21.3	100	38.6	32.4
Dalit/scheduled caste	24.1	64.0	36.0	100	20.3	35.6
Adivasi/scheduled tribe	10.4	71.3	28.8	100	9.8	12.3
Other religious	11.2	79.8	20.2	100	11.9	9.3
Land cultivation (2011–12)						
Landless	46.4	77.5	22.5	100	47.6	42.8
Marginal (0–1 hectares)	36.6	72.0	28.0	100	34.9	42.0
Small (1–2 hectares)	9.6	75.4	24.6	100	9.5	9.7
Medium and large (2–5 hectares)	7.4	81.9	18.1	100	8.1	5.5
Income quintiles (2004–05)						
Neg<1000	3.5	79.5	20.5	100	3.7	3.0
Poorest quintile	16.5	73.7	26.3	100	16.1	17.8
2nd quintile	20.0	69.3	30.7	100	18.3	25.2
3rd quintile	20.0	71.8	28.2	100	19.0	23.2
4th quintile	20.0	77.0	23.0	100	20.4	18.9
Richest quintile	20.0	85.5	14.5	100	22.6	11.9
Consumption quintiles (2004–05)						
Poorest quintile	20.0	69.2	30.8	100	18.3	25.3
2nd quintile	20.0	71.5	28.5	100	18.9	23.5
3rd quintile	20.0	75.3	24.7	100	19.9	20.3
4th quintile	20.0	77.7	22.3	100	20.5	18.3
Richest quintile	20.0	84.6	15.4	100	22.4	12.6
Poverty status (2004–05)						
Non-poor	60.6	79.0	21.0	100	63.3	52.3
Poor	39.4	70.5	29.5	100	36.7	47.7
Assets quintiles (2004–05)						
Poorest quintile	25.4	68.3	31.7	100	22.9	33.1
2nd quintile	18.2	72.4	27.6	100	17.4	20.6
3rd quintile	21.6	72.1	28.0	100	20.6	24.8
4th quintile	15.7	77.5	22.5	100	16.1	14.5
Richest quintile	19.1	91.1	8.9	100	23.0	7.0

Appendix **A2.1a** **Household-level MGNREGA participation, by household characteristics** *(continued)*

Household characteristics	Households in sample (%)	Household participation in NREGA (%)			Distribution of MGNREGA participant and nonparticipant households	
		No	Yes	Total	Nonparticipants	Participants
Income quintiles (2011–12)						
Neg<1000	3.3	82.5	17.5	100	3.6	2.3
Poorest quintile	16.7	72.4	27.6	100	16.0	19.0
2nd quintile	20.0	71.2	28.8	100	18.8	23.7
3rd quintile	20.0	73.5	26.5	100	19.4	21.8
4th quintile	20.0	74.8	25.2	100	19.8	20.7
Richest quintile	20.0	84.7	15.3	100	22.4	12.6
Consumption quintiles (2011–12)						
Poorest quintile	20.0	68.5	31.5	100	18.1	25.8
2nd quintile	20.0	71.9	28.1	100	19.0	23.1
3rd quintile	20.0	76.0	24.0	100	20.1	19.7
4th quintile	20.0	78.0	22.0	100	20.6	18.1
Richest quintile	20.0	83.8	16.2	100	22.2	13.3
Poverty status (2011–12)						
Non-poor	79.5	77.2	22.8	100	81.1	74.2
Poor	20.6	69.4	30.6	100	18.9	25.8
Assets quintiles (2011–12)						
Poorest quintile	24.9	72.7	27.3	100	23.9	27.8
2nd quintile	18.7	70.8	29.2	100	17.5	22.4
3rd quintile	20.7	72.2	27.8	100	19.8	23.6
4th quintile	18.6	75.2	24.8	100	18.4	18.9
Richest quintile	17.2	89.7	10.3	100	20.4	7.3
Highest household education						
Illiterate	24.7	70.3	29.7	100	23.0	30.1
Primary (1–4 standard)	7.4	69.6	30.4	100	6.8	9.2
Middle (5–9 standard)	34.2	72.9	27.1	100	32.9	38.1
Secondary (10–11 standard)	12.9	81.3	18.7	100	13.8	9.9
12 standard/some college	10.8	83.1	16.9	100	11.8	7.5
Graduate/diploma	10.1	87.3	12.7	100	11.7	5.3
No. adults (2011–12)						
1–2	54.8	74.8	25.2	100	54.2	56.8
3–4	35.4	75.4	24.6	100	35.3	35.7
4+	9.8	81.3	18.7	100	10.5	7.5
Region by NREGA participation rate						
Low ≤ 20%	27.8	92.5	7.5	100	34.0	8.6
Medium 20–40%	56.6	72.7	27.3	100	54.4	63.4
High > 40%	15.6	56.1	43.9	100	11.6	28.1

Source: Authors' calculations from IHDS.

Appendix A2.1b Household-level MGNREGA participation, by region

Household characteristics	Households in sample (%)	Household participation in NREGA (%)			Distribution of MGNREGA participant and nonparticipant households	
		No	Yes	Total	Nonparticipants	Participants
All India	100	75.6	24.4	100	100	100
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	3.8	72.5	27.5	100	3.7	4.3
Punjab, Haryana	4.0	92.1	8.0	100	4.9	1.3
Uttar Pradesh, Bihar, Jharkhand	28.5	84.1	15.9	100	31.6	18.6
Rajasthan, Chhattisgarh, Madhya Pradesh	14.5	61.3	38.7	100	11.7	23.0
West Bengal, Odisha, Assam, Northeast region	16.4	68.1	31.9	100	14.8	21.5
Gujarat, Maharashtra, Goa	11.4	96.9	3.1	100	14.6	1.4
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	21.4	66.1	33.9	100	18.7	29.9

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix A2.2a MGNREGA participation, by gender

Individual characteristics	Individuals in sample (%)	Men in sample (%)	Women in sample (%)	Men			Women			Men		Women	
				Participating in MGNREGA (%)	Not participating in MGNREGA (%)	Total	Participating in MGNREGA (%)	Not participating in MGNREGA (%)	Total	MGNREGA participants (%)	MGNREGA nonparticipants (%)	MGNREGA participants (%)	MGNREGA nonparticipants (%)
All India	100	100	100	12.2	87.8	100	8.8	91.2	100	100	100	100	100
Age groups													
15–17 years	8.1	8.3	7.8	2.0	98.0	100	1.7	98.4	100	1.4	9.3	1.5	8.5
18–24 years	18.6	18.6	18.7	7.6	92.5	100	2.9	97.1	100	11.6	19.6	6.1	19.9
25–29 years	10.8	10.6	11.0	12.7	87.3	100	8.2	91.8	100	11.0	10.5	10.3	11.1
30–39 years	18.2	17.9	18.5	15.9	84.1	100	13.5	86.5	100	23.4	17.1	28.5	17.6
40–49 years	16.4	16.3	16.4	18.4	81.6	100	15.3	84.8	100	24.7	15.1	28.5	15.3
50–59 years	12.0	12.2	11.8	16.7	83.3	100	12.2	87.8	100	16.7	11.6	16.3	11.4
60–64 years	5.3	5.4	5.1	11.7	88.3	100	8.7	91.3	100	5.2	5.4	5.1	5.1
65+ years	10.7	10.8	10.6	6.9	93.1	100	3.2	96.8	100	6.1	11.4	3.8	11.2
Marital status													
Unmarried/no gauna	22.9	28.3	17.5	5.0	95.0	100	2.0	98.0	100	11.6	30.6	4.0	18.9
Married	67.4	67.3	67.4	15.3	84.7	100	10.8	89.3	100	84.6	64.9	80.9	66.1
Widowed/ separated/divorced	9.7	4.4	15.1	10.4	89.6	100	9.0	91.0	100	3.8	4.5	15.1	15.1
Relation to head of household													
Head	30.0	52.5	8.8	17.0	83.1	100	15.1	84.9	100	73.2	49.6	15.0	8.2
Spouse	24.1	0.3	46.5	9.0	91.0	100	13.0	87.0	100	0.2	0.3	68.7	44.3
Other	46.0	47.2	44.8	6.8	93.2	100	3.2	96.8	100	26.6	50.1	16.3	47.5
Highest education of person in 2011–12													
Illiterate	36.7	24.8	47.9	18.6	81.4	100	12.6	87.4	100	38.0	23.0	68.7	45.9
Primary (1–4 standard)	8.1	9.4	7.0	16.9	83.1	100	9.9	90.1	100	13.0	8.8	7.9	6.9
Middle (5–9 standard)	32.0	36.4	27.8	11.8	88.2	100	6.2	93.8	100	35.4	36.5	19.6	28.6
Secondary (10–11 standard)	11.4	14.1	8.7	6.0	94.0	100	2.8	97.2	100	7.0	15.1	2.7	9.3
12 standard/ some college	7.6	9.4	6.0	5.8	94.2	100	1.4	98.6	100	4.5	10.0	1.0	6.5
Graduate/diploma	4.2	6.0	2.6	4.5	95.5	100	0.3	99.7	100	2.2	6.5	0.1	2.8

Source: Authors' calculations from IHDS.

Appendix A2.2b MGNREGA participation, by gender

Individual characteristics	Individuals in sample (%)	Men in sample (%)	Women in sample (%)	Men			Women			Men		Women	
				Participating in MGNREGA (%)	Not participating in MGNREGA (%)	Total	Participating in MGNREGA (%)	Not participating in MGNREGA (%)	Total	MGNREGA participants (%)	MGNREGA nonparticipants (%)	MGNREGA participants (%)	MGNREGA nonparticipants (%)
All India	100	100	100	12.2	87.8	100	8.8	91.2	100	100	100	100	100
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	4.1	3.8	4.3	12.5	87.5	100	7.0	93.0	100	3.9	3.8	3.4	4.4
Punjab, Haryana	4.6	4.8	4.4	3.2	96.8	100	2.0	98.0	100	1.3	5.3	1.0	4.7
Uttar Pradesh, Bihar, Jharkhand	28.5	27.7	29.3	9.5	90.5	100	2.8	97.3	100	21.7	28.6	9.2	31.2
Rajasthan, Chhattisgarh, Madhya Pradesh	14.0	14.0	13.9	19.8	80.2	100	18.8	81.2	100	22.7	12.8	29.9	12.4
West Bengal, Odisha, Assam, Northeast region	16.7	17.2	16.2	18.0	82.0	100	6.6	93.4	100	25.5	16.1	12.2	16.6
Gujarat, Maharashtra, Goa	12.1	12.6	11.7	1.7	98.3	100	1.0	99.0	100	1.8	14.1	1.3	12.7
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	20.1	19.9	20.3	14.2	85.8	100	18.7	81.3	100	23.2	19.5	43.1	18.1

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

CHAPTER 3

How Important is MGNREGA in Shaping Household Income Security?

Prem Vashishtha, P.K. Ghosh, Jaya Koti

"I know that it is easier to fling free meals in the faces of idlers, but much more difficult to organize an institution where honest work has to be done before meals are served. From a pecuniary standpoint, in the initial stages at any rate, the cost of feeding people after taking work from them will be more than the cost of the present free kitchen. But I am convinced that it will be cheaper in the long run, if we do not want to increase in geometrical progression the race of loafers which is fast over-running this land."

(Mahatma Gandhi, Young India, 13th August, 1925, p. 282)

Whether workfare or welfare is the best way of providing social safety nets to the poor has long been a subject of debate in the social policy literature.[1] While workfare programmes such as MGNREGA are politically appealing, their poverty reduction impact depends on the causes of poverty and whether the poor are able to participate in work programmes—whether ill health or other handicaps that pushed them into poverty will also prevent participation.[2] Several questions must be answered to decide future policy for the MGNREGA programme, especially given the recent decline in participation rates:

- How is vulnerability to be measured and vulnerable people identified?
- Does MGNREGA successfully attract the poor and vulnerable?
- How important is MGNREGA income for participants, especially the poor?
- Does MGNREGA significantly reduce poverty, especially among the poorest?
- How much additional employment (and financial resources) would lift the chronic poor and vulnerable above the poverty line?

The poor and the socially vulnerable (agricultural wage labourers, adivasis, dalits and other backward classes and landless, marginal and small farmers) have dominated MGNREGA participation And MGNREGA was instrumental in reducing poverty among these groups. The programme reduced poverty overall by up to 32%[3] and prevented 14 million people from falling into poverty. MGNREGA has had greater impact in less developed areas, but low participation seems to constrain its potential to alleviate poverty, especially in the least developed areas and among socially vulnerable groups.[4,5,6,7,8,9,10,11]

MGNREGA employment may not be a panacea for alleviating rural poverty because, as the recently published Socio-Economic Caste Census[12] data reveal, rural populations suffer from several other deprivations as well—poor health, disabilities, single heads of household, absence of earning adults—making safety nets other than employment creation necessary.[13] The antipoverty implications of MGNREGA also need to be better understood as government begins to rationalise a variety of centrally sponsored schemes and to define priority groups eligible for food subsidies under the National Food Security Act (NFSA) of 2013. The

latter is of particular interest because poverty line itself was defined with respect to caloric sufficiency in 1979.[14] The caloric norms have been dropped in recent years,[15] but the poverty threshold from 1979 continues to guide recent versions of the poverty threshold, with much of the change driven by differential changes in prices across states or urban and rural areas. Thus, in some sense the two major safety net programmes, MGNREGA and NFSA, attack the same problem: one through workfare, the other through welfare. The poverty reduction impact of MGNREGA may have implications for other safety net programmes, particularly food security.

Understanding vulnerability

Vulnerability has three dimensions: economic, social and environmental. The economic dimension involves welfare loss arising from shocks to household income.[16] The outcomes of such shocks are normally reflected in impact on poverty or poor nutrition.[17] These outcome measures are so closely related that most agree any strategy to alleviate poverty must include interventions to mitigate household vulnerability.[18]

But despite a rough consensus on how to measure poverty, there is little agreement on how to measure vulnerability.[19,20,21,22,23,24] Not all vulnerable households are necessarily poor. Furthermore, where poverty is typically static over time, vulnerability is dynamic. We must distinguish between a household trapped in poverty (static) and a household that could fall into poverty (dynamic).

Vulnerability can be measured at the household level in two interrelated ways:

- Temporal decline in household consumption
- Temporal change in poverty status.

Temporal decline in household consumption

Households are exposed to both internal and external shocks. Categorical events such as illness, loss of a job, or a large expenditure that not part of regular consumption—idiosyncratic factors—cause internal shocks. Other events, such as flood, drought, excessive or untimely rainfall, or other weather conditions adversely affecting crop output can cause systemic or external shocks.

Such events reduce both income and household consumption levels. Frequent or prolonged exposure to shocks reduces not only current consumption but also long-term consumption, because such a trend reduces a household's capacity to earn income and cope with livelihood problems. Understanding the impact of shocks requires examining long-term change in per capita household consumption, especially a negative change and its magnitude. Households with a substantial drop in per capita consumption are considered more vulnerable than others.

Temporal change in poor/non-poor status

To direct public policy, one needs to know which households are poor and likely to remain poor and which are not poor but may slip into poverty. A rise in income or in-kind subsidies can help households escape poverty. But the most appropriate policy instrument, such as creating employment or providing food subsidies, depends on the nature of poverty and the forces that led to poverty. Where poverty is mostly chronic—that is, individuals are born in circumstances such as geographic location or caste—certain instruments of poverty alleviation may be important. Where a substantial portion of poverty is generated by external shocks that push individuals into poverty, different policy instruments may be needed. This schema of dynamic poverty, a corollary

of the fluctuation in per capita consumption level, is reflected in Table 3.1.

Decline in real per capita consumption

IHDS-II data reveal that in 30.7% all households, per capita consumption (PCC) fell between 2004–05 and 2011–12 in real terms. In more than half of these households it fell by more than 25% (Appendix A3.1).

Households with falling PCC as well as households with rising PCC are found in all consumption deciles. But the distribution of these changes across consumption deciles follows a strong pattern relating consumption decile with falling or rising consumption. Rising PCC is seen at higher deciles and falling PCC is seen at lower deciles. In 2004–05 about 40% of the rural population was poor. While the poverty rate has fallen, the lowest four deciles still appear to be consumption vulnerable.

Vulnerability and poverty dynamics[25,26,27,28]

For the chronic poor and those who slipped into poverty, mean real PCC fell by one percent and about 45%, respectively (Table 3.2). Those who escaped poverty increased their household PCC by 78%. The modest drop in PCC for the chronic poor shows that their depth of poverty (the distance from the poverty line) remains almost unchanged. Both the chronic poor and those who slipped into poverty, together constituting more than 20% of rural households, are considered "consumption vulnerable."[29,30,31]

But the exact proportion of vulnerable households depends on how the poverty level is defined, an issue of recent debate. We define consumption-based poverty as it is defined by the government of India and focus on identification of vulnerability on the basis of empirical evidence.[32]

Social dimension of vulnerability

Implementing a successful public works programme requires identifying vulnerable households. Since income is not easily measurable in India, and in any case it may itself be a function of vulnerability (illness or unemployment), the ability to identify vulnerable households by characteristics such as social group, land ownership and place of residence (rural vs. urban, developed vs. less developed) would be highly useful. If households could be identified as vulnerable on the basis of group identity or "poor credentials" such as education or work experience, policy would be easier to implement. In the rural Indian context, the following social groups are closely associated with poverty and vulnerability or are perceived to have "poor credentials":[33]

- Scheduled castes or dalits.

Table 3.1 Temporal change in poverty status

Poverty status in 2004–05	Poverty status in 2011–12	
	Non-poor	Poor
Non-poor	Remained non-poor (Remained non-poor)	Became poor (Slipped into poverty)
Poor	Became non-poor (Escaped poverty)	Remained poor (Chronic poor)

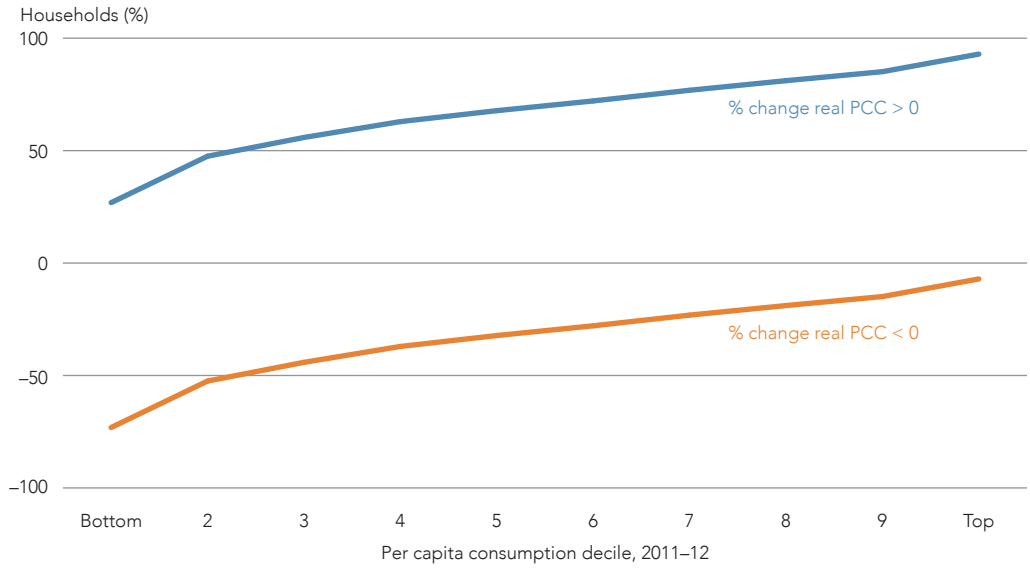
Table 3.2 Change in per capita consumption by poverty status (in 2011–12 prices)

Poverty status	PCC, 2004–05	PCC, 2011–12	Mean % change in PCC
Chronic poverty	7,619	7,542	–1.0
Slipped into poverty	14,724	8,085	–45.1
Escaped poverty	10,339	18,399	78.0
Remained non-poor	24,314	26,213	7.8
Total	17,189	19,606	14.1

Note: PCC, per capita consumption.

Source: Authors' calculations from IHDS.

Figure **3.1** **Concentration of positive change in per capita consumption in highest six deciles and of negative change in lowest four deciles**



Note: PCC, per capita consumption.

Source: Authors' calculations from IHDS (based on Appendix A3.1).

- Scheduled tribes or adivasis.
- Other backward classes.

Social groups

"Consumption vulnerable" households are found in all the social groups (Table 3.3). Even in the forward castes, 10.5% of households are vulnerable. Adivasis (38.4%) and dalits (25.4%) have the highest proportion of the consumption vulnerable within their groups. And chronic poverty is most prevalent among adivasis (30.5%), followed by dalits (15.8%).

Table **3.3** **Social group by temporal poverty status (% of reporting households)**

Temporal poverty status	Forward caste	Other backward class	Dalit/ scheduled caste	Adivasi/ scheduled tribe	Other religious groups	Total
Chronic poor	4.5	9.8	15.8	30.5	10.8	12.6
Slipped into poverty	6.0	7.9	9.6	7.9	8.0	8.0
Escaped poverty	17.6	26.6	30.2	34.8	27.0	26.8
Remained non-poor	72.0	55.8	44.5	26.9	54.3	52.7
Total	100	100	100	100	100	100

Source: Authors' calculations from IHDS.

Education

Education is considered a prime instrument for moving households out of chronic poverty. The proportion of consumption vulnerable (chronic poor and slipped into poverty) is highest among the illiterate (28.6%), followed by those with 1–4 standards of education (26.7%), 5–7 standard (24.6%) and 8–9 standard (21.4%).[34] The proportion of consumption vulnerable is relatively low among households with 10–11 standard (14.0%) and above: 12 standard/college (14.2%) and graduate/diploma (5.8%) (Appendix A3.2). So one policy goal might be to increase average education levels to at least secondary levels and generally target antipoverty programmes towards those with education of less than 10 standard.

Land ownership

Given the low productivity and fluctuating growth of Indian agriculture and

its heavy dependence on weather, small and marginal farmers and landowners (those owning or cultivating less than two hectares) are considered socially vulnerable. Although consumption-vulnerable households are found even in the medium and large landowner categories, their proportion (11.7% combined) is relatively small compared with among the landless (22.0%) and marginal landowners (22.0%) (Appendix A3.3).[35]

Agricultural wage labourers

Agricultural wage labourers are also considered socially vulnerable as a group, because they depend mainly on seasonal agricultural work for their livelihoods. About 47% of agricultural wage labourers are landless and 38.5% are marginal landowners. Thus some 85.6% of labourers belong to the combined category of landless and marginal land owners and are perceived as the fringe of rural society (Appendix A3.4).

Of such labourers, 19.0% are chronically poor and 9.5% slipped into poverty. So 28.5% of labourers are considered consumption vulnerable, ranking second only to adivasis, 38.4% of whose households are consumption vulnerable. Most also have low education levels (illiterate and 1–4 standard).

Labourers are drawn from all caste groups and landowner groups, but mainly from vulnerable social groups (dalit and adivasi) and land ownership categories (landless and marginal farmers).[36] So it is not useful for policy purposes to identify labourers as a separate group.

Vulnerable households and MGNREGA use

MGNREGA's success depends on the participation of the rural poor. But to what extent do vulnerable households participate in MGNREGA? Does MGNREGA discriminate against some vulnerable and poor? How significant is MGNREGA income to participating vulnerable and poor households?[37]

Of rural households, 20.6% were vulnerable (poor) in 2011–12, of which 31% participated in MGNREGA (Figure 3.2). This forms about six percent of all rural households. Since MGNREGA coverage of rural households was 24.4% in 2011–12, poor or vulnerable MGNREGA participants constitute about a fourth of MGNREGA households. As we noted in chapter 2, this suggests the MGNREGA is important for both vulnerable and non-vulnerable households. Nonetheless, the proportion of vulnerable households is greater among participants than among nonparticipants (25.8% vs. 18.9%).

So how is MGNREGA participation distributed among the socially vulnerable subgroups (by land ownership, education and social groups)? We make two comparisons:

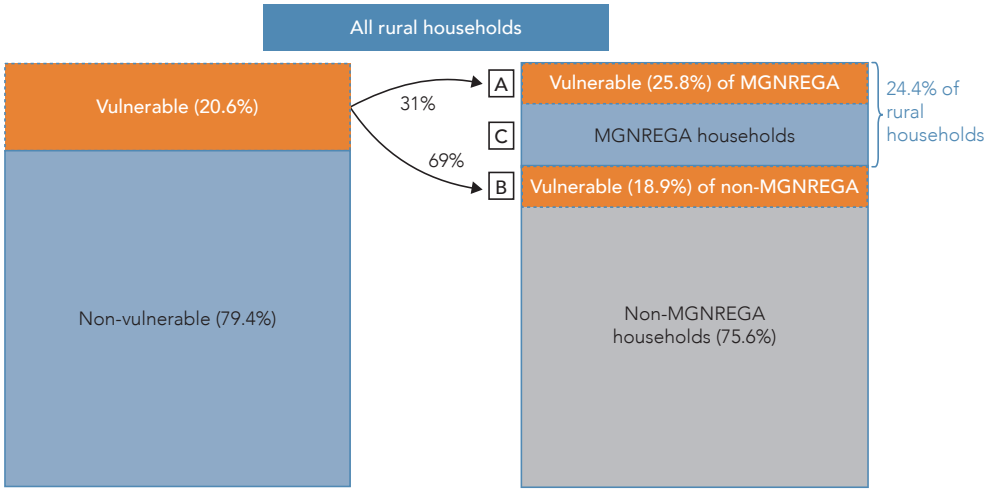
1. Relative proportion of vulnerable MGNREGA participants (A in Figure 3.2) and vulnerable nonparticipants (B).
2. Relative proportion of vulnerable (A) and non-poor (C) MGNREGA participants.

Box 3.1 Identifying vulnerable households

Vulnerable households show the following characteristics:

- Decline in per capita consumption (any decline for about 31% of households, severe decline of 25% or more for about 16% of households)
- Temporal poverty status of "chronic poor" and "slipped into poverty." These groups made up 20.6% of rural households in 2011–12.
- Based on these criteria, the following are socially vulnerable groups:
  - Social group: adivasis, dalits and other backward classes
  - Landowning category: landless, marginal and small farmers
  - Education: illiterate, up to primary and 5–9 standards of education
- Agriculture wage labourers are also vulnerable but are not treated as a separate category, because they belong to a range of socioeconomic groups.

Figure **3.2** **Coverage of MGNREGA and vulnerable households**



Source: Authors' calculations from IHDS.

MGNREGA and land ownership

- The proportion of landless, marginal and small landowners is higher among MGNREGA participants than among nonparticipants. The proportions of MGNREGA participants in these landowning categories is 31.2%, 33.0% and 29.4%, respectively. The corresponding proportions for the non-MGNREGA group are significantly smaller: 25.2%, 23.9% and 18.3%, respectively (Appendix A3.5).
- Among MGNREGA participants, the proportion of landless and marginal landowners is higher than that of medium and large landowners (combined). The proportion of landless and marginal landowners among MGNREGA participation is 31.2% and 33.0%, compared with 25.6% for medium and large landowners (Appendix A3.6).

MGNREGA and education level

At every education level, the proportion of vulnerable households is higher in MGNREGA than in non-MGNREGA groups. The gap is much higher at lower education levels (below primary, primary, middle and secondary).

Among MGNREGA participants, the proportion of vulnerable households declines rapidly as education level rises. For example, the proportions of vulnerable in the below-primary and primary education groups among MGNREGA participants are 40.0% and 34.8%, compared with 26.8% and 10.9%, respectively, for the higher-secondary and graduation-and-above groups (Appendix A3.5).

MGNREGA and social group

The proportion of vulnerable households in every social group is higher among MGNREGA participants than for nonparticipants, particularly in the other backward class, dalit and non-Hindu (other religions) categories. Surprisingly, the proportion of vulnerable households among adivasis is only marginally higher for participants, perhaps due to their high incidence of poverty and lesser access to MGNREGA.[38]

Among MGNREGA participants, the social groups with the highest proportions of vulnerable households

are adivasis (45.7%), followed by dalits (33.8%) and non-Hindus (32.9%) (Appendix A3.5). The heterogeneous non-Hindu category, which shows a high degree of MGNREGA participation, needs a more disaggregated analysis.

MGNREGA's role in household income

IHDS-II gives not only the total income but also the specific contributions of its different components to income of each household. MGNREGA income is given as a separate component, allowing analysis of the relative importance of MGNREGA income for these households.

Mean income of MGNREGA households

The mean annual per capita income of MGNREGA households in 2011–12 (at current prices) was ₹13,800, compared with ₹20,000 and ₹18,484 for non-MGNREGA and all rural households. MGNREGA households' mean per capita income was lower than non-MGNREGA households by 31.0% and lower than all rural households by 25.3%.

Income composition of NREGA households

Farm income is the largest component of total income for all households, contributing 31% to the income of non-MGNREGA households, 30% to that of all rural households and 24.4% to MGNREGA households. The next four largest contributors to income for non-MGNREGA and all rural households are salary, nonagricultural wages, business income and agriculture wages. Since non-MGNREGA households constitute about 76% of rural households, they dominate the pattern of income composition (Table 3.4).

For MGNREGA households, farm income, nonagricultural wages and agricultural wages are the important sources of income. Income from MGNREGA employment is the fifth largest income component (8%). Agricultural wages constitute 19.3% of income, the third largest component. Business income is much more important for non-MGNREGA households (12.5%) than for MGNREGA households (6.5%). Income from remittances also is higher for non-MGNREGA households (7.4%) than for MGNREGA households (6.1%).

Table **3.4** **Contribution of different sources of income for MGNREGA and non-MGNREGA households**

Income source	MGNREGA households	Non-MGNREGA households	All rural households
Agriculture	24.4 (1)	31.1 (1)	29.9 (1)
Salary	10.8 (4)	20.6 (2)	18.8 (2)
Business	6.5 (6)	12.5 (4)	11.4 (4)
Agricultural labour	19.3 (3)	8.1 (5)	10.2 (5)
Nonagricultural labour	20.8 (2)	13.6 (3)	14.9 (3)
MGNREGA	8.0 (5)	0	1.5 (8)
Remittance	6.1 (7)	7.4 (6)	7.2 (6)
Government benefits	2.3 (8)	1.3 (8)	1.4 (9)
Other	1.9 (9)	5.3 (7)	4.7 (7)
Total	100	100	100

Note: Numeral in parentheses is the rank of an income source in descending order (that is, rank 1 is the biggest component of income).

Source: Authors' calculations from IHDS.

Box **3.2** **Income-based differences between MGNREGA and non-MGNREGA households**

Although farm income is the most important for both MGNREGA and non-MGNREGA households, MGNREGA households differ significantly from non-MGNREGA households:

- They have 25% lower levels of per capita income.
- They have much greater dependence on wage income than salary income.
- They are less entrepreneurial (lower income from business).
- They show strong dependence on income from MGNREGA (8.0% of income).

MGNREGA's role in reducing poverty

There are methodological issues in determining MGNREGA's impact on poverty. To estimate the impact of income from public works programmes on reducing poverty, per capita income with and without programme income are compared. But this simple approach ignores the opportunity cost or forgone income from working in the programme.[39,40,41] Because this limitation applies to the approach followed in this chapter, our results may overestimate poverty reduction for MGNREGA participants. Converting MGNREGA income to additional or induced consumption to measure changes in poverty levels becomes problematic, because while poverty estimates are based on consumption data, MGNREGA wages become part of household income.

Most impact evaluation studies compare income or consumption levels before and after the programme was implemented. Such comparisons have been criticized on the following grounds:

- The choice of time periods can affect the comparison. It can also be difficult to separate programme effects from other general effects on outcome.
- It is important to distinguish between a programme's direct and indirect effects. The first are the immediate impact on participants, and the second are the potential "spillover" effects, which can substantially impact both participants and non-participants.[42] For example, the Employment Guarantee Scheme set a floor wage level that also influenced wage levels in the private labour market.[43]

A straight comparison of additional income or other outcome levels due to MGNREGA can lead to biased results.[44,45]

MGNREGA income and induced consumption

Below, we provide an estimate of MGNREGA income–induced consumption and poverty decline, while assuming that participation in MGNREGA does not have any opportunity cost. (In Box 3.4, we provide alternative estimates that do not make this assumption.) All MGNREGA households were first arranged in deciles based on PCC. MGNREGA income was then multiplied by a certain assumed value of decile-specific marginal propensity to consume (MPC) for rural households (Table 3.5) to obtain the consumption induced by MGNREGA income.

Deciles 1–3 have low PCC (being mostly poor or close to the poverty line), and their savings are zero or even negative. So MPC for deciles 1–3 is assumed

Table **3.5** **Assumed values of MPC for PCC deciles**

Household PCC decile	MPC
Deciles 1–3 (poorest)	1.00
Deciles 4–6	0.90
Deciles 7 and 8	0.85
Deciles 9 and 10 (richest)	0.70

Note: MPC, marginal propensity to consume; PCC, per capita consumption.

Source: Authors' calculations from IHDS.

to be unity: They consume everything they earn. Beyond deciles 1–3, savings start emerging at a low rate—about 10% of income (MPC = 0.9). Since rural savings emerge mostly in the top two or three deciles, MPC for deciles 9 and 10 is taken to be 0.7. MPC declines as one moves up the consumption decile ladder. Our assumed MPC values are somewhat arbitrary but given the overall low savings rate in the Indian rural economy, they align with rural Indian macro saving and consumption patterns.[46]

Reducing poverty among participants

To estimate the impact of MGNREGA income on poverty, we computed household expenditure without MGNREGA income–induced expenditure. The resulting reduction in household per capita expenditure would increase the poverty ratio for each socioeconomic group (Table 3.6).[47]

For MGNREGA households, the poverty ratio rises from 31.3% to 38.0% if the effect of MGNREGA income–induced consumption is excluded. That is, a 6.7 percentage-point reduction in poverty can be attributed to MGNREGA. Since poverty fell by 20.9 percentage points between 2004–05 and 2011–12, 32.1% of poverty reduction for MGNREGA participants is due to MGNREGA employment.

The MGNREGA effect is more obvious when one looks at the subgroups of temporal poverty—that is, those who escaped poverty and who remained poor in both periods.[48] Of the individuals who escaped poverty, 13.4% would have remained poor and 7.1% of the non-poor in both periods would have slipped into poverty without MGNREGA employment. Thus, 14 million persons would have become poor had MGNREGA employment not been available to them.

Does NREGA help vulnerable households more than others?

MGNREGA reduces poverty more for the vulnerable than for other groups.[49] MGNREGA's effect on poverty reduction for the entire group is 32%, but it is 37.6% for dalits and 35.4% for illiterates (Table 3.7 and Appendix A3.6). Both are more vulnerable than other social groups. But MGNREGA reduces poverty by only 27.5% for adivasis, lower than the average for MGNREGA households.[50,51,52] One reason for this low effect on adivasis is their very high initial poverty ratio (75.8%) and low mean per capita consumption level (close to the poverty line). Since employment

Table **3.6** **Proportion of poor (head count ratio) and non-poor population with and without MGNREGA income–induced consumption**

Temporal poverty status	With MGNREGA income–induced consumption, 2011–12		Without MGNREGA income–induced consumption,2011–12	
	Non-poor	Poor	Non-poor	Poor
MGNREGA population	68.7	31.3	62.0	38.0
Chronic poverty	0	100	0	100
Slipped into poverty	0	100	0	100
Escaped poverty	100	0	86.7	13.4
Remained non-poor	100	0	93.0	7.1

Note: Forgone income due to working in MGNREGA is assumed to be zero for MGNREGA participants.

Source: Authors' calculations from IHDS.

Table **3.7** **Impact of MGNREGA on poverty reduction, by household characteristics**

	Poverty ratio		Percentage point decline	Percentage decline	Contribution of MGNREGA to poverty reduction (%)
	2004–05	2011–12			
MGNREGA participants					
With induced consumption	52.2	31.3	20.9	40.0	—
Without induced consumption	52.2	38.0	14.2	27.2	32.1
Dalit/scheduled caste					
With induced consumption	54.3	33.8	20.5	37.8	—
Without induced consumption	54.3	41.5	12.8	23.6	37.6
Adivasi/scheduled tribe					
With induced consumption	75.8	45.7	30.1	39.7	—
Without induced consumption	75.8	54.0	21.8	28.8	27.6
Illiterate					
With induced consumption	58.9	36.4	22.5	38.2	—
Without induced consumption	58.9	44.4	14.5	24.6	35.6
Less developed villages					
With induced consumption	57.8	34.1	23.7	41.0	—
Without induced consumption	57.8	42.1	15.7	27.2	33.8
More developed areas					
With induced consumption	43.5	26.5	17.0	39.1	—
Without induced consumption	43.5	31.1	12.4	28.5	27.1
Region by MGNREGA participation rate ≤ 20%					
With induced consumption	57.0	44.2	12.8	22.5	—
Without induced consumption	57.0	53.4	3.6	6.3	71.9
Region by MGNREGA participation rate > 40%					
With induced consumption	57.8	31.1	26.7	46.2	—
Without induced consumption	57.8	38.2	19.6	33.9	26.6
MGNREGA vs non-MGNREGA households					
Participants (with induced consumption)	52.2	31.3	20.9	40.0	—
Nonparticipants	39.7	22.4	17.3	43.6	—

Note: Forgone income due to working in MGNREGA is assumed to be zero for MGNREGA participants. For more details of MGNREGA's contribution to poverty reduction for various socioeconomic groups, see Appendix A3.6 and for results with alternative values of MPC, see Appendix A3.7.

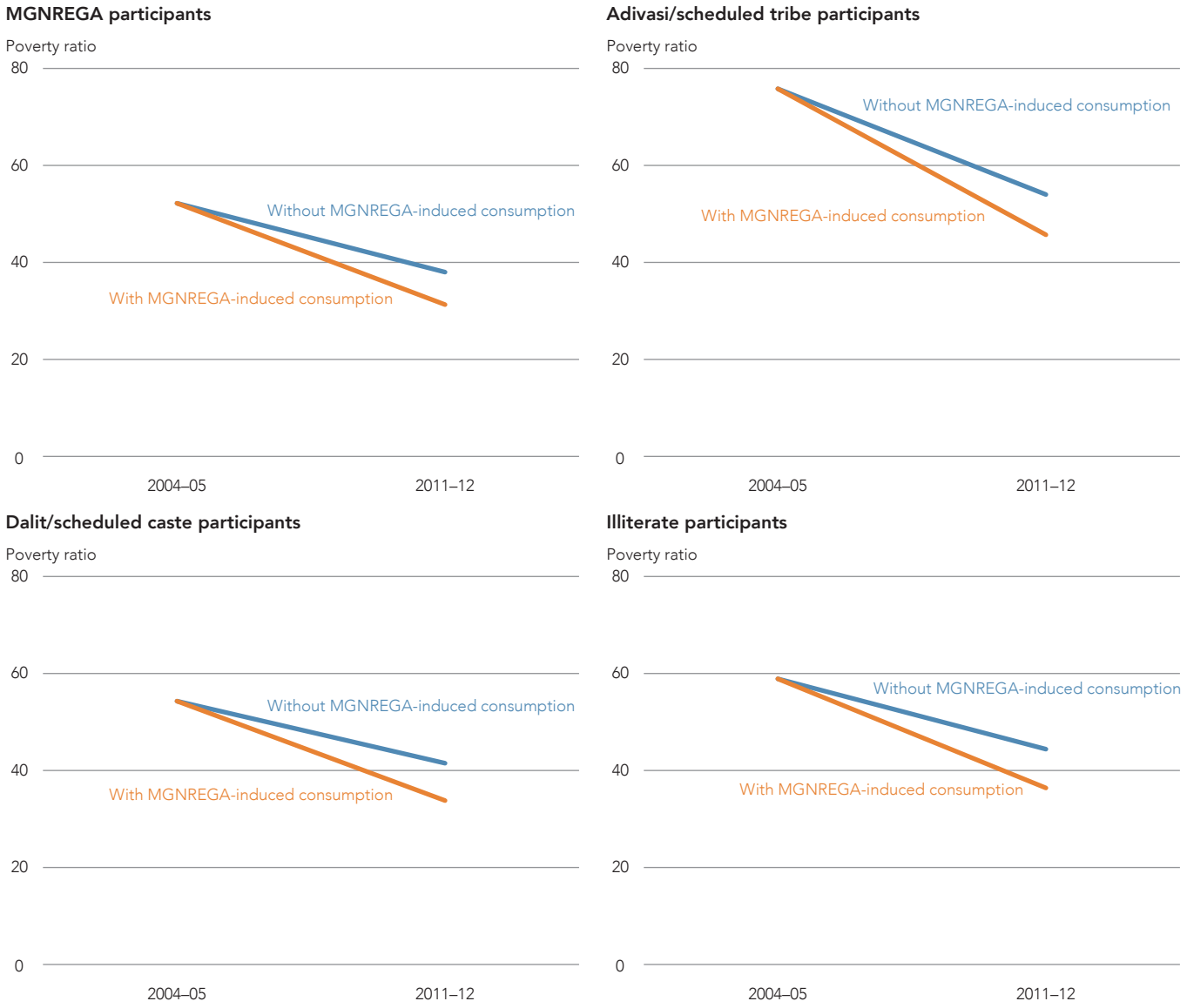
Source: Authors' calculations from IHDS.

intensity for adivasis is about the same (50 days per household) as for an average participant (47 work days), MGNREGA employment is not as effective for adivasis as for other vulnerable groups (Figure 3.3 and Table 3.7).

Poverty and development

MGNREGA reduces poverty more effectively in less developed areas than in more developed areas. MGNREGA's contribution to reducing poverty in less developed areas is 33.8%, while in more developed areas it is 27.1% (Figure 3.4 and Table 3.7). Initial poverty is much higher in less developed areas (57.8%) than in more developed areas (43.5%). MGNREGA employment intensity in the two areas is 44 days and 52 days, respectively (Appendix A3.8). The push of low employment intensity in less developed areas is not enough to accelerate poverty reduction. Less developed areas lack the multiplier effect of

Figure **3.3** **MGNREGA effect on poverty reduction, by socioeconomic group**



Source: Authors' calculations from IHDS.

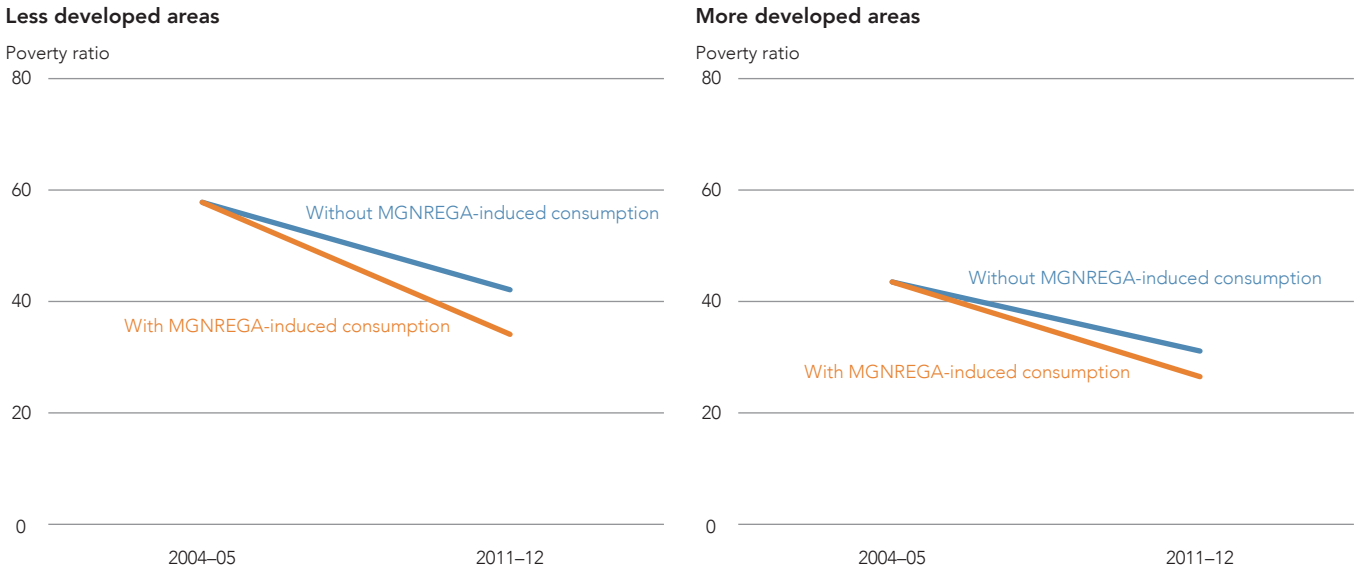
better infrastructure, which might have generated more indirect employment to further reduce poverty levels.[53,54]

The effect of MGNREGA participation is higher in low-participating areas than in high-participating areas.[55] The poverty reduction effect of MGNREGA is 72% in areas with low participation rates, compared with only 27% in areas with high participation rates. Increasing participation in low-participating areas is more effective in poverty reduction (Figure 3.5 and Table 3.7).

Decline in poverty ratio: MGNREGA versus non-MGNREGA groups

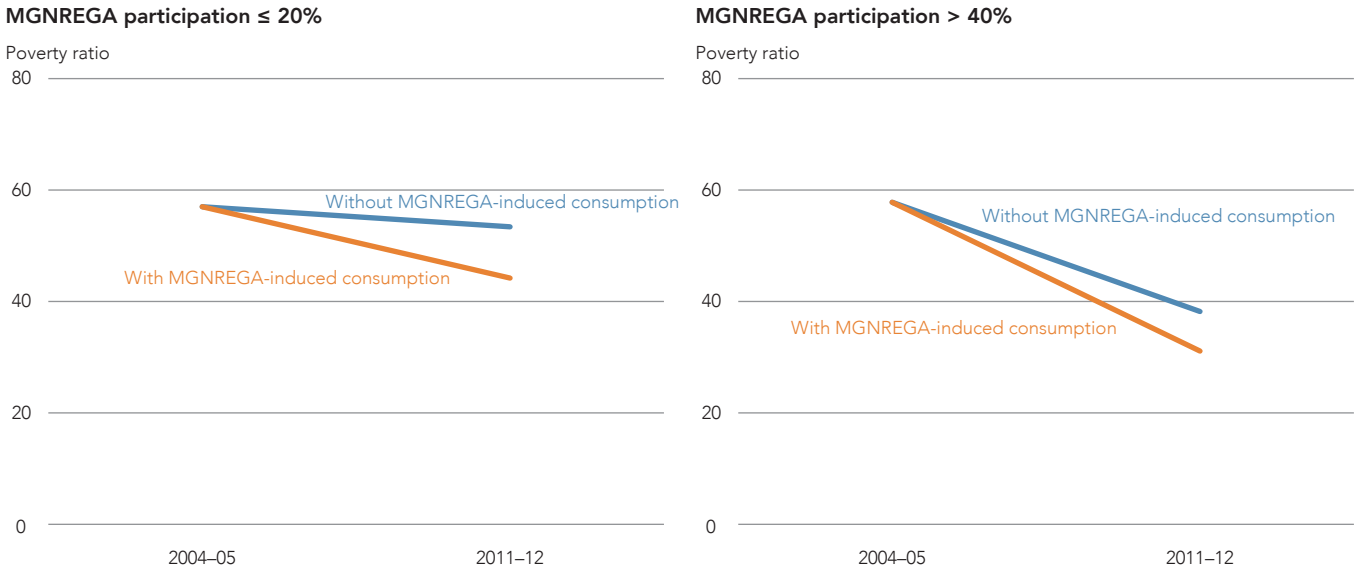
Despite MGNREGA's overall contribution to poverty reduction, poverty fell faster for non-MGNREGA households (by 43.6%) than for MGNREGA

Figure **3.4** **Poverty reduction effect of MGNREGA is higher for less developed areas than for more developed areas**



Source: Authors' calculations from IHDS.

Figure **3.5** **MGNREGA effect in poverty reduction, by MGNREGA participation rate**



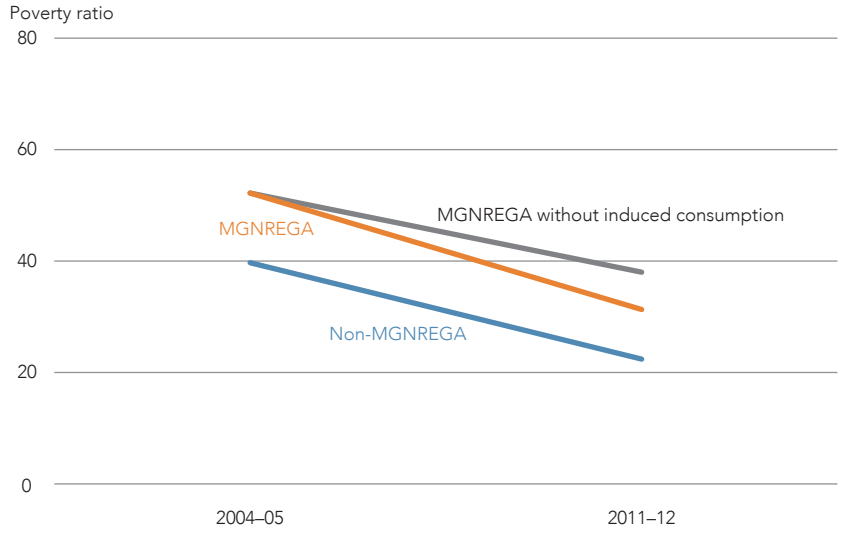
Source: Authors' calculations from IHDS.

households (by 40%) between 2004–05 and 2011–12 (Figure 3.6).[56] For example, poverty fell faster for non-MGNREGA dalits and low-participating regions.

Two factors affect the relative poverty decline in the MGNREGA and non-MGNREGA groups: initial poverty ratio and MGNREGA employment intensity.

A high initial poverty ratio is associated with a large poverty gap, slowing poverty reduction. High MGNREGA employment intensity (more work days per household) reduces poverty faster than low employment intensity. A combination of these two factors probably explains why poverty fell faster among dalits in non-MGNREGA households than in MGNREGA households, which began with a much higher poverty ratio in 2004–05. And their MGNREGA employment intensity (an average of 47 day a year) was too low to push very poor households over the poverty line.

Figure **3.6** **Poverty decline for MGNREGA and non-MGNREGA participants**



Source: Authors' calculations from IHDS.

Employment gap and the wage bill of poverty alleviation

To estimate the employment gap and the amount of wages needed to lift vulnerable households out of poverty, we computed the poverty line for each household in each category of temporal poverty status.[57] We computed the annual poverty gap (the poverty line minus average PCC at 2011–12 prices) for the chronic poor and for those who slipped into poverty. We then estimated the annual employment gap per person (additional employment required to cross the poverty line) and the corresponding total wage requirement to fill the gap between existing consumption and the level required to cross the poverty line. All calculations are based on 2011–12 data, including The Planning Commission's recommended poverty line, average MGNREGA wage rates and average household consumption.

Four observations are worth noting:

- Among all MGNREGA households, about 26% belong to the chronic poor and those who slipped into poverty.
- Surprisingly, chronically poor households received only 42 days of MGNREGA work, less than the national average of 47 days.
- Those who slipped into poverty need much more additional employment per household (150 days a year) than the chronic poor (144 days a year) to cross the poverty line. Since the total number of households in the chronic poor category is much larger (75 lakh or 7,500,000) than those who slipped into poverty (36 lakh or 3,600,000), the total number of days required by the former is much larger (107 crore days) than required by the latter (54 crore days) to achieve non-poor status.
- 161 crore days or ₹19,300 crore of wage payment[58,59] would be required to wipe out poverty for all MGNREGA participants.

The task obviously could not be accomplished due to low employment intensity for participant households (Table 3.8 and Appendix A3.7).

Box 3.3 Impact of MGNREGA on poverty (2011–12)

Methodology

Two assumptions must be made in estimating the impact of MGNREGA on poverty:

1. The income forgone in taking MGNREGA employment.
2. The additional (induced) consumption due to MGNREGA income.

For this report, forgone income due to MGNREGA was assumed to be zero. For poor/vulnerable households, especially those well below the poverty line, this assumption is likely to be close to reality. Thus it would not create any significant bias in the poverty reduction attributable to MGNREGA for vulnerable households.

The second assumption is related to conversion of MGNREGA income to additional consumption, which is accomplished by assuming certain values of marginal propensity to consume by per capita expenditure decile. The assumed values reflect the reality of the Indian rural situation.

Poverty reduction due to MGNREGA

- MGNREGA's contribution to reducing poverty is about 32%. In the absence of MGNREGA-induced consumption, poverty among the participants would have been 38.0% in 2011–12, not 31.3%.
- MGNREGA prevented 14 million persons from falling into poverty (those non-poor in 2004–05 who would have become poor by 2011–12 without MGNREGA employment).
- In spite of a high initial poverty rate (75.8% in 2004–05), poverty among adivasis was reduced by 27.6% and for dalits by 37.6%.
- MGNREGA is more effective in poverty reduction in less developed areas (34%) than in more developed areas (27%)
- Low-participating areas experienced much greater poverty reduction (72%) than areas with a high participation rate (27%).

Employment and poverty reduction

- Additional employment of 107 crore days for the chronic poor and 54 crore days for those who slipped into poverty (falling into poverty from a non-poor status) is sufficient to push them up to non-poor status.

Table 3.8 Estimated employment gap and resource requirement for poverty alleviation through MGNREGA work (2011–12)

Temporal poverty status	Col. 1 Poverty line (₹/year/ household)	Col. 2 Average consumption (₹/year/ household)	Col. 3 Estimated number of households (lakh)	Col. 4 % of households	Col. 5 Ratio of consumption to poverty line (Col. 2 ÷ Col. 1)	Col. 6 Poverty gap (₹/year) (Col. 1 – Col. 2)	Col. 7 Average wage received (₹/day)	Col. 8 Employment required (days) to bridge the poverty gap (Col. 6 ÷ Col. 7)	Col. 9 Number of days worked in MGNREGA	Col. 10 Employment gap per household (days) (Col. 8 – Col. 9)	Col. 11 Total employment gap in number of days (crore) (Col. 3 × Col. 10)	Col. 12 Estimated money required to bridge employment gap (₹ crore) (Col. 7 × Col. 11)
Chronic poverty	64,957	42,413	74.7	17.4	0.7	22,544	121	186	42	144	107.5	13,012
Slipped into poverty	70,571	48,024	36	8.4	0.7	22,547	116	195	45	150	53.9	6,255
All groups*	58,962	78,691	429.2	100	1.3	—	114	—	47	—	161.4	19,267

Note: Crore, 10 million; lakh, 100,000.

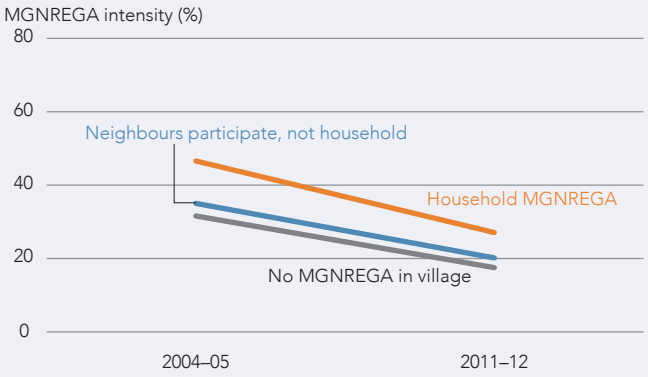
***** The non-poor poverty status groups are not shown.

1. Annual poverty line was estimated by using per capita state-specific poverty lines estimated by The Planning Commission (using Tendulkar Committee Report) and multiplied by household size. Since it varies by state and household size, this figure was averaged across the sample households.

2. Calculated using wage rates from 2011–12 and in 2011–12 prices.

Source: Authors' calculations from IHDS-II data and projected population from 2011 Census.

Box 3.4 Alternative estimates of MGNREGA-related poverty decline



In Table 3.6 we have provided estimates of programme-related poverty decline based on MGNREGA income–induced consumption increases and associated poverty declines. If MGNREGA income had not been available, poverty rates among MGNREGA households would have increased from 33% to about 38%. Individuals who currently work in MGNREGA might have undertaken some other activity and income growth associated with MGNREGA would be smaller than our data suggest.

This issue is complicated by the fact that MGNREGA does not operate in a vacuum, particularly given the convergence among programmes discussed in chapter 1. It may be that villages in which MGNREGA is implemented may well be villages where many other schemes (such as transportation and irrigation schemes) are functioning well. Thus we may see greater declines in poverty there regardless of household participation in MGNREGA.

To examine this, we compared (1) households living in villages where no household in the IHDS sample participates in the MGNREGA programme, (2) households who themselves do not participate but their neighbours (included in the IHDS sample) do participate, and (3) households that themselves participate. The graph shows a decline in poverty for these three groups between 2004–05 and 2011–12. The results presented above are predicted values from difference-in-difference logistic regressions estimated by the authors for the probability of being poor in which household size, land ownership, social/religious group and state of residence are held constant.

While poverty declined for all three participation groups, the decline was largest for MGNREGA households. For households in villages where none of the IHDS sample worked in MGNREGA, the decline was 14 percentage points. Households living in villages where other IHDS sample members participated in MGNREGA but they themselves did not saw a 15 percentage-point decline, while households that themselves participated in MGNREGA saw a 20 percentage-point decline. The five percentage-point difference—about 25% of the overall decline—for MGNREGA households may be due to MGNREGA participation.

This alternative technique, based on difference-in-difference analysis of poverty decline for households at various levels of MGNREGA participation, provides a lower bound of poverty decline associated with MGNREGA; the results in Figure 3.6 provide an upper bound. Both suggest a substantial poverty-reducing effect of MGNREGA participation.

Box **3.5** **MGNREGA income, though small, can lift a family out of poverty**

Khatoon Begum, separated female head of household in Rajasthan.

Khatoon Begum is a 28-year-old married woman whose husband has been missing for the past six years. She married young and came to live with her husband after gauna at age 15. She reported that when she first married, everything was fine and her husband was working in his 0.6 acres of land and also as a construction wage labourer. He was earning good wages and there was no shortage of work. But six years ago her husband began suffering from a mental disturbance. After a few days of treatment, his older brother took him to a religious place, Hussain Tekri of Jhabra near Mandsaur of Madhya Pradesh, for some witchcraft. During the night, when all the accompanying persons were sleeping, he woke up and left and never returned. His older brother and the other relatives searched for several months, but they did not find him.

Khatoon Begum has two daughters, ages 12 and 8. Her older daughter lives with Khatoon Begum's parents, and the younger lives with Khatoon Begum. Both the daughters are studying.

After her husband's illness, the responsibility for the household fell on Khatoon's shoulders. This was a heavy burden since she had to spend money both for normal consumption and for treatment. Savings were quickly exhausted and she incurred debt. Although her natal family supported her by giving her grain and money, there was still a big shortfall. Khatoon Begum had never worked while her husband was in good health, but with his illness and subsequent absence, she started to look for wage labour. Her MGNREGA card had been obtained in 2007, but it was only after his illness that she started doing MGNREGA work. Since then she has been getting regular work of 100 days each year, except for last year when work was not available. Besides MGNREGA she also worked as an agricultural labourer. She also gets some of the grain from leasing out her land and crop sharing, but last year the crop was not good and she got less grain.

Last year she faced a lot of challenges because no MGNREGA work was done in her village. The only work left was agricultural labour, but this work was not sufficient to meet household expenses. That is why she sent one of her daughters to live with her natal family. But now that the work has resumed, she is more confident that she will be able to meet household expenses.

Notes

1. Beasly 1989.
2. Wiseman 1986.
3. As argued earlier, the long-term effect on poverty reduction through the second-round employment generation effect and enhancement of land productivity is likely to be even higher. Of course, this is subject to the caveats of methodological issues.
4. Without strict implementation and monitoring, this potential cannot be realized. Several micro level studies have highlighted the weak links in MGNREGA implementation—for example, nonpayment of minimum wage and delayed payment (see Roy and Dey 2011; Dreze 2011), lack of grievance redress (Subbarao et al. 2013) and lack of functionaries (Ambasta 2012), issues relating to governance (Government of India 2012; see chapter 5).
5. Subbarao et al. 2013.
6. Roy 2011.
7. Khera 2011.
8. Dreze 2011.
9. Pankaj 2012.
10. Ambasta 2012.
11. Ministry of Rural Development 2012.
12. Government of India 2015.
13. Rodgers 2012.
14. The Planning Commission 1979.
15. The Planning Commission 2009.
16. Shocks to household income are invariably associated with risk arising from idiosyncratic and/or covariate shocks.

17. In the context of environment, what is relevant is vulnerability to ecosystem damage on account of natural factors and/or human activity.
18. World Bank 2001.
19. See Sarris and Karfakis (2006), who put it very succinctly that "while the development community has largely settled on the Foster-Greer-Thorbecke (FGT) indices to measure poverty, no consensus has yet emerged about the appropriate way to measure vulnerability (Foster, Greer and Thorbecke 1984). Essentially, two approaches have emerged in the literature of vulnerability. The first associates vulnerability with high expected poverty (Christiaensen and Boisvert 2000; Chaudhuri 2002) while the second associates it with low expected utility (Ligon and Schechter 2002)."
20. Sarris and Karfakis 2006.
21. Foster, Greer, and Thorbecke 1984.
22. Christiaensen and Boisvert 2000.
23. Chaudhuri 2002.
24. Ligon and Schechter 2002.
25. Some of the leading articles on vulnerability have attempted to measure vulnerability to idiosyncratic shocks and covariate shocks; see Sarris and Karfakis 2006; Christiaensen and Boisvert 2000; Ligon and Schechter 2002. Our focus is different. We link vulnerability with poverty dynamics and attempt to identify households in terms of their socioeconomic characteristics.
26. Sarris and Karfakis 2006.
27. Chaudhuri 2002.
28. Christiaensen and Subbarao 2005.
29. Both income poverty and consumption poverty/vulnerability measures ignore the multifaceted dimensions of human deprivation; see Christiaensen and Subbarao 2005. For a pioneering work on entitlement and deprivation, see Sen 1981.
30. Saith 2005.
31. Sen 1981.
32. Our focus on vulnerability is through the temporal change in poverty status. The other aspects of vulnerability, such as social and political status in a rural society ("poor credentials"), are also captured to a large extent by our measure, as discussed in the following section.
33. Dutta et al. 2014.
34. Education is considered in terms of the highest education level achieved by an adult in the household.
35. See Appendix A3.3.
36. See Appendix A3.4.
37. From here forward, the term "vulnerable" is used for "consumption vulnerable."
38. The proportion of vulnerable among adivasis in MGNREGA and non-MGNREGA groups is 45.7% and 43.6%, respectively. The non-Hindu group offers a sharp contrast—30.5% being in MGNREGA and only 18.3% in the non-NREGA group (Appendix A3.5). Non-Hindus are a very heterogeneous group, with Muslims constituting a large proportion. The proportion of vulnerable in Muslim is expected to be higher than in other minority groups. A further disaggregated analysis may throw more light on this aspect.
39. See Jha, Gaiha, and Pandey 2011; Dutta et al. 2014.
40. Dutta et al. 2014.
41. Jha, Gaiha, and Pandey 2011.
42. Todd 2008.
43. Ravallion 2008.
44. For a discussion on the application of appropriate techniques in such cases, see Gertler et al. 2011, particularly chapter 6.
45. Gertler et al. 2011.
46. The MPC values used are for illustrative purposes but close to reality. A small variation in MPC values is not likely to affect the main inferences (see Appendix A3.7).

47. Note that this refers to the poverty ratio for persons (head count ratio), not for households.
48. More details on MGNREGA's impact on poverty reduction for different socioeconomic groups is given in Annex A3.6.
49. But this may not necessarily be true for each subcategory of the vulnerable, as discussed in the text.
50. The long-term real effect of MGNREGA on poverty reduction for the backward sections of society may be higher than indicated above, as the work done for social and land improvement of scheduled castes and tribes would enhance land productivity. In 2014–15, 13.6% of MGNREGA works were taken up on the land of dalits/adivasis and beneficiary households of BPL (below poverty line) and Indira Awas Yojana. For a detailed exercise on the impact of asset creation under MGNREGA, see Government of India 2015.
51. Government of India 2015.
52. Shah 2012
53. Todd 2008.
54. Ravallion 2008
55. "Low" and "high" participation rate refer to the states with participation rate in MGNREGA of ≤ 20% and > 40%, respectively.
56. See the last two rows in Table 3.7.
57. The number of estimated chronic poor households and households that slipped into poverty is 75 lakh (750 million) and 36 lakh (360 million), respectively (Table 3.8).
58. As a matter of policy, MGNREGA expenditure may appear to be a cause of fiscal crisis to some economists (Acharya 2004). However, the amount of resources needed to wipe out poverty for MGNREGA participants is modest.
59. Acharya 2004.

Appendix A3.1 Proportion of poor (head count) and non-poor population with and without MGNREGA-induced consumption

PCC decile, 2011–12	≤ –50	> –50 to –2	> –25 to –1	> –10 to < 0	Households with negative change (%)	≥ 0 to 10	> 10 to 25	> 25 to 50	> 50	Households with positive change (%)	Total
1	22.2	26.6	17.6	6.7	73.1	6.9	6.3	6.8	6.9	26.9	100
2	9.6	18.2	16.2	8.5	52.5	8.7	10.1	13.3	15.5	47.5	100
3	6.9	15.0	13.7	8.6	44.2	8.9	10.4	12.8	23.7	55.9	100
4	5.7	13.5	10.8	7.2	37.1	6.6	10.9	14.5	30.9	62.9	100
5	5.4	10.1	9.7	7.0	32.2	5.8	11.3	14.4	36.2	67.8	100
6	5.3	9.2	8.1	5.4	27.9	7.1	9.1	12.8	43.1	72.1	100
7	4.3	5.9	6.9	6.1	23.2	5.8	9.6	13.6	47.8	76.9	100
8	2.9	5.6	6.2	4.2	18.9	5.7	8.3	11.6	55.5	81.1	100
9	2.5	5.7	3.3	3.5	14.9	3.6	5.6	9.1	66.7	85.1	100
10	1.3	2.3	1.6	1.8	7.1	1.7	3.8	6.1	81.3	92.9	100
Total	6.0	10.3	8.7	5.6	30.7	5.8	8.3	11.4	43.8	69.3	100

Note: PCC, per capita consumption. Change is 2011–12 against 2004–05.
Source: Authors' calculations from IHDS.

Appendix A3.2 Education level by temporal poverty status

Temporal poverty status	Illiterate	1–4 standard	5–9 standard	10–11 standard	12 standard/ some college	Graduate/ diploma	Total
Chronic poverty	18.7	17.9	14.0	6.4	7.9	2.1	12.6
Slipped into poverty	10.0	8.8	8.2	7.6	6.3	3.7	8.0
Escaped poverty	32.3	30.9	28.8	23.7	19.5	15.0	26.8
Remained non-poor	39.0	42.4	48.9	62.3	66.3	79.2	52.7
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Authors' calculations from IHDS.

Appendix A3.3 Landowning category by temporal poverty status

	Landowning category				
Temporal poverty status	Noncultivator	Marginal cultivator (less than 1 hectare)	Small cultivator (1.0–1.99 hectares)	Medium/large cultivator (2.0 hectares and above)	Total
Chronic poor	13.2	13.9	10.9	6.2	12.6
Slipped into poverty	8.8	8.1	6.0	5.5	8.0
Escaped poverty	27.3	28.9	22.9	19.8	26.8
Remained non-poor	50.7	49.1	60.2	68.6	52.7
Total	100	100	100	100	100

Note: Medium and large land owners were combined due to the relatively small number of households in MGNREGA.
Source: Authors' calculations from IHDS.

Appendix A3.4 Agriculture wage labour by land ownership and temporal poverty status

	Households with agricultural wage labour income (%)
Landowning category	
Noncultivator	47.14
Marginal cultivator (less than 1 hectare)	38.47
Small cultivator (1.0–1.99 hectares)	9.55
Medium/large cultivator (2.0 hectares and above)	4.85
Total	100
Temporal poverty status	
Chronic poverty	19.04
Slipped into poverty	9.47
Escaped poverty	30.63
Remained non-poor	40.86
Total	100

Source: Authors' calculations from IHDS.

Appendix A3.5 Vulnerability and participation in MGNREGA, by household characteristics

	Vulnerable households (%)		
Household characteristics	**MGNREGA households**	**Non-MGNREGA households**	**All rural households**
Total	31.3	22.4	24.6
Landowning category			
Noncultivator	31.2	25.2	26.5
Marginal cultivator (less than 1 hectare)	33.0	23.9	26.4
Small cultivator (1.0–1.99 hectares)	29.4	18.3	21.0
Medium/large cultivator (2.0 hectares and above)	25.6	12.8	15.3
Social group			
Forward caste	21.7	12.8	14.0
Other backward class	25.6	20.6	21.7
Dalit/scheduled caste	33.8	28.1	30.2
Adivasi/scheduled tribe	45.7	43.6	44.3
Other religions	32.9	18.9	21.7
Highest education attained by an adult member			
Illiterate	36.4	35.2	35.6
1–4 standard	40.0	30.4	33.5
5–9 standard	33.0	25.1	27.2
10–11 standard	20.1	16.7	17.4
12 standard/some college	26.8	16.7	18.4
Graduate/diploma	10.9	7.0	7.4

Note: Vulnerable households consist of all poor in 2011–12 (chronic poor and slipped into poverty). Medium and large land owners were combined due to the relatively small number of households in MGNREGA. Muslims are combined with other religious minorities such as Jains, Buddhists, Sikhs and Christians due to small number of these minority groups in the MGNREGA group.

Source: Authors' calculations from IHDS.

Appendix A3.6 Proportion of poor (head count) and non-poor population with and without MGNREGA-induced consumption

Socioeconomic characteristics	With induced consumption				Without induced consumption		Percentage decline		Contribution of MGNREGA to poverty reduction (%)
	2004–05		2011–12		2011–12		2004–05 to 2011–12 with induced consumption	2004–05 to 2011–12 without induced consumption	
	Non-poor	Poor	Non-poor	Poor	Non-poor	Poor			
MGNREGA population	47.9	52.2	68.7	31.3	62.0	38.0	40.0	27.2	32.1
Place of residence									
More developed village	56.5	43.5	73.5	26.5	68.9	31.1	39.0	28.5	27.1
Less developed village	42.3	57.8	65.9	34.1	57.9	42.1	40.9	27.1	33.7
Social groups									
Forward caste	69.0	31.1	78.3	21.7	73.8	26.2	30.1	15.7	48.0
Other backward class	50.0	50.0	74.5	25.6	68.4	31.6	48.9	36.7	24.9
Dalit/scheduled caste	45.7	54.3	66.2	33.8	58.5	41.5	37.8	23.6	37.6
Adivasi/scheduled tribe	24.2	75.8	54.3	45.7	46.0	54.0	39.7	28.8	27.5
Other religions	54.6	45.4	67.1	32.9	61.8	38.2	27.4	15.9	42.2
Land cultivation									
Noncultivator	—	—	68.8	31.2	61.4	38.6	—	—	—
Marginal cultivator (less than 1 hectare)	—	—	67.0	33.0	60.4	39.6	—	—	—
Small cultivator (1.0–1.99 hectares)	—	—	70.6	29.4	64.8	35.2	—	—	—
Medium/large cultivator (2.0 hectares and above)	—	—	74.4	25.6	68.9	31.1	—	—	—
Consumption quintiles									
Poorest quintile	0.0	100.0	2.2	97.8	2.0	98.0	2.2	2.0	7.8
2nd quintile	12.1	87.9	71.5	28.5	68.8	31.2	67.6	64.5	4.6
3rd quintile	89.8	10.2	97.7	2.3	96.2	3.8	77.2	63.1	18.3
4th quintile	99.5	0.5	99.9	0.1	99.9	0.1	—	—	—
Richest quintile	100	0	100	0	100	0	—	—	—
Assets quintiles									
Poorest quintile	28.8	71.2	48.8	51.2	41.0	59.0	28.2	17.1	39.1
2nd quintile	40.1	59.9	62.4	37.6	54.6	45.4	37.2	24.2	34.9
3rd quintile	54.7	45.3	74.6	25.4	67.8	32.3	44.0	28.8	34.5
4th quintile	70.8	29.2	86.9	13.1	82.1	17.9	55.3	38.9	29.7
Richest quintile	86.0	14.0	93.6	6.5	90.0	10.0	54.0	28.6	47.0
Temporal poverty status									
Chronic poverty	—	—	0	100	0	100	—	—	—
Slipped into poverty	—	—	0	100	0	100	—	—	—
Escaped poverty	—	—	100	0	86.7	13.4	—	—	—
Remained non-poor	—	—	100	0	93.0	7.1	—	—	—
Highest household education									
Illiterate	40.1	59.9	63.6	36.4	55.6	44.4	39.2	26.0	33.9
1–4 standard	38.5	61.5	60.0	40.0	52.9	47.1	35.1	23.5	32.9
5–9 standard	47.7	52.3	67.0	33.0	60.4	39.6	37.0	24.3	34.3
10–11 standard	59.9	40.2	79.9	20.1	75.3	24.8	49.9	38.4	23.2
12 standard/some college	53.8	46.2	73.2	26.8	66.0	34.0	42.1	26.5	37.0
Graduate/diploma	72.7	27.3	89.1	10.9	85.3	14.7	60.2	46.4	23.0
Region by MGNREGA participation rate									
Low ≤ 20%	43.0	57.0	55.8	44.2	46.6	53.4	22.4	6.2	72.2
Medium 20–40%	51.1	48.9	70.6	29.4	64.4	35.6	39.8	27.2	31.6
High > 40%	42.2	57.8	68.9	31.1	61.9	38.2	46.3	34.0	26.5

Appendix A3.6 Proportion of poor (head count) and non-poor population with and without MGNREGA induced consumption *(continued)*

Socioeconomic characteristics	With induced consumption				Without induced consumption		Percentage decline		Contribution of MGNREGA to poverty reduction (%)
	2004–05		2011–12		2011–12		2004–05 to 2011–12 with induced consumption	2004–05 to 2011–12 without induced consumption	
	Non-poor	Poor	Non-poor	Poor	Non-poor	Poor			
Region									
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	64.6	35.4	76.6	23.4	70.2	29.8	33.8	15.8	53.4
Punjab, Haryana	62.4	37.6	79.7	20.3	73.6	26.4	46.1	29.7	35.5
Uttar Pradesh, Bihar, Jharkhand	33.0	67.0	55.9	44.1	48.3	51.7	34.1	22.9	33.0
Rajasthan, Chhattisgarh, Madhya Pradesh	29.5	70.5	64.4	35.6	58.0	42.0	49.5	40.4	18.5
Northeast region, Assam, West Bengal, Odisha	50.4	49.6	63.4	36.6	55.0	45.0	26.1	9.2	64.7
Gujarat, Maharashtra, Goa	29.8	70.2	68.5	31.5	57.1	42.9	55.1	38.9	29.5
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	70.5	29.5	86.2	13.8	81.5	18.5	53.2	37.3	29.9

Note: Northeast region: all north-eastern states except Assam. Forgone income due to working in MGNREGA is assumed to be zero for MGNREGA participants. For results with alternative values of MPC, see Appendix A3.7. Medium and large land owners were combined due to the relatively small number of households in MGNREGA. Muslims are combined with other religious minorities such as Jains, Buddhists, Sikhs and Christians due to small number of the latter in the MGNREGA group. Contribution of MGNREGA to poverty reduction = (percentage decline with induced consumption – percentage decline without induced consumption) / percentage decline with induced consumption.

Source: Authors' calculations from IHDS.

Appendix A3.7 Impact of MGNREGA on poverty reduction, by household characteristics

	Population below poverty line (%)				
	2004–05	2011–12	Percentage point decline	Percentage decline	Contribution of MGNREGA to poverty reduction (%)
MGNREGA participants					
With induced consumption	52.2	31.3	20.9	40.0	—
Without induced consumption	52.2	37.9	14.3	27.4	31.6
Dalit/scheduled caste					
With induced consumption	54.3	33.8	20.5	37.8	—
Without induced consumption	54.3	41.5	12.8	23.6	37.4
Adivasi/scheduled tribe					
With induced consumption	75.8	45.7	30.1	39.7	—
Without induced consumption	75.8	53.9	21.9	28.9	27.3
Illiterate					
With induced consumption	58.9	36.4	22.5	38.2	—
Without induced consumption	58.9	44.4	14.5	24.7	35.4
Less developed villages					
With induced consumption	57.8	34.1	23.7	41.0	—
Without induced consumption	57.8	42.0	15.9	27.4	33.1
More developed areas					
With induced consumption	43.5	26.5	17.0	39.1	—
Without induced consumption	43.5	31.1	12.4	28.4	27.2
Region by MGNREGA participation rate ≤ 20%					
With induced consumption	57.0	44.2	12.8	22.5	—
Without induced consumption	57.0	53.4	3.6	6.3	72.0
Region by MGNREGA participation rate > 40%					
With induced consumption	57.8	31.1	26.7	46.2	—
Without induced consumption	57.8	37.9	19.9	34.4	25.5
MGNREGA vs non-MGNREGA households					
Participants (with induced consumption)	52.2	31.3	20.9	40.0	—
Nonparticipants	39.7	22.5	17.2	43.4	—

Note: Forgone income due to working in MGNREGA is assumed to be zero for MGNREGA participants. For more details of MGNREGA's contribution to poverty reduction for various socioeconomic groups, see Appendix A3.6. Contribution of MGNREGA to poverty reduction = (percentage decline with induced consumption – percentage decline without induced consumption) / percentage decline with induced consumption. Assumptions about alternative MPC calculations: Deciles 1–3 (MPC 1.0), deciles 4 and 5 (0.9), decile 6 (0.85), decile 7 (0.8), decile 8 (0.75), decile 9 (0.70), decile 10 (0.6).

Source: Authors' calculations from IHDS.

Appendix A3.8 Number of days employed and average wage received by households

	Number of days worked in MGNREGA	Average wage received (₹/day)
MGNREGA households	47	114
Place of residence		
More developed village	52	112
Less developed village	44	116
Social groups		
Forward caste	46	114
Other backward class	50	112
Dalit/scheduled caste	47	112
Adivasi/scheduled tribe	50	119
Other religions	36	125
Highest household education		
Illiterate	46	109
1–4 standard	44	115
5–9 standard	47	117
10–11 standard	51	115
12 standard/some college	50	120
Graduate/diploma	49	114
Temporal poverty status		
Chronic poverty	42	121
Slipped into poverty	45	116
Escaped poverty	45	113
Remained non-poor	51	113
Region by MGNREGA participation rate		
Low ≤ 20%	39	129
Medium 20–40%	42	119
High > 40%	62	104

Source: Authors' calculations from IHDS.

CHAPTER 4

MGNREGA in a Changing Rural Labour Market

Sonalde Desai, Omkar Joshi

"Satisfaction lies in the effort, not in the attainment. Full effort is full victory."
(Mahatma Gandhi, Young India, 3rd March, 1922, p. 141)

Does MGNREGA accelerate positive trends, or does it create unanticipated obstacles to progress? Although MGNREGA is set up to increase employment opportunities in rural areas by providing work when other, better paying work is not available, there are concerns about unanticipated effects from intervening in local labour markets. Does MGNREGA create competition for workers and thus a spiralling rise in private sector wages by increasing demand for labour and risking harm to struggling farmers? This concern lies at the heart of the most strident opposition to MGNREGA.

To answer this question, we analysed broad changes in the Indian labour market that are taking place regardless of the MGNREGA intervention. After looking at the shift from agricultural to nonagricultural work, we examined what MGNREGA workers were doing before MGNREGA began and subsequent changes in work patterns among MGNREGA participants and nonparticipants. Does MGNREGA create new jobs or does it substitute poorly paying work with better paying opportunities? Finally, we looked at trends in rural wages to see whether stronger implementation of MGNREGA can be associated with a more rapid increase in wages.

Transformation of rural Indian labour markets

National Sample Survey (NSS) data from 2004–05 and 2011–12 show a continuation of the slow movement away from agriculture that began in the late 19th century. Past trends continue with one exception: a decline in female work participation rates. With 327 of every 1,000 rural women employed in 2004–05, falling to 248 in 2011–12, the increase recorded over the preceding five years has reversed.[1,2] Nonetheless, according to the NSS in 2011–12 nearly 60% of men and 75% of women workers continued to work in agriculture.

Focusing only on total employment, as measured by the number of people working and the number of days worked in 2004–05 and 2011–12, reveals very few changes. The percentage of people employed rose slightly, from 83% to 84% for men and from 50% to 54% for women.[3]

But a deeper examination of the IHDS data shows tremendous changes beneath the surface. The IHDS survey captures all activities throughout the year, with particular attention to capturing women's work that is often overlooked in conventional surveys.[4] The survey's results suggest that the rural economy, though rooted in agriculture, is increasingly diversifying into industries such as construction, services and sales. By analysing more than one employment activity, this study can trace how changes in the Indian economy transform household economies (Table 4.1).

Table **4.1** **Changes in labour force behaviour for population ages 15–59**

	Participating (%)		Days worked (population average)	
	2004–05	2011–12	2004–05	2011–12
Men				
Not working	18	16	—	—
Work on own farm	46	49	47.3	39.1
Work on family business	11	10	25.3	23.6
Agricultural labour	25	22	37.5	28.4
Nonagricultural daily labour	20	25	36.6	46.3
Work on monthly salary	11	12	28.9	34.5
Work in MGNREGA	0	13	0.0	3.9
Work only in agriculture (farmer or labourer)	41	31	84.4	67.3
Work only for family (on farm or in business)	31	27	71.9	62.1
All work excluding MGNREGA	82	84	173.0	168.9
All work including MGNREGA	82	84	173.0	172.6
Sample size	38,300	39,864	38,300	39,864
Women				
Not working	50	46	—	—
Work on own farm	34	37	25.5	21.7
Work on family business	3	4	5.5	8.2
Agricultural labour	18	17	22.2	17.8
Nonagricultural daily labour	5	4	6.4	6.0
Work on monthly salary	3	3	5.1	7.9
Work in MGNREGA	0	10	0.0	3.2
Work only in agriculture (farmer or labourer)	40	35	47.6	39.4
Work only for family (on farm or in business)	26	27	30.9	29.8
All work excluding MGNREGA	50	53	64.3	61.2
All work including MGNREGA	50	54	64.3	64.3
Sample size	37,797	41,919	37,797	41,919

Note: Multiple activities may sum to more than 100 percent.

Source: Authors' calculations from IHDS.

IHDS reveals a rising engagement with work outside the family farm. Because IHDS-I and IHDS-II interviewed the same households seven years apart, it is not surprising that most farmers continued to farm, although the number of days in farm work has fallen from 47 to 39 a year for men and from 26 to 22 for women. The drop in agricultural labour is even more striking. Nearly 3% fewer men worked as agricultural labourers in 2011–12 and the number of days spent in agricultural labour fell by about 10 days a year—about 25%. For women the decline is smaller, since fewer women work as agricultural labourers; nonetheless, the number of days women worked as agricultural labourers also fell, by nearly 20%.

These trends show the substantial decline of agriculture in rural India, particularly for men. Male participation in agriculture—working on one's own farm as well as working as agricultural labourers—fell from 84 to 64 days a year, and female participation fell from 48 to 39 days. Furthermore, the decline in agricultural work for rural men

and women is much greater for dalits and adivasis—who either do not own much land, as is the case with dalits, or have limited agriculture incomes, as is the case with adivasis—than for forward castes and other backward classes (Figure 4.1). This suggests a generally rapid shift away from agriculture.

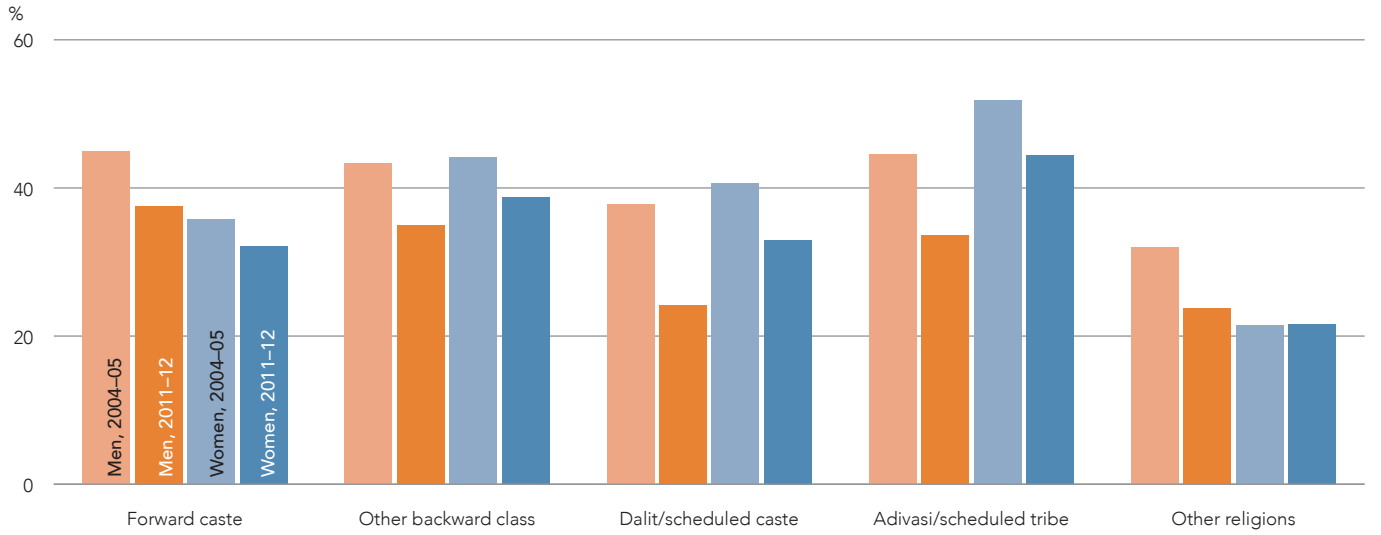
MGNREGA constitutes only a small part of rural labour markets

Nonagricultural work offered under MGNREGA is only a small part of this shift. The substantial decline in agricultural work was accompanied by a rise in non-farm wage labour as well as salaried work. For men, non-farm casual labour (excluding MGNREGA work) grew by 10 days a year, and work on salaried jobs grew by six days a year, while MGNREGA work rose from no work in 2004–05 to about four days a year in 2011–12. For women, MGNREGA growth is the biggest component in increasing nonagricultural opportunities, but it still contributed only 3.2 days a year out of total 64 days of work that women engage in.

These broad sectoral changes in rural Indian labour markets are accompanied by a quiet transformation of the rural landscape. Improved transportation makes it possible to find work in nearby towns,[5] sharp growth in construction in larger villages offers substantial opportunities to labourers, and even salaried jobs have grown. The expansion of government employment has created job opportunities for women as community health workers and Anganwadi workers. These changes are occurring regardless of MGNREGA work availability, and although MGNREGA provides nonagricultural work opportunities, it is by no means the only source of such work. As Box 4.1 notes, in areas like western Uttar Pradesh individuals are able to find work in factories or construction at wages far above MGNREGA wages.

This relatively minor role of MGNREGA in shaping broad labour market trends supports the argument that MGNREGA is an important source of income for the poor. Among the individuals who work in MGNREGA projects, on average men work about 30

Figure **4.1** **Men and women ages 15–59 working only in agriculture, by social group (%)**



Source: Authors' calculations from IHDS.

Box **4.1** **There is little interest in MGNREGA in areas where other opportunities abound**

Transcript of an interview with a Gram Panchayat Pradhan in western Uttar Pradesh

Q. You were telling me that for three or four years no work has been done in the village through MGNREGA.
A. Yes, no work has been done, but we did not have any work to do under this.

Q. What about the response from the upper side [meaning the block development officer]?
A. They ask every year for labour demand but we put as nil labour demand because we did not have any work and all the works which can be done are already done.

Q. What do you reply?
A. We just write as nil. If we did not have work to do, then how can we demand?

Q. What about the labourers? What will they do?
A. For them there are a sugar factory and a liquor factory about five kilometres from the village. They were working there even before MGNREGA. In western Uttar Pradesh there is no problem of employment for those who are willing to work. An unskilled house construction worker earns ₹250 a day and receives it the same day, in the evening.

Q. That means the payment in MGNREGA is lower?
A. Yes, and to receive payment the worker also has to visit the bank for withdrawal.

Q. What is the wage rate in MGNREGA?
A. I cannot remember as none of the work has been done recently but I can say that in this area work is more and labourers are fewer. In this area most of the households are agriculture-based, so poor people lease the land on a chauthai (1/4) basis. [Chauthai is a labour contract in which cash inputs and land are provided by landlords and labour input by tenants, with a fourth of the crop going to tenants]. I am also looking for somebody to lease out land and this is difficult to find. Labourers are not free—they earn ₹250 in a day, which is sometimes in advance. For semi-skilled house construction labour the wage rate is ₹400.

Q. OK, but when you say that you employed labourers to clean a pond through MGNREGA [a few years ago], how did you manage labour for that? Why did they come for work as the wage was lower?
A. At that time when there was pressure from the government, we requested workers with whom we have good relations. We motivated them and requested a lot.

Q. OK, so they worked for lower wages?
A. They work according to the measurement, which is 3 cubic meters, and that is not related to daily wages, so how much they dig in a day is paid accordingly (by putting extra work days for the same labourer).

Q. Some of the farmers said that since MGNREGA has started, we have faced lot of problems in terms of hiring labourers.
A. In this area we do not have such problems; when a farmer pays ₹250, why would he not get labourers, when the MGNREGA rate is lower? The payment is also made in the evening of the day of work [by the farmer].

Q. How much time does it take to receive MGNREGA payment?
A. MGNREGA payment is made within eight days after work, or a maximum of 10 days. With online transfers it does not take much time. If the secretary is good and works on time, then there is no problem.

Source: Interviews by IHDS staff.

days a year, while women work about 33 days. But since other work opportunities for women are more limited, MGNREGA contributes a very large proportion of overall work for women; the number of days worked in MGNREGA constitutes about 38% of work for female MGNREGA participants, compared with only 22% for male participants.

Nonetheless, only 10% of rural women and 13% of rural men ages 15–59 work in MGNREGA.[6] Consequently, although MGNREGA work plays an important role in labour

allocation of participants, its overall role in the economy is limited.

What did MGNREGA workers do before MGNREGA?

Formal unemployment in India has been falling and was only 5.5% for rural men and 6.2% for rural women using the current daily status as measured by the NSS. However, these statistics mask substantial underemployment. While conducting fieldwork in Mandla district in Madhya Pradesh in 2011, we interviewed many men and women who spent one day collecting twigs and firewood and another day taking it to a nearby town to sell, earning only ₹50 per bundle. This is an income of less than ₹25 a day, substantially below the agricultural wage rate—if such work were available. But without alternative employment, poor households engage in any activity that will provide some income. This brings them into the category of underemployed or suffering from disguised unemployment rather than formally unemployed.

So even when MGNREGA does not substantially change the number of days individuals work, it is successful if it addresses this disguised unemployment by providing better-paying work. To examine changes in work patterns before and after MGNREGA, we examined what MGNREGA workers were doing before the programme was implemented.

Table 4.2 shows changes in the work patterns between 2004–05 and 2011–12 of individuals of ages 30–59 at the time of the 2011–12 interview, both those who participate in MGNREGA and those who do not.[7,8]

The most striking change is that about 24% of female MGNREGA participants were not employed in 2004–05. This suggests that MGNREGA is bringing in new female workers. And an additional 21% had only worked on a family farm or business in 2004–05. Thus, 45% of female participants in MGNREGA are new to earning cash income.[9] We would expect this to have a substantial impact on their financial independence, which we discuss in chapter 5.

Another important change is the decline in participation in agricultural wage work, both for MGNREGA participants and for nonparticipants. This is part of the secular trend towards growth in non-farm work, particularly construction work, in rural India.[10] Thus, regardless of MGNREGA participation, engagement with non-farm work is growing, continuing the trend that was observed since the turn of the century, even before MGNREGA was initiated.[11]

Table 4.3 shows the estimated days of work in various activities for MGNREGA participants and nonparticipants across the two survey periods. Excluding MGNREGA work, the number of days worked barely changed for nonparticipants, but substantial drops occurred for MGNREGA participants—about 40 days for participating men and 12 days for participating women. This suggests that once MGNREGA workers found higher-paying MGNREGA work, they reduced their engagement in lower-paying work. This may have led to an overall decrease in the number of days men worked, since (for example) on average male MGNREGA participants worked about 30 days in MGNREGA. In the example from Mandla district cited earlier, one day of MGNREGA work may earn as much as four days of firewood collection and sale; thus the drop in days working outside MGNREGA may be more than the rise in days of MGNREGA work.

While the time spent on cultivation and in family business declined for men, most of the decrease in days of work is in agricultural wage labour. The number of days spent working as an agricultural

Table **4.2** **Work activities of MGNREGA participants and nonparticipants ages 30–59 in 2004–05 and 2011–12**

	Working in various activities (%)			
	Nonparticipants		Participants	
	2004–05	2011–2012	2004–05	2011–2012
Men ages 30–59				
Not working	7	7	3	0
Work on own farm	51	53	54	62
Work on family business	14	13	12	7
Agricultural labour	26	22	51	48
Nonagricultural daily labour	22	26	31	35
Work on monthly salary	14	16	7	4
Work in MGNREGA	—	—	—	100
Worked only in agriculture (farmer or labourer)	43	40	50	0
Work only for family (on farm or in business)	35	34	21	0
All work excluding MGNREGA	93	93	97	96
All work including MGNREGA	93	93	97	100
Sample size	17,787	17,787	3,039	3,039
Women ages 30–59				
Not working	44	39	25	0
Work on own farm	39	43	41	52
Work on family business	4	5	6	4
Agricultural labour	18	17	46	48
Nonagricultural daily labour	5	5	11	7
Work on monthly salary	3	4	5	3
Work in MGNREGA	—	—	—	100
Worked only in agriculture (farmer or labourer)	44	47	56	0
Work only for family (on farm or in business)	31	35	21	0
All work excluding MGNREGA	56	61	75	82
All work including MGNREGA	56	61	75	100
Sample size	19,083	19,083	2,777	2,777

Note: Multiple activities may sum to more than 100 percent.

Source: Authors' calculations from IHDS.

wage labourer fell by eight days for nonparticipants and by 20 days for participants. This difference is statistically significant even after accounting for differences in state of residence, education and social group—factors that drive MGNREGA participation. The drop in agricultural labour for women is smaller (3 days for nonparticipants and 11 days for participants) but still statistically significant.

MGNREGA work makes up for some of these losses for men, though a slight decrease persists in days worked. But after accounting for place of residence, age and social group, this decline is not statistically significant. By contrast, MGNREGA is associated with a striking increase in number of days worked for women. Before participating in MGNREGA, women worked about 116 days a year, but this figure rose to 138 days in 2011–12, an increase of 22 days (19%). This suggests that MGNREGA significantly reduces disguised unemployment for women.

Table **4.3** **Number of days worked by MGNREGA participants and nonparticipants ages 30–59 in 2004–05 and 2011–12**

	Days worked			
	Nonparticipants		Participants	
	2004–05	2011–2012	2004–05	2011–2012
Men ages 30–59				
Work on own farm	59.0	51.7	53.3	49.2
Work on family business	34.9	33.3	22.3	13.8
Agricultural labour	41.0	32.5	74.6	54.7
Nonagricultural daily labour	42.8	52.0	51.5	50.3
Work on monthly salary	37.4	47.1	13.8	6.9
Work in MGNREGA	—	—	—	29.7
Worked only in agriculture (farmer or labourer)	99.5	83.8	127.6	103.7
Work only for family (on farm or in business)	92.8	83.9	75	63
All work excluding MGNREGA	211.4	212.2	212.9	173.0
All work including MGNREGA	211.4	212.2	212.9	200.8
Sample size	17,787	17,787	3,039	3,039
Women ages 30–59				
Work on own farm	31.9	28.8	31.2	34.0
Work on family business	7.1	11.2	8.2	7.0
Agricultural labour	23.1	20.3	58.8	48.0
Nonagricultural daily labour	7.2	7.3	12.0	9.2
Work on monthly salary	6.0	10.3	6.3	6.2
Work in MGNREGA	—	—	—	34.8
Worked only in agriculture (farmer or labourer)	54.9	49.1	89.9	81.9
Work only for family (on farm or in business)	38.8	39.8	39.2	40.7
All work excluding MGNREGA	74.7	77.3	115.8	103.8
All work including MGNREGA	74.7	77.3	115.8	137.8
Sample size	19,083	19,083	2,777	2,777

Source: Authors' calculations from IHDS.

MGNREGA and growth in rural wages

Arguably the biggest criticism of MGNREGA comes from farmers who are concerned that MGNREGA has created labour demand that causes escalating wages in casual agricultural work, thereby creating hardship for farmers. The results presented here suggest there is some theoretical validity to this concern—MGNREGA may well strengthen the trend away from agricultural labour and thereby contribute both directly and indirectly to wage increases. Past research on the Maharashtra Employment Guarantee Scheme[12] as well as research into MGNREGA's early years[13] suggests that guaranteed public works employment affects wages in two ways. First, workers who participate in the programme often earn more for casual labour than they would have earned in alternative work; second, competition from public works employment forces employers in the area to improve their wage offers for participants and nonparticipants alike.

One of the challenges to understanding MGNREGA's impact on rural wages lies in the complexity of the relationship between labour supply and wages.

Despite some disagreement,[14] most scholars of the Indian economy since B.S. Ambedkar and V.K.R.V. Rao have argued that rural India suffers from disguised unemployment.[15,16] If this is the case, public works employment that covers only part of the year should cause neither tightening of the labour market nor an increase in wages. And reducing disguised employment should not affect the market labour supply. The average increase in household income of ₹4,000 from MGNREGA work for one in four rural households can hardly create substantial changes in the wage structure of the rural economy, nor is it substantial enough to put individuals above a threshold where leisure is more valuable than work.

The counterargument is that MGNREGA changes the psychology of reservation wages so that workers are unwilling to undertake hard manual labour without wages that at least match MGNREGA wages. But such a bargaining position is only credible if sufficient work is available in the village and unlike the situation in Box 4.1, market wages are lower than MGNREGA wages.

Despite the theoretical plausibility of this argument, empirical support for the labour market impacts of MGNREGA is mixed. Some early studies relied on phased implementation of the MGNREGA programme to develop a statistical strategy to isolate the effect of the MGNREGA programme from secular changes in labour markets due to a growing economy. MGNREGA was implemented in three phases. Phase I, initiated in 2006, covered the 200 most backward districts; an additional 130 districts were covered in Phase II in 2007–8, and the remaining districts were included in Phase III in 2008. Hence, several studies have compared NSS wage data from 2004–05 with NSS wage data from 2007–08 and used 2004–05 data and Phase III districts in 2007–08 as control groups.

Results from these studies are mixed at best. Several studies find MGNREGA implementation to be associated with rising wages in private casual work. These studies suggest that wages for casual female workers rose by about 8% in MGNREGA districts, compared with non-MGNREGA districts (the effect for male casual workers was small).[17] They also suggest that redistributive impacts—a rise in overall agricultural wages—are larger than the effect on workers themselves.[18] By contrast with these difference-in-difference estimates, studies using other techniques, such as regression discontinuity, fail to find substantial impact from MGNREGA implementation on wage increases,[19,20] as do studies that take into account differences in state-specific growth rates between the two surveys.[21]

How do we explain these highly variable results using the same dataset? Part of the problem is lack of contextual information. Much of the econometric analysis described above tends to rely on district-level characteristics to identify MGNREGA districts. But there is tremendous variation in implementation across villages within districts (see chapter 3). Thus, difference-in-difference analysis that compares districts suffers from considerable lack of precision. Another part of the problem is the timing. To use districts with and without MGNREGA, analysts are forced to rely on data from 2007–08. Whether changes occurring shortly after programme implementation will continue—once the immediate ripples caused by this external shock have subsided—is an open question.

What can IHDS tell us about changes in rural wage structure?

A brief description of rural economic changes between 2004–05 and 2011–12 helps to place some of these debates in a broader perspective.

Rural wages have grown substantially

For most of the 21st century India has experienced a remarkable rate of economic growth. So it is not surprising to see substantial growth in daily incomes of rural workers between the two IHDS survey rounds. Figure 4.2 shows the increase in daily earnings[22] for men and women in constant terms. These figures are restricted to the sample of workers but include work from all sources: agricultural wage labour, nonagricultural wage labour, salaried work and MGNREGA work.

Earnings for all workers grew between 2004–05 and 2011–12 at both the top and bottom of the earnings distribution, but increases for men at the top are particularly large. Although the absolute increase is similar for both men and women, the proportionate increase is higher for women (about 48%) than for men (about 36%) given women's lower starting rate. Part of this growth is attributable to rising education levels, economic growth and improved transportation, which increased access to skilled jobs even for rural Indians.

Wages for agricultural workers grew faster

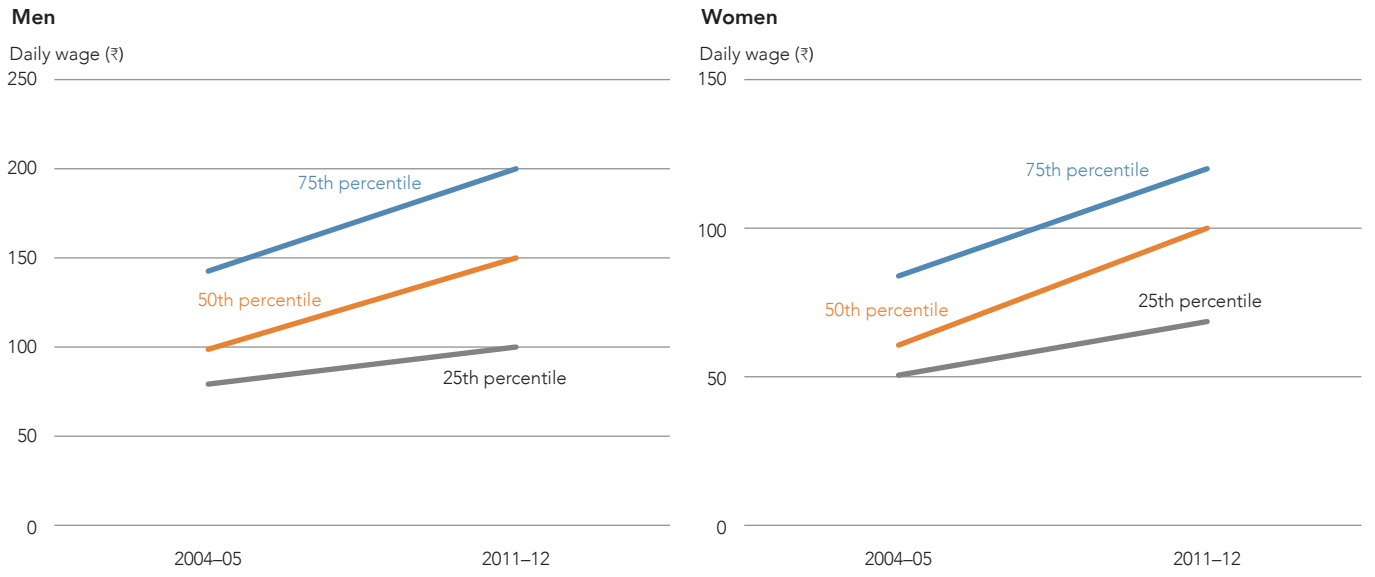
Agricultural productivity growth in India between 2004–05 and 2012–13 is estimated at about 3.75% a year,[23] implying a 30% increase in agricultural incomes between 2004–05 and 2011–12. Daily wages for male agricultural workers recorded by IHDS grew by about 50% and for female workers by about 47%.

Wages for non-farm casual workers also grew, but wage growth for agricultural wage workers exceeds that for non-farm workers (Table 4.4).

States with more MGNREGA work have slightly higher wages

States vary widely in level of MGNREGA implementation. Although states with higher implementation levels, such as Chhattisgarh and Rajasthan, have experienced higher levels of wage growth than low-implementation states such as Bihar, Gujarat and Maharashtra, this difference is not very large for men—49% versus 42% (Table 4.5). The difference is somewhat higher for women—56% versus 41%.

Figure **4.2** **Growth in men's and women's wages at different wage levels (percentiles)**



Note: Wages are in 2011–12 constant prices. Includes agricultural/nonagricultural and casual/regular work.

Source: Authors' calculations from IHDS.

Table 4.4 **Growth in daily wages for men and women ages 15–59 (2011–12 ₹)**

	2004–05 daily wage	2011–12 daily wage	Growth (%)
Agricultural casual (daily) wages			
Men	89	134	50
Women	62	91	47
Other casual (daily) work wages			
Men	124	171	38
Women	76	110	45
All non-MGNREGA earnings (including casual and regular work)			
Men	143	194	36
Women	78	116	48

Source: Authors' calculations from IHDS.

Moreover, Chhattisgarh and Gujarat differ in many characteristics besides MGNREGA implementation. Gujarat has invested heavily in its infrastructure, which allows rural workers to commute to nearby towns, reducing reliance on MGNREGA. Chhattisgarh has poorly developed infrastructure, and its third-tier cities and towns (with less than 50,000 population) do not have as many jobs as similar-size cities and towns in Gujarat. Moreover, states with poor MGNREGA implementation, such as Bihar, also suffer from low education, once again reducing alternative job opportunities for workers.

To compare apples with apples, we looked at wages in the same villages at two points in time in a village-level, fixed-effects model. We also controlled for education, social background and land ownership, after which differences among states with different levels of MGNREGA participation were far smaller. Wage growth for men in medium-participation states is about 3.5% higher and in high-participation states about 7% higher than in states with low participation levels. For women, agricultural wages are about 3.4% higher in medium- and high-participation states than in low-participation states. The magnitude of these differences is very similar to those found by other studies and should not cause concern—given that wages have risen by more than 40% even in states with extremely low MGNREGA participation.

In bivariate analysis, wage growth actually seems to be higher in Phase III districts than in Phase I districts,

Table 4.5 **Growth in agricultural wages by MGNREGA implementation (2011–12 ₹)**

	Men ages 15–59			Women ages 15–59		
	2004–05	2011–12	Growth (%)	2004–05	2011–12	Growth (%)
State-level MGNREGA participation						
Low (≤ 20%)	87	124	42	61	87	41
Medium (21–40%)	91	139	54	63	93	47
High (> 40%)	89	133	49	58	90	56
District implementation phase						
I	80	122	51	59	86	46
II	82	118	44	63	87	38
III	99	151	52	64	97	52
Village-level MGNREGA implementation intensity						
Low	92	138	49	61	90	49
High	88	132	50	62	91	47

Note: Low-intensity villages had no IHDS sample households participating in MGNREGA in the preceding year; high-intensity villages had at least one IHDS household participating.

Source: Authors' calculations from IHDS.

calling into question some of the earlier studies based on 2007–08 data before MGNREGA was implemented in Phase III districts (Table 4.5).

Marginal farmers are both workers and employers

Growth in agricultural wages disproportionately hurts farmers who are more likely to rely on hired labour—large and medium farmers. The IHDS asked farmers about farm inputs, including the number of days of hired labour used. Comparing this with households' own MGNREGA participation paints an interesting picture (Box 4.2).

The number of days of hired labour use rises with farm size (Table 4.6). Marginal farmers with less than 1 hectare of land barely use 20 days of hired labour, but this figure rises to more than 100 days for medium and large farmers with more than 2 hectares of land. Labour costs have risen for all farmers in constant terms, and the increase for large farmers is quite substantial.

These data also show that for marginal farmers, additional expenditure on hiring farm labour is more than balanced by their own work in MGNREGA, which is not the case for larger farmers. For large farmers, the increase in labour costs (only part of which is attributable to MGNREGA) is not balanced by MGNREGA incomes. But these constitute a very small portion of rural households: in 2011–12, only 17% of households cultivated more than one hectare of land (Figure 4.3).

Table **4.6** **Use of agricultural labour by farmers**

	Hired labour days		Labour costs (2011–12 ₹)		Days worked in MGNREGA by household
	2004–05	2011–12	2004–05	2011–12	2011–12
Noncultivator	—	—	—	—	11
Marginal cultivator (< 1 hectare)	25	19	1,605	2,339	13
Small cultivator (1.0–1.99 hectares)	46	43	3,779	6,534	14
Medium/large cultivator (2.0 hectares and above)	105	133	9,531	19,747	11
Total	45	37	3,686	5,580	12

Source: Authors' calculations from IHDS.

Labour shortages may be more acute in areas that use migrant labour

None of the above discussion diminishes the challenges faced by farmers in states such as Haryana, Punjab

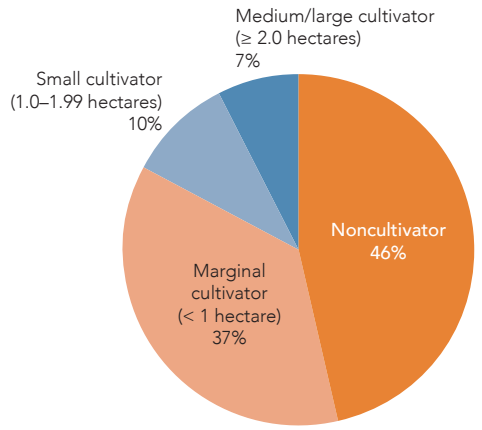
Box **4.2** **Farmers are often both MGNREGA workers and employers of hired agricultural labour**

Shiv Lal Jat, age 60, Rajasthan.

Shiv Lal Jat has one son and one daughter. His wife died last year and he arranged to have his son married seven months ago since it was difficult to manage without an adult woman in the household. Shiv Lal has 4 acres of land and can manage household expenses from cultivation income. He sometimes hires labour for his agricultural work during peak season, but during the off-peak periods he does not have anything to do and works in MGNREGA. For the last six to seven years he has done a fair amount of MGNREGA work. Last year he earned ₹9000. According to Shiv Lal, MGNREGA income helped him purchase better quality seeds and fertilizers and increased household consumption.

Source: Interview by IHDS staff.

Figure **4.3** **Distribution of households by farm size**



Source: Authors' calculations from IHDS.

and western Uttar Pradesh, which rely extensively on migrant workers. Since MGNREGA work reduces migration from Bihar and eastern Uttar Pradesh, this may well affect Punjabi farmers.[24] There is some evidence of this in cultivation cost data collected in 2003–04 in the 59th round of the NSS and in 2012–13 in the 70th round.[25] For all India, labour costs constituted about 22% of total costs through both survey periods. However, Punjab has seen substantial change: in 2003–04, labour costs were on average about 13% of farm expenditure and by 2012–13 were 19%.

Part of the challenge facing MGNREGA is to balance these competing perspectives. The positive impact for workers associated with rising wages leads to potentially higher costs for farmers. One way of balancing these needs and emerging with a win-win situation is to ensure that MGNREGA work focuses on land improvement and irrigation with positive spillovers for farmers.

MGNREGA may improve workers' bargaining power

While MGNREGA increases incomes directly, it may have a far greater indirect impact on wages by improving the bargaining position of workers who can threaten to find a public works job if employers insist on paying below MGNREGA rates.[26] But for this threat to be believable, there must be a wide perception that MGNREGA work is easily available.

The IHDS survey in 2011–12 contains a village module in which knowledgeable village respondents along with some key Panchayat members were asked a series of questions. One of the questions was, "Is there sufficient work available to provide 100 days of work under this scheme?" Interviewers were trained to ensure adequate discussion and articulation of a wide range of viewpoints, and this question addressed perceptions rather than reality. In 68% of villages, the answer was yes; in 32% the answer was no. In 42% of villages in central states (such as Bihar, Uttar Pradesh and Madhya Pradesh) and in 55% of villages in eastern states (such as West Bengal, Odisha and Assam) the answer was no. By contrast, about 82% of villages in southern states were likely to claim that sufficient work was available.[27] As noted in chapter 2, very few households receive a full allotment of 100 days of work, mostly due to implicit or explicit rationing.[28]

Although these results contain considerable measurement errors, the correlation of wage growth with the perception of easy availability of MGNREGA work is intriguing (Table 4.7). In 2004–05, men's agricultural wages were ₹85 and ₹89 per day respectively for both sets of villages. By 2011–12, the difference in actual wages earned by male agricultural labourers had widened significantly, as villages with a perception of sufficient MGNREGA work gained by 54%, compared with 43% growth for villages where there was no such perception. The corresponding growth rates for females were 36% and 52% respectively.

For both men and women, the perception that MGNREGA work is easily available is associated with greater wage growth. In unpublished multivariate analyses by the authors, after control for age, education, landownership, social group and state of residence, the perception that MGNREGA is easily available remains associated with about a 9% rise in wages for male agricultural labourers and about 13% for female labourers.

Table **4.7** **Growth in agricultural wages (2011–12 ₹) by community perception of MGNREGA availability**

Perception of availability	2004–05 daily wage	2011–12 daily wage
Men ages 15–59		
No	85	122
Yes	89	137
Women ages 15–59		
No	62	85
Yes	61	93

Note: In village focus groups, respondents were asked whether work for 100 days was available to all households seeking work.

Source: Authors' calculations from IHDS.

Minimizing unintended consequences

MGNREGA is part of a series of changes in Indian labour markets that are rapidly transforming rural society. Even without MGNREGA, movement away from agriculture is inevitable—and desirable, given the low remuneration rates within the sector. However, rural agricultural wages have risen rapidly between 2004–05 and 2011–12. Although our analyses show that only a small portion of this increase is likely to be due to MGNREGA, concerns regarding potential unintended consequences of MGNREGA persist in the policy discourse.

By raising wages among rural labourers, MGNREGA reduces poverty. Nonetheless, farmer distress is real. One way of dealing with these competing demands may be to use MGNREGA to increase productivity in addition to wage income. Using MGNREGA to improve irrigation, land quality and transportation arteries, for example, may boost farm productivity. Many of these initiatives are already being undertaken, but structuring the programme to enhance these benefits and to ensure the programme structure does not hinder infrastructure creation (see Box 1.4) may increase the quality of infrastructure resulting from the programme. Restructuring the programme to ensure that farmers can use MGNREGA workers through a cost-sharing arrangement may also help.

Notes

1. National Sample Survey Organisation 2013a.
2. National Sample Survey Organisation 2006a.
3. The IHDS panel structure may partly account for this improvement, since nonworkers from IHDS-I may be more likely to migrate in search of work, leaving workers behind. The number of days worked by both men and women remains unchanged, suggesting that if slightly more people are working, they must work slightly fewer days, leaving the overall number of days worked unchanged.
4. IHDS has a very different questionnaire design from NSS, so the employment statistics from each are broadly similar but not strictly comparable.
5. Chandrasekhar 2011.
6. Chapter 2 showed that 24% of the households participated in MGNREGA. But since households consist of both women and men ages 15–59 and in about a third of the households more than two

adults ages 15–59, individual level participation rates are less than household level participation rates.

7. We omitted individuals younger than 30 years since many would have been too young to work during the previous round seven years earlier.
8. About 7% of the sample in this age group in 2011–12 was not included in the 2004–05 survey. They consist of either newly married women or male family members who returned after working or studying elsewhere. This sample is excluded from our analysis.
9. This is probably an overestimate since we have data on only two points in time.
10. Gulati et al. 2013
11. Lanjouw and Murgai 2009.
12. Datt and Ravallion 1994.
13. Imbert and Papp 2013.
14. Schultz 1967.
15. Krishnamurty 2008.
16. Bhagwati and Chakravarty 1969.
17. Azam 2012.
18. Imbert and Papp 2013.
19. Bhattarai et al. 2015.
20. Zimmermann 2012.
21. Mahajan 2015.
22. Daily earnings are calculated by dividing annual earnings of wage and salary workers by the number of days worked. Figures are in 2011–12 constant terms for both survey rounds.
23. Chand 2014.
24. Imbert and Papp 2014.
25. The survey designs of the 59th and 70th rounds of NSS are somewhat different, so caution is required when interpreting cross-survey comparisons.
26. Ravallion and Wodon 1999.
27. This response is borne out by data presented in chapter 6 where we find that southern respondents are far less likely to claim that they did not work in MGNREGA for the number of days they were eligible due to lack of work.
28. Dutta et al. 2012.

Appendix A4.1a Distribution of activities for men ages 15–59 in 2004–05 and 2011–12 (cross-sectional sample)

Socioeconomic characteristics	Not working		Works on family farm		Works in family business		Works in agricultural labour		Works in nonagricultural labour excluding MGNREGA		Works in a salaried job		Works for MGNREGA	Any work but excludes MGNREGA work		Any work including MGNREGA
	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2011–12	2004–05	2011–12	2011–12
All India	17.5	15.6	46.5	48.6	11.3	10.0	25.1	21.6	20.4	25.2	11.1	12.2	12.9	82.5	83.8	84.4
Age groups																
15–17 years	57.9	53.1	28.1	35.2	4.5	4.2	9.7	7.0	7.5	8.7	2.3	2.7	2.0	42.1	46.4	46.9
18–24 years	27.9	25.6	42.2	42.5	7.5	7.8	21.2	16.2	19.6	23.5	7.5	9.0	7.6	72.1	73.7	74.4
25–29 years	10.5	10.4	47.5	46.0	12.2	10.5	25.7	22.0	25.0	30.0	13.3	17.8	12.7	89.5	89.1	89.6
30–39 years	5.4	5.3	50.2	50.1	15.4	11.3	30.8	25.2	25.1	33.2	13.8	15.5	16.0	94.6	94.2	94.7
40–49 years	5.4	5.2	51.8	55.3	14.3	13.6	32.3	29.0	23.7	27.1	13.4	13.4	18.5	94.6	94.3	94.8
50–59 years	9.7	7.8	54.6	58.4	11.5	10.4	24.9	24.5	16.1	20.7	15.0	12.6	16.6	90.3	91.0	92.2
Marital status																
Unmarried/ no gauna	41.1	35.8	35.1	39.1	6.5	6.7	13.7	11.3	12.5	16.5	7.0	8.7	5.0	58.9	63.5	64.2
Married	6.0	5.3	52.1	53.4	13.8	11.8	30.6	26.9	24.1	29.6	13.2	13.9	16.8	94.0	94.1	94.7
Widowed/ separated/divorced	11.5	12.4	47.0	51.6	6.8	7.8	32.8	25.4	27.4	24.7	9.5	14.3	19.1	88.5	86.9	87.6
Relation to head of household																
Head	5.0	4.4	48.8	51.5	13.7	11.7	33.8	30.0	25.9	31.3	14.0	13.1	19.5	95.0	94.9	95.6
Spouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other	28.1	25.3	44.4	46.2	9.3	8.6	17.7	14.4	15.7	19.8	8.7	11.4	7.1	71.9	74.1	74.7
Highest education of person																
Illiterate	9.8	7.7	45.2	47.4	8.3	6.9	43.8	39.1	29.8	36.5	6.2	5.9	22.2	90.2	91.4	92.3
Primary (1–4 standard)	11.9	7.1	49.3	52.0	10.9	10.0	37.2	35.7	24.3	35.4	6.9	6.5	19.7	88.1	92.6	92.9
Middle (5–9 standard)	19.3	14.6	48.2	50.8	11.7	9.9	20.8	20.4	21.0	29.1	9.1	10.7	12.5	80.7	84.8	85.4
Secondary (10–11 standard)	23.1	23.5	44.0	46.3	12.7	11.3	11.4	11.0	11.8	14.0	17.4	14.3	6.4	76.9	75.9	76.5
12 standard/ some college	27.7	25.5	44.0	46.4	14.3	12.6	8.0	8.3	7.8	9.6	18.2	16.8	6.0	72.3	73.7	74.5
Graduate/diploma	23.0	21.3	45.5	44.8	15.4	12.9	3.6	4.0	3.8	5.8	32.0	35.5	4.5	77.0	78.4	78.7
Place of residence																
More developed village	20.3	18.2	37.1	39.8	11.9	11.1	23.6	20.1	17.9	22.7	12.4	14.5	8.8	79.7	81.3	81.8
Less developed village	14.9	13.3	55.1	56.3	10.7	9.1	26.5	22.9	22.8	27.3	9.9	10.3	16.4	85.1	86.0	86.7
Social groups																
Forward caste	18.9	18.4	54.6	55.1	12.8	11.7	11.9	11.1	10.3	13.3	13.6	15.6	8.1	81.1	81.3	81.6
Other backward class	17.2	15.5	50.8	54.0	12.1	11.7	23.2	20.1	17.7	22.0	11.0	11.1	10.6	82.8	83.8	84.5
Dalit/ scheduled caste	17.1	14.5	33.5	37.6	7.2	6.6	35.9	30.9	29.4	35.2	9.7	12.0	18.9	82.9	84.9	85.5
Adivasi/ scheduled tribe	12.9	11.3	55.4	54.5	9.0	4.8	42.2	30.3	26.9	29.7	10.1	10.9	17.2	87.1	87.8	88.7
Other religions	21.0	17.3	39.3	38.8	16.1	13.8	15.9	16.5	20.6	29.0	11.6	12.1	11.3	79.0	81.9	82.7

Appendix A4.1a Distribution of activities for men ages 15–59 in 2004–05 and 2011–12 (cross-sectional sample) *(continued)*

Socioeconomic characteristics	Not working		Works on family farm		Works in family business		Works in agricultural labour		Works in nonagricultural labour excluding MGNREGA		Works in a salaried job		Works for MGNREGA	Any work but excludes MGNREGA work		Any work including MGNREGA
	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2011–12	2004–05	2011–12	2011–12
Land cultivation																
Noncultivator	23.1	22.2	—	—	14.2	12.7	30.3	24.1	26.2	32.8	15.2	16.4	11.1	76.9	76.8	77.8
Marginal cultivator (< 1 hectare)	13.2	10.8	76.4	81.0	10.0	8.1	26.7	22.7	21.8	25.8	9.2	9.9	15.7	86.8	88.8	89.2
Small cultivator (1.0–1.99 hectares)	12.9	10.3	78.5	82.6	9.7	7.6	21.8	19.3	13.8	13.3	7.8	9.2	13.4	87.1	89.2	89.7
Medium/ large cultivator (2.0 hectares and above)	16.0	13.2	76.3	80.6	7.5	9.1	10.6	10.4	7.4	6.2	7.3	7.8	9.0	84.0	86.6	86.8
Income quintiles																
Poorest	17.8	16.0	54.2	58.7	7.5	7.2	32.0	26.8	21.8	26.2	4.1	5.5	18.5	82.2	83.2	84.0
2nd quintile	15.2	14.9	47.7	49.3	11.0	10.5	34.1	26.7	24.9	29.7	6.9	8.1	15.7	84.8	84.5	85.1
Middle quintile	15.1	14.9	42.5	43.2	11.9	10.6	27.4	24.1	24.4	30.3	10.9	11.1	12.9	84.9	84.5	85.1
4th quintile	18.7	14.6	38.8	42.1	14.2	11.2	17.6	18.9	18.1	24.1	16.8	16.7	9.1	81.3	84.8	85.4
Richest	22.6	16.6	42.4	44.4	15.0	12.4	4.4	6.6	8.7	13.8	26.3	28.1	4.3	77.4	83.2	83.4
Consumption quintiles																
Poorest	14.7	12.8	47.2	50.0	8.9	6.8	37.9	30.5	31.2	35.7	6.9	7.3	18.3	85.3	86.6	87.2
2nd quintile	15.3	14.7	47.5	49.1	11.8	9.9	28.2	23.9	21.2	29.9	8.7	9.7	13.6	84.7	84.9	85.3
Middle quintile	18.4	16.0	44.8	48.7	11.2	10.1	21.6	19.7	18.4	22.4	12.0	12.1	11.8	81.6	83.1	84.0
4th quintile	20.2	17.6	46.2	46.8	12.4	11.7	16.7	15.8	13.2	17.5	14.3	16.1	9.9	79.8	81.7	82.4
Richest	22.7	19.3	46.1	47.3	13.9	14.1	9.6	10.4	9.5	9.9	18.9	22.2	6.6	77.3	80.2	80.7
Assets quintiles																
Poorest	12.2	11.1	47.9	51.3	8.4	5.7	42.3	34.2	31.4	40.4	6.4	5.6	19.1	87.8	88.2	88.9
2nd quintile	15.4	13.3	50.9	53.3	10.1	8.3	28.9	25.4	21.6	28.9	8.3	8.9	16.4	84.6	86.1	86.7
Middle quintile	19.1	16.8	46.2	47.4	10.7	10.1	19.8	20.5	17.3	20.3	11.3	12.4	12.2	80.9	82.2	83.2
4th quintile	22.1	19.6	44.1	43.8	15.2	14.4	9.0	10.3	11.8	14.8	15.5	17.9	5.9	77.9	80.0	80.4
Richest	28.5	22.8	35.5	41.0	17.2	18.0	1.6	1.6	4.7	6.0	24.9	28.0	1.3	71.5	77.0	77.2
Poverty status																
Non-poor	18.9	16.2	46.4	49.0	12.5	11.1	18.9	18.8	15.8	22.5	13.4	13.4	11.6	81.1	83.1	83.8
Poor	15.2	12.9	46.6	47.5	9.3	6.0	35.2	32.4	27.9	35.6	7.4	7.8	17.8	84.8	86.5	87.1
Highest household education																
Illiterate	14.2	14.2	40.3	43.9	7.4	6.0	43.3	35.3	30.0	35.9	6.0	5.6	19.7	85.8	85.2	85.8
Primary (1–4 standard)	15.5	12.0	46.7	45.6	10.0	7.5	38.9	38.7	26.0	35.0	6.6	5.1	19.2	84.5	87.0	88.0
Middle (5–9 standard)	15.8	12.8	49.6	51.2	11.8	9.7	24.5	23.8	23.1	32.0	8.8	9.8	15.2	84.2	86.5	87.2
Secondary (10–11 standard)	19.4	16.1	46.5	48.8	12.7	11.3	14.8	16.8	14.2	19.0	14.1	13.3	9.0	80.6	83.2	83.9
12 standard/ some college	21.1	19.2	50.3	50.1	14.9	12.9	11.3	11.6	10.1	13.8	15.7	16.6	7.7	78.9	80.2	80.8
Graduate/diploma	25.8	21.9	45.1	47.8	13.4	12.7	5.1	6.2	5.2	7.8	24.6	24.9	5.2	74.2	77.7	78.1
Number of adults																
1–2	15.7	14.3	40.1	42.8	11.6	9.3	32.1	27.2	26.3	30.9	10.7	11.0	16.9	84.3	85.0	85.7
3–4	18.5	16.5	48.2	51.2	10.7	10.2	24.3	20.3	19.3	23.5	10.6	12.1	11.7	81.5	82.8	83.5
4+	19.0	16.0	54.3	54.9	11.9	11.0	14.5	13.3	12.3	17.2	12.9	15.1	7.4	81.0	83.5	84.0

Appendix A4.1a Distribution of activities for men ages 15–59 in 2004–05 and 2011–12 (cross-sectional sample) *(continued)*

Socioeconomic characteristics	Not working		Works on family farm		Works in family business		Works in agricultural labour		Works in nonagricultural labour excluding MGNREGA		Works in a salaried job		Works for MGNREGA	Any work but excludes MGNREGA work		Any work including MGNREGA
	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2011–12	2004–05	2011–12	2011–12
State-level MGNREGA participation																
Low ≤ 20%	17.5	18.0	47.8	46.6	11.7	8.4	27.5	23.2	14.6	19.7	10.8	11.7	4.2	82.5	81.8	82.0
Medium 20–40%	16.8	14.4	47.0	50.1	11.5	11.0	23.9	21.7	22.5	27.4	10.2	11.7	16.2	83.2	84.8	85.6
High > 40%	20.1	15.1	41.8	47.1	9.5	9.5	24.4	18.2	24.4	27.5	15.0	15.4	17.5	79.9	84.0	84.9
Region																
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	17.1	14.4	61.1	66.5	10.3	9.7	6.0	5.6	24.3	24.2	18.5	21.4	12.2	82.9	85.2	85.6
Punjab, Haryana	28.0	19.3	28.5	34.1	7.3	9.9	12.7	11.2	14.7	25.9	15.7	18.9	3.4	72.0	80.5	80.7
Uttar Pradesh, Bihar, Jharkhand	14.5	14.7	56.2	57.3	14.0	11.9	18.7	14.0	26.7	31.4	8.5	9.5	10.4	85.5	85.0	85.3
Rajasthan, Chhattisgarh, Madhya Pradesh	13.8	8.8	58.8	66.1	11.5	11.5	30.8	24.5	27.7	31.8	9.2	10.1	21.2	86.2	90.8	91.2
Northeast region, Assam, West Bengal, Odisha	17.6	16.2	44.6	41.2	14.0	10.7	23.4	22.8	19.9	29.1	12.4	12.4	19.2	82.4	82.5	83.8
Gujarat, Maharashtra, Goa	16.7	17.3	48.6	48.5	9.9	6.0	32.4	30.7	9.5	9.6	10.2	11.7	1.9	83.3	82.7	82.7
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	22.5	19.4	25.8	30.5	7.5	8.5	32.7	28.7	14.6	18.6	13.1	14.3	14.5	77.5	79.4	80.6

Note: Northeast region: all north-eastern states except Assam.

Appendix A4.1b Distribution of activities for women ages 15–59 in 2004–05 and 2011–12 (cross-sectional sample)

Socioeconomic characteristics	Not working		Works on family farm		Works in family business		Works in agricultural labour		Works in nonagricultural labour excluding MGNREGA		Works in a salaried job		Works for MGNREGA	Any work but excludes MGNREGA work		Any work including MGNREGA
	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2011–12	2004–05	2011–12	2011–12
All India	49.8	45.6	34.0	36.7	3.2	4.0	18.2	16.7	5.0	4.1	2.7	3.5	9.6	50.2	52.6	54.4
Age groups																
15–17 years	70.8	62.9	21.9	29.0	1.5	3.1	8.9	7.6	2.2	2.7	0.6	0.5	1.7	29.2	36.6	37.1
18–24 years	62.0	63.6	25.6	25.0	2.0	3.1	12.2	9.2	4.6	2.7	1.9	2.1	2.9	38.0	35.7	36.4
25–29 years	50.5	49.6	32.0	32.6	3.4	2.9	18.2	16.4	5.1	3.8	3.4	3.9	8.3	49.5	48.5	50.4
30–39 years	37.6	34.6	39.8	41.9	4.2	5.0	25.1	22.1	6.8	5.5	4.1	5.6	13.7	62.4	63.4	65.4
40–49 years	37.5	30.1	44.9	46.3	4.2	5.4	23.3	23.5	5.8	5.5	2.7	4.5	15.3	62.5	66.9	69.9
50–59 years	49.7	40.7	35.6	42.9	3.2	3.6	16.7	17.3	3.3	3.5	2.5	2.5	12.2	50.3	56.7	59.3
Marital status																
Unmarried/ no gauna	67.9	61.2	22.1	27.6	1.7	3.9	8.4	8.1	3.4	2.7	2.3	2.9	2.0	32.1	38.4	38.8
Married	45.6	41.5	37.6	40.5	3.5	4.2	20.3	18.5	5.2	4.2	2.5	3.2	11.4	54.4	56.3	58.5
Widowed/ separated/divorced	40.2	32.9	27.4	30.2	5.2	5.1	29.8	28.6	8.3	7.6	7.2	8.5	16.7	59.8	63.6	67.1
Relation to head of household																
Head	29.7	29.4	31.1	34.0	5.5	3.9	35.0	29.2	10.3	9.3	8.0	7.3	18.1	70.3	67.2	70.6
Spouse	40.1	35.0	40.4	43.7	4.1	5.0	23.3	21.9	6.2	4.9	2.8	3.5	14.1	59.9	62.4	65.0
Other	62.3	59.5	27.4	29.7	1.9	3.0	11.0	9.3	3.1	2.5	2.0	2.9	3.4	37.7	39.8	40.5
Highest education of person																
Illiterate	39.9	32.6	39.6	45.5	3.2	3.8	26.5	26.7	6.7	5.5	2.0	2.2	15.4	60.1	65.1	67.4
Primary (1–4 standard)	49.3	36.5	36.0	40.0	3.8	4.5	17.9	22.2	4.4	6.8	2.4	3.5	11.2	50.7	61.5	63.5
Middle (5–9 standard)	60.1	51.7	29.4	33.7	2.9	4.5	9.3	10.8	3.5	3.5	2.2	2.7	6.4	39.9	46.3	48.3
Secondary (10–11 standard)	68.4	65.0	22.6	25.8	3.3	3.3	3.3	4.9	1.5	1.6	4.0	3.8	2.8	31.6	34.4	35.0
12 standard/ some college	69.1	68.1	18.7	20.7	4.2	3.5	3.6	3.4	0.8	1.2	7.3	7.2	1.5	30.9	31.2	31.9
Graduate/diploma	69.3	64.0	11.1	14.2	2.8	4.2	0.9	0.5	0.5	0.4	17.8	20.9	0.3	30.7	36.0	36.0
Place of residence																
More developed village	53.2	49.9	27.8	29.0	3.3	4.7	17.6	15.6	4.2	4.2	2.9	3.9	9.1	46.8	47.6	50.1
Less developed village	46.7	41.9	39.8	43.4	3.0	3.4	18.7	17.7	5.7	4.1	2.5	3.1	10.0	53.3	56.8	58.1
Social groups																
Forward caste	57.8	55.8	34.2	34.9	2.5	3.5	7.9	5.7	1.5	1.5	2.5	3.8	4.1	42.2	43.3	44.2
Other backward class	46.4	42.2	39.3	42.3	3.5	4.5	17.8	17.0	3.7	3.6	2.5	2.9	9.7	53.6	56.0	57.8
Dalit/ scheduled caste	47.3	41.1	26.0	31.7	2.2	3.8	25.8	25.2	7.6	5.2	2.6	4.1	14.9	52.7	56.1	58.9
Adivasi/ scheduled tribe	28.3	30.6	51.8	49.7	6.2	3.3	38.4	28.8	11.0	6.4	5.0	4.1	12.8	71.7	68.0	69.4
Other religions	69.8	62.3	19.8	21.2	2.8	4.3	4.4	6.0	4.1	5.8	2.0	3.1	4.1	30.2	35.9	37.7

Appendix A4.1b Distribution of activities for women ages 15–59 in 2004–05 and 2011–12 (cross-sectional sample) *(continued)*

Socioeconomic characteristics	Not working		Works on family farm		Works in family business		Works in agricultural labour		Works in nonagricultural labour excluding MGNREGA		Works in a salaried job		Works for MGNREGA	Any work but excludes MGNREGA work		Any work including MGNREGA
	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2011–12	2004–05	2011–12	2011–12
Land cultivation																
Noncultivator	64.9	61.8	0.3	0.0	4.1	5.5	22.7	19.4	7.0	6.3	3.9	5.3	10.4	35.1	34.4	38.2
Marginal cultivator (< 1 hectare)	37.1	32.6	58.2	64.1	2.7	3.2	17.1	15.9	4.4	3.1	2.1	2.4	9.2	62.9	67.1	67.4
Small cultivator (1.0–1.99 hectares)	40.2	35.5	57.3	60.5	2.9	2.8	16.5	16.3	3.5	2.0	1.8	2.4	9.8	59.8	63.8	64.5
Medium/ large cultivator (2.0 hectares and above)	45.7	40.1	52.1	56.9	1.8	2.1	9.3	8.9	1.7	1.3	1.3	1.3	7.3	54.3	59.3	59.9
Income quintiles																
Poorest	45.5	42.4	39.7	43.9	2.6	3.2	19.8	18.6	5.5	3.5	1.5	1.9	9.4	54.5	56.3	57.6
2nd quintile	46.9	44.5	34.3	36.8	3.5	4.2	23.7	19.8	5.5	4.4	2.7	2.7	10.5	53.1	53.6	55.5
Middle quintile	48.6	45.1	30.7	34.0	3.6	4.7	22.2	19.7	6.0	5.4	3.0	3.3	10.6	51.4	53.2	54.9
4th quintile	55.7	47.0	29.7	32.2	3.4	4.2	13.8	15.5	4.7	4.3	2.6	4.7	10.1	44.3	50.3	53.0
Richest	61.1	52.3	28.1	31.4	3.3	4.2	4.8	6.2	2.2	3.2	5.3	7.1	6.7	38.9	45.9	47.7
Consumption quintiles																
Poorest	43.9	42.1	37.2	39.2	4.0	3.1	27.0	21.9	7.6	5.4	2.5	2.6	10.0	56.1	56.2	57.9
2nd quintile	48.4	45.3	33.4	36.4	2.3	4.1	19.7	18.2	6.1	4.6	2.3	2.7	9.9	51.6	53.3	54.7
Middle quintile	51.2	45.7	33.9	36.8	3.1	4.5	15.4	15.3	3.4	3.8	2.4	3.7	9.7	48.8	52.3	54.3
4th quintile	54.5	48.0	31.9	34.7	3.0	4.4	13.0	14.1	3.0	3.3	3.0	4.3	9.6	45.5	50.0	52.0
Richest	57.3	50.4	31.5	34.6	3.5	4.6	7.1	8.5	2.2	2.1	3.9	5.5	7.7	42.7	47.3	49.6
Assets quintiles																
Poorest	39.0	36.7	38.6	42.1	3.5	2.9	30.4	26.4	8.0	6.5	2.6	2.0	10.8	61.0	61.8	63.3
2nd quintile	44.0	40.5	39.4	40.5	2.9	4.0	21.8	20.3	5.2	4.8	2.1	3.1	11.1	56.0	57.7	59.5
Middle quintile	52.9	44.7	31.6	37.0	2.5	4.8	14.0	15.7	4.7	3.4	2.8	3.8	11.3	47.1	53.0	55.3
4th quintile	60.7	55.9	29.0	29.7	3.5	4.9	5.9	6.9	1.9	2.6	3.2	4.6	7.7	39.3	41.6	44.1
Richest	73.5	66.9	20.0	24.4	3.2	3.7	0.7	1.1	0.5	0.6	3.3	5.7	1.4	26.5	32.7	33.1
Poverty status																
Non-poor	52.7	47.0	32.8	36.1	3.1	4.3	13.2	14.8	3.9	3.8	3.0	3.7	9.3	47.3	51.2	53.0
Poor	45.5	40.4	36.0	39.2	3.3	2.9	25.9	23.8	6.7	5.5	2.3	2.7	10.5	54.5	57.7	59.6
Highest household education																
Illiterate	39.8	34.1	33.4	39.3	3.1	3.1	32.5	29.8	8.4	7.1	2.5	3.0	15.8	60.2	63.7	65.9
Primary (1–4 standard)	42.3	34.1	36.6	39.1	3.3	4.6	28.5	29.6	7.5	7.5	2.1	2.8	13.3	57.7	63.2	65.9
Middle (5–9 standard)	48.5	43.1	37.5	40.1	3.4	4.5	16.2	16.7	5.0	4.3	2.3	2.5	10.1	51.5	54.8	56.9
Secondary (10–11 standard)	57.2	52.5	32.2	33.7	3.3	4.6	9.3	11.8	2.3	2.5	2.0	3.0	7.0	42.8	46.1	47.5
12 standard/ some college	58.8	53.8	33.6	34.5	3.4	3.6	7.7	9.0	1.5	2.1	2.4	4.0	5.7	41.2	44.7	46.2
Graduate/diploma	66.4	59.5	24.0	28.0	2.2	3.5	3.8	4.0	1.2	1.4	6.3	7.4	3.7	33.6	39.5	40.5

Appendix A4.1b Distribution of activities for women ages 15–59 in 2004–05 and 2011–12 (cross-sectional sample) *(continued)*

Socioeconomic characteristics	Not working		Works on family farm		Works in family business		Works in agricultural labour		Works in nonagricultural labour excluding MGNREGA		Works in a salaried job		Works for MGNREGA	Any work but excludes MGNREGA work		Any work including MGNREGA
	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2011–12	2004–05	2011–12	2011–12
Number of adults																
1–2	43.9	40.0	33.2	36.2	4.2	4.7	24.2	22.0	7.6	5.7	3.1	3.9	12.9	56.1	57.6	60.0
3–4	50.7	45.5	35.7	39.3	2.7	4.1	16.6	15.0	3.8	3.7	2.7	3.3	8.5	49.3	52.8	54.5
4+	59.8	58.6	32.6	32.4	2.0	2.3	9.6	8.6	1.9	1.6	1.9	3.1	4.4	40.2	40.6	41.4
State-level MGNREGA participation																
Low ≤ 20%	48.7	53.1	36.8	30.8	2.9	3.0	20.3	18.5	2.6	3.0	1.6	2.3	1.6	51.3	46.6	46.9
Medium 20–40%	52.4	45.3	31.6	37.4	2.9	4.4	15.7	15.1	4.5	4.4	2.6	3.9	9.4	47.6	53.2	54.7
High > 40%	42.9	32.4	37.2	45.4	4.7	4.4	22.8	19.8	11.1	5.2	5.1	3.9	25.5	57.1	61.6	67.6
Region																
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	34.3	30.8	61.9	63.8	1.1	2.3	1.8	1.4	3.5	1.8	2.2	5.4	7.4	65.7	68.2	69.2
Punjab, Haryana	80.4	65.8	13.6	19.5	0.8	3.1	2.5	6.9	1.4	1.6	1.7	4.7	2.2	19.6	33.3	34.2
Uttar Pradesh, Bihar, Jharkhand	56.2	52.7	35.6	36.2	2.4	4.3	8.8	10.1	2.8	2.5	1.1	2.1	2.9	43.8	46.9	47.3
Rajasthan, Chhattisgarh, Madhya Pradesh	34.4	24.2	49.9	61.8	5.4	4.3	29.8	25.4	11.9	5.6	3.6	2.6	20.9	65.6	73.8	75.8
Northeast region, Assam, West Bengal, Odisha	64.3	58.1	23.1	23.0	2.7	4.2	9.3	8.5	4.1	6.4	3.8	4.4	7.0	35.7	39.5	41.9
Gujarat, Maharashtra, Goa	35.9	40.0	44.0	41.2	3.5	2.5	31.4	27.6	2.9	2.4	1.8	2.3	1.2	64.1	60.0	60.0
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	46.3	42.0	21.8	26.0	3.9	4.7	28.3	26.6	6.2	5.7	4.2	5.5	20.7	53.7	53.3	58.0

Note: Northeast region: all north-eastern states except Assam.

Appendix A4.2a Distribution of days worked by men ages 15–59 in 2004–05 and 2011–12 (cross-sectional sample)

Socioeconomic characteristics	Days on family farm		Days in family business		Days in agricultural labour		Days in nonagricultural labour excluding MGNREGA		Days in salaried work		Days in MGNREGA	Days in all work excluding MGNREGA		Days in all work including MGNREGA
	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12
All India	47.3	39.1	25.3	23.6	37.5	28.4	36.6	46.3	28.9	34.5	3.9	173.0	168.9	172.6
Age groups														
15–17 years	13.7	11.1	6.0	5.6	11.6	6.2	11.3	11.6	5.4	5.3	0.5	47.7	39.6	40.1
18–24 years	37.4	23.5	15.9	15.9	29.1	20.2	34.2	42.1	18.8	24.3	2.4	133.9	124.8	127.2
25–29 years	48.7	38.3	27.3	24.6	38.9	28.5	47.9	57.3	34.2	49.6	3.7	194.2	194.3	197.8
30–39 years	57.5	44.8	36.7	28.8	49.0	34.9	46.5	63.3	35.7	44.7	4.9	221.6	213.0	217.6
40–49 years	59.3	52.8	34.0	34.4	49.6	38.9	42.3	51.3	35.4	38.1	5.4	216.8	211.0	216.1
50–59 years	57.5	56.3	24.7	24.8	36.3	32.8	27.2	35.4	40.6	37.1	4.9	183.6	182.9	187.5
Marital status														
Unmarried/no gauna	27.1	19.3	12.9	12.8	18.2	13.2	21.6	28.9	17.7	23.4	1.5	96.5	96.7	98.2
Married	57.5	49.1	31.9	29.4	46.9	36.1	43.9	55.3	34.6	39.9	5.0	211.3	205.8	210.5
Widowed/separated/ divorced	43.6	46.9	11.9	16.3	43.6	35.7	43.2	43.2	25.0	42.5	6.5	166.2	181.8	187.5
Relation to head of household														
Head	52.7	47.9	31.4	29.2	52.4	40.4	47.1	58.2	36.8	37.1	5.8	216.9	209.2	214.6
Spouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other	42.7	31.5	20.2	18.8	24.8	18.0	27.7	35.9	22.2	32.1	2.2	135.8	133.9	136.0
Highest education of person														
Illiterate	44.8	38.2	16.1	15.0	66.9	54.3	52.4	65.2	14.9	15.0	6.2	193.4	185.3	191.1
Primary (1–4 standard)	52.1	46.2	22.9	23.2	55.6	46.7	41.5	63.2	17.2	16.8	5.7	186.2	193.3	198.9
Middle (5–9 standard)	48.6	39.9	26.4	23.2	29.9	25.5	38.0	53.9	23.9	29.9	3.9	164.0	169.8	173.5
Secondary (10–11 standard)	49.0	39.8	30.3	28.3	17.6	15.0	23.1	28.6	47.0	41.6	2.1	163.7	150.5	152.4
12 standard/some college	44.9	35.1	35.2	28.9	12.2	10.2	16.3	16.7	48.6	47.7	2.0	154.1	135.6	137.4
Graduate/diploma	40.4	33.4	39.1	33.1	5.0	4.5	6.3	11.5	81.7	104.4	1.6	169.5	179.8	181.4
Place of residence														
More developed village	42.3	35.2	29.1	26.5	40.0	30.0	35.6	45.5	33.8	41.6	2.6	177.9	175.5	177.9
Less developed village	51.9	42.5	21.9	21.1	35.1	27.0	37.6	47.0	24.5	28.3	5.0	168.5	163.2	168.0
Social groups														
Forward caste	65.9	56.2	31.6	29.1	19.1	15.0	19.9	24.4	36.8	46.2	2.7	169.9	167.2	169.7
Other backward class	52.9	44.4	27.7	27.0	33.5	24.7	31.8	39.2	28.2	31.0	3.2	171.2	162.8	165.8
Dalit/scheduled caste	27.1	24.2	15.9	15.5	58.5	42.3	52.9	65.5	26.1	32.8	5.4	178.8	178.1	183.1
Adivasi/ scheduled tribe	51.5	37.4	11.7	10.0	50.5	39.1	38.9	49.8	22.4	30.7	5.6	172.7	165.1	170.5
Other religions	39.2	27.9	37.6	32.9	25.5	23.5	41.9	60.2	30.6	33.6	3.0	172.5	175.8	178.7

Appendix A4.2a Distribution of days worked by men ages 15–59 in 2004–05 and 2011–12 (cross-sectional sample) *(continued)*

Socioeconomic characteristics	Days on family farm		Days in family business		Days in agricultural labour		Days in nonagricultural labour excluding MGNREGA		Days in salaried work		Days in MGNREGA	Days in all work excluding MGNREGA		Days in all work including MGNREGA
	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2011–12	2004–05	2011–12	2011–12
Land cultivation														
Noncultivator	—	—	35.0	31.7	56.3	39.5	53.9	68.9	41.2	47.4	3.3	185.5	186.4	189.6
Marginal cultivator (< 1 hectare)	59.7	51.6	20.1	18.1	32.3	24.8	34.6	41.1	23.2	27.0	4.7	166.6	158.6	163.0
Small cultivator (1.0–1.99 hectares)	85.7	78.3	19.2	16.6	23.4	19.4	19.0	17.9	18.4	25.5	3.9	162.0	153.8	157.4
Medium/ large cultivator (2.0 hectares and above)	112.5	102.4	16.0	20.5	10.6	8.8	10.2	8.3	17.7	21.8	2.8	163.4	155.9	158.4
Income quintiles														
Poorest	47.8	40.9	14.3	15.2	39.0	24.5	31.7	34.3	8.2	11.1	4.9	139.8	124.9	129.7
2nd quintile	43.4	36.4	21.9	23.9	51.9	34.8	42.5	51.8	15.4	21.5	4.9	173.4	166.1	170.7
Middle quintile	41.5	33.1	27.0	25.5	44.6	35.5	47.3	60.9	28.4	31.0	4.0	186.1	182.9	186.6
4th quintile	44.1	35.9	35.3	27.9	32.2	32.3	38.4	53.1	46.4	50.3	2.8	192.7	194.8	197.4
Richest	55.0	47.9	38.9	30.7	8.0	11.8	20.0	33.2	75.2	86.1	1.7	191.3	204.5	205.9
Consumption quintiles														
Poorest	35.1	31.0	15.0	15.3	52.6	37.7	51.9	59.7	15.7	19.0	5.4	169.2	160.6	165.8
2nd quintile	46.0	36.9	26.5	23.4	43.8	31.5	38.5	56.5	22.0	27.6	4.2	174.7	173.2	177.0
Middle quintile	50.5	42.1	26.0	24.0	33.9	27.5	35.2	44.4	31.9	33.5	3.7	174.6	168.9	172.4
4th quintile	55.7	43.9	31.4	27.3	26.7	22.3	25.5	33.6	38.7	46.0	2.8	174.3	170.3	172.9
Richest	58.2	48.5	35.2	35.0	14.4	13.7	18.6	19.9	51.7	64.8	2.0	174.0	175.9	177.8
Assets quintiles														
Poorest	39.4	31.2	14.7	12.2	59.4	41.5	51.7	68.2	14.4	12.9	5.6	177.9	163.9	169.3
2nd quintile	48.9	40.4	21.9	17.9	41.7	33.2	37.9	52.5	20.1	24.1	4.8	168.0	165.5	170.1
Middle quintile	50.8	41.4	23.8	23.4	34.5	29.2	34.4	39.7	29.8	34.8	3.8	170.6	165.7	169.2
4th quintile	53.6	42.8	38.5	35.9	16.4	15.5	25.3	32.4	43.0	52.6	1.9	173.3	176.3	178.0
Richest	49.0	44.4	45.7	47.9	3.0	2.1	10.9	13.4	69.5	86.4	0.6	174.6	187.1	187.6
Poverty status														
Non-poor	52.3	41.3	30.1	26.3	29.1	25.0	29.7	43.0	35.8	38.1	3.5	173.7	170.4	173.7
Poor	39.2	30.8	17.5	13.4	51.1	41.6	47.9	59.1	17.8	20.5	5.2	172.1	163.4	168.3
Highest household education														
Illiterate	36.2	28.3	13.5	12.2	64.5	46.1	51.8	62.7	14.0	13.0	5.6	178.7	160.7	166.0
Primary (1–4 standard)	46.2	36.6	21.0	16.9	58.0	49.6	44.5	62.3	15.3	12.0	5.8	182.1	174.9	180.5
Middle (5–9 standard)	50.3	40.8	26.4	22.4	36.2	30.8	42.0	57.9	23.2	27.1	4.6	175.4	176.3	180.6
Secondary (10–11 standard)	55.5	44.7	30.3	27.3	23.8	23.9	28.1	39.6	38.7	38.8	2.7	173.1	171.7	174.3
12 standard/ some college	54.0	43.7	36.0	31.1	16.7	15.6	19.1	25.7	41.6	47.4	2.4	164.0	159.9	162.2
Graduate/diploma	44.3	38.3	33.2	32.5	7.3	7.9	9.0	16.2	64.4	73.7	1.5	155.4	163.5	165.0
Number of adults														
1–2	37.8	32.8	26.3	22.7	48.6	35.8	47.3	56.6	27.3	30.1	5.2	184.9	175.7	180.6
3–4	49.8	40.8	23.3	23.0	36.2	26.5	34.9	43.2	27.6	33.8	3.4	168.9	164.3	167.5
4+	59.2	48.2	27.1	26.8	20.8	17.6	21.5	32.0	33.9	44.9	2.2	160.1	165.3	167.4

Appendix A4.2a Distribution of days worked by men ages 15–59 in 2004–05 and 2011–12 (cross-sectional sample) *(continued)*

Socioeconomic characteristics	Days on family farm		Days in family business		Days in agricultural labour		Days in nonagricultural labour excluding MGNREGA		Days in salaried work		Days in MGNREGA	Days in all work excluding MGNREGA		Days in all work including MGNREGA
	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12
State-level MGNREGA participation														
Low ≤ 20%	60.8	52.9	27.3	19.9	41.7	33.4	24.5	34.5	29.2	34.1	1.4	180.3	172.3	173.6
Medium 20–40%	42.3	33.6	25.9	26.0	36.5	27.9	41.9	51.4	27.0	32.5	4.5	171.3	167.9	172.2
High > 40%	38.0	32.8	19.5	22.1	32.6	20.4	41.8	50.0	34.9	42.6	6.1	165.0	166.3	172.1
Region														
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	40.2	39.3	23.9	23.1	10.9	7.4	48.0	45.5	51.7	61.1	3.9	169.5	172.3	175.8
Punjab, Haryana	63.9	31.0	21.1	25.7	32.9	15.2	34.9	54.7	47.8	57.6	1.0	196.5	180.6	181.5
Uttar Pradesh, Bihar, Jharkhand	37.9	35.6	30.7	27.6	25.7	16.5	46.0	58.9	20.9	26.5	3.7	159.2	160.5	163.9
Rajasthan, Chhattisgarh, Madhya Pradesh	60.9	42.0	19.2	26.7	33.1	18.1	40.5	45.1	19.6	26.8	6.6	171.6	156.0	162.3
Northeast region, Assam, West Bengal, Odisha	42.5	28.2	32.5	26.1	30.7	28.5	37.6	52.0	31.8	36.0	5.2	172.2	169.2	174.3
Gujarat, Maharashtra, Goa	78.6	73.6	24.3	13.9	49.6	48.6	15.3	16.8	29.0	34.2	0.5	192.8	185.0	185.5
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	31.0	30.6	18.8	19.8	60.3	46.2	32.5	42.2	35.2	39.2	3.8	175.7	175.7	179.4

Note: Northeast region: all north-eastern states except Assam.

Appendix A4.2b Distribution of days worked for women ages 15–59 in 2004–05 and 2011–12 (cross-sectional sample)

Socioeconomic characteristics	Days on family farm		Days in family business		Days in agricultural labour		Days in nonagricultural labour excluding MGNREGA		Days in salaried work		Days in MGNREGA	Days in all work excluding MGNREGA		Days in all work including MGNREGA
	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12
All India	25.5	21.7	5.5	8.2	22.2	17.8	6.4	6.0	5.1	7.9	3.2	64.3	61.2	64.3
Age groups														
15–17 years	9.0	7.4	1.8	5.0	8.4	5.7	2.4	3.1	0.7	0.9	0.2	22.3	21.9	22.2
18–24 years	16.8	10.9	3.2	5.4	13.7	8.5	5.6	4.1	3.3	4.6	0.8	42.4	33.4	34.2
25–29 years	24.4	18.8	6.1	6.5	22.5	16.9	6.5	5.2	6.8	9.1	2.4	65.9	56.2	58.6
30–39 years	32.8	27.3	7.5	11.1	33.0	24.7	9.0	7.8	8.4	12.6	4.5	90.1	82.9	87.2
40–49 years	36.2	31.1	7.8	11.3	27.4	26.4	7.5	8.9	4.9	10.6	5.7	83.1	87.7	93.1
50–59 years	28.1	28.8	5.4	7.4	21.3	18.7	4.4	4.8	4.4	5.4	4.3	63.2	64.9	69.2
Marital status														
Unmarried/no gauna	9.9	8.5	2.5	6.3	8.4	6.6	3.7	3.8	4.9	6.5	0.4	29.3	31.6	32.1
Married	30.2	26.2	6.2	9.0	24.9	19.7	6.7	6.0	4.6	7.3	3.9	72.0	67.7	71.5
Widowed/separated/ divorced	21.9	20.6	9.6	11.4	42.1	37.7	13.4	12.3	13.0	19.7	6.3	99.0	100.6	106.7
Relation to head of household														
Head	23.4	22.8	10.9	9.1	50.3	36.1	16.8	15.0	15.1	16.6	6.5	115.0	98.5	104.9
Spouse	32.4	28.5	7.3	10.7	28.7	23.3	8.0	7.2	5.1	7.8	4.8	80.9	76.9	81.6
Other	18.3	14.2	3.1	5.4	12.5	9.1	3.6	3.4	4.1	6.7	1.0	41.5	38.6	39.5
Highest education of person														
Illiterate	28.8	27.2	4.9	7.8	32.5	28.8	8.7	7.8	3.0	4.3	5.1	77.6	75.5	80.5
Primary (1–4 standard)	30.1	27.0	7.1	9.6	23.1	24.5	6.8	11.4	3.5	7.1	3.7	69.8	79.1	82.5
Middle (5–9 standard)	23.0	19.8	5.5	9.4	10.9	11.1	3.9	5.0	4.7	5.9	2.2	47.6	50.7	52.9
Secondary (10–11 standard)	17.4	14.3	7.0	6.5	4.0	4.9	2.4	2.5	8.4	8.9	0.9	39.0	36.8	37.7
12 standard/some college	12.3	10.0	8.2	6.0	4.1	2.4	1.2	1.8	17.1	18.2	0.7	42.7	37.8	38.5
Graduate/diploma	6.8	5.6	6.1	9.4	1.3	0.5	1.3	0.8	46.4	52.5	0.1	61.6	68.2	68.3
Place of residence														
More developed village	23.6	18.6	6.8	10.2	24.3	19.3	6.3	6.8	6.4	8.9	3.6	66.9	63.4	66.9
Less developed village	27.3	24.3	4.3	6.5	20.3	16.5	6.4	5.4	3.9	7.0	2.8	61.9	59.3	62.1
Social groups														
Forward caste	32.6	27.4	5.4	8.0	10.4	7.0	2.3	2.2	5.2	9.3	1.6	55.4	53.4	54.9
Other backward class	30.0	25.7	6.5	8.6	21.7	16.9	5.0	5.2	5.3	6.3	3.3	67.9	62.4	65.6
Dalit/scheduled caste	15.4	15.6	4.2	8.0	33.7	28.3	9.4	7.6	5.1	9.1	5.2	67.5	68.2	73.4
Adivasi/ scheduled tribe	38.0	26.8	5.3	6.7	39.5	28.8	11.7	7.1	5.8	9.4	3.6	99.6	78.3	81.8
Other religions	11.8	9.0	5.6	8.9	6.0	7.0	6.8	10.1	3.8	7.1	1.3	33.8	41.6	42.9

Appendix A4.2b Distribution of days worked for women ages 15–59 in 2004–05 and 2011–12 (cross-sectional sample) *(continued)*

Socioeconomic characteristics	Days on family farm		Days in family business		Days in agricultural labour		Days in nonagricultural labour excluding MGNREGA		Days in salaried work		Days in MGNREGA	Days in all work excluding MGNREGA		Days in all work including MGNREGA
	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12
Land cultivation														
Noncultivator	—	—	8.2	12.1	33.8	25.6	10.5	10.4	8.0	12.0	3.9	60.5	59.8	63.6
Marginal cultivator (< 1 hectare)	34.9	31.6	4.2	6.0	16.8	13.4	4.5	3.6	4.1	5.2	2.9	64.2	59.3	62.0
Small cultivator (1.0–1.99 hectares)	47.1	42.5	3.0	4.6	14.9	13.2	3.4	2.1	1.9	6.0	3.0	69.6	67.9	70.8
Medium/ large cultivator (2.0 hectares and above)	55.9	51.7	3.2	4.4	8.7	7.0	1.7	1.4	1.8	3.5	2.0	70.7	67.3	69.2
Income quintiles														
Poorest	25.4	20.8	3.7	5.5	18.4	12.1	5.7	3.3	1.8	3.4	2.4	54.7	45.0	47.3
2nd quintile	23.6	20.4	4.5	8.4	29.1	19.5	6.5	6.0	4.1	5.5	3.2	67.5	59.3	62.4
Middle quintile	22.9	20.1	6.5	10.5	30.2	24.9	8.2	8.3	5.5	7.5	3.7	72.9	70.8	74.4
4th quintile	25.7	21.9	7.3	8.7	21.0	22.5	7.4	8.0	6.1	11.1	4.3	67.1	71.6	75.7
Richest	27.9	25.7	8.1	9.5	7.1	10.1	4.2	5.9	13.4	18.7	3.1	59.8	69.2	72.2
Consumption quintiles														
Poorest	21.2	17.2	4.4	5.9	29.6	21.1	8.2	7.0	2.4	5.4	3.1	65.6	56.3	59.4
2nd quintile	23.4	20.7	4.5	8.8	24.4	19.5	7.9	6.7	5.1	5.7	3.0	65.1	61.2	64.1
Middle quintile	27.6	23.7	6.3	8.5	20.7	17.5	5.2	6.3	4.9	8.5	3.5	64.4	64.0	67.4
4th quintile	29.8	24.0	6.6	9.6	18.1	16.3	4.5	5.3	6.6	10.3	3.5	64.8	64.8	68.2
Richest	29.7	26.9	7.2	9.8	9.4	10.0	3.6	3.1	9.5	13.4	2.9	59.0	62.6	65.4
Assets quintiles														
Poorest	24.1	18.8	4.4	5.3	35.1	25.1	9.4	8.4	3.4	4.1	2.9	76.3	61.6	64.5
2nd quintile	28.2	22.5	4.9	7.6	26.9	22.1	7.0	6.8	4.1	6.2	3.5	70.5	64.8	68.3
Middle quintile	25.9	24.8	4.9	10.1	19.4	19.4	6.3	5.6	5.8	8.9	4.2	61.6	68.3	72.3
4th quintile	26.2	21.9	8.1	10.9	7.9	7.5	3.2	4.5	6.9	11.0	3.3	51.8	55.2	58.5
Richest	21.2	19.1	7.1	8.3	1.2	1.0	0.8	0.9	8.3	14.4	0.6	38.4	43.1	43.7
Poverty status														
Non-poor	27.3	22.6	6.4	9.0	17.4	16.1	5.5	5.8	6.5	8.5	3.1	62.5	61.5	64.6
Poor	22.8	18.3	4.1	5.5	29.7	23.8	7.8	6.9	2.9	5.7	3.4	67.1	60.0	63.4
Highest household education														
Illiterate	22.3	19.5	4.5	5.9	40.1	32.3	11.0	9.9	3.9	6.1	5.1	81.3	73.2	78.3
Primary (1–4 standard)	26.8	22.6	4.7	8.3	35.6	31.0	10.7	12.2	2.2	5.4	3.7	79.8	79.0	82.6
Middle (5–9 standard)	27.6	23.8	5.9	9.2	19.1	17.1	5.9	6.0	4.3	5.3	3.4	62.4	60.9	64.3
Secondary (10–11 standard)	28.0	22.6	6.9	10.1	12.1	13.8	3.2	4.1	4.0	6.9	2.6	53.9	57.1	59.7
12 standard/ some college	28.1	21.1	7.4	7.7	9.4	9.1	1.6	2.9	5.0	8.9	2.0	51.0	49.1	51.1
Graduate/diploma	18.9	18.6	3.8	7.3	4.7	4.3	1.6	2.5	14.8	19.2	1.4	43.6	51.4	52.7
Number of adults														
1–2	23.8	20.8	7.5	10.0	30.1	23.4	10.0	8.1	5.5	8.6	4.4	76.5	70.4	74.6
3–4	27.1	22.8	4.7	8.2	20.1	16.1	4.8	5.4	5.2	7.3	2.8	61.5	59.5	62.2
4+	25.8	21.2	3.3	4.2	11.0	8.7	2.2	2.5	4.1	7.6	1.4	46.2	44.0	45.3

Appendix A4.2b Distribution of days worked for women ages 15–59 in 2004–05 and 2011–12 (cross-sectional sample) *(continued)*

Socioeconomic characteristics	Days on family farm		Days in family business		Days in agricultural labour		Days in nonagricultural labour excluding MGNREGA		Days in salaried work		Days in MGNREGA	Days in all work excluding MGNREGA		Days in all work including MGNREGA
	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2004–05	2011–12	2011–12	2004–05	2011–12	2011–12
State-level MGNREGA participation														
Low ≤ 20%	35.1	25.7	5.7	6.1	24.2	21.8	3.3	3.8	3.7	5.3	0.5	71.7	62.4	62.8
Medium 20–40%	20.2	17.9	5.3	9.2	20.5	15.9	6.5	6.6	5.3	8.7	2.3	57.3	57.8	60.1
High > 40%	25.3	28.7	6.1	8.4	24.5	17.5	11.9	8.1	7.3	9.5	11.8	74.7	71.8	83.3
Region														
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	39.4	40.1	2.2	4.1	1.9	1.2	3.7	2.7	4.6	11.6	2.5	51.5	59.2	61.7
Punjab, Haryana	20.7	13.2	1.9	7.3	3.9	6.6	2.4	2.9	3.9	10.9	0.7	32.8	40.6	41.3
Uttar Pradesh, Bihar, Jharkhand	16.1	14.6	4.2	9.0	8.0	8.7	3.5	3.3	1.7	4.9	0.8	33.4	40.3	41.1
Rajasthan, Chhattisgarh, Madhya Pradesh	36.7	33.1	4.3	7.5	28.2	15.2	10.9	6.1	2.9	5.9	6.9	82.9	67.2	74.0
Northeast region, Assam, West Bengal, Odisha	11.6	7.8	5.2	9.1	8.2	8.4	6.2	9.7	8.1	10.0	1.8	38.9	44.8	46.5
Gujarat, Maharashtra, Goa	57.8	46.4	7.0	4.8	42.6	36.5	3.8	3.3	4.6	4.7	0.3	114.9	95.0	95.3
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	19.6	19.1	8.9	9.8	43.6	36.4	10.2	10.1	9.4	12.6	7.9	91.0	87.3	95.0

Note: Northeast region: all north-eastern states except Assam.

Appendix A4.3a Distribution of days worked for MGNREGA nonparticipants in 2004–05 and 2011–12, men ages 30–59 (longitudinal sample)

	2004–05 data for MGNREGA nonparticipating men						2011–12 data for MGNREGA nonparticipating men							
Socioeconomic characteristics	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in all work excluding MGNREGA**	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in MGNREGA**	**Days in all work excluding MGNREGA**	**Days in all work including MGNREGA**
All India	59.0	34.9	41.0	42.8	37.4	211.4	51.7	33.3	32.5	52.0	47.1	0.0	212.2	212.2
Age groups														
30–39 years	60.4	40.7	44.4	45.2	37.6	224.2	45.5	32.2	32.0	64.3	51.2	0.0	221.3	221.3
40–49 years	61.2	37.3	44.1	41.6	39.2	219.2	54.0	38.9	35.1	52.0	45.0	0.0	219.8	219.8
50–59 years	64.1	29.4	35.4	29.4	44.3	199.4	57.3	27.6	29.8	34.8	44.1	0.0	189.5	189.5
Marital status														
Unmarried/no gauna	43.2	25.4	21.1	30.9	39.8	157.9	31.6	23.7	16.8	57.7	46.1	0.0	172.5	172.5
Married	61.6	36.8	43.8	44.7	37.2	220.2	52.9	34.1	33.3	52.4	46.9	0.0	215.1	215.1
Widowed/separated/ divorced	48.7	10.4	45.9	34.9	31.6	169.6	41.3	19.5	32.2	34.8	50.5	0.0	175.3	175.3
Relation to head of household														
Head	54.5	35.8	49.8	50.5	39.4	226.1	51.2	33.2	36.0	56.4	43.9	0.0	216.2	216.2
Spouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other	65.4	33.7	28.4	31.8	34.7	190.7	53.8	34.0	20.3	37.2	58.1	0.0	199.1	199.1
Highest education of person														
Illiterate	50.0	18.5	68.1	59.6	16.7	210.9	43.5	19.0	54.3	67.0	17.7	0.0	198.3	198.3
Primary (1–4 standard)	57.5	27.6	64.1	44.2	22.4	212.7	56.3	30.8	46.3	59.9	21.9	0.0	211.1	211.1
Middle (5–9 standard)	64.9	38.1	35.2	47.6	33.2	214.8	55.8	34.7	29.5	59.3	39.9	0.0	214.8	214.8
Secondary (10–11 standard)	67.8	44.9	21.7	28.9	59.9	218.3	62.5	43.7	15.6	38.5	67.7	0.0	223.0	223.0
12 standard/some college	60.4	52.8	16.1	20.7	59.4	204.2	51.7	48.2	12.5	22.5	85.8	0.0	214.0	214.0
Graduate/diploma	46.4	49.9	5.2	6.9	87.7	192.6	37.1	46.3	3.3	11.5	137.0	0.0	229.0	229.0
Place of residence														
More developed village	52.8	40.1	45.8	43.1	41.6	219.3	47.1	36.7	35.6	51.2	52.4	0.0	218.5	218.5
Less developed village	65.5	29.5	36.0	42.5	33.1	203.2	56.2	30.0	29.5	52.8	42.0	0.0	206.0	206.0
Social groups														
Forward caste	82.7	43.2	21.8	20.2	44.2	207.1	73.5	39.1	16.6	25.7	60.5	0.0	209.6	209.6
Other backward class	64.9	37.7	38.4	38.2	35.1	210.3	56.9	36.3	30.1	48.8	39.7	0.0	207.1	207.1
Dalit/scheduled caste	32.8	22.7	65.0	64.4	36.5	219.3	31.1	23.4	51.9	76.0	47.5	0.0	226.1	226.1
Adivasi/ scheduled tribe	59.2	13.1	58.4	47.5	31.9	206.4	45.0	14.4	44.5	57.3	44.9	0.0	202.9	202.9
Other religions	47.4	50.4	25.0	52.6	39.9	212.2	37.0	47.3	24.1	63.4	49.2	0.0	217.1	217.1

Appendix A4.3a Distribution of days worked for MGNREGA nonparticipants in 2004–05 and 2011–12, men ages 30–59 (longitudinal sample) *(continued)*

Socioeconomic characteristics	2004–05 data for MGNREGA nonparticipating men						2011–12 data for MGNREGA nonparticipating men							
	Days on family farm	Days in family business	Days in agricultural labour	Days in non-agricultural labour excluding MGNREGA	Days in salaried work	Days in all work excluding MGNREGA	Days on family farm	Days in family business	Days in agricultural labour	Days in non-agricultural labour excluding MGNREGA	Days in salaried work	Days in MGNREGA	Days in all work excluding MGNREGA	Days in all work including MGNREGA
Land cultivation														
Noncultivator	0.2	46.9	63.6	66.1	53.6	228.6	0.0	45.4	45.6	77.7	64.1	0.0	231.1	231.1
Marginal cultivator (< 1 hectare)	71.5	29.0	35.2	38.9	31.5	201.6	68.2	24.2	28.3	47.2	40.1	0.0	201.6	201.6
Small cultivator (1.0–1.99 hectares)	107.4	29.2	23.7	20.7	22.0	197.9	107.4	22.4	22.1	18.1	29.5	0.0	193.7	193.7
Medium/ large cultivator (2.0 hectares and above)	141.1	21.1	10.1	10.3	21.1	198.5	132.5	29.0	7.9	7.2	25.0	0.0	195.2	195.2
Income quintiles														
Poorest	61.5	19.8	43.7	41.8	10.9	176.0	56.5	22.4	29.4	43.6	15.6	0.0	165.7	165.7
2nd quintile	52.1	29.9	60.4	51.9	21.1	213.1	47.2	34.4	43.5	60.6	30.1	0.0	211.9	211.9
Middle quintile	51.4	36.5	48.6	53.3	38.1	224.1	44.1	38.6	40.3	68.9	40.8	0.0	227.6	227.6
4th quintile	55.7	47.8	34.4	41.2	58.9	233.1	47.3	36.1	34.7	57.7	61.2	0.0	231.7	231.7
Richest	68.0	54.1	7.3	22.9	86.1	230.4	59.4	38.7	13.5	32.1	112.1	0.0	248.4	248.4
Consumption quintiles														
Poorest	42.1	18.9	60.2	60.7	19.5	199.8	40.2	22.0	44.6	70.4	22.8	0.0	196.6	196.6
2nd quintile	55.6	35.7	47.6	46.9	29.7	212.1	46.9	32.5	35.6	65.6	38.6	0.0	215.0	215.0
Middle quintile	65.7	36.2	39.9	41.1	40.5	219.1	56.4	35.4	32.6	49.0	43.7	0.0	213.1	213.1
4th quintile	67.5	43.5	26.9	29.8	48.1	211.3	57.9	36.1	25.1	38.6	64.3	0.0	217.5	217.5
Richest	74.6	49.7	14.1	22.5	65.5	220.1	64.0	46.5	16.4	21.1	84.6	0.0	225.7	225.7
Assets quintiles														
Poorest	46.0	18.1	66.3	61.3	18.9	208.3	40.6	16.7	47.1	80.4	14.9	0.0	196.3	196.3
2nd quintile	61.0	27.6	47.9	46.2	26.8	206.6	53.7	24.9	39.3	61.2	31.9	0.0	206.5	206.5
Middle quintile	62.2	32.2	40.8	41.2	35.4	207.9	55.7	32.2	37.4	45.4	47.3	0.0	213.8	213.8
4th quintile	68.1	53.4	20.0	30.8	52.8	219.8	55.3	47.9	18.7	36.9	65.9	0.0	220.4	220.4
Richest	64.4	61.7	3.7	15.2	79.7	219.6	56.2	61.2	2.7	15.6	109.9	0.0	238.5	238.5
Poverty status														
Non-poor	65.9	41.8	30.9	34.7	46.1	214.6	54.5	36.8	28.4	47.9	52.5	0.0	215.5	215.5
Poor	47.2	23.1	58.3	56.8	22.6	206.0	40.1	18.9	49.3	68.8	25.2	0.0	198.9	198.9
Highest household education														
Illiterate	45.0	17.5	74.2	66.1	17.5	218.5	37.4	19.4	56.0	78.6	15.1	0.0	203.8	203.8
Primary (1–4 standard)	51.9	25.9	73.5	49.5	19.7	217.5	46.6	27.4	55.6	69.9	17.3	0.0	213.1	213.1
Middle (5–9 standard)	62.5	33.7	40.4	50.7	29.8	213.2	54.8	30.3	36.5	63.6	33.4	0.0	214.0	214.0
Secondary (10–11 standard)	69.8	41.1	29.2	31.3	48.9	215.5	60.0	36.5	25.9	46.0	51.2	0.0	215.6	215.6
12 standard/ some college	66.8	51.5	19.0	23.3	49.6	204.8	57.3	43.5	19.8	28.9	66.8	0.0	210.1	210.1
Graduate/diploma	54.1	48.2	6.3	11.0	76.7	192.7	48.2	44.6	8.3	18.5	101.0	0.0	215.1	215.1

Appendix A4.3a Distribution of days worked for MGNREGA nonparticipants in 2004–05 and 2011–12, men ages 30–59 (longitudinal sample) *(continued)*

Socioeconomic characteristics	2004–05 data for MGNREGA nonparticipating men						2011–12 data for MGNREGA nonparticipating men							
	Days on family farm	Days in family business	Days in agricultural labour	Days in non-agricultural labour excluding MGNREGA	Days in salaried work	Days in all work excluding MGNREGA	Days on family farm	Days in family business	Days in agricultural labour	Days in non-agricultural labour excluding MGNREGA	Days in salaried work	Days in MGNREGA	Days in all work excluding MGNREGA	Days in all work including MGNREGA
Number of adults														
1–2	45.2	35.3	54.9	59.2	39.6	230.6	42.6	34.9	39.8	68.9	43.3	0.0	225.7	225.7
3–4	63.5	31.8	40.5	39.9	34.1	205.8	55.6	30.7	31.5	44.9	45.9	0.0	203.7	203.7
4+	73.5	39.2	20.1	21.7	39.3	190.5	64.2	34.9	17.8	28.4	58.5	0.0	199.4	199.4
State-level MGNREGA participation														
Low ≤ 20%	75.7	36.5	47.0	27.3	34.6	216.5	72.2	26.4	39.9	37.0	39.9	0.0	211.7	211.7
Medium 20–40%	51.8	36.1	37.7	50.4	35.9	208.6	42.8	37.7	29.3	58.6	48.8	0.0	211.8	211.8
High > 40%	42.7	26.5	37.4	54.5	50.5	208.7	36.6	32.7	26.9	62.6	58.2	0.0	214.9	214.9
Region														
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	48.9	33.5	14.1	52.0	75.9	216.7	46.8	35.7	9.5	54.3	95.4	0.0	234.2	234.2
Punjab, Haryana	79.0	28.8	37.3	44.5	56.5	240.3	44.8	33.1	17.8	63.7	71.1	0.0	224.7	224.7
Uttar Pradesh, Bihar, Jharkhand	50.0	41.4	26.9	55.1	25.9	196.6	47.6	38.8	19.1	68.0	38.2	0.0	205.5	205.5
Rajasthan, Chhattisgarh, Madhya Pradesh	74.7	28.6	32.4	48.3	27.3	208.6	51.7	38.5	19.3	48.1	40.3	0.0	193.4	193.4
Northeast region, Assam, West Bengal, Odisha	46.5	47.0	26.1	41.0	44.5	201.4	34.5	36.2	27.8	56.4	56.8	0.0	209.0	209.0
Gujarat, Maharashtra, Goa	92.6	31.6	57.9	18.6	32.6	228.1	96.9	18.8	55.1	17.6	37.6	0.0	222.6	222.6
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	38.0	25.4	67.9	43.9	44.6	217.2	38.8	31.3	52.3	53.3	48.0	0.0	220.0	220.0

Note: Northeast region: all north-eastern states except Assam.

Appendix A4.3b Distribution of days worked for MGNREGA participants in 2004–05 and 2011–12, men ages 30–59 (longitudinal sample)

	2004–05 data for MGNREGA participating men						2011–12 data for MGNREGA participating men							
Socioeconomic characteristics	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in all work excluding MGNREGA**	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in MGNREGA**	**Days in all work excluding MGNREGA**	**Days in all work including MGNREGA**
All India	53.3	22.3	74.6	51.5	13.8	212.9	49.2	13.8	54.7	50.3	6.9	29.7	173.0	200.8
Age groups														
30–39 years	53.6	21.6	78.1	53.9	17.3	221.9	42.9	13.4	52.8	62.5	7.0	30.3	176.5	204.9
40–49 years	53.9	24.6	78.5	49.7	13.0	216.6	51.0	16.5	59.7	46.7	8.3	29.5	180.2	207.6
50–59 years	67.9	28.5	44.4	41.7	8.9	188.0	55.4	10.5	50.0	38.7	4.6	29.1	157.5	185.1
Marital status														
Unmarried/no gauna	52.6	17.8	42.1	36.4	7.5	155.0	48.7	8.5	9.0	49.6	7.7	31.3	123.1	153.8
Married	53.6	23.0	77.3	52.3	14.4	217.7	48.8	14.1	55.6	49.4	7.0	29.5	173.1	200.7
Widowed/separated/ divorced	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Relation to head of household														
Head	48.6	24.5	83.2	55.7	15.7	224.6	48.0	13.2	58.1	49.8	7.2	29.4	174.4	201.9
Spouse	—	—	—	—	—	—	20.6	0.0	0.0	36.7	0.0	50.3	57.3	107.6
Other	65.8	16.3	51.7	40.4	8.7	181.4	59.1	18.1	28.7	54.0	4.3	32.2	162.5	192.6
Highest education of person														
Illiterate	45.7	13.1	96.4	56.9	8.1	218.6	40.6	7.4	69.0	50.3	5.6	27.5	171.7	197.4
Primary (1–4 standard)	54.9	26.2	82.8	49.9	6.6	215.3	50.5	9.7	63.7	53.0	4.8	29.4	179.9	208.3
Middle (5–9 standard)	61.6	26.8	54.2	53.4	17.0	211.1	56.6	18.1	41.3	56.1	7.8	30.2	177.6	205.5
Secondary (10–11 standard)	57.2	43.9	42.8	36.5	22.2	195.8	58.5	31.0	37.3	25.1	7.6	36.5	157.3	190.2
12 standard/some college	59.6	20.7	43.3	29.7	55.1	204.2	54.0	21.7	24.9	42.2	11.5	32.3	150.8	181.6
Graduate/diploma	61.7	43.2	18.7	12.1	29.1	164.6	62.3	36.5	19.1	35.5	24.0	46.0	173.0	216.7
Place of residence														
More developed village	48.9	28.0	85.7	47.4	19.6	226.1	48.6	13.7	62.8	46.1	10.3	29.4	179.0	205.9
Less developed village	55.6	19.3	69.0	53.6	10.8	206.1	49.5	13.8	50.7	52.4	5.2	29.9	170.1	198.2
Social groups														
Forward caste	67.1	31.9	48.0	37.5	16.6	199.7	74.5	27.7	38.3	37.1	5.1	31.6	181.1	210.5
Other backward class	66.3	23.9	67.7	45.2	14.5	214.8	56.5	15.7	43.0	40.3	6.3	30.3	159.2	187.4
Dalit/scheduled caste	33.5	17.3	92.6	62.9	13.9	217.3	35.7	7.9	71.4	66.6	9.1	28.3	188.7	214.7
Adivasi/ scheduled tribe	64.9	9.8	70.6	50.5	9.9	204.4	52.9	6.0	46.2	35.6	5.8	32.9	145.7	177.3
Other religions	51.2	39.2	68.9	48.8	13.0	216.9	38.0	21.1	64.0	60.1	4.6	26.2	187.2	213.1

Appendix A4.3b Distribution of days worked for MGNREGA participants in 2004–05 and 2011–12, men ages 30–59 (longitudinal sample) *(continued)*

	2004–05 data for MGNREGA participating men						2011–12 data for MGNREGA participating men							
Socioeconomic characteristics	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in all work excluding MGNREGA**	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in MGNREGA**	**Days in all work excluding MGNREGA**	**Days in all work including MGNREGA**
Land cultivation														
Noncultivator	0.8	33.0	107.8	69.8	19.5	229.3	0.0	18.7	80.8	73.9	10.1	27.7	183.2	209.8
Marginal cultivator (< 1 hectare)	75.0	18.1	57.2	50.5	9.7	206.6	68.5	11.3	46.4	45.8	5.9	30.5	175.3	203.4
Small cultivator (1.0–1.99 hectares)	97.4	9.8	54.1	26.3	10.5	195.4	80.7	12.8	29.7	19.8	3.9	30.1	144.3	172.6
Medium/ large cultivator (2.0 hectares and above)	132.6	9.5	29.4	11.8	9.4	190.9	106.9	8.0	24.7	14.8	2.7	33.9	154.3	184.7
Income quintiles														
Poorest	50.3	16.4	76.7	41.0	4.6	187.3	45.8	6.5	42.3	42.0	5.0	26.7	140.9	166.9
2nd quintile	44.9	18.7	93.8	56.4	12.8	224.6	45.1	14.6	61.6	54.8	5.0	30.6	178.9	207.0
Middle quintile	49.2	23.1	72.1	67.4	16.3	226.5	41.9	19.6	60.6	63.3	11.0	31.4	194.4	223.4
4th quintile	57.7	41.2	58.5	54.9	20.6	227.2	51.1	20.6	73.9	50.5	11.3	30.8	205.0	233.7
Richest	83.9	37.4	18.5	28.9	61.6	220.9	99.0	19.0	33.2	45.6	4.9	38.5	196.9	230.1
Consumption quintiles														
Poorest	45.3	14.5	81.7	58.8	8.5	207.6	39.9	7.3	54.2	57.9	7.2	29.1	165.2	192.9
2nd quintile	49.1	26.2	83.2	48.9	12.8	218.6	54.0	18.0	55.9	59.7	6.5	29.5	192.0	218.8
Middle quintile	57.3	27.5	64.1	49.4	16.1	210.7	53.4	16.7	56.0	42.2	5.8	31.8	172.0	201.5
4th quintile	68.9	22.2	59.5	42.1	26.9	215.7	51.8	16.8	58.6	38.1	9.0	28.6	172.5	199.6
Richest	78.0	37.1	55.4	44.6	16.3	221.0	64.2	18.7	42.4	25.2	5.7	30.1	152.9	181.2
Assets quintiles														
Poorest	46.6	16.5	88.0	61.6	5.5	216.8	40.7	7.8	58.2	57.7	4.6	28.6	167.4	194.5
2nd quintile	56.0	25.1	69.7	47.9	13.0	207.7	48.9	12.8	57.8	55.3	9.2	29.7	182.5	210.4
Middle quintile	62.0	18.2	65.2	39.2	33.3	214.0	56.6	15.9	49.4	41.0	6.0	30.3	166.4	193.9
4th quintile	56.1	48.2	39.9	33.3	30.0	204.1	66.8	30.3	46.7	27.3	9.9	31.2	178.2	207.7
Richest	—	—	—	—	—	—	74.8	87.7	4.2	15.1	15.8	46.9	190.5	232.0
Poverty status														
Non-poor	59.1	27.7	67.9	48.4	16.9	216.2	53.4	17.1	53.8	48.7	6.7	30.1	177.5	205.5
Poor	47.6	16.9	81.3	54.6	10.7	209.6	38.6	5.3	56.8	54.4	7.2	28.7	161.4	188.7
Highest household education														
Illiterate	42.1	12.9	100.9	59.7	8.1	222.3	37.0	7.8	70.2	53.9	7.6	28.4	175.4	202.1
Primary (1–4 standard)	54.2	24.4	89.5	53.1	5.6	221.4	48.1	6.4	78.7	44.3	1.8	29.6	177.9	206.3
Middle (5–9 standard)	58.1	26.3	60.4	54.1	15.9	212.7	52.5	14.7	47.1	59.3	7.3	29.7	178.5	205.9
Secondary (10–11 standard)	69.1	34.9	42.0	36.3	20.5	197.0	57.6	26.6	46.6	30.4	8.7	32.4	168.4	198.5
12 standard/ some college	60.7	22.4	42.6	28.1	44.8	195.3	56.9	13.1	31.2	45.1	5.8	29.9	149.5	177.3
Graduate/diploma	65.3	38.6	20.1	14.5	17.2	154.5	65.7	30.5	31.0	20.0	8.1	32.4	152.5	183.6

Appendix A4.3b Distribution of days worked for MGNREGA participants in 2004–05 and 2011–12, men ages 30–59 (longitudinal sample) *(continued)*

Socioeconomic characteristics	2004–05 data for MGNREGA participating men						2011–12 data for MGNREGA participating men							
	Days on family farm	Days in family business	Days in agricultural labour	Days in non-agricultural labour excluding MGNREGA	Days in salaried work	Days in all work excluding MGNREGA	Days on family farm	Days in family business	Days in agricultural labour	Days in non-agricultural labour excluding MGNREGA	Days in salaried work	Days in MGNREGA	Days in all work excluding MGNREGA	Days in all work including MGNREGA
Number of adults														
1–2	44.1	26.5	85.0	58.3	15.6	227.1	43.0	10.9	62.2	55.2	7.4	30.8	177.0	205.7
3–4	59.9	16.3	68.9	48.4	11.9	201.9	55.6	17.5	49.1	46.2	6.5	27.8	172.6	198.6
4+	75.5	18.8	45.7	31.2	10.7	180.6	64.4	18.0	27.3	35.0	4.7	30.8	147.8	176.7
State-level MGNREGA participation														
Low ≤ 20%	47.4	21.8	84.6	61.9	9.6	223.8	54.3	9.9	59.6	62.2	5.0	34.9	189.4	221.9
Medium 20–40%	52.2	23.0	75.6	52.4	15.1	215.3	45.0	14.3	58.7	52.3	7.2	27.5	175.5	201.0
High > 40%	60.0	19.9	66.3	43.3	11.5	199.1	61.3	14.0	37.9	36.9	6.7	35.0	155.4	188.9
Region														
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	53.8	20.6	19.4	108.8	18.2	214.7	78.3	10.7	8.6	108.0	6.4	34.9	209.8	240.4
Punjab, Haryana	92.0	14.2	102.8	60.0	14.0	276.4	15.4	49.5	51.8	75.7	6.9	29.9	198.7	227.2
Uttar Pradesh, Bihar, Jharkhand	36.9	21.8	54.6	83.4	12.2	207.8	49.1	12.1	37.7	80.7	6.5	34.4	182.6	213.4
Rajasthan, Chhattisgarh, Madhya Pradesh	74.1	13.7	64.8	45.4	8.4	205.2	60.8	14.5	31.4	43.0	5.9	31.1	153.7	183.3
Northeast region, Assam, West Bengal, Odisha	54.5	35.5	65.8	44.9	11.9	208.6	39.8	20.3	60.2	54.0	7.4	26.4	181.2	206.8
Gujarat, Maharashtra, Goa	67.0	15.0	102.9	41.9	0.0	225.9	75.3	2.3	90.9	22.5	2.1	24.7	193.0	216.3
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	42.8	18.2	116.0	28.1	22.7	224.6	43.7	7.1	89.6	18.5	8.1	27.5	165.0	190.7

Note: Northeast region: all north-eastern states except Assam.

Appendix A4.4a Distribution of days worked for MGNREGA nonparticipants in 2004–05 and 2011–12, women ages 30–59 (longitudinal sample)

	2004–05 data for MGNREGA nonparticipating women						2011–12 data for MGNREGA nonparticipating women							
Socioeconomic characteristics	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in all work excluding MGNREGA**	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in MGNREGA**	**Days in all work excluding MGNREGA**	**Days in all work including MGNREGA**
All India	31.9	7.1	23.2	7.2	6.0	74.7	28.8	11.2	20.3	7.3	10.3	0.0	77.3	77.3
Age groups														
30–39 years	34.2	7.5	28.0	9.1	7.2	85.3	27.6	12.9	21.0	7.7	12.6	0.0	81.1	81.1
40–49 years	36.9	7.8	23.0	6.5	4.9	78.4	30.8	11.9	22.9	8.4	11.4	0.0	84.7	84.7
50–59 years	32.0	5.8	19.1	5.1	5.1	66.4	27.9	7.8	15.9	5.1	5.4	0.0	61.7	61.7
Marital status														
Unmarried/no gauna	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Married	32.8	7.1	22.8	6.9	5.2	74.2	30.6	11.5	19.2	6.6	8.7	0.0	76.0	76.0
Widowed/separated/ divorced	27.6	10.2	45.1	17.5	16.4	115.1	20.3	12.7	33.7	12.4	21.2	0.0	99.2	99.2
Relation to head of household														
Head	27.5	11.9	44.0	18.4	15.0	114.5	22.5	9.8	32.0	15.0	17.9	0.0	96.2	96.2
Spouse	33.8	7.9	25.8	8.0	5.6	80.5	30.8	12.3	20.0	7.0	8.5	0.0	78.0	78.0
Other	28.0	4.2	13.4	3.6	5.4	54.3	24.2	7.1	13.4	2.9	13.0	0.0	60.2	60.2
Highest education of person														
Illiterate	32.8	5.3	31.2	9.1	2.9	80.8	30.2	10.1	27.4	8.5	4.9	0.0	80.5	80.5
Primary (1–4 standard)	36.5	8.4	25.9	7.3	3.9	80.8	34.0	12.9	22.9	8.5	9.1	0.0	86.9	86.9
Middle (5–9 standard)	32.5	8.7	11.3	5.1	6.3	63.2	27.6	12.0	10.8	6.2	10.0	0.0	65.9	65.9
Secondary (10–11 standard)	26.4	11.1	3.4	1.5	16.0	58.4	22.5	12.7	3.4	2.7	20.2	0.0	60.8	60.8
12 standard/some college	20.7	17.8	4.8	1.5	25.0	69.4	21.0	11.9	1.7	2.6	57.1	0.0	93.2	93.2
Graduate/diploma	8.5	8.8	0.1	2.5	59.0	78.3	8.9	20.0	1.1	0.0	94.3	0.0	123.2	123.2
Place of residence														
More developed village	30.2	8.5	25.8	7.3	7.2	78.2	25.5	14.4	23.0	8.0	11.8	0.0	82.0	82.0
Less developed village	33.6	5.7	20.7	7.2	4.9	71.5	31.8	8.3	18.0	6.6	8.9	0.0	73.0	73.0
Social groups														
Forward caste	41.1	7.8	11.8	3.1	5.8	68.9	35.4	9.4	8.9	2.6	10.7	0.0	66.3	66.3
Other backward class	37.1	8.1	22.2	5.1	5.5	77.3	34.0	12.8	20.0	6.2	7.7	0.0	80.2	80.2
Dalit/scheduled caste	19.7	5.3	36.2	12.1	6.9	79.7	20.9	11.1	33.5	10.0	13.9	0.0	88.9	88.9
Adivasi/ scheduled tribe	43.4	5.3	46.6	15.2	7.9	117.2	30.8	7.9	32.9	9.5	13.0	0.0	93.4	93.4
Other religions	14.6	7.0	6.5	6.6	5.1	39.3	13.3	12.0	8.1	12.0	8.8	0.0	53.7	53.7

Appendix A4.4a Distribution of days worked for MGNREGA nonparticipants in 2004–05 and 2011–12, women ages 30–59 (longitudinal sample) *(continued)*

Socioeconomic characteristics	2004–05 data for MGNREGA nonparticipating women						2011–12 data for MGNREGA nonparticipating women							
	Days on family farm	Days in family business	Days in agricultural labour	Days in non-agricultural labour excluding MGNREGA	Days in salaried work	Days in all work excluding MGNREGA	Days on family farm	Days in family business	Days in agricultural labour	Days in non-agricultural labour excluding MGNREGA	Days in salaried work	Days in MGNREGA	Days in all work excluding MGNREGA	Days in all work including MGNREGA
Land cultivation														
Noncultivator	0.3	9.9	36.2	12.7	9.9	68.8	0.0	16.9	30.2	13.0	15.6	0.0	75.5	75.5
Marginal cultivator (< 1 hectare)	43.5	6.0	17.1	4.7	4.4	75.2	41.2	7.7	15.3	4.3	7.2	0.0	74.9	74.9
Small cultivator (1.0–1.99 hectares)	60.3	3.7	14.6	3.0	2.2	82.9	57.0	6.9	12.9	1.7	6.2	0.0	83.8	83.8
Medium/ large cultivator (2.0 hectares and above)	66.5	4.7	8.8	1.8	2.2	82.9	69.0	5.6	7.4	1.2	4.5	0.0	86.6	86.6
Income quintiles														
Poorest	32.7	4.6	20.7	8.1	2.0	67.7	28.9	6.8	14.3	4.5	4.6	0.0	59.1	59.1
2nd quintile	29.3	5.6	30.7	7.9	5.0	78.2	26.6	12.1	22.9	7.2	7.8	0.0	76.0	76.0
Middle quintile	28.4	8.2	32.0	8.6	6.2	82.9	25.5	15.0	28.5	10.5	10.0	0.0	88.8	88.8
4th quintile	31.8	9.3	21.3	6.4	7.0	75.1	29.1	11.0	26.1	8.9	13.3	0.0	87.4	87.4
Richest	34.2	10.7	6.2	4.9	15.6	70.3	32.9	12.9	11.0	6.8	21.1	0.0	83.6	83.6
Consumption quintiles														
Poorest	25.0	5.7	31.7	10.2	3.2	75.5	21.8	8.2	25.4	9.1	6.5	0.0	70.6	70.6
2nd quintile	29.9	5.2	26.1	9.7	4.6	75.1	27.3	11.8	22.5	7.8	7.8	0.0	76.7	76.7
Middle quintile	35.7	8.0	22.8	5.3	5.5	76.7	31.8	11.1	20.3	7.4	10.7	0.0	80.5	80.5
4th quintile	37.2	9.1	17.1	4.5	7.2	73.9	31.2	14.1	18.1	7.1	13.3	0.0	82.9	82.9
Richest	36.6	9.1	8.9	3.5	13.5	70.7	36.1	11.9	11.4	3.6	16.3	0.0	78.5	78.5
Assets quintiles														
Poorest	28.9	5.0	38.0	10.6	3.1	85.1	24.4	7.0	29.1	10.4	5.3	0.0	76.0	76.0
2nd quintile	34.6	6.7	26.5	7.8	5.0	79.7	28.8	10.9	26.3	8.6	8.0	0.0	82.2	82.2
Middle quintile	34.4	7.1	22.1	8.9	6.7	78.2	33.4	12.4	22.6	6.9	11.6	0.0	86.1	86.1
4th quintile	34.1	9.5	8.5	3.1	8.8	63.7	30.5	16.1	8.4	4.9	14.5	0.0	73.5	73.5
Richest	26.3	9.3	1.2	1.1	10.3	47.8	27.1	11.2	1.0	1.4	17.2	0.0	57.0	57.0
Poverty status														
Non-poor	34.6	8.2	17.4	6.0	7.5	72.8	30.2	12.0	18.0	6.8	11.2	0.0	77.4	77.4
Poor	27.6	5.3	32.6	9.3	3.6	78.0	23.4	7.7	29.7	9.3	6.7	0.0	76.6	76.6
Highest household education														
Illiterate	27.1	4.5	41.7	11.7	3.9	88.5	23.9	8.9	35.0	12.3	7.1	0.0	86.7	86.7
Primary (1–4 standard)	31.7	5.5	40.5	11.2	3.2	91.7	29.6	9.9	37.7	14.3	7.8	0.0	98.5	98.5
Middle (5–9 standard)	35.7	7.8	21.4	7.9	4.8	76.8	32.4	12.6	20.1	7.4	7.7	0.0	79.5	79.5
Secondary (10–11 standard)	34.9	8.9	11.5	3.8	5.4	64.0	29.6	13.6	13.9	4.5	10.2	0.0	71.4	71.4
12 standard/ some college	35.3	11.0	7.8	1.7	5.8	60.8	28.8	9.7	11.1	3.4	12.0	0.0	64.2	64.2
Graduate/diploma	22.9	5.1	4.2	2.0	18.1	52.1	25.8	10.4	5.1	2.6	21.5	0.0	64.9	64.9

Appendix A4.4a Distribution of days worked for MGNREGA nonparticipants in 2004–05 and 2011–12, women ages 30–59 (longitudinal sample) *(continued)*

	2004–05 data for MGNREGA nonparticipating women						2011–12 data for MGNREGA nonparticipating women							
Socioeconomic characteristics	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in all work excluding MGNREGA**	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in MGNREGA**	**Days in all work excluding MGNREGA**	**Days in all work including MGNREGA**
Number of adults														
1–2	29.5	9.3	31.0	11.1	7.2	87.4	27.1	13.3	25.2	10.0	11.8	0.0	86.7	86.7
3–4	35.4	6.1	21.5	5.4	5.9	73.6	30.2	11.1	19.1	6.2	8.9	0.0	74.8	74.8
4+	30.8	4.0	9.4	2.4	3.7	50.0	30.2	5.2	9.5	2.4	9.4	0.0	56.4	56.4
State-level MGNREGA participation														
Low ≤ 20%	44.0	7.1	29.9	4.2	4.3	88.8	35.5	8.3	27.5	4.9	6.7	0.0	82.4	82.4
Medium 20–40%	24.6	6.8	19.0	7.5	6.3	63.6	24.1	12.6	16.1	7.8	11.5	0.0	71.4	71.4
High > 40%	29.0	8.2	21.8	15.8	10.0	84.2	32.7	12.3	20.9	11.6	14.7	0.0	91.6	91.6
Region														
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	51.9	2.7	2.5	3.4	5.9	65.9	53.4	3.7	2.0	4.0	15.5	0.0	78.2	78.2
Punjab, Haryana	23.6	2.4	3.5	2.4	4.9	36.8	18.5	11.1	8.1	3.5	14.8	0.0	55.6	55.6
Uttar Pradesh, Bihar, Jharkhand	20.8	5.4	8.9	4.6	2.4	41.9	21.6	12.0	11.1	4.5	7.2	0.0	56.0	56.0
Rajasthan, Chhattisgarh, Madhya Pradesh	44.2	6.3	28.6	11.7	4.6	95.0	40.1	10.4	16.7	7.3	9.1	0.0	82.7	82.7
Northeast region, Assam, West Bengal, Odisha	13.7	5.6	9.1	7.0	9.0	44.0	10.0	10.2	8.7	11.0	12.9	0.0	52.5	52.5
Gujarat, Maharashtra, Goa	70.7	8.9	52.5	4.9	4.9	140.6	61.4	6.8	44.8	3.8	5.2	0.0	121.2	121.2
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	24.3	12.5	42.5	13.3	11.5	102.7	24.4	16.2	38.8	13.0	15.4	0.0	106.7	106.7

Note: Northeast region: all north-eastern states except Assam.

Appendix A4.4b Distribution of days worked for MGNREGA participants in 2004–05 and 2011–12, women ages 30–59 (longitudinal sample)

	2004–05 data for MGNREGA participating women						2011–12 data for MGNREGA participating women							
Socioeconomic characteristics	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in all work excluding MGNREGA**	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in MGNREGA**	**Days in all work excluding MGNREGA**	**Days in all work including MGNREGA**
All India	31.0	8.1	60.4	11.2	6.3	115.8	34.0	7.0	48.0	9.2	6.2	34.8	103.8	137.8
Age groups														
30–39 years	30.4	8.1	67.1	10.5	8.5	123.2	32.3	5.2	53.4	9.1	7.7	32.3	106.6	138.4
40–49 years	34.5	9.5	58.4	13.9	4.8	119.7	33.7	8.9	47.5	12.5	5.9	36.9	107.9	143.4
50–59 years	25.6	5.1	42.4	7.4	3.4	86.7	37.4	6.9	39.6	3.8	4.2	35.4	92.0	127.1
Marital status														
Unmarried/no gauna	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Married	32.8	7.4	57.6	10.3	5.6	112.6	35.4	7.0	46.3	8.6	4.0	34.7	100.7	134.7
Widowed/separated/ divorced	20.3	15.2	79.6	18.2	14.3	151.8	28.6	8.8	55.9	9.8	17.2	37.3	119.2	155.8
Relation to head of household														
Head	20.1	12.3	85.7	18.7	13.2	152.6	28.8	8.2	57.1	13.2	15.9	35.5	121.9	156.6
Spouse	32.9	8.0	57.9	10.7	6.2	114.3	34.9	6.9	46.5	8.8	4.0	34.8	100.6	134.6
Other	29.6	4.1	48.8	6.2	3.1	102.1	35.9	5.9	44.1	5.0	7.6	32.8	98.3	130.9
Highest education of person														
Illiterate	31.9	6.2	64.2	12.9	5.5	120.4	33.7	5.6	52.8	9.0	6.0	33.3	106.5	139.4
Primary (1–4 standard)	31.4	13.5	59.3	6.6	2.8	118.2	33.3	10.8	46.1	21.1	7.5	38.0	118.5	152.0
Middle (5–9 standard)	24.4	7.4	46.4	3.8	12.7	94.7	37.1	10.8	30.2	5.6	3.1	38.8	86.1	124.0
Secondary (10–11 standard)	32.0	59.0	0.0	5.3	2.6	91.2	29.3	17.5	25.5	3.6	26.9	48.4	98.8	145.1
12 standard/some college	15.3	36.6	103.9	0.0	3.9	146.7	19.9	9.7	16.6	0.0	41.6	40.3	80.4	119.9
Graduate/diploma	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Place of residence														
More developed village	27.8	12.5	66.0	11.0	7.5	123.4	27.8	8.1	52.6	11.2	3.3	41.2	102.4	142.7
Less developed village	33.9	4.1	55.3	11.3	5.3	109.3	39.0	6.1	44.3	7.6	8.5	29.6	104.9	133.8
Social groups														
Forward caste	47.6	2.0	33.6	6.9	4.5	94.7	70.7	14.2	15.6	5.0	9.3	37.9	112.1	148.8
Other backward class	35.8	11.9	57.4	10.2	9.4	123.8	37.1	5.3	42.1	10.5	4.9	35.1	99.5	133.4
Dalit/scheduled caste	19.0	4.6	68.2	12.1	4.4	106.5	22.8	6.5	62.6	10.2	5.6	36.1	107.5	143.2
Adivasi/ scheduled tribe	50.8	7.9	67.7	15.6	4.1	142.4	44.1	7.9	45.6	4.3	9.8	29.1	110.4	138.7
Other religions	19.9	12.5	45.7	7.7	5.6	89.4	16.1	10.4	38.3	10.4	6.4	31.9	81.2	112.9

Appendix A4.4b Distribution of days worked for MGNREGA participants in 2004–05 and 2011–12, women ages 30–59 (longitudinal sample) *(continued)*

	2004–05 data for MGNREGA participating women						2011–12 data for MGNREGA participating women							
Socioeconomic characteristics	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in all work excluding MGNREGA**	**Days on family farm**	**Days in family business**	**Days in agricultural labour**	**Days in non-agricultural labour excluding MGNREGA**	**Days in salaried work**	**Days in MGNREGA**	**Days in all work excluding MGNREGA**	**Days in all work including MGNREGA**
Land cultivation														
Noncultivator	0.1	12.1	79.6	13.6	9.3	111.6	0.0	8.2	63.6	14.2	9.5	39.1	95.3	133.7
Marginal cultivator (< 1 hectare)	50.2	4.3	44.1	9.2	4.5	114.8	59.0	6.1	38.1	5.5	3.9	32.0	111.9	143.0
Small cultivator (1.0–1.99 hectares)	76.7	3.1	46.2	13.4	2.5	140.3	66.0	5.9	37.6	4.7	2.0	32.0	114.7	146.0
Medium/ large cultivator (2.0 hectares and above)	85.0	4.5	24.7	1.5	0.6	110.4	63.8	6.3	18.0	5.6	3.7	26.9	96.1	122.0
Income quintiles														
Poorest	30.0	5.3	54.0	6.6	5.6	99.7	31.6	6.8	30.2	4.4	4.1	26.2	77.0	103.2
2nd quintile	26.5	7.0	67.9	10.6	7.3	112.8	33.0	6.7	46.4	6.5	10.4	31.4	102.4	133.1
Middle quintile	27.9	4.7	71.2	9.2	7.7	126.2	32.3	7.1	61.2	12.6	4.6	34.8	116.8	150.9
4th quintile	34.2	20.1	57.8	20.2	2.8	137.9	30.9	5.3	59.5	14.0	4.7	44.0	113.3	155.6
Richest	42.0	8.7	33.9	17.8	7.6	105.0	47.6	10.1	41.9	11.4	7.6	46.3	118.1	163.6
Consumption quintiles														
Poorest	30.5	4.2	67.8	12.4	2.7	114.9	28.0	4.5	42.7	6.9	8.4	32.7	90.3	122.8
2nd quintile	27.3	8.8	56.7	8.2	10.1	109.9	31.9	7.9	58.6	9.2	5.9	30.7	112.7	142.9
Middle quintile	31.3	7.3	51.7	11.5	5.2	111.8	38.6	9.1	45.9	13.3	6.7	38.2	113.2	149.6
4th quintile	32.9	12.7	77.4	9.6	10.5	132.5	41.0	5.0	50.6	9.2	4.5	37.3	110.0	146.5
Richest	39.0	14.6	30.5	16.4	6.6	117.2	34.2	10.6	37.4	7.6	3.3	38.4	91.1	128.5
Assets quintiles														
Poorest	31.2	4.1	66.6	17.0	5.6	120.8	27.4	4.4	50.3	8.7	8.0	27.9	98.8	126.6
2nd quintile	34.4	5.1	69.0	9.3	7.1	126.0	37.6	4.6	49.6	7.7	7.0	32.5	105.5	137.6
Middle quintile	28.6	4.4	54.4	5.4	6.7	98.4	36.2	8.7	54.6	8.1	3.5	37.9	110.7	147.1
4th quintile	26.8	29.3	36.5	7.9	4.4	105.1	34.6	9.1	30.6	16.5	6.3	45.1	96.0	140.2
Richest	25.2	41.6	9.3	0.0	22.3	124.7	41.2	45.0	7.5	3.0	7.4	46.2	101.1	144.0
Poverty status														
Non-poor	32.2	11.4	57.0	10.6	9.9	121.4	35.7	7.9	49.9	10.2	5.4	34.6	108.4	142.1
Poor	29.5	4.3	64.4	11.7	2.6	109.9	28.0	4.0	41.3	5.8	8.9	35.2	87.7	122.8
Highest household education														
Illiterate	27.5	5.7	74.0	16.1	6.1	127.4	26.8	3.4	61.1	10.8	9.3	33.5	110.9	144.2
Primary (1–4 standard)	32.1	4.1	75.7	14.9	0.7	127.5	25.9	8.3	60.5	9.6	4.6	28.7	108.9	137.3
Middle (5–9 standard)	34.6	8.4	45.8	6.8	9.9	105.0	40.9	6.5	37.8	5.7	4.0	35.0	94.5	128.7
Secondary (10–11 standard)	30.5	18.3	40.4	5.1	3.8	103.6	40.2	14.8	48.2	13.3	5.3	40.3	121.1	160.8
12 standard/ some college	32.6	9.6	50.6	3.6	4.3	105.3	34.0	15.1	33.6	7.1	8.3	36.4	94.7	129.2
Graduate/diploma	40.3	17.8	40.5	2.8	3.7	86.1	35.6	3.6	34.4	17.8	1.6	38.7	93.0	128.0

Appendix A4.4b Distribution of days worked for MGNREGA participants in 2004–05 and 2011–12, women ages 30–59 (longitudinal sample) *(continued)*

Socioeconomic characteristics	2004–05 data for MGNREGA participating women						2011–12 data for MGNREGA participating women							
	Days on family farm	Days in family business	Days in agricultural labour	Days in non-agricultural labour excluding MGNREGA	Days in salaried work	Days in all work excluding MGNREGA	Days on family farm	Days in family business	Days in agricultural labour	Days in non-agricultural labour excluding MGNREGA	Days in salaried work	Days in MGNREGA	Days in all work excluding MGNREGA	Days in all work including MGNREGA
Number of adults														
1–2	27.3	8.9	67.3	13.7	6.2	119.4	30.1	6.5	51.5	9.9	9.0	35.1	106.2	140.7
3–4	36.2	8.0	52.8	8.9	7.4	116.1	38.8	7.5	46.1	7.3	2.7	34.5	101.9	135.7
4+	35.0	2.9	44.6	3.3	3.1	93.8	41.4	8.9	29.3	13.1	1.5	34.0	94.0	125.1
State-level MGNREGA participation														
Low ≤ 20%	30.4	3.5	53.5	11.9	6.6	107.3	21.8	7.1	81.9	3.5	6.9	27.9	121.2	149.0
Medium 20–40%	26.9	7.4	68.1	9.0	7.9	119.5	29.4	5.5	56.8	10.1	8.8	25.6	109.8	134.9
High > 40%	36.2	9.7	51.6	13.8	4.2	112.0	42.2	9.2	31.2	8.7	2.4	48.8	93.1	140.5
Region														
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	41.0	0.5	9.0	16.5	8.8	77.0	71.5	2.6	0.8	4.7	12.3	35.0	91.7	126.2
Punjab, Haryana	10.1	0.0	28.0	20.6	1.1	59.4	10.1	0.0	52.1	9.1	2.0	36.0	73.3	109.3
Uttar Pradesh, Bihar, Jharkhand	20.0	2.1	32.8	4.8	2.5	57.6	25.7	5.8	42.4	13.4	12.8	27.4	100.0	126.9
Rajasthan, Chhattisgarh, Madhya Pradesh	49.3	3.8	49.4	17.0	2.1	121.2	47.0	6.9	25.3	7.8	3.7	34.2	90.0	123.7
Northeast region, Assam, West Bengal, Odisha	18.4	11.4	28.5	9.0	10.1	77.6	16.0	11.4	37.3	9.2	10.3	26.0	83.4	108.6
Gujarat, Maharashtra, Goa	78.4	15.2	116.7	26.4	0.0	211.9	—	—	—	—	—	—	—	—
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	22.9	12.1	84.3	8.2	9.3	136.0	29.3	6.8	68.0	9.8	5.0	39.5	118.3	156.6

Note: Northeast region: all north-eastern states except Assam.

CHAPTER 5

How Does MGNREGA Improve Household Welfare?

Sonalde Desai, Jaya Koti

"Recall the face of the poorest and the weakest man whom you may have seen, and ask yourself, if the step you contemplate is going to be of any use to him. Will he gain anything by it? Will it restore him to a control over his own life and destiny?"

(Mahatma Gandhi, Last Phase, Volume II [1958], p. 65)

This chapter considers a variety of aspects of rural Indian family life to explore the potential of the basic income security provided by MGNREGA to transform rural lives.

On average, MGNREGA contributed about ₹4,000 towards household income in 2011–12. This income represents a relatively small portion of the household budget—in 50% of participating households, MGNREGA income contributes less than 9% of total income. Although this may appear insufficient to make a meaningful difference, this income may be particularly important to the poor. Moreover, by offering work in the lean season it may allow households to sustain themselves during periods of low agricultural work demand and thus smooth consumption during the year.

We examined changes in three outcomes or dimensions of household well-being: increased financial inclusion, improvement in children's education, and increase in women's empowerment. For each of these three dimensions, the well-being of MGNREGA households has improved substantially.

Methodological challenges to evaluating impact

Assessing the impact of any programme is difficult due to lack of comparative data on conditions in its absence. For example, if MGNREGA pays ₹130 a day, a worker's income did not necessarily go up by ₹130. If the worker is diverted from manual labour paying ₹75 a day, the income increase is only ₹55. And if this other work builds his or her work experience, providing opportunities for longer-term work or wage growth, this difference could be even smaller.

Assessing MGNREGA's impact on household well-being is even more complicated. Since the programme offers manual work, it is typically used by individuals unable to find higher-paying employment, making it difficult to evaluate its impact. For example, MGNREGA may particularly assist adivasis who live in districts such as Mandla or Dang with few income opportunities. Even if MGNREGA improves their opportunities, however, external circumstances may still not allow them to catch up, in terms of measures of well-being, with residents of better-off districts such as Jabalpur or Vadodara. So we need to compare any improvement in their lives in relative terms.

We would not expect the lives of adivasis to be better than those of forward castes due to MGNREGA; rather, we need to examine whether access to MGNREGA has improved their welfare from what it would have been without the programme. Participating households

must be compared with nonparticipating households before and after the programme's implementation. This method, known as the difference-in-difference method, is used extensively in impact evaluations.[1] We anticipated two types of effects of MGNREGA: individual effect and social effect.

Individual effect

Household incomes may rise due to MGNREGA implementation. But MGNREGA also provides work to households during periods of low agricultural demand. This could allow households to smooth consumption throughout the year and provide income during emergencies such as droughts and floods, as well as temporary or permanent unemployment.

Social effect

The fortunes of village families are often tied together. In villages where destitution prevails, few banks will set up branches, thus allowing traditional moneylenders to control lending in the village. MGNREGA's growth may encourage the creation of local branches and weaken the hold of moneylenders, benefiting both MGNREGA participants and nonparticipants. If the social audit process encourages honesty and commitment among Gram Panchayat leaders, it will increase accountability not only in MGNREGA but also among government schoolteachers and doctors. MGNREGA work is associated with a modest rise in private sector wages, which benefits both participants and nonparticipants by transforming the social and economic fabric of the village. We may miss this social effect if we compare only participants and nonparticipants.

We address these methodological challenges by dividing our sample into three categories corresponding to different MGNREGA intensity levels:[2]

- *Households living in low-intensity villages.* We defined villages in which no member of the IHDS sample participated in MGNREGA as low-intensity villages. Since about one in four rural households participate in MGNREGA, we would expect about four to five households to be working for MGNREGA in the IHDS sample of about 20 households per village. Lack of participating households reflects either low demand (as in richer states such as Gujarat) or poor administration (as in states such as Bihar).[3]
- *Nonparticipant households in participant villages.* These households live in villages where the programme is being implemented but the index household did not participate in the previous year. Comparison between low-intensity villages and nonparticipant households in participant villages enables an estimate of the social effect.
- *Participating households.* This group consists of households that participated in MGNREGA in the year before the survey. The difference between participating households and nonparticipating households in participant villages provides an estimate of individual effect, while the difference between these households and those living in low-intensity villages provides an estimate of total effect. Since some households in low-intensity villages may still be performing MGNREGA work (and hence may benefit from the social effect), this estimate of the total effect is highly conservative.

Reliance on moneylenders declines, increasing borrowing

The vulnerability of rural Indians to indebtedness, particularly indebtedness to moneylenders, has long been

documented in Indian films and literature. Caricatures of moneylenders in Munshi Prem Chand's novel *Godaan* and in the well-known film *Mother India* highlight the perils of borrowing at usurious rates. But after a spurt of studies in the 1980s linking labour markets to credit markets in the 1970s and 1980s, with a focus on increased burden of debt on tenant farmers,[4,5,6,7] in recent years attention has turned to financial inclusion through establishment of banks rather than transformation of labour markets. We show that MGNREGA may result in a transformation of labour markets that reduces vulnerability of rural households to high-interest loans.

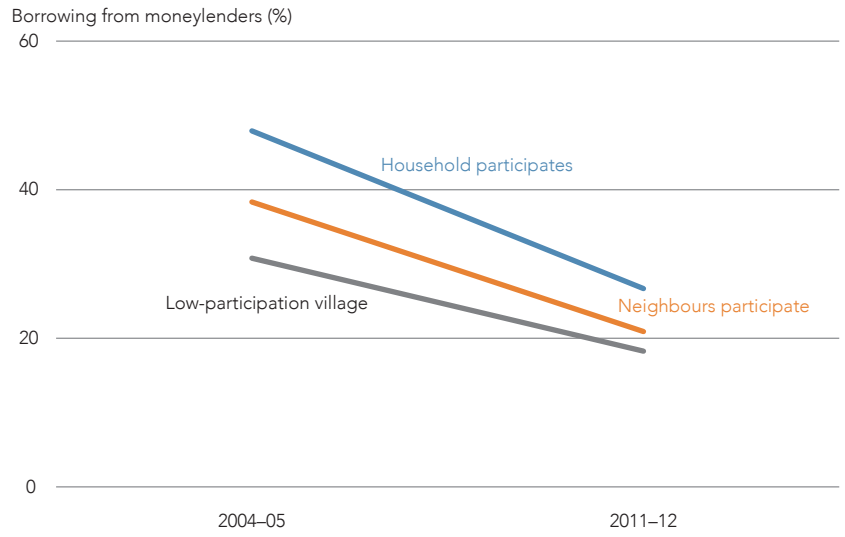
Villages and households that participate in MGNREGA started with a high degree of reliance on moneylenders for loans, and their use of moneylenders has fallen sharply (Figure 5.1). Whereas 48% of MGNREGA participants who had obtained loans in the previous five years borrowed from moneylenders in 2004–05, only 27% did so in 2011–12. Borrowing from moneylenders is typically a last resort since their usurious rates—often as high as 10% a month—make this an extremely expensive form of credit, typically used only by poor households who cannot qualify for formal credit.[8]

This sharp reduction in borrowing from moneylenders is due to several factors:

- Overall financial inclusion has risen. Regardless of MGNREGA participation, between 2004–05 and 2011–12 the proportion of rural households relying on moneylenders fell from 39% to 22% of households that took out a loan; borrowing from moneylenders in even low-intensity villages fell from 31% to 18%.
- Nonparticipating households in villages where neighbours participate seem to gain about five percentage points over low-intensity villages; their percentage of borrowing from moneylenders fell from 38% to 21%. Greater financial inclusion associated with MGNREGA programme expansion may reduce the profits and incentives for moneylenders to continue to lend, reducing borrowing for participants and nonparticipants alike.
- MGNREGA participants are most likely to benefit, with those borrowing from moneylenders declining from 48% to 27%. The difference-in-difference—measuring the improvement among MGNREGA participants over their neighbours from the same village who do not participate in MGNREGA—is as great as four percentage points. The ability to obtain work in emergencies or in periods of great need seems to reduce reliance on moneylenders.

Substantial individual and social effects on patterns of borrowing from moneylenders result in a large total effect, reducing reliance on moneylenders among MGNREGA households

Figure **5.1** **Percentage of rural households borrowing informally (borrowers)**



Source: Authors' calculations from IHDS.

by nine percentage points over low-intensity villages.

This decline in "bad" borrowing is accompanied by a rise in "good" borrowing from formal sources such as banks, credit societies and self-help groups. While formal credit rose for all households, the increase was particularly striking for MGNREGA participants—from 24 to 34 percentage points, or nearly 50% (Table 5.1). MGNREGA's focus on direct payment to participants through formal sources may account for this differential improvement. Once MGNREGA workers open a bank account and learn to navigate formal banking systems, they may more readily obtain formal credit.

This transformation is also reflected in the interest rates paid by households. Average annual interest rates paid by borrowers in low-intensity villages fell from 36% to 26% a year. This decline may stem from the striking credit expansion in rural India.[9] But the interest rate in MGNREGA villages for both participant and nonparticipating neighbours fell even more. This decline relates directly to a shift from high-interest loans from moneylenders for all households and a shift towards formal credit for MGNREGA households.

As the credit climate improved for rural households, the proportion of households taking out loans also rose. Some studies with small samples have found that MGNREGA participation reduces debt burden.[10] But IHDS instead finds a slightly positive relationship between MGNREGA participation and a household's propensity to borrow. The proportion of households that took out

Table **5.1** **Changes in debt and borrowing among MGNREGA participants, by village level of MGNREGA participation**

	2004–05	2011–12	Difference	Difference-in-differences	Significance for difference-in-differences
Informal loan (borrowers)					
Low MGNREGA participation village	30.8	18.3	–12.5		
Nonparticipant in high-participation village	38.3	20.9	–17.4	–4.9	***
MGNREGA participant households	47.9	26.7	–21.2	–8.7	***
Formal loan (borrowers)					
Low MGNREGA participation village	42.5	48.7	6.3		
Nonparticipant in high-participation village	34.7	39.8	5.1	–1.1	
MGNREGA participant households	23.9	34.2	10.3	4.0	***
Interest rate paid (borrowers)					
Low MGNREGA participation village	30.2	25.7	–4.5		
Nonparticipant in high-participation village	36.4	28.5	–7.9	–3.4	***
MGNREGA participant households	38.5	29.6	–8.9	–4.4	***
Any loans in previous five years					
Low MGNREGA participation village	45.5	52.2	6.7		
Nonparticipant in high-participation village	48.1	58.1	9.9	3.3	***
MGNREGA participant households	56.3	68.6	12.3	5.6	***

Note: * $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$. Significance calculated by a linear probability model with control for social group, household income, village development and state of residence. Difference-in-differences calculated vs. low MGNREGA participation villages.

Source: Authors' calculations from IHDS.

any loan over the five years preceding the survey rose from 45% in 2004–05 to 52% in 2011–12 in low-intensity villages but rose even faster, from 56% to 69%, for MGNREGA households (see Table 5.1).

This growth in formal borrowing reduces the amount of high-interest borrowing that creates a long-term debt cycle. MGNREGA diminishes reliance on bad debt and increases financial inclusion. And in the two years since 2011–12, electronic payments into recipients' bank accounts have become the norm. So we expect to see an even greater expansion of formal credit among MGNREGA participants.

Children's education improves

Rising school enrolment rates are one of the greatest achievements of modern Indian society. Today almost all children attend school at some point in their lives.[11]

One of the most hopeful signs of Indian development is the shrinking gaps in enrolment by income, caste, religion and gender. MGNREGA may have played a role in closing these gaps. We find that children from MGNREGA households are more likely to attain higher education levels and have improved learning outcomes than their peers from non-MGNREGA households. Other studies have confirmed these results.[12,13]

Given the poverty of MGNREGA households, it is not surprising that 6- to 14-year-old children from these households completed fewer classes—about 0.4 years of education fewer—than children from low-participation villages, and about 0.14 classes fewer than children from nonparticipant households in MGNREGA villages before MGNREGA implementation. With rising enrolments, education levels for children in all three groups grew between 2004–05 and 2011–12, but the MGNREGA households overshot nonparticipants within the same village and almost caught up with the children from low-participation villages (Table 5.2).

One would expect rising school enrolment to be reflected in improved learning outcomes. However, for the nation as a whole, ground-level skill assessments present a surprise. Repeated rounds of Annual Status of Education Report (ASER) surveys document a slight decline in reading and arithmetic skills over the past 10 years,[14] possibly due to the educational system's expansion into the most marginalized sections of society. We also find that, using reading and arithmetic tests from ASER surveys, ability to read a short paragraph or undertake two-digit subtraction declined slightly between 2004–05 and 2011–12 for both nonparticipating villages and nonparticipating households in MGNREGA villages. Thus, it is striking that among children from MGNREGA households, skill levels rose slightly in arithmetic and stayed the same in reading. This suggests that MGNREGA participation is associated with a greater rate of improvement for participating households that start out with a considerable disadvantage. While social effects appear to be weak, individual effects of MGNREGA participation on educational attainment as well as learning outcomes are strong.

What accounts for these improvements in education outcomes? MGNREGA income might be used for buying books or getting private tuition for children, thereby improving their skills. But education expenditures, enrolment in private schools and access to private tutoring seem not to benefit from MGNREGA participation. While financial investments in children's education have risen for children in MGNREGA households, they have risen even more for nonparticipating families in the other two categories.

Table **5.2** **Changes in children's education among MGNREGA participants, by village level of MGNREGA participation**

	2004–05	2011–12	Difference	Difference-in-differences	Significance for difference-in-differences
Standards completed (ages 6–14)					
Low MGNREGA participation village	3.43	3.87	0.44		
Nonparticipant in high-participation village	3.14	3.59	0.45	0.01	*
MGNREGA participant households	3.00	3.74	0.74	0.30	***
Can read a paragraph (ages 8–11)					
Low MGNREGA participation village	55.6	49.0	–6.58		
Nonparticipant in high-participation village	50.7	49.4	–1.34	5.24	**
MGNREGA participant households	40.3	43.1	2.80	9.38	***
Can subtract two-digit numbers (ages 8–11)					
Low MGNREGA participation village	48.2	43.3	–4.84		
Nonparticipant in high-participation village	43.8	40.6	–3.18	1.66	
MGNREGA participant households	34.6	36.0	1.43	6.27	***
Educational expenses (ages 6–14)					
Low MGNREGA participation village	1393	2411	1018		
Nonparticipant in high-participation village	1428	2212	784	–234	**
MGNREGA participant households	911	1377	466	–551	***
Participate in wage work (ages 11–14)					
Low MGNREGA participation village	2.1	1.9	–0.252		
Nonparticipant in high-participation village	3.0	2.1	–0.892	–0.640	***
MGNREGA participant households	5.9	4.2	–1.661	–1.409	***
Hours spent in school, doing homework and at tuition (ages 6–14)					
Low MGNREGA participation village	33.5	37.4	3.9		
Nonparticipant in high-participation village	31.1	37.0	5.8	1.9	***
MGNREGA participant households	29.8	37.0	7.2	3.3	***

Note: * $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$. Significance calculated by a linear probability model with control for social group, household income, village development and state of residence. Difference-in-differences calculated vs. low MGNREGA participation villages.

Source: Authors' calculations from IHDS.

This increase is far greater for non-participants, which in turn widens the gap between the three groups instead of narrowing it.

The answer seems to lie in the amount of time children spend in school and in school-related activities.[15] The IHDS asked questions about the number of hours children spent in school, doing homework and attending classes every week. In 2004–05, children from MGNREGA households spent on average four hours less a week in educational activities than those in low-intensity villages and one hour less than their nonparticipating neighbours (see Table 5.2). By 2011–12, they had caught up. Perhaps MGNREGA helps reduce child labour, thereby improving education outcomes.[16] Although child labour is difficult to measure and available statistics show only a very small percentage of children participating in wage work,[17] for children employed in these activities it presents a substantial time burden. About six percent of children ages 11–14 years were engaged in wage work in 2004–05 among

MGNREGA households, but this proportion dropped to four percent in 2011–12, while the proportion in the labour force among nonparticipants held steady at 2–3%.

Poor children have many other time demands in addition to formal labour force participation, so it is not surprising that income security for households through MGNREGA would improve their education outcomes.[18]

MGNREGA participation empowers women

MGNREGA contains many provisions to enhance women's participation. As noted in chapter 4, for nearly 45% of women workers in MGNREGA, this may be their first cash earning activity (Box 5.1). A vast quantity of Indian and international literature has identified access to paid work as a key determinant of a rise in women's bargaining power within the household.[19,20,21] Qualitative studies of women workers in MGNREGA note significant enhancement in their self-esteem, power within the household and control over resources.[22,23,24] However, data collected on this issue at a single point in time do not control for the fact that women who choose to work in MGNREGA and whose families allow or encourage them to do so may be quite different from those who do not.

We examined the changes in a variety of indicators of women's empowerment using the same difference-in-difference framework as before (Table 5.3). Here we differentiate between households in which only male members participate in MGNREGA and households in which female members also engage in MGNREGA work. Indicators for married women ages 15–49 years show substantial improvement in households where women participate in MGNREGA work, and smaller or nonexistent improvements in the other three categories—women in

Box **5.1** **Snapshots from the ground: MGNREGA work is often the first cash-earning activity many women undertake**

Reena, married woman with one child in district Chittorgarh, Rajasthan.

Reena Jatia (shown with her 3-year-old daughter at the MGNREGA site) dropped out from school after 10th class. While she would have liked to continue studying, her father arranged her marriage. Even after her marriage, she wished to continue her studies but due to purdah (pallu) and refusal from her husband she could not continue.

Before marriage she neither worked on her family farm nor as a wage labourer. After marriage she started working on her family farm and taking care of the household's livestock.

Though her job card was obtained in 2012, she just started working on MGNREGA road construction work seven days ago. Both Reena and her husband are working. Reena mentioned that on the first day of working she enjoyed the work as it was in a group of people from the same village and most of the MGNREGA workers are women. The type of work she is doing is also similar to the work on her family farm. She also claimed that since the wheat crop was harvested, she did not have any work at her home and she herself decided to work in MGNREGA.

There is no arrangement for the kids on the work site but since nobody is at home to take care of her daughter, she decided to take her daughter to the job site.

Source: Interview by IHDS staff.

Table **5.3** **Changes in women's empowerment among MGNREGA participants, by village level of MGNREGA participation**

	2004–05	2011–12	Difference	Difference-in-differences	Significance for difference-in-differences
Has cash on hand for expenses					
Low MGNREGA participation village	78.2	89.5	11.28		
Nonparticipant high participation village	80.3	88.3	7.98	–3.31	***
MGNREGA participant households					
Only men in MGNREGA	77.5	85.4	7.91	–3.38	
Women in MGNREGA	79.5	92.9	13.38	2.10	**
Has a bank account (single or joint)					
Low MGNREGA participation village	12.8	26.5	13.64		
Nonparticipant high participation village	16.4	34.9	18.59	4.94	
MGNREGA participant households					
Only men in MGNREGA	10.5	28.7	18.16	4.52	***
Women in MGNREGA	9.8	48.4	38.56	24.92	***
Can go to a doctor alone					
Low MGNREGA participation village	62.3	74.2	11.87		
Nonparticipant high participation village	58.6	71.9	13.31	1.44	***
MGNREGA participant households					
Only men in MGNREGA	67.5	77.5	9.98	–1.88	***
Women in MGNREGA	65.8	79.8	14.00	2.13	***
Number of items (out of 4) for which women had some say in household decision making					
Low MGNREGA participation village	0.61	0.64	2.67		
Nonparticipant high participation village	0.57	0.70	13.33	10.67	***
MGNREGA participant households					
Only men in MGNREGA	0.79	0.65	–3.06	–5.72	**
Women in MGNREGA	0.50	0.79	35.59	32.92	***

Note: * $p \leq 0.1$, ** $p \leq 0.05$, *** $p \leq 0.01$. Significance calculated by a linear probability model with control for social group, household income, village development and state of residence. Difference-in-differences calculated vs. low MGNREGA participation villages.

Source: Authors' calculations from IHDS.

low-intensity villages, women from non-participant households in MGNREGA villages, and women from households in which only male members participate.

The IHDS asked women if they had cash on hand for daily expenses. In 2004–05 about 79% of women from female participant households had cash on hand—among the lowest of the four groups. But by 2011–12 their access to cash had gone up to 93%, the highest in four groups.

Only nine percent of the women in this group had a bank account in 2004–05. This proportion has risen to 49% by 2011–12, far outstripping all other groups, among whom less than 30% have a bank account. Given the emphasis of the programme on making direct bank payments, this is not surprising. But it also reflects a tremendous increase in women's financial inclusion.

Growing access to cash and rising financial inclusion increase women's involvement in household decisions. The IHDS asked whether women respondents had any say in the following household decisions: whether to buy

an expensive item such as a refrigerator, how many children to have, what to do if children fall sick and whom children should marry. In 2004–05 female participant households had the lowest score on this index, 0.5. In contrast, in nonparticipating households the score was a little over 0.6, while in the households in which only men participated in MGNREGA, the score was 0.79. In 2011–12, respondents in the households with female participants had jumped to 0.8, far outpacing all other types of households. It is important to note that this still means that in each group, women barely had any say in one out of the four decisions we asked about. But even at this low level, the improvement in decision-making power for women from MGNREGA households is striking.

The IHDS also asked women respondents whether they could visit a doctor or a health centre alone if needed. The growth in women's ability to freely go for health care rose from 65% to 80% in female participant households, whereas for all other households it rose by barely 10 percentage points. In 2011–12, women from households in which women worked in MGNREGA were the most likely to feel free to visit a health centre alone.

How do we explain these empowering effects of MGNREGA participation for women? Many of the MGNREGA female participants were either not employed in 2004–05 or employed only on a family farm or in a family business. MGNREGA provided them with a unique opportunity to earn cash income, which was instrumental in empowering them.

Causality versus programme benefits

MGNREGA participation depends on both availability of work and workers' decision to participate. So improvements in children's education through MGNREGA participation may stem ultimately from the fact that parents who want to ensure higher education for their children are more likely to participate in the programme. Similarly, families that want to avoid high-interest borrowing from moneylenders may choose to work in MGNREGA.

But without MGNREGA, even the most motivated parents would not be able to generate sufficient income to withdraw their children from wage labour. So MGNREGA implementation may simply help individuals who choose to help themselves. This recognition of individual motivation and dedication to improving one's own life enhances a programme's value if the programme provides opportunities to deserving and ambitious individuals and families.

Notes

1. Gertler et al. 2011.
2. In each case, although we present basic descriptive statistics for simplicity, a significance test for the difference-in-difference (the interaction term) is conducted while controlling for income, village development level, social group and other relevant variables in linear probability models.
3. It is possible that households outside our sample may participate in MGNREGA and there may indeed be some MGNREGA activity in low-intensity villages. But if so, observed differences between these villages and participant villages would be even greater than we observe if we could limit our comparison group to villages with no MGNREGA activity.
4. Bhaduri 1973.
5. Basu 1984.
6. Bardhan and Rudra 1978.
7. Sarap 1990.

8. National Sample Survey Organisation 2006.
9. Rajan 2014
10. Bhattarai et al. 2015.
11. ASER Centre 2015.
12. Uppal 2009.
13. Dev 2011.
14. ASER Centre 2015.
15. Afridi et al. 2012.
16. Dev 2011.
17. National Sample Survey Organisation 2013.
18. We also examined changes in children's nutritional status in the context of MGNREGA participation. However, although MGNREGA participation is associated with a decline in severe stunting (low height-for-age), this relationship is not statistically significant and not reported here.
19. Agarwal 1997.
20. Narayan 2006.
21. Kabeer 1999.
22. Khera and Nayak 2009.
23. Narayanan 2008.
24. Pankaj and Tankha 2010.

Appendix A5.1 Any loans in preceding five years, by level of MGNREGA participation (2004–05 and 2011–12)

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
All India	45.5	48.1	56.3	52.2	58.1	68.6
Place of residence						
More developed village	44.5	51.7	65.8	50.7	59.6	71.7
Less developed village	47.2	45.4	50.1	54.5	57.0	66.7
Social groups						
Forward caste	42.6	46.5	47.8	48.9	60.8	68.1
Other backward class	53.2	54.1	65.2	56.4	64.0	76.0
Dalit/scheduled caste	44.0	49.7	58.5	56.8	60.2	70.6
Adivasi/ scheduled tribe	32.7	31.7	39.9	29.6	35.0	49.9
Other religions	37.4	40.8	44.9	54.0	50.4	60.3
Land cultivation						
Noncultivator	39.7	44.5	54.4	45.5	53.0	63.1
Marginal cultivator (< 1 hectare)	48.2	49.0	54.4	54.9	59.9	70.9
Small cultivator (1.0–1.99 hectares)	50.4	47.9	63.6	62.3	66.5	76.5
Medium/large cultivator (2.0 hectares and above)	55.5	60.2	66.4	66.1	71.3	80.2
Income quintiles						
Poorest	47.3	53.8	63.1	51.6	60.2	71.3
2nd quintile	50.9	49.6	57.2	57.5	59.6	70.6
Middle quintile	42.8	47.0	54.7	50.0	58.2	64.0
4th quintile	43.6	49.9	52.1	52.5	58.8	68.6
Richest	41.9	40.5	53.0	49.3	54.3	65.8
Consumption quintiles						
Poorest	45.5	45.9	50.7	49.6	50.5	62.1
2nd quintile	44.2	46.5	53.6	50.8	54.7	66.8
Middle quintile	40.3	46.6	54.4	51.5	58.8	68.6
4th quintile	51.0	49.8	62.2	50.9	61.1	73.9
Richest	46.1	51.3	68.3	56.7	64.6	77.0
Assets quintiles						
Poorest	49.5	47.9	55.1	50.1	53.8	63.1
2nd quintile	50.2	50.8	53.2	50.6	60.0	65.0
Middle quintile	45.3	50.1	59.6	51.2	62.2	72.8
4th quintile	44.3	48.9	57.7	55.4	60.6	74.0
Richest	40.6	43.8	57.4	52.3	56.2	73.7
Poverty status						
Non-poor	47.9	50.1	61.6	53.0	60.1	70.9
Poor	41.1	44.4	50.5	48.5	49.6	62.0

Appendix **A5.1** **Any loans in preceding five years, by level of MGNREGA participation (2004–05 and 2011–12)** *(continued)*

	2004–05			2011–12		
	Low MGNREGA participation village	**Nonparticipant in MGNREGA village**	**MGNREGA participant households**	**Low MGNREGA participation village**	**Nonparticipant in MGNREGA village**	**MGNREGA participant households**
Highest household education						
Illiterate	44.3	48.7	57.3	47.2	53.9	67.3
Primary (1–4 standard)	45.8	48.1	48.1	50.4	60.0	67.2
Middle (5–9 standard)	47.2	50.6	57.1	54.1	59.6	67.5
Secondary (10–11 standard)	44.5	47.8	56.4	52.7	60.0	72.1
12 standard/some college	43.4	46.8	64.3	54.3	60.9	71.5
Graduate/diploma	45.6	41.0	56.5	52.9	56.8	76.1
Number of adults						
1–2	45.2	46.6	55.1	49.5	55.1	66.9
3–4	45.1	50.8	58.3	54.6	62.7	70.1
4+	47.6	47.0	57.2	55.2	59.8	74.7
State-level MGNREGA participation						
Low ≤ 20%	42.8	51.1	53.4	44.4	57.1	64.5
Medium 20–40%	48.1	46.5	54.6	63.2	58.9	69.6
High > 40%	59.3	50.8	61.1	65.4	55.8	67.6
Region						
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	25.2	25.8	32.8	43.7	45.1	49.3
Punjab, Haryana	20.9	23.3	25.4	45.1	51.5	52.2
Uttar Pradesh, Bihar, Jharkhand	55.6	48.6	55.2	59.7	59.4	74.1
Rajasthan, Chhattisgarh, Madhya Pradesh	52.2	53.7	58.2	75.8	64.6	70.4
Northeast region, Assam, West Bengal, Odisha	55.8	33.2	34.1	41.5	43.3	48.5
Gujarat, Maharashtra, Goa	35.8	35.1	32.0	39.5	48.4	55.6
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	59.7	66.3	76.9	71.5	68.8	82.4

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix A5.2 Holding a moneylender loan (borrowers), by level of MGNREGA participation (2004–05 and 2011–12)

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
All India	30.8	38.4	47.9	18.3	20.9	26.7
Place of residence						
More developed village	29.2	35.8	48.9	15.5	20.9	29.3
Less developed village	33.4	40.1	46.2	22.3	20.9	24.9
Social groups						
Forward caste	15.2	25.8	39.8	10.0	13.8	21.8
Other backward class	31.4	40.8	48.5	19.9	21.8	29.0
Dalit/scheduled caste	47.8	49.9	52.3	24.2	25.8	29.4
Adivasi/ scheduled tribe	26.3	33.5	39.4	12.5	22.5	19.1
Other religions	25.7	29.1	40.9	18.3	19.3	19.2
Land cultivation						
Noncultivator	37.9	43.2	55.5	20.6	24.1	32.0
Marginal cultivator (< 1 hectare)	33.9	40.5	44.0	19.1	21.1	23.3
Small cultivator (1.0–1.99 hectares)	23.1	30.2	35.7	20.0	14.4	24.5
Medium/large cultivator (2.0 hectares and above)	14.6	25.0	40.6	6.7	12.3	20.2
Income quintiles						
Poorest	39.6	47.4	48.8	17.7	25.0	27.7
2nd quintile	46.7	46.0	47.7	23.7	23.7	25.0
Middle quintile	35.3	39.5	45.7	23.2	20.3	28.7
4th quintile	21.9	35.7	51.0	17.6	20.7	26.3
Richest	14.4	22.0	45.0	10.4	14.6	24.9
Consumption quintiles						
Poorest	32.9	44.9	42.8	26.9	24.7	24.5
2nd quintile	44.1	45.8	48.3	18.3	24.5	25.1
Middle quintile	28.6	41.6	49.2	17.6	23.5	25.3
4th quintile	28.4	36.2	50.4	16.4	17.9	28.7
Richest	22.8	26.8	50.5	15.4	15.9	31.6
Assets quintiles						
Poorest	46.1	58.1	52.8	36.0	27.4	30.3
2nd quintile	42.9	43.4	45.0	23.2	24.4	24.1
Middle quintile	35.8	37.3	46.9	19.2	21.7	26.0
4th quintile	24.7	30.6	47.3	13.2	16.2	28.5
Richest	7.6	15.9	38.4	7.6	12.3	19.1
Poverty status						
Non-poor	30.0	35.4	50.4	17.2	20.2	26.8
Poor	32.3	44.6	44.5	23.5	24.8	26.3

Appendix A5.2 Holding a moneylender loan (borrowers), by level of MGNREGA participation (2004–05 and 2011–12) *(continued)*

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
Highest household education						
Illiterate	48.7	51.4	54.1	35.2	31.8	34.5
Primary (1–4 standard)	36.5	46.9	41.9	17.5	25.3	20.5
Middle (5–9 standard)	32.1	38.4	44.9	18.6	22.0	24.2
Secondary (10–11 standard)	21.5	26.6	42.7	13.2	13.6	26.9
12 standard/some college	15.1	20.6	44.6	10.1	12.9	21.7
Graduate/diploma	7.3	23.7	43.4	7.9	10.4	18.9
Number of adults						
1–2	36.8	42.7	50.7	20.7	22.6	28.2
3–4	28.5	35.6	45.2	17.2	19.6	25.4
4+	17.6	28.0	41.2	12.8	16.1	22.2
State-level MGNREGA participation						
Low ≤ 20%	30.4	48.5	57.6	19.3	27.1	34.3
Medium 20–40%	29.4	33.5	43.8	15.2	17.5	23.9
High > 40%	40.7	42.7	53.2	35.0	27.5	30.9
Region						
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	—	18.5	27.5	9.1	9.9	12.6
Punjab, Haryana	21.3	16.9	—	21.0	20.6	30.7
Uttar Pradesh, Bihar, Jharkhand	45.4	45.0	49.7	27.2	21.5	25.8
Rajasthan, Chhattisgarh, Madhya Pradesh	36.9	40.5	44.0	27.8	26.0	27.2
Northeast region, Assam, West Bengal, Odisha	41.8	44.6	43.7	16.9	13.6	11.0
Gujarat, Maharashtra, Goa	7.4	9.4	—	6.9	4.9	3.1
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	37.0	32.8	52.1	17.2	24.1	35.4

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix A5.3 Holding a formal loan (borrowers), by level of MGNREGA participation (2004–05 and 2011–12)

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
All India	42.5	34.7	23.9	48.7	39.8	34.2
Place of residence						
More developed village	44.9	39.0	23.5	51.2	43.9	39.3
Less developed village	37.9	31.3	23.9	45.1	36.8	30.8
Social groups						
Forward caste	61.8	48.7	32.9	63.6	53.7	43.1
Other backward class	43.4	33.7	23.9	49.7	38.7	34.8
Dalit/scheduled caste	27.5	23.5	19.6	34.3	32.2	32.8
Adivasi/ scheduled tribe	28.1	28.9	28.3	56.2	31.8	29.7
Other religions	41.4	40.0	30.8	43.5	39.3	31.8
Land cultivation						
Noncultivator	28.4	26.5	14.4	36.7	34.7	29.5
Marginal cultivator (< 1 hectare)	40.0	30.7	25.3	44.9	35.0	35.1
Small cultivator (1.0–1.99 hectares)	55.5	45.5	42.3	63.9	56.7	39.2
Medium/large cultivator (2.0 hectares and above)	69.7	60.6	41.4	83.8	67.8	48.5
Income quintiles						
Poorest	27.7	22.3	21.0	44.7	30.2	23.7
2nd quintile	25.8	24.9	18.5	39.8	29.7	30.7
Middle quintile	37.0	30.8	25.4	43.5	34.9	36.4
4th quintile	48.4	39.4	26.2	45.9	41.0	38.6
Richest	65.8	56.5	33.5	65.6	62.4	48.8
Consumption quintiles						
Poorest	28.1	22.8	21.9	40.5	24.7	27.5
2nd quintile	31.0	24.9	22.5	42.2	30.7	29.7
Middle quintile	44.1	32.0	25.0	43.4	35.7	36.6
4th quintile	47.1	38.9	23.7	53.1	45.8	40.1
Richest	55.4	49.6	27.9	58.6	56.0	40.5
Assets quintiles						
Poorest	15.8	13.6	18.1	27.2	20.9	19.1
2nd quintile	29.6	25.4	20.8	31.2	30.2	30.3
Middle quintile	40.7	33.1	26.0	48.0	38.0	35.1
4th quintile	48.0	44.4	27.7	51.3	50.1	45.9
Richest	74.5	64.3	43.3	71.5	67.8	56.9
Poverty status						
Non-poor	46.0	39.5	24.6	49.9	42.8	36.5
Poor	35.0	24.3	22.9	43.3	24.5	26.7

Appendix A5.3 Holding a formal loan (borrowers), by level of MGNREGA participation (2004–05 and 2011–12) *(continued)*

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
Highest household education						
Illiterate	16.1	18.8	15.2	26.6	19.9	24.0
Primary (1–4 standard)	30.5	23.1	26.3	41.9	35.9	31.3
Middle (5–9 standard)	38.9	33.7	27.0	45.1	37.0	35.8
Secondary (10–11 standard)	59.8	49.9	30.9	51.1	51.2	41.9
12 standard/some college	67.5	54.3	41.0	64.3	55.0	42.4
Graduate/diploma	79.3	58.1	36.8	77.1	61.5	55.2
Number of adults						
1–2	29.3	27.2	18.5	41.4	33.8	30.9
3–4	49.4	39.6	28.0	51.7	44.9	37.1
4+	66.6	51.1	40.9	65.7	55.0	43.2
State-level MGNREGA participation						
Low ≤ 20%	43.5	31.0	25.6	50.8	35.8	26.5
Medium 20–40%	40.3	36.3	25.1	47.0	40.6	35.2
High > 40%	45.1	33.6	21.0	43.6	41.8	34.2
Region						
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	—	51.0	39.4	37.8	46.9	37.7
Punjab, Haryana	65.6	70.7	—	43.7	45.8	13.8
Uttar Pradesh, Bihar, Jharkhand	25.9	25.9	20.6	26.3	26.6	21.8
Rajasthan, Chhattisgarh, Madhya Pradesh	29.3	28.8	25.9	37.6	33.7	27.2
Northeast region, Assam, West Bengal, Odisha	29.0	33.0	28.4	68.0	48.9	39.0
Gujarat, Maharashtra, Goa	61.4	50.8	—	65.3	55.9	44.9
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	46.4	43.6	21.0	57.4	55.7	43.6

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix A5.4 Interest rate paid (borrowers), by level of MGNREGA participation (2004–05 and 2011–12)

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
All India	30.2	36.4	38.5	25.7	28.5	29.6
Place of residence						
More developed village	28.7	32.0	34.4	23.1	24.6	27.7
Less developed village	32.7	39.0	42.7	29.7	31.4	30.9
Social groups						
Forward caste	19.8	25.3	31.0	19.2	20.5	25.1
Other backward class	31.9	36.8	35.0	25.5	27.3	26.2
Dalit/scheduled caste	42.4	45.5	42.8	33.1	38.6	33.8
Adivasi/ scheduled tribe	23.1	32.0	39.9	18.7	31.3	30.8
Other religions	22.5	37.4	41.6	27.1	25.4	30.1
Land cultivation						
Noncultivator	35.1	39.0	41.8	28.9	32.4	32.7
Marginal cultivator (< 1 hectare)	32.0	39.7	40.6	26.9	28.2	29.4
Small cultivator (1.0–1.99 hectares)	26.7	29.3	29.2	23.0	21.8	24.4
Medium/large cultivator (2.0 hectares and above)	18.6	25.4	26.2	15.1	18.8	19.6
Income quintiles						
Poorest	39.9	44.7	41.2	27.0	33.3	32.4
2nd quintile	38.7	46.1	40.4	28.8	33.6	32.4
Middle quintile	31.1	35.1	39.1	31.4	29.9	25.8
4th quintile	26.0	32.2	40.3	22.5	24.1	30.2
Richest	19.4	22.1	25.8	20.2	21.8	21.9
Consumption quintiles						
Poorest	38.9	43.3	38.5	34.0	34.8	33.0
2nd quintile	36.1	44.0	43.6	24.7	34.0	29.3
Middle quintile	27.4	39.4	40.9	24.6	29.2	27.5
4th quintile	27.9	31.8	33.8	23.9	24.8	29.8
Richest	24.2	26.9	34.2	24.2	22.4	27.4
Assets quintiles						
Poorest	43.1	59.3	50.6	39.4	40.3	37.1
2nd quintile	39.4	37.3	35.6	34.2	31.7	29.9
Middle quintile	30.9	31.0	32.6	23.9	25.4	28.2
4th quintile	21.2	25.4	31.8	20.8	21.7	25.5
Richest	16.9	21.3	25.3	17.4	18.8	20.6
Poverty status						
Non-poor	28.1	33.6	37.2	24.9	27.5	28.7
Poor	35.0	42.4	40.3	30.0	33.9	32.8

Appendix A5.4 Interest rate paid (borrowers), by level of MGNREGA participation (2004–05 and 2011–12) *(continued)*

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
Highest household education						
Illiterate	43.0	51.0	42.8	37.5	37.5	32.3
Primary (1–4 standard)	34.7	40.5	40.6	32.3	29.5	28.9
Middle (5–9 standard)	29.4	34.3	36.4	26.2	30.0	30.4
Secondary (10–11 standard)	26.2	26.0	31.7	20.8	21.8	25.2
12 standard/some college	18.9	22.2	34.1	19.4	21.1	29.4
Graduate/diploma	16.5	24.0	29.1	16.3	20.8	20.0
Number of adults						
1–2	33.2	40.2	41.1	29.2	29.8	30.7
3–4	29.8	34.1	36.4	23.1	27.8	28.8
4+	22.1	27.2	30.1	21.6	23.9	25.3
State-level MGNREGA participation						
Low ≤ 20%	32.9	47.9	63.7	27.7	37.7	45.7
Medium 20–40%	26.2	33.8	35.7	23.2	26.6	28.7
High > 40%	29.0	29.8	36.8	28.6	24.5	26.9
Region						
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	—	23.5	12.3	7.7	14.7	17.6
Punjab, Haryana	21.7	21.0	—	24.5	24.2	34.1
Uttar Pradesh, Bihar, Jharkhand	44.8	45.2	55.8	38.5	36.4	40.5
Rajasthan, Chhattisgarh, Madhya Pradesh	31.3	29.6	32.4	26.5	23.5	26.2
Northeast region, Assam, West Bengal, Odisha	35.1	54.0	49.2	28.5	27.1	28.5
Gujarat, Maharashtra, Goa	17.3	16.4	—	14.0	17.5	15.5
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	28.4	26.9	33.1	23.2	24.2	27.5

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix A5.5 Children's completed years of education (ages 6–14), by level of MGNREGA participation (2004–05 and 2011–12)

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
All India	3.4	3.1	3.0	3.9	3.6	3.7
Sex						
Male	3.5	3.2	3.0	3.8	3.6	3.7
Female	3.3	3.0	3.0	3.9	3.6	3.8
Children age category						
6–10 years	2.0	1.7	1.8	2.0	1.9	2.1
11–15 years	5.3	5.0	4.6	6.0	5.6	5.7
Place of residence						
More developed village	3.7	3.5	3.4	3.9	3.7	3.9
Less developed village	3.1	2.9	2.8	3.8	3.5	3.6
Social groups						
Forward caste	3.9	3.8	3.6	4.3	4.4	4.1
Other backward class	3.6	3.2	3.2	3.9	3.5	3.8
Dalit/scheduled caste	3.4	2.9	2.9	3.7	3.6	3.7
Adivasi/ scheduled tribe	3.3	2.7	2.7	4.0	3.5	3.7
Other religions	2.6	2.8	2.6	3.5	3.2	3.5
Land cultivation						
Noncultivator	3.4	3.0	3.0	3.8	3.4	3.8
Marginal cultivator (< 1 hectare)	3.3	3.0	2.9	3.8	3.5	3.6
Small cultivator (1.0–1.99 hectares)	3.5	3.5	3.0	3.9	4.1	3.8
Medium/large cultivator (2.0 hectares and above)	3.8	3.6	3.3	4.1	4.0	4.1
Income quintiles						
Neg<1000	3.4	3.1	3.2	4.6	3.7	3.5
Poorest	2.7	2.7	2.6	3.7	3.2	3.4
2nd quintile	3.1	2.7	2.9	3.6	3.4	3.6
Middle quintile	3.6	3.1	3.2	3.9	3.6	3.9
4th quintile	3.8	3.6	3.2	4.0	4.0	4.2
Richest	4.1	4.0	3.8	4.1	4.3	4.4
Consumption quintiles						
Poorest	2.8	2.4	2.5	3.3	3.1	3.3
2nd quintile	3.1	2.7	2.9	3.7	3.4	3.6
Middle quintile	3.7	3.3	3.3	3.9	3.7	4.1
4th quintile	3.7	3.8	3.5	4.3	4.2	4.3
Richest	4.2	4.1	3.9	4.4	4.5	4.9

Appendix **A5.5** **Children's completed years of education (ages 6–14), by level of MGNREGA participation (2004–05 and 2011–12)** *(continued)*

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
Assets quintiles						
Poorest	2.8	2.2	2.2	3.2	2.8	3.1
2nd quintile	2.8	2.8	3.0	3.6	3.4	3.6
Middle quintile	3.3	3.3	3.5	4.1	3.8	4.0
4th quintile	3.9	3.8	3.9	4.2	4.2	4.6
Richest	4.2	4.1	4.3	4.2	4.4	4.5
Poverty status						
Non-poor	3.7	3.6	3.5	4.0	3.8	4.0
Poor	3.1	2.6	2.7	3.4	3.0	3.3
Highest household education						
None	2.8	2.3	2.5	3.3	3.0	3.5
Primary 1–4	3.4	2.9	2.9	4.3	3.5	3.6
Middle 5–9	3.6	3.3	3.4	4.0	3.7	3.8
Secondary 10–11	3.7	3.7	3.7	4.1	4.0	4.2
Higher secondary 12–14	3.9	3.8	3.5	4.0	3.8	3.9
Graduate+ 15	4.0	4.0	4.0	3.7	4.3	3.9
Number of adults						
1–2	3.5	3.1	3.0	4.0	3.6	3.8
3–4	3.4	3.3	3.1	3.9	3.7	3.7
4+	3.3	3.1	3.0	3.4	3.5	3.0
State-level MGNREGA participation						
Low ≤ 20%	3.5	2.9	2.4	4.1	3.5	3.2
Medium 20–40%	3.1	3.1	3.0	3.6	3.6	3.8
High > 40%	4.0	3.7	3.4	3.9	3.7	3.8
Region						
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	3.2	3.8	3.9	3.8	4.3	4.8
Punjab, Haryana	3.7	3.9	3.1	4.2	4.3	4.3
Uttar Pradesh, Bihar, Jharkhand	2.3	2.6	2.3	3.0	3.1	2.9
Rajasthan, Chhattisgarh, Madhya Pradesh	2.9	3.0	2.8	3.9	3.7	3.6
Northeast region, Assam, West Bengal, Odisha	3.6	3.1	2.6	4.4	3.9	3.9
Gujarat, Maharashtra, Goa	3.9	3.6	3.6	4.4	4.4	3.9
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	4.3	4.4	4.1	4.4	4.5	4.7

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix A5.6 Children's educational expenses (ages 6–14), by level of MGNREGA participation (2004–05 and 2011–12)

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
All India	1,393	1,428	911	2,411	2,212	1,377
Sex						
Male	1,493	1,594	1,024	2,800	2,487	1,519
Female	1,281	1,248	791	1,985	1,917	1,234
Children age category						
6–10 years	1,158	1,189	759	2,245	2,055	1,240
11–15 years	1,692	1,732	1,105	2,600	2,404	1,536
Place of residence						
More developed village	1,576	1,974	1,127	2,730	2,822	1,771
Less developed village	1,146	1,056	783	2,022	1,832	1,161
Social groups						
Forward caste	2,035	2,398	1,838	3,694	3,426	2,794
Other backward class	1,261	1,289	887	2,359	2,343	1,384
Dalit/scheduled caste	1,217	1,117	780	1,626	1,595	1,242
Adivasi/ scheduled tribe	624	718	772	1,363	1,184	909
Other religions	1,612	1,473	866	2,697	2,093	1,168
Land cultivation						
Noncultivator	1,402	1,335	929	2,457	2,042	1,318
Marginal cultivator (< 1 hectare)	1,243	1,222	874	1,992	1,919	1,344
Small cultivator (1.0–1.99 hectares)	1,312	1,439	794	2,396	3,068	1,521
Medium/large cultivator (2.0 hectares and above)	1,685	2,336	1,121	3,627	3,615	1,734
Income quintiles						
Poorest	724	706	707	1,233	1,169	776
2nd quintile	743	773	735	1,493	1,594	1,186
Middle quintile	1,231	1,333	859	1,890	1,784	1,391
4th quintile	1,572	1,761	1,300	2,735	2,829	1,836
Richest	2,965	3,385	1,929	5,920	5,744	3,781
Consumption quintiles						
Poorest	515	505	482	730	789	734
2nd quintile	739	769	754	1,354	1,591	1,080
Middle quintile	1,156	1,250	1,147	1,774	2,058	1,618
4th quintile	1,775	1,879	1,308	3,204	3,305	2,198
Richest	3,451	3,815	2,265	6,972	6,278	4,281

Appendix **A5.6** **Children's educational expenses (ages 6–14), by level of MGNREGA participation (2004–05 and 2011–12)** *(continued)*

	2004–05			2011–12		
	Low MGNREGA participation village	**Nonparticipant in MGNREGA village**	**MGNREGA participant households**	**Low MGNREGA participation village**	**Nonparticipant in MGNREGA village**	**MGNREGA participant households**
Assets quintiles						
Poorest	570	462	495	721	711	659
2nd quintile	642	749	682	1,076	1,170	942
Middle quintile	972	1,173	1,116	1,291	1,689	1,538
4th quintile	1,452	1,642	1,402	2,173	2,944	2,272
Richest	2,998	3,483	2,394	6,009	6,143	4,148
Poverty status						
Non-poor	2,041	2,088	1,373	3,002	2,796	1,783
Poor	635	634	594	792	772	744
Highest household education						
None	816	664	648	919	971	856
Primary 1–4	724	805	764	1,101	1,097	995
Middle 5–9	1,108	1,278	1,065	1,743	1,818	1,321
Secondary 10–11	2,165	2,191	1,517	3,101	2,986	2,009
Higher secondary 12–14	2,667	2,247	1,377	4,255	3,685	2,420
Graduate+ 15	3,190	3,426	1,694	6,233	5,558	5,596
Number of adults						
1–2	1,253	1,223	878	2,057	1,793	1,229
3–4	1,307	1,579	934	2,451	2,646	1,530
4+	1,945	1,805	1,034	3,484	3,077	1,950
State-level MGNREGA participation						
Low ≤ 20%	1,282	1,336	662	2,060	1,690	977
Medium 20–40%	1,572	1,404	932	2,731	2,193	1,269
High > 40%	1,561	1,731	966	4,538	3,183	1,806
Region						
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	2,524	3,044	1,796	4,852	4,631	1,916
Punjab, Haryana	3,708	3,855	1,488	5,393	4,760	759
Uttar Pradesh, Bihar, Jharkhand	1,067	1,052	558	1,774	1,561	854
Rajasthan, Chhattisgarh, Madhya Pradesh	1,470	1,139	721	3,409	2,187	1,187
Northeast region, Assam, West Bengal, Odisha	1,091	1,328	1,036	1,754	1,967	1,498
Gujarat, Maharashtra, Goa	859	695	949	1,732	1,134	1,280
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	1,888	2,111	1,160	3,221	4,016	2,193

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix A5.7 Children's time in school, homework and tutoring per week (ages 6–14), by level of MGNREGA participation (2004–05 and 2011–12)

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
All India	33.5	31.1	29.8	37.4	37.0	37.0
Sex						
Male	34.4	32.1	30.7	37.8	37.7	37.4
Female	32.4	30.1	28.8	37.0	36.3	36.6
Children age category						
6–10 years	32.7	30.2	29.2	36.1	35.8	36.0
11–15 years	34.5	32.4	30.5	38.9	38.4	38.2
Place of residence						
More developed village	35.5	32.5	31.0	38.1	37.7	37.8
Less developed village	30.8	30.2	29.1	36.6	36.6	36.6
Social groups						
Forward caste	36.8	35.4	35.1	39.2	41.8	40.3
Other backward class	34.7	31.9	31.3	38.7	38.6	38.8
Dalit/scheduled caste	34.4	30.0	29.2	35.7	35.6	36.2
Adivasi/ scheduled tribe	30.3	25.6	26.7	34.2	30.0	33.9
Other religions	27.3	28.8	26.1	36.4	34.0	34.9
Land cultivation						
Noncultivator	32.7	29.4	29.4	36.6	35.2	36.0
Marginal cultivator (< 1 hectare)	33.7	30.9	29.5	37.8	37.2	37.5
Small cultivator (1.0–1.99 hectares)	33.2	33.5	32.0	38.4	39.8	38.2
Medium/large cultivator (2.0 hectares and above)	35.4	34.9	30.0	38.9	41.7	38.1
Income quintiles						
Poorest	28.0	29.1	27.8	34.9	35.1	35.8
2nd quintile	31.7	28.7	29.1	37.3	36.1	36.6
Middle quintile	34.4	31.2	31.3	38.8	37.3	38.1
4th quintile	35.2	34.0	30.2	36.7	38.6	37.4
Richest	38.9	35.5	34.5	40.1	42.0	40.7
Consumption quintiles						
Poorest	27.9	25.6	26.3	34.0	33.0	34.8
2nd quintile	31.6	28.9	28.6	37.3	36.2	36.7
Middle quintile	33.7	32.0	32.8	36.4	38.8	39.8
4th quintile	36.7	36.0	33.3	40.1	40.6	38.6
Richest	40.2	37.7	36.9	41.4	41.6	41.0

Appendix **A5.7** **Children's time in school, homework and tutoring per week (ages 6–14), by level of MGNREGA participation (2004–05 and 2011–12)** *(continued)*

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
Assets quintiles						
Poorest	27.6	23.6	25.0	32.3	31.9	32.8
2nd quintile	30.1	28.6	29.7	34.9	35.2	36.4
Middle quintile	34.1	33.3	32.7	38.2	38.3	39.3
4th quintile	35.4	34.9	35.0	38.7	40.2	41.7
Richest	39.5	38.2	37.5	41.8	43.4	42.1
Poverty status						
Non-poor	36.1	34.6	34.1	38.5	38.6	38.5
Poor	30.5	27.0	26.8	34.5	33.0	34.8
Highest household education						
None	27.4	24.5	25.9	31.5	31.4	33.2
Primary 1–4	31.1	27.2	31.5	35.0	34.3	36.1
Middle 5–9	35.0	32.9	31.9	38.9	37.2	38.6
Secondary 10–11	38.3	36.2	35.3	40.3	41.6	39.9
Higher secondary 12–14	34.9	36.4	36.9	39.9	40.7	42.0
Graduate+ 15	40.5	38.3	34.2	39.7	44.6	43.4
Number of adults						
1–2	33.3	29.8	29.9	37.1	35.8	36.5
3–4	33.2	31.8	29.1	37.2	37.9	38.3
4+	34.4	34.3	30.6	38.9	40.2	36.4
State-level MGNREGA participation						
Low ≤ 20%	34.5	31.2	26.0	37.9	37.4	34.5
Medium 20–40%	31.4	30.9	30.3	37.3	36.9	37.2
High > 40%	35.2	32.5	30.1	31.2	36.5	37.5
Region						
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	31.3	30.4	26.4	40.4	42.1	40.6
Punjab, Haryana	37.1	35.6	29.6	41.7	42.2	39.1
Uttar Pradesh, Bihar, Jharkhand	26.8	28.4	25.5	36.1	35.7	33.8
Rajasthan, Chhattisgarh, Madhya Pradesh	30.4	29.7	28.7	37.9	37.7	38.2
Northeast region, Assam, West Bengal, Odisha	36.9	32.4	28.2	40.8	36.7	35.6
Gujarat, Maharashtra, Goa	35.6	33.9	37.2	36.8	38.9	36.0
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	38.5	38.4	36.9	35.7	38.1	40.4

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix A5.8 Children's ability to read a paragraph (ages 8–11), by level of MGNREGA participation (2004–05 and 2011–12)

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
All India	55.6	50.7	40.3	49.0	49.4	43.1
Sex						
Male	59.1	53.0	42.8	50.7	51.1	45.6
Female	51.3	48.2	37.5	47.0	47.4	40.6
Children age category						
6–10 years	50.4	46.8	36.9	42.9	46.3	37.8
11–15 years	74.3	67.5	53.4	70.6	60.7	63.5
Place of residence						
More developed village	56.9	54.2	44.0	51.0	49.7	39.2
Less developed village	53.5	48.4	38.2	46.5	49.2	45.2
Social groups						
Forward caste	70.5	66.1	51.6	59.8	68.5	53.4
Other backward class	59.3	50.3	47.5	49.8	52.6	43.5
Dalit/scheduled caste	40.9	45.6	33.2	44.1	40.2	40.2
Adivasi/ scheduled tribe	47.3	43.8	39.6	46.5	29.9	39.6
Other religions	50.8	43.4	33.9	42.3	44.8	47.2
Land cultivation						
Noncultivator	53.0	48.3	39.1	50.9	45.8	37.4
Marginal cultivator (< 1 hectare)	55.4	47.7	38.4	43.0	48.6	45.2
Small cultivator (1.0–1.99 hectares)	58.3	54.6	45.9	49.2	60.7	50.0
Medium/large cultivator (2.0 hectares and above)	60.1	62.7	46.1	62.2	58.4	49.1
Income quintiles						
Poorest	47.7	37.6	33.1	38.9	37.1	34.6
2nd quintile	44.5	44.6	34.9	41.3	50.4	45.0
Middle quintile	61.6	52.7	37.4	54.1	49.0	47.6
4th quintile	56.7	57.3	55.4	51.8	57.3	47.6
Richest	73.7	73.8	62.3	66.4	65.3	51.5
Consumption quintiles						
Poorest	33.8	35.1	32.8	35.8	36.1	36.4
2nd quintile	55.1	43.9	37.3	46.7	48.8	44.9
Middle quintile	66.4	57.0	44.8	50.2	54.5	46.7
4th quintile	59.1	57.6	50.1	53.7	57.6	51.0
Richest	69.2	70.5	53.8	66.9	67.5	58.3

Appendix **A5.8** **Children's ability to read a paragraph (ages 8–11), by level of MGNREGA participation (2004–05 and 2011–12)** *(continued)*

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
Assets quintiles						
Poorest	40.8	33.4	22.9	26.9	30.2	28.0
2nd quintile	49.1	41.3	41.0	37.3	40.7	42.2
Middle quintile	49.1	47.0	48.6	47.1	53.0	56.5
4th quintile	65.6	61.1	60.4	59.0	68.3	56.6
Richest	71.5	75.0	68.9	69.4	69.7	55.9
Poverty status						
Non-poor	62.9	59.9	48.4	52.7	55.0	48.2
Poor	47.0	39.0	34.3	38.7	35.5	35.8
Highest household education						
None	39.7	34.1	29.8	27.0	30.2	31.0
Primary 1–4	50.5	43.3	38.3	41.2	37.8	50.8
Middle 5–9	56.1	50.6	46.3	47.1	49.4	43.4
Secondary 10–11	62.9	64.5	57.3	62.8	61.4	59.4
Higher secondary 12–14	78.4	62.6	65.5	63.1	65.3	59.5
Graduate+ 15	71.3	78.3	52.9	74.5	76.3	62.2
Number of adults						
1–2	53.9	49.0	38.5	47.7	44.8	40.1
3–4	56.3	50.5	40.7	48.2	53.4	46.1
4+	58.7	57.1	52.0	55.4	60.8	54.6
State-level MGNREGA participation						
Low ≤ 20%	60.0	55.1	30.2	49.6	47.1	26.6
Medium 20–40%	44.2	46.6	38.3	46.5	49.4	45.1
High > 40%	81.1	64.3	50.1	70.4	52.8	46.2
Region						
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	39.1	59.3	67.6	57.0	65.1	57.2
Punjab, Haryana	63.2	64.0	43.0	66.1	67.0	57.2
Uttar Pradesh, Bihar, Jharkhand	41.1	41.8	21.5	38.7	45.5	29.1
Rajasthan, Chhattisgarh, Madhya Pradesh	61.2	55.6	42.6	66.1	54.3	48.6
Northeast region, Assam, West Bengal, Odisha	52.4	57.6	42.3	55.1	51.4	57.2
Gujarat, Maharashtra, Goa	64.2	68.4	—	52.3	56.5	—
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	54.4	58.1	54.6	45.3	43.5	42.5

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix **A5.9** **Children's ability to do two-digit subtractions (ages 8–11), by level of MGNREGA participation (2004–05 and 2011–12)**

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
All India	48.2	43.8	34.6	43.3	40.6	36.0
Sex						
Male	53.0	47.9	38.7	47.3	42.8	41.7
Female	42.4	39.3	30.1	38.8	38.3	30.6
Children age category						
6–10 years	44.3	40.4	31.6	39.2	36.8	31.1
11–15 years	62.2	58.7	46.5	58.0	54.7	55.2
Place of residence						
More developed village	50.0	46.6	40.4	44.0	41.8	37.4
Less developed village	45.4	42.0	31.5	42.5	39.9	35.3
Social groups						
Forward caste	56.9	57.9	41.2	59.4	57.5	44.2
Other backward class	52.6	43.1	39.3	42.5	43.1	38.8
Dalit/scheduled caste	39.0	37.4	29.4	41.1	32.5	32.5
Adivasi/ scheduled tribe	26.2	35.8	34.2	27.3	21.7	28.8
Other religions	50.4	41.8	33.3	38.4	38.6	41.2
Land cultivation						
Noncultivator	48.7	41.2	37.1	45.8	36.5	35.4
Marginal cultivator (< 1 hectare)	43.5	41.7	30.5	38.8	40.5	34.7
Small cultivator (1.0–1.99 hectares)	53.9	47.5	37.8	38.9	50.9	36.5
Medium/large cultivator (2.0 hectares and above)	50.5	54.1	34.4	54.6	50.9	48.9
Income quintiles						
Poorest	35.2	33.9	27.8	30.7	28.5	23.2
2nd quintile	39.5	37.9	32.4	36.6	36.5	37.2
Middle quintile	51.6	45.4	30.3	47.1	43.6	37.5
4th quintile	55.3	51.0	45.4	47.5	44.4	48.1
Richest	67.7	63.7	57.7	62.4	64.2	60.9
Consumption quintiles						
Poorest	33.2	28.5	24.2	25.3	27.5	25.9
2nd quintile	43.2	38.8	30.2	42.3	35.3	41.3
Middle quintile	55.9	45.9	43.5	42.9	45.3	42.6
4th quintile	50.0	51.1	47.0	51.5	53.5	42.2
Richest	64.5	65.7	50.6	65.4	63.5	55.5

Appendix **A5.9** **Children's ability to do two-digit subtractions (ages 8–11), by level of MGNREGA participation (2004–05 and 2011–12)** *(continued)*

	2004–05			2011–12		
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households	Low MGNREGA participation village	Nonparticipant in MGNREGA village	MGNREGA participant households
Assets quintiles						
Poorest	33.7	27.8	21.6	20.9	22.2	18.6
2nd quintile	41.1	33.1	30.2	33.5	32.3	37.1
Middle quintile	44.3	40.2	44.4	44.1	42.1	43.7
4th quintile	63.3	54.2	51.8	47.0	57.5	54.4
Richest	59.0	67.8	57.5	66.5	63.6	59.6
Poverty status						
Non-poor	56.5	52.6	44.7	48.1	46.2	42.3
Poor	38.4	32.6	27.1	30.2	27.0	27.0
Highest household education						
None	33.0	27.0	25.3	19.5	23.7	25.8
Primary 1–4	40.6	34.3	30.1	38.5	23.3	38.1
Middle 5–9	49.2	43.1	42.3	44.3	39.4	35.3
Secondary 10–11	60.1	63.0	43.2	50.2	48.7	53.5
Higher secondary 12–14	63.5	57.4	58.2	62.8	54.6	52.4
Graduate+ 15	61.4	66.0	61.6	67.5	77.4	64.8
Number of adults						
1–2	47.2	41.4	33.6	40.2	36.8	34.0
3–4	49.5	42.9	34.1	42.7	44.2	36.3
4+	48.6	53.9	44.0	56.1	49.7	51.0
State-level MGNREGA participation						
Low ≤ 20%	47.6	51.4	27.2	44.1	42.7	35.9
Medium 20–40%	47.2	39.9	34.5	41.0	39.4	35.3
High > 40%	79.2	49.6	38.4	60.9	43.2	37.6
Region						
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	54.8	55.0	38.4	59.8	58.1	42.9
Punjab, Haryana	62.7	74.6	48.0	68.2	61.2	66.3
Uttar Pradesh, Bihar, Jharkhand	43.1	37.1	18.9	33.6	36.1	22.6
Rajasthan, Chhattisgarh, Madhya Pradesh	51.9	38.1	27.4	47.0	38.7	32.9
Northeast region, Assam, West Bengal, Odisha	50.4	57.1	43.6	45.1	49.6	45.8
Gujarat, Maharashtra, Goa	44.7	42.7	—	41.3	40.7	—
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	56.0	47.5	53.5	57.5	40.5	54.1

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix A5.10 Ever-married women ages 15–49 having cash on hand at time of interview, by level of MGNREGA participation (2004–05 and 2011–12)

	2004–05				2011–12			
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA
All India	81.2	80.5	77.5	79.5	89.9	88.7	86.2	93.3
Marital status								
Married	81.0	80.2	76.6	79.5	89.8	88.7	86.6	93.2
Widowed/separated/ divorced	87.3	90.3	89.3	86.3	92.3	90.2	80.7	95.1
Age category								
15–17 years	—	44.1	—	—	—	49.4	—	—
18–24 years	75.1	72.0	66.5	70.8	80.3	76.8	77.0	80.3
25–29 years	80.6	80.4	83.6	81.1	88.1	86.9	84.3	91.9
30–39 years	82.7	82.5	77.7	82.4	92.4	92.1	90.3	96.0
40–49 years	84.3	84.8	83.0	83.1	92.8	93.3	90.2	95.7
Place of residence								
More developed village	81.1	80.6	80.2	83.7	89.4	87.8	87.7	92.6
Less developed village	81.4	80.5	75.3	77.3	90.6	89.3	85.5	93.9
Social groups								
Forward caste	83.7	83.8	73.0	80.6	89.8	90.7	88.1	97.2
Other backward class	83.4	82.0	82.1	86.7	89.9	88.8	84.6	94.8
Dalit/scheduled caste	81.2	79.5	80.9	80.4	92.0	87.7	88.6	93.0
Adivasi/ scheduled tribe	74.0	80.4	77.8	71.0	92.1	90.2	88.4	91.8
Other religions	75.6	73.2	57.1	58.4	85.2	86.6	81.9	84.2
Land cultivation								
Noncultivator	83.3	79.9	79.6	81.8	90.2	89.5	88.7	92.8
Marginal cultivator (< 1 hectare)	80.6	80.4	77.4	78.8	88.8	88.8	85.4	93.6
Small cultivator (1.0–1.99 hectares)	77.9	82.4	66.3	81.3	89.8	87.1	78.8	95.8
Medium/large cultivator (2.0 hectares and above)	78.5	81.4	78.8	68.7	91.4	86.3	89.2	90.7
Income quintiles								
Poorest	77.7	80.5	79.7	82.1	88.8	88.3	84.3	92.5
2nd quintile	77.2	79.1	77.3	78.3	88.6	88.7	87.6	92.6
Middle quintile	82.7	81.0	74.3	80.7	89.2	88.3	86.8	92.4
4th quintile	80.5	77.4	78.2	75.4	90.6	88.7	85.5	96.1
Richest	85.9	84.1	79.7	82.6	91.7	89.3	85.0	92.4
Consumption quintiles								
Poorest	73.7	77.9	75.3	73.9	88.2	87.2	85.7	94.0
2nd quintile	81.5	78.0	74.9	77.2	88.1	87.3	85.2	91.2
Middle quintile	83.9	80.2	79.8	81.3	88.0	90.5	86.4	92.2
4th quintile	80.4	81.2	79.2	81.9	91.7	87.9	86.0	95.1
Richest	85.0	85.1	81.2	90.1	92.9	90.8	91.4	95.0

Appendix **A5.10** **Ever-married women ages 15–49 having cash on hand at time of interview, by level of MGNREGA participation (2004–05 and 2011–12)** *(continued)*

	2004–05				2011–12			
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA
Assets quintiles								
Poorest	74.1	74.8	74.6	73.4	88.1	88.7	86.2	94.6
2nd quintile	81.4	80.1	77.8	78.7	86.6	88.6	85.8	90.6
Middle quintile	81.3	83.3	81.0	85.6	90.8	88.2	86.4	91.9
4th quintile	82.3	81.9	76.6	83.0	91.3	89.2	86.6	95.8
Richest	85.3	83.1	79.2	82.7	90.7	88.8	85.4	92.6
Poverty status								
Non-poor	84.0	82.3	80.5	82.7	90.1	89.2	86.1	93.1
Poor	76.3	77.4	74.3	75.8	89.0	86.8	86.2	94.1
Highest household education								
None	79.7	80.3	81.5	80.1	92.1	90.8	88.8	96.0
Primary 1–4	80.4	77.9	66.8	74.7	91.3	88.9	88.1	90.8
Middle 5–9	81.1	79.8	75.1	77.5	88.8	87.1	86.2	92.7
Secondary 10–11	82.7	83.6	76.6	86.6	90.5	89.9	82.0	93.9
Higher secondary 12–14	81.0	81.0	82.5	85.4	88.7	87.3	86.8	90.3
Graduate+ 15	83.7	81.1	84.2	85.9	89.9	89.9	77.9	90.6
Number of adults								
1–2	83.8	82.4	79.8	82.1	93.3	92.7	89.3	95.3
3–4	81.5	79.3	76.5	78.0	89.4	85.9	86.4	92.3
4+	73.2	76.8	68.4	67.7	83.0	82.1	73.1	85.7
State level MGNREGA participation								
Low ≤ 20%	83.9	85.4	85.5	85.0	88.9	88.4	85.2	92.5
Medium 20–40%	74.6	77.9	72.3	78.6	91.2	88.4	85.7	92.6
High > 40%	90.8	84.3	85.0	79.8	93.1	90.6	91.3	94.5
Region								
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	69.0	88.5	82.6	88.5	91.4	93.4	90.4	99.6
Punjab, Haryana	88.6	88.3	73.1	78.4	92.1	92.8	90.5	94.8
Uttar Pradesh, Bihar, Jharkhand	85.3	86.8	84.0	87.3	90.2	90.0	89.1	94.8
Rajasthan, Chhattisgarh, Madhya Pradesh	71.3	76.6	77.1	75.2	92.1	90.6	89.9	94.2
Northeast region, Assam, West Bengal, Odisha	67.0	65.7	59.1	54.9	82.9	85.6	79.6	86.5
Gujarat, Maharashtra, Goa	85.0	86.1	—	79.2	90.7	90.1	—	91.1
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	78.7	80.8	85.7	93.2	89.7	85.5	92.0	93.9

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix A5.11 Ever-married women ages 15–49 having a bank account at time of interview, by level of MGNREGA participation (2004–05 and 2011–12)

	2004–05				2011–12			
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA
All India	13.0	15.6	10.5	9.8	27.0	35.5	28.5	48.6
Marital status								
Married	12.7	15.5	10.7	9.2	26.2	34.9	28	48.2
Widowed/separated/ divorced	21.2	20.6	12.5	18	48	47.5	48.1	53.9
Age category								
15–17 years	—	0.5	—	—	—	12.9	—	—
18–24 years	10.4	9.8	3.7	6.4	12.1	19.9	14.5	27.9
25–29 years	11.5	13.0	9.9	10.6	19.3	31.4	25.7	47.9
30–39 years	14.3	17.2	12.2	10.6	29.4	40.5	32.2	50.9
40–49 years	14.3	19.9	13.3	11.1	36.3	41.0	36.5	53.5
Place of residence								
More developed village	14.0	17.6	13.1	11.1	29.3	40.2	31.6	45.7
Less developed village	11.5	14.2	9.1	8.4	23.6	32.2	27.2	50.8
Social groups								
Forward caste	20.0	23.8	13.3	13.8	29.3	40.6	36.1	44.8
Other backward class	11.5	15.0	11.0	10.7	27.3	34.8	30.4	53.5
Dalit/scheduled caste	8.6	12.0	10.2	11.4	27.0	34.9	26.8	43.1
Adivasi/ scheduled tribe	10.5	6.9	8.6	1.3	21.0	32.3	29.0	54.9
Other religions	16.0	17.4	8.9	8.0	27.0	33.6	23.7	43.4
Land cultivation								
Noncultivator	12.6	13.3	10.2	10.8	27.5	35.2	26.4	46.2
Marginal cultivator (< 1 hectare)	13.7	16.5	11.9	8.4	29.0	35.7	30.1	51.0
Small cultivator (1.0–1.99 hectares)	11.3	17.6	8.9	9.5	23.7	33.3	30.1	52.0
Medium/large cultivator (2.0 hectares and above)	14.6	19.6	7.4	10.8	23.2	38.2	25.5	45.1
Income quintiles								
Poorest	8.9	11.0	6.1	9.4	18.9	29.6	26.7	52.1
2nd quintile	6.8	9.2	12.0	7.4	24.8	29.3	31.0	48.2
Middle quintile	15.6	14.6	9.3	10.9	22.9	32.6	24.1	50.1
4th quintile	11.8	15.3	13.5	9.0	27.8	36.4	31.6	47.0
Richest	20.0	28.5	13.6	12.2	36.5	49.5	28.0	45.0
Consumption quintiles								
Poorest	4.9	7.0	7.0	3.5	17.0	26.7	22.5	48.3
2nd quintile	10.3	12.8	7.6	8.0	19.7	32.2	27.6	45.2
Middle quintile	12.3	11.9	13.5	15.0	25.0	33.7	31.9	49.0
4th quintile	13.6	16.8	9.5	10.3	31.1	37.0	35.8	52.6
Richest	21.8	29.1	19.3	18.6	39.3	48.6	36.5	48.6

Appendix **A5.11** **Ever-married women ages 15–49 having a bank account at time of interview, by level of MGNREGA participation (2004–05 and 2011–12)** *(continued)*

	2004–05				2011–12			
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA
Assets quintiles								
Poorest	6.6	6.3	6.5	5.7	20.1	24.2	26.8	47.5
2nd quintile	6.9	11.5	8.8	8.0	20.1	27.9	21.9	52.1
Middle quintile	9.6	13.4	12.9	11.3	18.1	32.9	29.5	43.6
4th quintile	13.6	16.8	11.5	19.9	29.6	41.1	34.6	48.0
Richest	22.8	30.1	19.4	12.6	37.2	51.1	45.4	55.5
Poverty status								
Non-poor	16.3	19.7	13.1	14.1	29.7	37.7	30.5	48.9
Poor	7.2	8.5	7.7	4.8	16.1	26.5	24.1	47.7
Highest household education								
None	8.9	10.3	7.9	9.4	20.2	29.7	21.4	49.1
Primary 1–4	8.9	7.4	10.2	7.3	31.1	28.7	22.6	37.2
Middle 5–9	10.0	13.6	11.8	10.3	22.1	30.3	29.9	50.5
Secondary 10–11	16.4	17.8	16.0	9.3	28.1	39.0	28.3	44.8
Higher secondary 12–14	19.2	23.7	10.1	13.3	29.8	40.6	33.4	50.8
Graduate+ 15	26.0	32.7	11.9	16.4	43.1	51.3	50.9	56.2
Number of adults								
1–2	12.6	14.3	11.0	10.3	29.3	36.3	30.0	52.3
3–4	12.9	16.0	9.5	9.6	26.7	35.8	28.4	45.8
4+	14.4	20.0	10.6	6.7	22.5	31.6	22.9	37.6
State level MGNREGA participation								
Low ≤ 20%	12.3	17.9	7.5	12.5	22.2	29.5	19.0	39.7
Medium 20–40%	15.7	16.0	12.5	10.6	34.0	35.8	29.3	49.3
High > 40%	5.3	10.2	7.6	6.2	40.1	42.7	34.8	48.8
Region								
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	20.2	32.9	20.3	8.4	35.7	48.6	35.4	71.7
Punjab, Haryana	12.1	14.0	0.8	0.0	33.0	33.3	18.6	48.6
Uttar Pradesh, Bihar, Jharkhand	22.5	21.9	14.0	11.7	25.9	30.9	28.2	45.1
Rajasthan, Chhattisgarh, Madhya Pradesh	4.9	7.4	5.4	2.1	26.7	32.6	38.9	56.5
Northeast region, Assam, West Bengal, Odisha	7.0	9.0	7.7	7.4	26.2	35.7	22.6	27.0
Gujarat, Maharashtra, Goa	11.2	7.8	—	3.4	20.7	25.0	—	—
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	10.6	14.3	12.4	16.9	39.8	46.2	37.2	47.5

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix A5.12 Ever-married women ages 15–49 feeling able to go to a health centre alone, by level of MGNREGA participation (2004–05 and 2011–12)

	2004–05				2011–12			
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA
All India	67.7	62.8	67.5	65.8	74.6	72.5	78.5	80.0
Marital status								
Married	12.7	15.5	10.7	9.2	26.2	34.9	28	48.2
Widowed/separated/ divorced	21.2	20.6	12.5	18	48	47.5	48.1	53.9
Age category								
15–17 years	—	31.4	—	—	—	49.2	—	—
18–24 years	50.1	46.8	48.3	53.1	62.2	57.9	69.8	70.6
25–29 years	63.9	57.4	64.7	62.5	69.0	70.7	78.3	80.6
30–39 years	72.3	69.9	75.6	70.8	74.5	75.6	78.9	81.9
40–49 years	76.4	68.1	71.0	71.8	83.9	78.6	84.1	82.0
Place of residence								
More developed village	71.6	65.2	69.5	69.5	75.8	73.5	75.8	74.8
Less developed village	61.6	61.0	65.2	64.4	72.8	71.9	79.6	84.0
Social groups								
Forward caste	68.4	58.6	67.3	64.0	75.5	70.6	75.6	72.4
Other backward class	70.4	62.3	68.1	70.4	74.8	71.1	73.6	79.9
Dalit/scheduled caste	66.9	61.8	65.2	64.4	74.8	73.7	80.6	80.1
Adivasi/ scheduled tribe	67.8	73.6	75.1	66.6	81.8	79.0	80.7	86.0
Other religions	59.8	65.1	67.2	54.5	66.9	73.3	82.9	77.0
Land cultivation								
Noncultivator	70.9	67.6	73.0	68.9	74.1	73.5	81.1	79.3
Marginal cultivator (< 1 hectare)	66.9	60.9	64.7	63.5	74.8	72.4	79.2	80.6
Small cultivator (1.0–1.99 hectares)	64.0	59.6	59.2	66.0	76.1	71.6	69.1	81.9
Medium/large cultivator (2.0 hectares and above)	62.5	54.7	52.3	60.4	74.7	68.9	70.4	78.4
Income quintiles								
Poorest	56.0	57.7	67.9	63.4	72.4	71.0	75.3	82.0
2nd quintile	64.2	58.4	68.5	63.8	73.1	72.4	82.2	82.7
Middle quintile	72.6	64.6	59.6	66.1	76.4	71.4	78.3	81.4
4th quintile	68.2	65.2	75.3	66.0	73.1	73.8	79.3	78.5
Richest	73.7	68.5	70.2	75.2	77.6	75.1	71.1	76.2
Consumption quintiles								
Poorest	70.0	62.7	68.3	66.3	75.7	74.6	80.2	85.2
2nd quintile	60.1	60.0	65.6	64.3	71.7	72.0	77.7	81.4
Middle quintile	68.9	62.5	65.6	62.0	72.1	70.5	76.7	79.9
4th quintile	68.8	64.5	72.9	71.1	75.6	73.2	79.9	76.6
Richest	71.0	64.2	65.6	66.0	78.1	72.3	75.1	74.5

Appendix **A5.12** **Ever-married women ages 15–49 feeling able to go to a health centre alone, by level of MGNREGA participation (2004–05 and 2011–12)** *(continued)*

	2004–05				2011–12			
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA
Assets quintiles								
Poorest	65.8	58.4	67.5	60.5	72.6	74.8	78.2	85.1
2nd quintile	68.2	60.4	63.2	69.9	75.2	70.2	81.7	81.8
Middle quintile	61.3	63.5	67.0	67.0	70.9	69.9	80.3	78.8
4th quintile	69.1	67.6	69.2	68.6	72.8	74.2	73.0	77.4
Richest	72.6	65.2	74.8	72.5	79.0	72.8	74.4	76.0
Poverty status								
Non-poor	66.8	62.9	68.1	65.4	74.9	72.1	77.9	78.6
Poor	69.5	62.7	66.9	66.2	73.4	74.2	79.6	84.5
Highest household education								
None	67.6	62.0	67.2	64.8	70.6	76.9	79.6	81.3
Primary 1–4	65.8	65.7	74.0	71.4	77.9	77.1	83.7	86.6
Middle 5–9	67.6	63.5	66.3	66.9	74.5	72.9	79.4	81.7
Secondary 10–11	70.7	65.0	72.0	57.9	74.2	70.4	75.0	71.7
Higher secondary 12–14	65.6	60.1	58.2	63.3	74.5	70.7	72.6	75.7
Graduate+ 15	68.1	59.6	66.9	67.9	78.7	67.1	72.5	76.8
Number of adults								
1–2	71.8	67.1	72.7	66.6	74.9	76.3	81.6	82.1
3–4	67.0	60.9	63.9	66.8	75.3	70.4	77.9	78.7
4+	58.2	51.9	51.3	57.1	72.5	64.8	68.0	72.7
State level MGNREGA participation								
Low ≤ 20%	69.9	56.0	60.6	59.9	77.9	73.6	78.5	74.3
Medium 20–40%	65.4	64.7	70.3	66.2	69.7	71.2	78.3	80.4
High > 40%	59.3	65.6	64.5	67.1	66.1	77.0	79.8	80.3
Region								
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	72.7	71.7	73.7	77.2	83.4	85.3	86.9	90.1
Punjab, Haryana	70.6	68.1	76.8	68.3	80.9	79.3	76.9	83.8
Uttar Pradesh, Bihar, Jharkhand	43.3	45.4	53.0	45.1	64.7	65.8	72.6	71.6
Rajasthan, Chhattisgarh, Madhya Pradesh	47.2	55.1	55.4	62.6	77.8	79.7	81.5	88.2
Northeast region, Assam, West Bengal, Odisha	77.4	77.2	74.1	69.7	82.2	78.0	86.3	89.8
Gujarat, Maharashtra, Goa	77.3	82.9	—	92.5	79.0	87.5	—	—
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	76.1	78.8	77.8	76.8	68.3	67.5	60.3	72.0

Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Appendix A5.13 Number of household decisions in which ever-married women ages 15–49 participate, by level of MGNREGA participation (2004–05 and 2011–12)

	2004–05				2011–12			
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA
All India	0.68	0.64	0.79	0.50	0.64	0.70	0.65	0.80
Marital status								
Married	0.62	0.57	0.65	0.46	0.54	0.61	0.61	0.64
Widowed/separated/ divorced	2.21	2.57	2.84	2.01	2.59	2.42	2.09	2.70
Age category								
15–17 years	0.38	0.22	0.21	0.15	0.28	0.45	0.32	0.16
18–24 years	0.43	0.38	0.50	0.30	0.34	0.40	0.42	0.38
25–29 years	0.59	0.54	0.65	0.48	0.45	0.55	0.53	0.59
30–39 years	0.75	0.69	0.82	0.56	0.65	0.76	0.65	0.75
40–49 years	0.83	0.83	1.08	0.63	0.90	0.91	0.88	1.09
Place of residence								
More developed village	0.66	0.73	0.66	0.74	0.00	0.00	0.00	0.00
Less developed village	0.61	0.69	0.65	0.84	0.00	0.00	0.00	0.00
Social groups								
Forward caste	0.65	0.50	0.66	0.45	0.61	0.70	0.74	0.81
Other backward class	0.64	0.63	0.78	0.40	0.65	0.67	0.63	0.80
Dalit/scheduled caste	0.81	0.71	0.92	0.64	0.76	0.74	0.63	0.80
Adivasi/ scheduled tribe	0.73	0.66	0.66	0.36	0.46	0.82	0.70	0.69
Other religions	0.61	0.73	0.60	0.61	0.63	0.68	0.64	1.12
Land cultivation								
Noncultivator	0.85	0.78	0.99	0.62	0.73	0.83	0.68	0.93
Marginal cultivator (< 1 hectare)	0.60	0.59	0.64	0.45	0.60	0.64	0.65	0.75
Small cultivator (1.0–1.99 hectares)	0.51	0.54	0.46	0.32	0.56	0.56	0.59	0.60
Medium/large cultivator (2.0 hectares and above)	0.46	0.39	0.49	0.37	0.49	0.55	0.56	0.59
Income quintiles								
Poorest	0.70	0.69	0.90	0.62	0.55	0.72	0.65	0.72
2nd quintile	0.73	0.52	0.77	0.45	0.57	0.63	0.59	0.86
Middle quintile	0.64	0.62	0.78	0.50	0.68	0.72	0.64	0.80
4th quintile	0.60	0.66	0.72	0.52	0.66	0.73	0.79	0.81
Richest	0.75	0.67	0.82	0.41	0.72	0.71	0.66	0.80
Consumption quintiles								
Poorest	0.58	0.55	0.56	0.44	0.53	0.67	0.58	0.83
2nd quintile	0.82	0.65	0.81	0.59	0.62	0.69	0.65	0.84
Middle quintile	0.58	0.63	0.80	0.46	0.59	0.69	0.75	0.80
4th quintile	0.73	0.64	0.91	0.49	0.66	0.69	0.66	0.75
Richest	0.68	0.72	1.03	0.58	0.80	0.78	0.72	0.77

Appendix **A5.13** **Number of household decisions in which ever-married women ages 15–49 participate, by level of MGNREGA participation (2004–05 and 2011–12)** *(continued)*

	2004–05				2011–12			
	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA	Low MGNREGA participation village	Nonparticipant in MGNREGA village	Only men in MGNREGA	Women in MGNREGA
Assets quintiles								
Poorest	0.58	0.69	0.77	0.54	0.59	0.73	0.55	0.82
2nd quintile	0.65	0.63	0.79	0.45	0.69	0.70	0.58	0.90
Middle quintile	0.79	0.60	0.71	0.48	0.68	0.75	0.71	0.81
4th quintile	0.69	0.64	0.84	0.56	0.68	0.70	0.85	0.77
Richest	0.69	0.63	0.98	0.47	0.60	0.65	0.68	0.64
Poverty status								
Non-poor	0.74	0.67	0.91	0.51	0.68	0.71	0.68	0.80
Poor	0.59	0.58	0.66	0.49	0.52	0.69	0.59	0.79
Highest household education								
None	0.79	0.76	1.01	0.59	0.70	0.83	0.59	0.99
Primary 1–4	0.57	0.74	0.49	0.51	0.91	0.88	0.67	0.69
Middle 5–9	0.68	0.56	0.71	0.42	0.67	0.71	0.65	0.71
Secondary 10–11	0.62	0.60	0.61	0.41	0.56	0.62	0.69	0.68
Higher secondary 12–14	0.63	0.55	0.64	0.42	0.55	0.60	0.74	0.98
Graduate+ 15	0.76	0.64	0.86	0.78	0.56	0.64	0.62	0.50
Number of adults								
1–2	0.83	0.79	0.95	0.60	0.81	0.86	0.66	0.94
3–4	0.57	0.52	0.63	0.39	0.57	0.57	0.66	0.68
4+	0.52	0.40	0.49	0.28	0.44	0.51	0.56	0.48
State level MGNREGA participation								
Low ≤ 20%	0.59	0.67	0.64	0.50	0.62	0.56	0.54	0.74
Medium 20–40%	0.67	0.55	0.68	0.48	0.66	0.72	0.65	0.79
High > 40%	1.77	0.95	1.04	0.58	0.92	0.86	0.77	0.82
Region								
Jammu and Kashmir, Himachal Pradesh, Uttarakhand	0.63	0.97	0.91	0.73	0.70	0.79	0.78	1.02
Punjab, Haryana	0.62	0.54	0.89	0.25	0.74	0.61	1.01	0.62
Uttar Pradesh, Bihar, Jharkhand	0.64	0.54	0.44	0.50	0.51	0.59	0.45	0.81
Rajasthan, Chhattisgarh, Madhya Pradesh	0.37	0.33	0.39	0.22	0.71	0.67	0.58	0.72
Northeast region, Assam, West Bengal, Odisha	0.67	0.82	0.89	0.75	0.69	0.84	0.82	0.98
Gujarat, Maharashtra, Goa	0.61	0.67	—	0.39	0.64	0.77	—	1.02
Andhra Pradesh, Kerala, Karnataka, Tamil Nadu	1.07	0.79	1.18	0.56	0.77	0.81	0.62	0.78

Note: Northeast region: all north-eastern states except Assam. Decisions include whether to buy an expensive item such as a refrigerator, how many children to have, what to do if children fall sick and whom children should marry. For each decision in which respondent has some say, she scores "1."

Source: Authors' calculations from IHDS.

CHAPTER 6

Challenges Facing a Demand-Driven Programme in an Unequal Society

Prem Vashishtha, Sonalde Desai, Omkar Joshi

"My idea of Village Swaraj is that it is a complete republic, independent of its neighbours for its own vital wants, and yet interdependent for many others in which dependence is a necessity."
(Mahatma Gandhi, Harijan, 26th July, 1942)

Indian democracy began a new experiment in 1992 when the 73rd amendment was passed, devolving substantial power to local governments known as Gram Panchayats. This movement led to the creation of the grassroots Panchayati Raj Institutions (PRI), with village-, block- and district-level Panchayats as well as open fora for constituents to encourage participatory governance. MGNREGA builds on these PRIs to ensure that rural households can demand work and local governments can access central and state government resources to provide work.

While in principle this structure has tremendous potential for ensuring a grassroots, demand-driven programme, the extent to which this potential is realized depends on village democracy. Contrasting with the optimism expressed by Mahatma Gandhi, Dr. B.R. Ambedkar, one of the drafters of the Indian constitution and a foremost dalit scholar, held that "these village republics have been the ruination of India. I am, therefore, surprised that those who condemn provincialism and communalism should come forward as champions of the village. What is the village but a sink of localism, a den of ignorance, narrow-mindedness and communalism?"[1] Past research has noted both persistent inequalities and elite capture of opportunities in villages, as well as the potential for overcoming these inequities by empowering women, dalits and adivasis.[2]

Participatory democracy or elite capture?

Whether village administration can ensure equitable distribution of MGNREGA work depends on two issues: (1) To what extent does a shortfall of work disproportionately affect the less powerful sections of society? and (2) To what extent do the interests of village elites affect MGNREGA implementation?

Work rationing

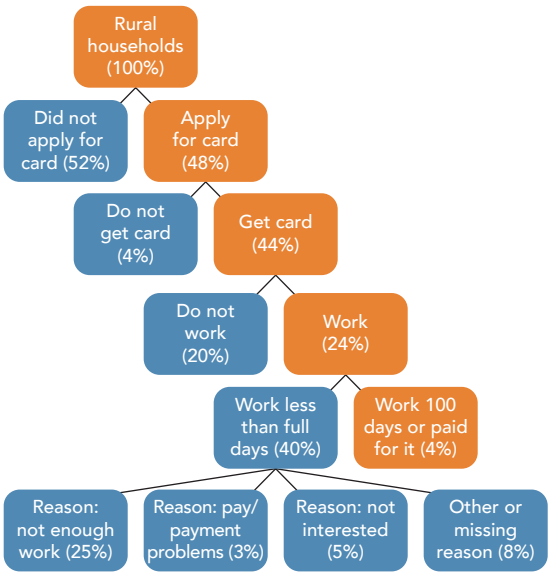
Despite MGNREGA's universal nature, not all interested households can get the full 100 days of work. This phenomenon, called work rationing,[3,4] occurs at different stages of the process, including getting a job card, getting any work at all and getting the full entitlement.

The IHDS asked whether households applied for a job card, whether they got it, how many days were worked by various household members, and the reason for not working the full number of days. The responses allowed us to identify stages at which households may be rationed out of the system (Figure 6.1).

Based on the description above we divided households into five categories:

- Households that indicated a lack of interest, either by not applying for

Figure **6.1** **Anatomy of work rationing**



Source: Authors' calculations from IHDS.

a MGNREGA card or by saying that the reason they did not work the full 100 days is that they were not interested (57%).

- Households that either worked the full 100 days or were able to get payment in lieu of work (4%).
- Households that were unable to get the full 100 days due to lack of work or that were unable to get (despite applying for it) the MGNREGA job card required for obtaining work (29%) (direct rationing).
- Households that did not work the full 100 days due to low wages or problems with payment (3%) (indirect rationing).
- Households who did not work the full 100 days for diverse reasons, including missing data on reasons for not working (8%).

Work rationing: MGNREGA's biggest challenge

While a quarter of rural households participate in the programme, nearly 60% of these would like to work more days but are unable to find work. Moreover, of the households that did not participate at all, 19% would have liked to participate but could not find work. This widespread direct rationing affects all sections of society, about 29% of all rural households, but is particularly pervasive in some regions (Figure 6.2).

The IHDS conducted village-level focus groups in more than 1,420 villages. As a part of these focus groups, the respondents were asked to voice their opinion on how the programme can be improved. While most respondents asked for higher pay, three other suggestions also recurred frequently: (1) more days of work; (2) timely payment; and, (3) more pukka work, meaning work that creates higher quality infrastructure.

Little middle-class bias on the surface

Research on governance in India (and many other countries) notes a pro-elite bias whereby privileged groups can capture access to government programmes.[5,6] But MGNREGA's approach of providing manual work makes it far more attractive to the poor than to the rich, complicating our ability to interpret the relationship between MGNREGA rationing and household poverty.

Past research on work rationing provides no conclusive evidence on middle-class bias. But three studies analysing National Sample Survey (NSS) data are particularly important. Dutta et al.[7] find that households in higher consumption quintiles are less likely to want to participate in MGNREGA by obtaining job cards. Local processes favour the poor, and the richest quintile experiences the highest rationing. Both of these systemic biases—greater demand from poor participants and higher rationing for the rich—combine to create a greater pro-poor bias in MGNREGA work. Despite the fact that among participating households, richer households are able to find more days

of work, these processes ensure that on average, they work fewer days in MGNREGA than do the poor.[8]

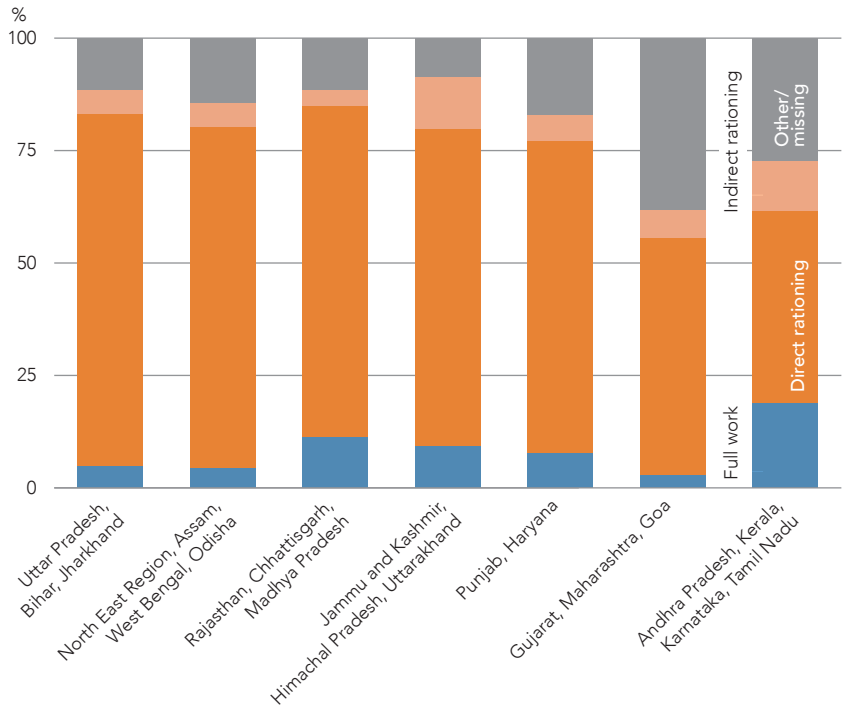
Liu and Barrett, using consumption expenditure as a continuous variable, examine more closely the relationship between consumption expenditure and rationing. They find that although both participation rates and rationing are pro-poor, those at the very bottom of the consumption expenditure distribution are more likely to experience rationing than households closer to the poverty line. They also find that the richest households are the most likely to experience rationing.[9] But Das finds that after control for a variety of household characteristics such as education, land ownership and social origin, the poorer the household, the more likely it is to experience rationing throughout the consumption expenditure distribution. In addition to controlling for household characteristics, Das also takes into account selection into MGNREGA participation using a two-step procedure.[10]

Unfortunately, two shortcomings make it difficult to generalize from these intriguing findings. First, consumption expenditure (a proxy for income) both determines and is affected by MGNREGA participation: The poor are more likely to participate in MGNREGA, but access to MGNREGA work also increases income and reduces poverty. This reciprocal relationship makes it difficult to draw any generalizations from contemporaneous data.

Second, although there are hints of large interstate variation in the analysis by Liu and Barrett, none of these three studies controls for state of residence in providing national observations. Part of the upper-income bias may result from variation in income and implementation. Some of the richer states, such as Tamil Nadu and Andhra Pradesh, have higher participation rates than poorer states such as Bihar and Odisha. Controlling for state of residence may change substantially the relationship between consumption (or income) and rationing.

The results presented below address both of these concerns. First, we show that the relationship between income and rationing is substantially weaker if we look at income before MGNREGA was implemented. Second, we show that controlling for state of residence reverses the relationship between income and MGNREGA and indicates far greater pro-poor bias in targeting than if we do not take into account state of residence. Table 6.1 presents predicted values of probability of participation, probability of rationing and number of days worked for MGNREGA households and MGNREGA work days in the total population by income quintile. The top panel shows these outcomes by income quintile in 2011–12 and the bottom panel shows the same for 2004–05.

Figure **6.2** **Direct rationing is most common in northern and central India**



Note: Northeast region: all north-eastern states except Assam.

Source: Authors' calculations from IHDS.

Table 6.1 **Participation, rationing and number of days worked, by 2004–05 and 2011–12 income quintiles**

Per capita income quintile	Interested in MGNREGA work (%)	Rationed in getting work (%)	Rationed in getting days of work (%)	Number of MGNREGA work days for interested households	Number of MGNREGA work days for population
2011–12 income					
Poorest quintile	50	53	95	19	10
2nd quintile	51	49	94	23	13
3rd quintile	46	46	91	28	13
4th quintile	42	45	87	31	14
Richest quintile	27	48	83	33	9
2004–05 income					
Poorest quintile	48	52	92	23	12
2nd quintile	53	46	91	25	14
3rd quintile	48	47	91	27	14
4th quintile	40	47	91	27	12
Richest quintile	28	52	88	29	9

Source: Authors' calculations from IHDS.

The results highlight several factors:

- Participation rate declines with income, and the difference between richest and poorest quintiles is substantial.
- The rationing rate, defined as proportion unable to get work in spite of asking for a job card and expressing interest in MGNREGA work, is slightly higher for the lowest income quintile but it is more or less evenly spread among quintiles.
- The rationing rate for days of work is high for all households but particularly high for the poorest. In the lowest income quintile (2011–12 income), 95% of households experience rationing of days of work, whereas only 83% of the highest income quintile do so. Among interested households (those that applied for a job card), households in the lowest income quintile worked only 19 days a year when they worked in MGNREGA, while those in the highest income quintile worked for 30 days.
- This inequality is somewhat moderated at the population level due to pro-poor targeting; while the middle-income quintiles work a few days more than the highest and the lowest (in the last column), these differences are slight—a few days a year.

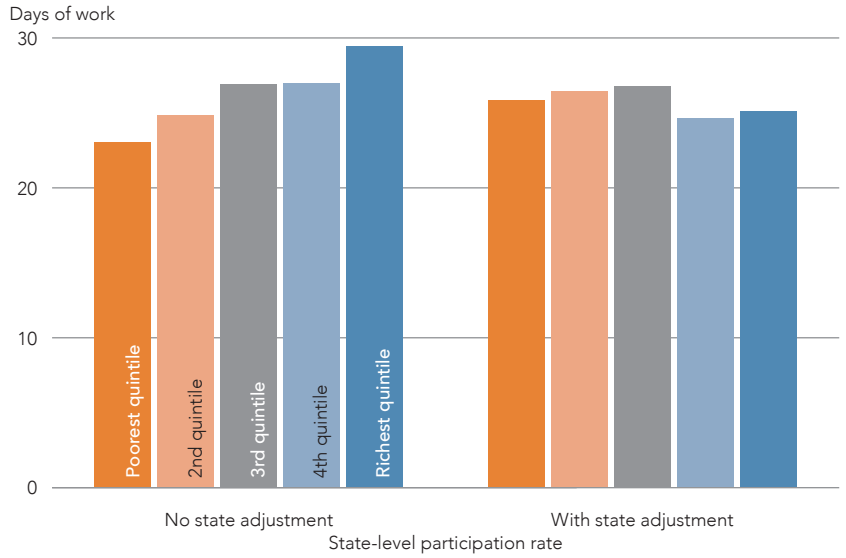
At first glance these results suggest MGNREGA is being captured by elites. But further examination shows that this is a statistical artefact. Access to MGNREGA work increases household income, so the more days a household can work, the more likely it is to move out of poverty. Thus, focusing only on current income, as do most of the studies cited above, creates a statistical bias. In the bottom panel of Table 6.1, the same outcomes are shown by household income quintile in 2004–05, before MGNREGA was implemented. Here we see substantial attenuation of these inequalities. Although the difference in days worked between participating households in the top and bottom quintiles is 14 days if we use 2011–12 income, it drops to six days when we use

2004–05 income. Thus, results based on cross-sectional data such as that from the NSS should be treated with caution.

Furthermore, these national-level results mask the role of state-level MGNREGA implementation choices. Part of the upper-income bias results from poor MGNREGA implementation in states such as Bihar and Odisha, where despite high poverty levels, few people can get MGNREGA work compared with richer states such as Andhra Pradesh and Tamil Nadu. After control for state of residence, much of this upper-income bias disappears (Figure 6.3).

The left-hand panel of Figure 6.3 graphs the predicted number of days worked for MGNREGA households while adjusting for household land ownership, caste and religion, highest education attained by any household member and household size. The right-hand panel of Figure 6.2 also adjusts for state of residence.[11] Because the upper-income bias virtually disappears after control for the relationship between household income and state of residence, one way of addressing the middle-income bias likely is to improve implementation in poorer states.

Figure **6.3** **Predicted number of days of MGNREGA work for interested households, by 2004–05 income quintiles**



Source: Authors' calculations from IHDS.

Rationing or low demand?

Only a quarter of households participate in MGNREGA, possibly due to either poor demand or poor supply or both. If households can earn more money through well-paying private sector work, they may simply be less interested in doing MGNREGA work—reducing demand for MGNREGA work. For a demand-driven programme, this should be seen as natural and not a poor reflection on programme implementation.

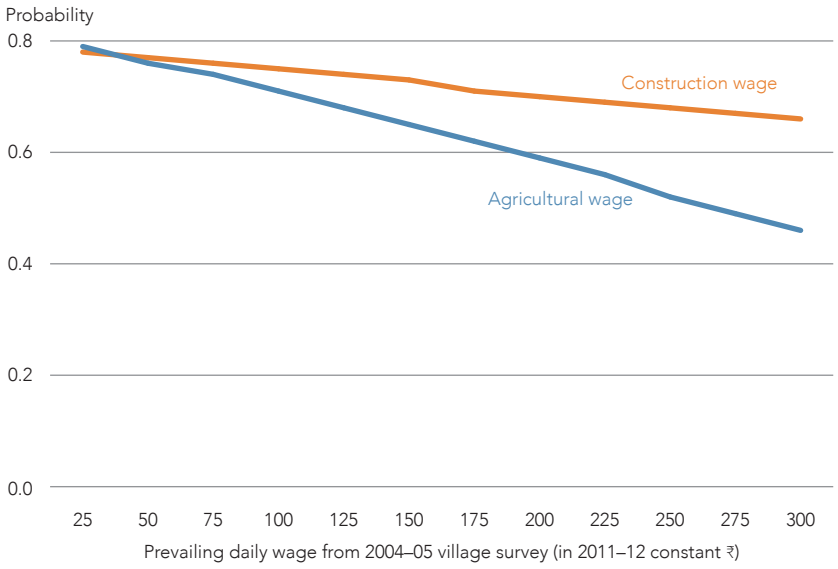
There is some correlation between economic conditions and demand for work. Fieldwork by IHDS staff shows that in areas such as western Uttar Pradesh, where labour demand is high and wages are higher than MGNREGA wages, few people seem to demand MGNREGA work (see Box 4.1). But while low demand may result from higher external wages, it may also be attributable to a discouraged worker effect. If MGNREGA has never functioned well in a village, potential workers may not know how to go about demanding work (see Box 2.3). Although overt unmet demand can be picked up by surveys such as NSS, which show that about 19% of households that demanded work did not get it,[12] the discouraged worker effect is difficult to detect through direct questions.

Higher local wages in an area may also affect supply of MGNREGA work by creating an incentive for the village Panchayat to slow down work allocation. It is possible that in areas where agricultural wages are high and farmers blame MGNREGA for it, they may exert pressure on the Panchayat to reduce the competition provided by MGNREGA. It is difficult to sort out these competing explanations but results provided below offer some clues.

We examined the relationship between prevailing wage rates and MGNREGA implementation level in a village. Because MGNREGA may actually create demand for labour, resulting in rising wages, we again focused on prevailing wages in rural villages during two periods: 2004–05, long before MGNREGA was implemented, and after MGNREGA implementation (2011–12).

The IHDS administered a village questionnaire to collect prevailing village wage rates through a focus group discussion. Two types of wages were addressed: wages for male agricultural workers at harvest time, averaging the wages for the two main agricultural seasons, rabi and kharif, and wages for male construction labourers. We examined MGNREGA implementation levels by identifying villages in which at least one household in our sample participates in MGNREGA and those in which none do. With one in four rural households participating in MGNREGA, there is a very low probability that if MGNREGA is being implemented in the village, even one household in our sample of 16–20 per village would not participate. This allowed us to distinguish between villages in which MGNREGA is being implemented reasonably well and those in which MGNREGA intensity is very low. If workers eschew MGNREGA work in favour of better paying opportunities, we should see lower MGNREGA participation in areas with higher prevalent wage rates—both in agriculture and in construction work. To examine this, we estimated a logistic regression in which village-level MGNREGA implementation is regressed on both agricultural and construction wages with control for state of residence. Figure 6.4 clearly shows that although MGNREGA implementation falls with higher wage levels, the decline is far sharper with higher agricultural wages than with construction wages.

Figure **6.4** **Predicted probability of MGNREGA implementation in 2011–12, by prevailing wages in 2004–05**



Source: Authors' calculations from IHDS.

Construction wages and agricultural labour wages both affect demand for MGNREGA work. So if higher market wages reduce demand for MGNREGA, both types of wages should have a similar effect. But employers for construction work often do not form a bloc to create political pressure. By contrast, farmers have great power in a local political economy and may easily exert pressure to block MGNREGA implementation.

Part of the problem may lie with the political economy of MGNREGA implementation, which is heavily influenced by the Gram Panchayat. Even if there is high demand for work on the ground, the Gram Panchayat must prepare project proposals and implement them. In areas where agricultural wages are high, Panchayat members—many of whom are farmers—may either assume low demand for MGNREGA and pay less attention to shepherding the projects through, or may prioritize farmers' needs over labourers' needs. The role of local Panchayati Raj Institutions as mediators between demand for work and supply of work often lends itself to these

mismatches. Even in states, like Rajasthan, with well-functioning MGNREGA programmes there is evidence that Gram Panchayats can easily block creation of employment opportunities through passivity (Box 6.1). Reasons for rationing MGNREGA work require further analysis.

Managing a demand-driven, grassroots programme

The greatest strength of MGNREGA is arguably its locally owned and managed demand-driven approach. As we have highlighted throughout this report, this

Box 6.1 Even in well-performing states, a demand-driven programme brings administrative challenges

Interviewee was Pradhan in one of the Gram Panchayats in Rajasthan during 2010–15.

Q. Lots of people have job cards but they never worked. Why?
A. Farming is the main occupation in this area and this keeps people busy for six months. Some persons take up MGNREGA work in summer. When the programme for making job cards was taken up on a big scale in 2006–07, many government servants and retired persons also managed to get their job cards and most of them never worked. Perhaps they did not need MGNREGA work.

Q. We have heard that many people wanted job cards but they never got one. Why?
A. While many people were given job cards in 2007, the actual work started in 2008. After this, new cards were not issued for some reason. The process of making new cards is complicated. Panchayat is not able to make new cards on its own. When asked why the new cards were not being made at Panchayat Samiti [district] level, we were told that making of new cards was suspended. During this period, some people had to suffer. For example, someone who got married and the household split, the eligible members were not able to get new job cards.

Q. What kind of problem did you face in getting projects sanctioned?
A. Panchayat Samiti sanctions all the projects above ₹1 lakh and this body is supposed to meet every month. Sometimes, the meeting is not held even for months, resulting in delay in sanction of projects. In the meantime, if some sanctioned projects are not on the shelf, Gram Panchayat is not in a position to offer MGNREGA work to willing workers.

Q. Some workers complained that they did not get work for full 100 days as per their entitlement. Is it true?
A. No, this is not correct. During my tenure (2010–15), at least four to five workers got work for full 100 days. In addition, we provided dress for female workers and also some cash amount. School uniforms were also given for their children. Some of the workers got work for more than 100 days.

Q. Why is it that more workers could not be provided 100 days of work?
A. Yes, sometimes all the workers willing to work could not be given 100 days of work due to gap.

Q. What do you mean by "gap"? Please explain clearly.
A. As you know that agriculture work is the main activity in this area. If you offer MGNREGA work during the peak of agricultural activity, workers will not be available. Sometimes, the project sanction is not received in time, resulting in delay in implementation of projects. If in the meantime, there is good demand for labour in agricultural operations, labour will not be available for MGNREGA for several weeks (even for several months, in some areas). This causes a gap of weeks and months before we can again offer work under MGNREGA during the span of a year. Some workers have to miss the opportunity of getting work for full 100 days due to this gap.

Q. We have heard of complaints that some workers are paid a wage less than the notified wage rate. Could you please tell us what the real story is?
A. Sir, you must be knowing that workers are allotted a certain amount of earthwork in a group of workers and they are expected to finish it as per certain norms. Some workers are lazy or slow and so they do not complete their share of work in time (Please note that the same workers are not slow when they work in their individual capacity on private farms.) As a consequence, the work done at the end of the day is less than the norm as discovered by the technical experts after the measurements have been taken. When payment is done, the average wage turns out to be lower than the notified wage rate. All workers are paid at the same rate.

Q. What is the reaction of good workers in such a situation?
A. The hard-working individuals feel bad about getting a lower wage than the notified one. Sometimes they refuse to join the group of workers and even decline work on this account.

Q. So do you believe that the story of lazy workers is so common?
A. No, not so common. There may be some cases in other villages where workers have done the requisite amount of work as per norm and yet the measurements do not show up the work completed as per expectations. The workers may be paid less than the notified wage in such cases. Although, such cases are not ruled out but I am not aware of it in our area.

approach, coupled with an emphasis on manual work, seems to increase participation by poor and vulnerable groups while avoiding the difficult challenges of overt targeting. It also relies on grassroots ownership of the programme by involving the Panchayati Raj Institutions while simultaneously emphasizing fiscal oversight.

But these are competing objectives, and our analysis of rationing shows that in practice they often combine to reduce the amount of work available. Much of the weakness emerges from the conflicting interests of workers and employers within villages, as well as friction between different levels of administration that seek to maintain fiscal oversight while ensuring work availability. Throughout this report we have documented many instances of these:

- MGNREGA participation is lower in poor states like Bihar and Odisha than in richer states like Tamil Nadu and Andhra Pradesh, suggesting that state-level policies and priorities have a tremendous impact (see Figure 2.4).
- Completion and quality of MGNREGA work remain a challenge. Gram Panchayats may lack sufficient technical expertise to produce a well-prepared plan, and cost overruns may lead to cancellation of projects (see Figure 1.1 and Box 1.4).
- Agricultural wage rates rose faster than growth in agricultural productivity and nonagricultural wages (see Table 4.4) creating tensions between workers and medium and large farmers who rely on agricultural labour in peak seasons. This may have led to poorer implementation of MGNREGA in areas with high pre-implementation agricultural wages (Figure 6.4).
- About 29% of rural households did not get any work or did not get sufficient days of work despite expressing interest (Figure 6.1).

As one considers the challenges facing the programme, it is important to remember that on balance the programme has seen many successes. It has played an important role in ensuring household income security (chapter 3) and well-being by improving household financial inclusion (chapter 5). The gender impacts of MGNREGA are particularly striking. By providing equal wages to men and women it has brought many women into a world of wage employment and has led to increased gender empowerment.

But as the programme matures, it will need to address the management challenges described here. If it fails to overcome them, it will miss a historic opportunity to play an even greater role as catalyst for the further transformation of rural India.

Notes

1. Mathew 1995.
2. Nagarajan et al. 2014.
3. Das 2015.
4. Dutta et al. 2012.
5. Nagarajan et al. 2014.
6. Dreze and Sen 2013.
7. Dutta et al. 2012.
8. Dutta et al. 2012.
9. Liu and Barrett 2013.
10. Das 2015.
11. These are predicted values for days worked in MGNREGA for individuals who expressed an interest in MGNREGA work as defined earlier. These predicted values are based on linear regression, holding all other variables at their mean value. Similar analyses using Heckman selection correction for participation equation yielded similar results but are not presented here.
12. Das 2015.

APPENDIX

India Human Development Survey

O.P. Sharma, Dinesh Tiwari

The India Human Development Survey rounds I (2004–05) and II (2011–12) form part of a collaborative research programme between researchers from the University of Maryland and the National Council of Applied Economic Research. The goal of this programme is to document changes in the daily lives of Indian households in a society undergoing rapid transition. In documenting the way they live, work, educate their children, care for their aged parents and deal with ill health, we seek to infuse the development discourse with the life experiences of ordinary people.

The government of India conducts a vast number of surveys, including the National Sample Survey (NSS), National Family Health Survey and Annual Health Survey. The IHDS survey programme does not aim to replace these topical surveys but to offer a multipurpose, multitopic dataset that allows us to integrate changes in one aspect of the Indian society with others. For example, in this report we link changes in household employment patterns to household gender relations, something difficult to do with single-topic surveys.

Independent data collection, undertaken with advisory input from a variety of ministries, academics and civil society representatives, allows independent evaluation of programmes. And by placing these data in the public domain while protecting the identities of the villages and individuals, we enable other researchers to draw independent conclusions about the nature of social changes in India.

Sample

IHDS I (2004–05) is a nationally representative survey of 41,554 households located in 33 states and union territories of India; only Andaman, Nicobar and Lakshadweep are excluded. It covered 1,503 villages and 971 urban blocks located in 276 towns and cities (Table AI.1). In 2011–12 the same households were resurveyed, making IHDS the first nationwide panel survey of households (Table AI.2). The 2011–12 sample included all original households as well as any split households from the original sample, with the exception of daughters who married out. We made extensive efforts to re-interview all original and split households but were unable to cover households that migrated outside the area. For individuals who migrated, if any family member was left behind, we tried to obtain some basic information such as current work and demographic characteristics by proxy. The resultant sample consists of IHDS I (2004–05) data on education, health, livelihoods, family processes and the way households are embedded in a broader social structure. Information was also collected about social and policy contexts through survey of village infrastructure, markets, one private and one government school and medical facility in each village/block. In 2011–12, IHDS II re-interviewed 83% of these households as well as split households (if located within the same village or town) to trace changes in their lives. This has created a unique dataset

Table AI.1 State-wise distribution of the IHDS-I sample

States	District in 2001 Census	Included in IHDS-I				Households surveyed		
		Districts	Urban areas	Blocks	Villages	Rural	Urban	Total
Jammu and Kashmir	14	5	5	21	20	400	315	715
Himachal Pradesh	12	9	7	21	52	1,057	315	1,372
Punjab	17	13	11	36	61	1,033	560	1,593
Chandigarh	1	1	1	6	0	0	90	90
Uttarakhand	13	6	3	9	20	309	149	458
Haryana	19	14	6	18	79	1,350	268	1,618
Delhi	9	10	7	56	6	60	900	960
Rajasthan	32	23	17	60	88	1,590	895	2,485
Uttar Pradesh	70	43	24	75	138	2,389	1,123	3,512
Bihar	37	17	10	31	61	965	465	1,430
Sikkim	4	1	1	3	3	60	45	105
Arunachal Pradesh	13	1	1	3	6	120	45	165
Nagaland	8	4	1	2	5	100	30	130
Manipur	9	3	1	3	3	60	45	105
Mizoram	8	1	1	3	3	60	45	105
Tripura	4	2	1	3	7	184	45	229
Meghalaya	7	3	1	3	6	116	45	161
Assam	23	8	7	21	38	699	318	1,017
West Bengal	18	14	21	75	66	1,247	1,133	2,380
Jharkhand	18	6	9	27	26	519	405	924
Odisha	30	26	13	40	84	1,464	600	2,064
Chhattisgarh	16	15	6	18	49	905	270	1,175
Madhya Pradesh	45	31	13	42	121	2,177	628	2,805
Gujarat	25	17	14	60	70	1,167	911	2,078
Daman and Diu	2	2	0	0	3	60	0	60
Dadra and Nagar Haveli	1	1	0	0	3	60	0	60
Maharashtra	35	27	18	75	115	2,078	1,125	3,203
Andhra Pradesh*	23	19	18	60	94	1,526	909	2,435
Karnataka	27	26	21	78	144	2,832	1,189	4,021
Goa	2	2	1	3	6	100	65	165
Lakshadweep	1	0	0	0	0	0	0	0
Kerala	14	12	14	42	61	1,089	642	1,731
Tamil Nadu	30	21	22	74	62	898	1,200	2,098
Puducherry	4	1	1	3	3	60	45	105
Andaman and Nicobar	2	0	0	0	0	0	0	0
Total	593	384	276	971	1,503	26,734	14,820	41,554

* Andhra Pradesh includes Telangana state, since the survey was conducted before the creation of Telangana.

Source: IHDS-I (2004–05) data.

Table **AI.2** **State-wise distribution of IHDS-II sample and proportion of IHDS-I households resurveyed in IHDS-II**

	Total households surveyed			Percentage resurveyed**
	Rural	Urban	Total	
Jammu and Kashmir	413	307	720	87.3
Himachal Pradesh	1,163	313	1,476	91.3
Punjab	1,177	525	1,702	87.4
Chandigarh	0	85	85	58.9
Uttarakhand	287	181	468	88.7
Haryana	1,497	309	1,806	87.4
Delhi	21	878	899	47.2
Rajasthan	1,859	848	2,707	86.8
Uttar Pradesh	2,704	1,120	3,824	88.2
Bihar	1,085	462	1,547	88.1
Sikkim	24	83	107	81.9
Arunachal Pradesh	114	45	159	84.9
Nagaland	72	38	110	64.6
Manipur	42	46	88	81
Mizoram	54	24	78	70.5
Tripura	174	46	220	60.7
Meghalaya	106	28	134	80.8
Assam	700	291	991	68.5
West Bengal	1,290	1,145	2,435	89
Jharkhand	492	361	853	74.1
Odisha	1,506	552	2,058	88.1
Chhattisgarh	1,013	311	1,324	91.9
Madhya Pradesh	2,514	609	3,123	88.3
Gujarat	1,100	795	1,895	76.6
Daman and Diu	59	0	59	86.7
Dadra and Nagar Haveli	39	21	60	75
Maharashtra	2,207	1,102	3,309	89.8
Andhra Pradesh*	1,355	848	2,203	72.7
Karnataka	2,708	1,157	3,865	78.5
Goa	110	78	188	97.6
Lakshadweep	0	0	0	0
Kerala	724	846	1,570	82.3
Tamil Nadu	909	1,073	1,982	82.4
Puducherry	61	46	107	86.7
Andaman and Nicobar	0	0	0	0
Total	27,579	14,573	42,152	83.3

***** Andhra Pradesh includes Telangana state, since the survey was conducted before the creation of Telangana.

****** At least one member of the original household was re-interviewed.

Source: IHDS-II (2011–12) data.

providing a rich description of changes in Indian society.

The IHDS-II is a nationally representative survey of 42,152 households, of which 28,486 were a part of the original rural sample and 13,666 were a part of the original urban sample. The recontact rate for the rural areas is 90% and that for the urban areas is 72%, bringing the total recontact to 83%. This recontact places IHDS among the high end of panel survey recontact statistics,[1] although an ability to track migrants[2] would certainly improve the usefulness of the IHDS surveys.

In 2004–05, villages and urban blocks formed the primary sampling unit (PSU) from which households were selected. Urban and rural PSUs were selected using different designs. To draw a random sample of urban households, all urban areas in a state were listed in the order of size with number of blocks from each urban area allocated based on probability proportional to the size. Once the numbers of blocks for each urban area were determined, the enumeration blocks were selected randomly with help from Registrar General of India. From these census enumeration blocks of about 150–200 households, a complete household listing was conducted and a sample of 15 households was selected per block. The rural sample contains about half the households that were interviewed initially by NCAER in 1993–94 in a survey titled Human Development Profile of India (HDPI), and the other half of the samples were drawn from both districts surveyed in HDPI as well as from districts located in the surveys and union territories not covered in HDPI.

Questionnaires

The questions finally fielded in IHDS were organized into two separate questionnaires—"household" and "women." The household questionnaires were administered to the individual most knowledgeable about income and expenditure, probably the male head of the household; the questionnaire for health and education was administered to a woman in the household—most often the spouse of the household head. Questions on fertility, marriage and gender relations in the households were addressed to an ever-married woman between 15 and 49 in the household. If no household member fit these criteria, that portion of the questionnaire was skipped (about 17% of all households); if the household had more than one ever-married woman between 15 and 49, one woman was selected randomly to answer those questions, in addition to the women originally interviewed in 2004–05.

Additionally, two institutional questionnaires for one private and one government primary school and health facility in each village/urban block were administered, as was a questionnaire about village infrastructure, cropping pattern and prevailing wages. The village questionnaires were administered to groups of eight persons or more, including a village key person, teacher, wage labourer and farmer. Overall more than 10,000 respondents responded to the village questionnaire, of which about 20% were Panchayat members or other government representatives.

Questions about households and individuals ask about the following:

- Income by source.
- Employment and wages.
- Remittances.
- Education and education expenditure.
- Morbidity and treatment, medical expenditure.
- Household consumption expenditure.
- Intra-household relationships.
- Social networks and organizational memberships.

- Access to social safety nets.
- Reading, writing and arithmetic skill tests for children ages 8–11 years and youth designed by the non-governmental organization Pratham.
- Height and weight measurements for all respondents, including children.

Institutional modules

Village survey:

- Infrastructure availability.
- Employment availability.
- MGNREGA participation and administration.
- Prices and wage rates.

Medical survey:

- One government and one private medical facility for treatment of minor illnesses.
- Physical infrastructure.
- Medicine stock.
- Staff composition, training and presence.

Primary school survey:

- One government and one private school per PSU.
- Physical infrastructure.
- Staff composition, training and presence.
- Midday meal availability.

Fieldwork organization

Fieldwork for IHDS-II was performed by 15 agencies throughout the country selected for their experience with administering large-scale scientific surveys. The length and diversity of IHDS required more extensive training than needed for single-topic surveys. NCAER staff, assisted by researchers from the University of Maryland, organized 16 ten-day training sessions across the country, each for 15–60 interviewers. Classroom reviews of each questionnaire section were combined with supervised field experience. For the primary data collection, about 600 field interviewers and supervisors were trained all over India. There were seven days of theoretical training along with three days of practical training. Training questionnaires from the field practice were checked and mistakes or queries were addressed through classroom instruction, including role-playing exercises. In addition to written interviewer manuals, training films were developed. Once trained, interviewers went into the field typically in teams of five—two male-female pairs of interviewers and a team leader. The team leader usually conducted the village, school and medical facility interviews in addition to supervising the team.

Survey agencies were supervised extensively by NCAER staff using a three-layered supervision structure consisting of zonal coordinators, Delhi-based supervisors and state-level supervisors. In general, each supervisor employed by NCAER was assigned to two interview teams, although in some cases one supervisor was assigned to one team. Interviewers were supervised through random visits by supervisors and zonal coordinators working for NCAER, and 19% of the households were partially re-interviewed to ensure data quality and adequate supervision. In several cases, refresher training sessions of 3–5 days were organized if interviewers were found to make consistent mistakes. The quality control was augmented by obtaining time/place stamps using GPS-enabled phones. Interviewers were asked to upload these data on our central server daily to facilitate survey tracking and monitor interviewer progress.

The filled-in questionnaires of the first sample location for each interviewer were checked and sent back to the field for correction. This allowed interviewers to learn from their mistakes and to talk to a NCAER trainer/supervisor to ensure any queries were addressed.

For quality checking, verification and missing information, about 10,000 phone calls were made to respondents. We learned from the challenges faced in IHDS-I; for IHDS II, data entry was undertaken twice by two different agencies to ensure no errors crept into the data during the data entry process.

Data quality assessment

Many questions included in the IHDS surveys are not administered by other surveys. For example, NCAER specializes in collecting income data, and no such information is available elsewhere for comparison purposes. But for variables such as age, education and poverty

Table **AI.3** **Comparison of IHDS-I rural data with other sources on key parameters**

Demographic characteristics	IHDS-I 2004–05	Census 2001	NSS (61st Round Employment Supp.) 2004–05	NSS (61st Consumption Expenditure) 2004–05
Percentage literate	62.3	..	60.9	60.9
Age 5+	63.6	58.7	61.9	62.1
Age 7+	41.6	..	42.0	42.0
Other backward classes	24.1	17.9	21.7	21.4
Dalit/scheduled caste	9.9	10.4	10.7	10.9
Adivasi/scheduled tribe	24.4	..	25.6	25.7
Other castes and non-Hindu	83.7	82.3	84.3	84.6
Hindu	10.1	12.0	10.4	10.3
Muslim	2.6	2.1	2.4	2.3
Christian	1.4	1.9	1.8	1.8
Sikh	2.3	1.7	1.1	1.0
Percentage currently in school (ages 5–14)	76.4	62.2	80.7	..
Work participation rate, males*	49.4	52.3	54.6	..
Work participation rate, females*	26.7	30.9	32.7	..
Average family size	5.3	5.4	4.8	4.9
Percentage of women married (ages 15–49)	74.9	82.9	77.8	77.6
Percentage of women married (all ages)	48.1	55.0	48.3	48.1
Percentage with electricity	62.7	43.5	..	55.0
Percentage with piped water	27.2	9.6**	..	..
Black and white TV	24.1	18.9	..	
Colour TV	12.7			
Liquefied petroleum gas use	18.1	5.1	..	8.6
Percentage with toilets	28.4	4.2	..	..
Percentage poor	42.4	..	..	41.8

***** IHDS-I: Worked more than 240 hours last year excluding animal care; NSSO: Principal + Subsidiary status; Census: Main + Marginal workers.

Source: Authors' calculations from IHDS, NSSO (2006a, 2006b), Government of India (2001).

status, IHDS can be compared with other data sources such as the NSS and the Census of India. These comparisons suggest that information in IHDS is similar to that collected by other surveys, increasing our confidence in the quality of IHDS data. In panel surveys, attrition tends to reduce the representativeness of the sample. Thus, such comparisons are even more important for panel surveys than for cross-sectional surveys. These comparisons are presented in Table AI.3 and Table AI.4.

Notes

1. Hill 2004.
2. Thomas et al., 2001.

Table **AI.4** **Comparison of IHDS-II rural data with other sources on key parameters**

Demographic characteristics	IHDS-II 2011–12	Census 2011	NSS (68th Round Employment Supp.) 2011–12	NSS (68th Consumption Expenditure) 2011–12
Percentage literate	67.4	..	69.5	69.7
Age 5+	68.2	67.8	70.0	70.2
Age 7+	42.6	..	45.1	45.0
Other backward classes	23.4	18.5	20.7	20.8
Dalit/scheduled caste	10.2	11.3	10.8	11.1
Adivasi/scheduled tribe	23.7	..	23.4	23.0
Other castes and non-Hindu	83.5	..	83.1	83.2
Hindu	11.3	..	12.4	12.4
Muslim	1.8	..	1.9	2.0
Christian	1.3	..	1.8	1.7
Sikh	2.1	..	0.8	0.7
Percentage currently in school (ages 5–14)	89.2	..	89.6	..
Work participation rate, males*	51.0	53.0	54.3	..
Work participation rate, females*	28.4	30.0	24.8	..
Average family size	4.8	4.9	4.5	4.6
Percentage of women married (ages 15–49)	73.9	75.4	76.2	75.2
Percentage of women married (all ages)	49.8	49.2	50.6	50.2
Percentage with electricity	77.0	55.3	65.6	72.5
Percentage with piped water	30.6	30.8	..	..
Black and white TV	5.7	33.4	..	49.0
Colour TV	43.4			
Liquefied petroleum gas use	26.8	11.4	12.1	15.1
Percentage with toilets	36.9	30.7	..	..
Percentage poor	24.7	..	..	25.7

* IHDS-II: Worked more than 240 hours last year excluding animal care; NSSO: Principal + Subsidiary status; Census: Main + Marginal workers.

Source: Authors' calculations from IHDS, NSSO (2013a, 2013b), Government of India (2011).

APPENDIX II

MGNREGA's governance structure

Prem Vashishtha

For planning, implementation and monitoring, detailed guidelines have been developed by the Ministry of Rural Development (MoRD). This appendix describes MGNREGA's governance structure in the following order:

- Local government or Panchayati Raj Institution (PRI) level
  - Tier I
  - Tier II
  - Tier III
- State government level
- Central government level

MGNREGA governance and scope has evolved substantially in the past five years. The government of India has issued new guidelines from time to time. The Reports to the People presented to the Parliament by MoRD and the research undertaken by independent scholars and institutions have improved our understanding of MGNREGA governance. Keeping these developments in view, Table 1.1 in chapter 1 presents a summary of MGNREGA's governance structure, and the following text provides a detailed description.

Planning process

- MGNREGA is a demand-driven programme with a bottom-up approach. It provides work to adult unskilled labourers willing to accept work in and around the village or at nearby sites (within 5 kilometers). The planning process starts from the bottom with inputs given to the next higher level of agencies in a three-tiered system of PRIs.

PRI level

Tier 1: Gram Panchayat

- A Gram Sabha prepares, in consultation with residents, a list of project proposals under the scheme and submits them to the Gram Panchayat for consideration. The list is the result of feedback on the demand for labour received from wage seekers in the villages.[1] The Gram Sabha has the final say on the priority of works to be initiated under MGNREGA.
- The Gram Panchayat prepares a development plan on the recommendation of the Gram Sabha about the nature of the work needed by the villagers.
- The Gram Panchayat keeps possible projects/works on the shelf to meet the demand for work as it arises.[2]
- On the basis of information received from the programme officer (PO), the Gram Panchayat informs Gram Sabha and resident applicants about employment opportunities available elsewhere.
- The Gram Panchayat sends the project proposal to the intermediate Panchayat for consideration.[3]

Tier II: Intermediate Panchayat (block level)

- The PO receives project proposals from Gram Panchayats and intermediate Panchayats. The PO assists intermediate Panchayats in preparing block-level plans and projects.[4,5]
- It is the PO's responsibility to match employment demand with

employment opportunities arising from projects in his/her jurisdiction/block. After this coordination, the PO sends project proposals to the block Panchayat for approval and then to the district programme coordinator (DPC).[6]

- Upon the DPC's approval, the PO informs the Gram Panchayat if any employment opportunity is available elsewhere within the jurisdiction (within a distance of 5 kilometers of the concerned village in accordance with the Act).
- Longer shelf life of projects: If the projects of a Gram Sabha or project implementing agency (PIA) are not approved for some technical reason, or the life of a proposed project goes beyond one year, it is important to have a list of standby (on-the-shelf) projects to cover at least two years of implementation of MGNREGA work. This would prevent delays in providing employment. A five-step framework has been suggested for the preparation of a development plan at Gram Panchayat or block level.

Tier III: District level

The chief executive officer of the District Panchayat is normally designated DPC[7] by the state government, which delegates administrative and financial powers to the DPC to enable him/her to carry out his/her duties under the Act.

- The DPC consolidates the plans prepared by POs in his/her district for inclusion in the shelf of projects and then forwards it for the approval of the District Panchayat.
- The DPC also prepares a labour budget in December for the next financial year containing the details of estimates of demand for unskilled manual work under MGNREGA. It is submitted for the approval of the District Panchayat.
- Apart from the projects received from block Panchayats, projects submitted by other implementing agencies for inclusion in the district plan are considered by the DPC.[5] In addition, any inter-block work that is deemed to be a good source of employment is added as part of the district-level plan.[5]

The work plan and the labour budget thus prepared by the DPC are sent to the State Employment Guarantee Council (SEGC) for examination and approval.

State level

The SEGC recommends the plan and labour budget sent by the DPC to the state government for approval. From the state government, it goes to the Central Employment Guarantee Council (CEGC).

Central level

The CEGC examines the plan and labour budget to ensure compliance with the Act. The central government sends its approval of state-level development plans and makes budgetary provision through the National Employment Guarantee Fund (NEGF). Recently, MoRD has emphasized integrating two aspects in the project planning process: integrated national resource management (INRM) and convergences. A provision has also been made for the availability of experts for a cluster of Gram Panchayats (Appendix A1.3).

Implementation

PRI level

Tier I: Gram Panchayat

- The Gram Panchayat's role is crucial in implementing the development plan. The Gram Panchayat executes at least 50% of the cost of works as assigned by the PO.[8]

- The Gram Panchayat executes muster rolls for the works sanctioned in the development plan. The muster rolls are provided by the PO. The latter also provides the list of employment opportunities available outside the jurisdiction of the Gram Panchayat.
- It is the Gram Panchayat's responsibility to allocate available employment opportunities among wage seekers. This is to be done mainly within 5 kilometers of the village. If the work is provided beyond 5 kilometers of the residence of a wage seeker, the Gram Panchayat is obliged to pay 10% extra to account for additional transportation and living expenses.
- A minimum of 60% of project/work cost is allotted for wages of unskilled labour and the rest for material costs and wage bills of semi-skilled and skilled labour. The latter must not exceed 40% of the cost of works.[9]
- Payment of wages is to be done in accordance with the state-wise wages notified by the government of India. Usually wages are paid weekly, but certainly not beyond a fortnight. The payment of wages is to be done through a bank/post office beneficiary account unless exempted by the MoRD.
- In allocating work to wage seekers, special attention is paid to ensure that a minimum of one-third of participation is by women, particularly those who are single or disabled.

Operational aspects

Certain operational aspects of implementation are crucial for MGNREGA's success:

- *Registration.* The unit of registration is a household. Any adult member of the rural household willing to do manual unskilled work is authorized to submit the names, ages and address of the household to the Gram Panchayat for registration within the jurisdiction of the Gram Panchayat.
- *Job card.* After verification of the details submitted by the applicant, a household is issued a job card, which forms the basis of identification for demand for work/employment in MGNREGA. The job card must be issued within 15 days of registration. The job card is valid for at least five years.

Professional support to Gram Panchayat

The Gram Panchayat has the authority to allocate work to the job card holder. The Gram Panchayat is provided professional support to implement the MGNREGA programme through:

- *Gramin Rozgar Sahayak (GRS): The main responsibility of a GRS is to manage meetings, maintain MGNREGA register, and facilitate social audits.* The GRS is trained in work site management and measurement of work. The GRS is essentially intended to help the Gram Panchayat to execute MGNREGA work.[10]
- *Mate: For each work site, there is one mate for every 50 workers.* The mate has basic training in taking initial work measurements and keeping accounts. This is why a mate is also called a certified barefoot engineer and accountant-cum-auditor. The mate's job includes facilitating applications for job cards and submitting them to the Gram Panchayat, thus helping to identify demand for work. He is also expected to make illiterate wage seekers aware of MGNREGA work. The mate maintains muster rolls for the GRS. The GRS and the mate are part of the skilled and semi-skilled labour force, respectively.

Tier II: Block level

There are two components of block-level agencies: the programme officer (PO) and intermediate Panchayat. The

main implementation agency of the development plan is the PO, who is responsible for a host of activities: prompt and fair payment of wages, payment of unemployment allowance, maintaining accounts of resources (received, released and utilized) and grievance redress at block level. The PO is also supposed to ensure the conduct of the following activities: social audits, availability of information regarding employment register, sanction of works, wage payments, muster roll and measurement books, asset register, bills and vouchers, and so on. The PO is required to keep documents ready for the Social Audit Unit (SAU) for smooth conduct of social audits at least two weeks in advance of Gram Sabha meetings. Another important aspect of the PO's responsibility is to set up cluster level facilitation teams to give technical support to Gram Panchayats.

Tier III: District level

At district level too, there are two agencies: the district programme coordinator (DPC) and the district Panchayat. The main implementing agency is the DPC, who has the following responsibilities: approving "shelf" projects, adding new projects to development plans by the concerned Gram Sabha, timely release and use of funds, verification of muster rolls, appointing project implementing agencies (PIAs), recording the implementation stages of each project, and ensuring that the required entries are made in MGNREGA by all the concerned officials and departments. In addition, the DPC is expected to coordinate the activities of the information, education and communication campaign for MGNREGA at the district level.

State level

Apart from playing a direct role in implementation of the development plan, the state government also sets up a separate agency for this purpose, the state Employment Guarantee Council (SEGC). The latter bears the main responsibility in advising the State government on implementation, dissemination of information and preparing an annual report on MGNREGA (achievements, shortcomings, and so on) for presentation in the state legislature by the state government.

The state government has direct involvement in the following activities:

- Setting up the Rural Employment Guarantee Scheme, State Employment Guarantee Council and State Employment Guarantee Fund (SEGF).
- Making provisions in the state budget for MGNREGA funds and putting them in SEGF at the beginning of every financial year.
- Providing the full-time skilled and semi-skilled manpower required for implementing MGNREGA, such as the EGA/GRS, PO, and other staff at block, district and state levels.
- Ensuring formal meetings of the civil society organizations involved in MGNREGA with the concerned officials at block, district and state levels.[11]
- Creating wide awareness about MGNREGA in the state.

Centre level

At the central level two agencies are directly involved in MGNREGA implementation:

- MoRD
- CEGC

Although CEGC is chaired by the Minister of MoRD, it operates outside the ministry, while the national management team works within the ministry. The ministry also supports a team on information technology (IT) to increase efficiency and transparency in all stages of MGNREGA implementation. MoRD is also responsible for:

- Empowering PIAs to help state governments in implementing MGNREGA.
- Supporting capacity building, technical expertise and innovations to improve MGNREGA outcomes.
- Making rules under the Act and issuing operational guidelines for its effective implementation.

Central Employment Guarantee Council

The Council's main functions are as follows:

- Advising MoRD on MGNREGA implementation.
- Facilitating wide dissemination of schemes.
- Preparing reports on MGNREGA for presentation in parliament.

Convergence

The problem of convergence of various programmes from other departments and ministries has been taken as one of the critical issues by MoRD to raise efficiency in MGNREGA implementation, as shown in Appendix A1.4.

Programme advisory group (PAG)

One of the main initiatives taken up by the central government to improve MGNREGA implementation is to form the PAG. The main tasks assigned to PAG are to develop operational guidelines, analyse the issues in planning and implementation and support state governments in implementing MGNREGA. PAG identifies issues not only at the central level but also at the state and local levels and recommends policy to cover a wide range of processes, procedures, techniques, systems and institutions. To have a significant impact at the state level, PAG has set up state advisory groups (SAGs), particularly in states with high poverty levels and low employment, such as Bihar, Uttar Pradesh, Odisha and the northeastern states.

Civil society

Civil society organizations play an important role in grassroots capacity building at Gram Panchayat and state levels, creating awareness of schemes, rights of wage seekers and implementation of social audits.

Role of other stakeholders

The important stakeholders in MGNREGA implementation who are actively involved in the process are:

- Technical experts (members of CFTs, IT, and so on).
- Members of the social audit team and vigilance committee.
- Ministries and Departments where programmes/schemes need to converge with MGNREGA such as Ministry of Agriculture and Ministry of Forest and Environment.

Monitoring

Monitoring of the entire implementation process is done by PRIs of different tiers, and also by state and central agencies (Table AII.1).

Notes

1. Each Gram Sabha is expected to make villagers aware of MGNREGA's purpose and what kind of activities are permissible under it.
2. To plan for work under MGNREGA, Gram Panchayats need to update their information bases on demand for work. It is mandated that Gram Panchayats conduct periodic surveys to get a good idea of local demand for work.
3. Agencies other than Gram Panchayats can also submit project proposals. Proposals of such agencies require clearance from the respective Gram Sabha (GS). Projects involving more than one GS would need clearance from each

Table **AII.1** **Monitoring MGNREGA implementation**

Level/tier of monitoring	Agency responsible for monitoring
Tier I	
• Village • Gram Panchayat	• Gram Panchayat (GP) (also performs social audit) • Gram Sabha (GS) (annual report is prepared by GP)
Tier II (Block/intermediate Panchayat)	
• Works done by GPs and other PIAs • GPs work for the entire block	• Programme officer (PO) • Also registers case against those violating MGNREGA Act standards) • Block Panchayat
Tier III	
• Work of POs and PIAs • MGNREGA's work for the entire block	• District Programme Coordinator (DPC) • District Panchayat (also consolidates annual block plans)
State level	
• Evaluating scheme within state • Monitoring redress mechanism • Suggesting improvements in redress mechanism	• State Employment Guarantee Council (SEGC) (also prepares annual report to be presented in the state legislature by the state government)
Centre level	
• Establishment of a central evaluation and monitoring system • Reviewing monitoring and redress mechanism • Monitoring implementation of the Act	• Central Employment Guarantee Council (CEGC) (also prepares annual report to be presented to the parliament by the central government)

Note: PIAs are project/programme implementing agencies.

Source: Ministry of Rural Development 2013.

concerned GS before they can be included in the annual development plan.

4. Intermediate/block level Panchayats are also required to perform baseline surveys to assess work demand.
5. Government of India 2013.
6. Even if the development plans sent by a Gram Panchayat (GP) to the programme officer (PO; block level) have deficiencies, they are not supposed to be rejected by the PO. The PO should point out to the GP which elements of the development plan do not comply with the provisions of MGNREGA and to direct the GP in improving the plan contents. There is a lack of sufficient expertise at both GP and block level to prepare good development plans.
7. The district collector/deputy commissioner is also the chief executive officer of the District Panchayat.
8. This is per section 16(5) of the MGNREGA Act.
9. For projects undertaken by the Gram Panchayat (GP), this ratio is maintained at the GP level. For projects undertaken by agencies other than the GP, this norm is to be maintained at block/intermediate Panchayat level.
10. The GRS is also known as the employment guarantee assistant (EGA).
11. Such meetings are mandatory at least once a month.

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Mahatma Gandhi National Rural Employment Guarantee Act

A Catalyst for Rural Transformation

Since 2000, the Indian economy has experienced more rapid economic growth, including even a few years of near double-digit growth, and a sharp decline in poverty. In spite of these striking GDP growth achievements, growth in employment has been much slower. As importantly, although the contribution of agriculture to the Indian economy is only 18 percent, agriculture continues to employ 47 percent of workers. This has led to the concentration of workers, particularly women, into poorly paying work such as collecting forest produce or being unable to find wage work outside of the peak agricultural season.

The Mahatma Gandhi National Rural Employment Guarantee Act of 2005 emerged in response to this growing divergence between economic growth and rural job creation. It is designed to provide 100 days of work to any rural household that demands work.

MGNREGA, as this program has come to be known, incites strong passions. For activists demanding the right to work, this program is seen as a panacea for rural poverty, particularly if its implementation can be improved to ensure that it reaches all vulnerable sections of India's rural economy. But many economists are concerned about the ineffectiveness of the program, its fiscal costs, leakages, and its unintended consequences leading to rural and urban labour shortages and possibly poor, long-term, lifetime chances for beneficiaries.

Using unique data from the India Human Development Survey, a large, repeated, national household survey conducted by researchers from the National Council of Applied Economic Research and the University of Maryland before and after the implementation of MGNREGA, this report examines changes in the lives of rural households and in the rural economy against the backdrop of changes brought about by the programme.

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