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# MGNREGA, paid work and women's empowerment

Fernanda Barcia de Mattos  
Sukti Dasgupta

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Office

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## Preface

The primary goal of the ILO is to work with member States towards achieving full and productive employment and decent work for all. This goal is elaborated in the ILO Declaration 2008 on Social Justice for a Fair Globalization which has been widely adopted by the international community. Comprehensive and integrated perspectives to achieve this goal are embedded in the Employment Policy Convention of 1964 (No. 122), the Global Employment Agenda (2003) and – in response to the 2008 global economic crisis – the Global Jobs Pact (2009) and the conclusions of the Recurrent Discussion Reports on Employment (2010 and 2014).

The Employment Policy Department (EMPLOYMENT) is engaged in global advocacy and in supporting member States in placing more and better jobs at the centre of economic and social policies and growth and development strategies. Policy research and knowledge generation and dissemination are essential components of the Employment Policy Department's activities. The resulting publications include books, country policy reviews, policy and research briefs, and working papers.

The Employment Policy Working Paper series is designed to disseminate the main findings of research on a broad range of topics undertaken by the branches of the Department. The working papers are intended to encourage the exchange of ideas and to stimulate debate. The views expressed within them are the responsibility of the authors and do not necessarily represent those of the ILO.

Azita Berar Awad  
Director  
Employment Policy Department



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## Foreword

Gender gaps in the labour market persist across the globe. Women are less likely than men to engage in the labour market, and those that do, are more likely than men to be unemployed. When women do gain employment, they are more often underemployed, in informality, and in unpaid work or working poverty. Women's situation in the labour market is further complicated by social norms and expectations as well household and care responsibilities.

Southern Asia is one of the regions where gender gaps are most stark. Indeed in India, as in other parts of the region, few women are able to access paid employment. This paper explores the impacts of the legislated right to work in rural India on women's employment. It reviews trends in women's engagement in the public works programme as well as whether this work contributes to their empowerment and bargaining power in the household. It also examines the extent to which these impacts are transformational by assessing whether girls in the household are affected by women's employment outside of the home.

This paper makes an important contribution to the development of an evidence-based understanding of how paid employment may contribute to women's empowerment and transformative gender equality.

Azita Berar Awad  
Director  
Employment Policy Department



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## Abstract

This paper examines the nexus between legislation, paid employment, women's empowerment and transformative gender equality in India. Using a sample of married women from the India Human Development Survey (IHDS), we find that the government legislated rural employment guarantee, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), has been instrumental in ensuring paid employment for women – for many married women it is the first opportunity for paid work. We also find paid employment and MGNREGA had positive and significant effects on women's control over household decisions. However, we do not find enough evidence to suggest a transformative impact in terms of breaking the cycle of disadvantage, proxied by the time the older girl child spends in school.

*Keywords:* women, employment, empowerment, equality, MGNREGA



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## 1. Introduction

This paper examines the nexus between legislation, paid employment, women's empowerment and transformative gender equality. It explores the role of a prominent Indian legislation – Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) – in enhancing the rate of paid employment for women, and its effect on gender relations. Does legislated paid employment contribute to women's empowerment, defined as exercising control over their lives and decisions that affect their lives? Does it break the “cycle of disadvantage” that rural women face, and create a situation of transformative equality, as according to Fredman, Kuosmanen and Campbell (2016)?

Paid employment remains the privilege of few women globally, although, it is fair to say all women work. It is widely acknowledged in the literature, however, that one of the main factors inhibiting women from having control over household decisions is the perceived value of the work they do. Women take on the huge bulk of unpaid household and care work – taking care of family members, cleaning and keeping house – which remains undervalued, unacknowledged and invisible (Beneria, 1982; Donahoe, 1999; Hirway, 2005). Many other women work for the family business and, despite contributing to family income, do not receive payment for services rendered. They are referred to as “contributing family workers” in labour statistics. Even within the small share of women in paid employment, 13.4 per cent of all working age women in India, for example, issues exist. Many women are in vulnerable or informal employment, and wages are often not at par with those of men (ILO, 2016).

All these matters reflect the prevalent dichotomies between market and non-market activities, formal and informal, and tangible and intangible economic contributions (Dewan, 2016) which is often most stark for rural women in developing countries, such as India. Moreover, systematic undervaluation of women's contributions to the household, as well as their needs, reinforce gender-related differences (Agarwal, 1997, p.11). In few words, women's work is “never done, and poorly paid” (Ghosh, 2009). It is in this context that, since the 1970s, many studies have argued, paid work is critical for women's empowerment (Boserup, 1970; Folbre 1986; Sen, 1990; Agarwal, 1997; Jain, 2005; Kabeer, 2008; Dufflo, 2012; ILO, 2012; ILO, 2016; World Bank, 2012).

Our hypothesis is that, accompanied by appropriate policies, institutions and legislative frameworks, paid employment leads to empowerment of women, and this in turn has the potential for transformative gender equality. Only then can women's status in work and society be enhanced (Dasgupta and Verick, 2016).

There is significant evidence that women have limited opportunities for participation in paid employment outside of the home in India (Bourmpoula, Kapsos and Silberman, 2016; Mehrotra et al., 2016). In this context, guaranteed employment under MGNREGA could lead to greater empowerment and equality – depending, of course, on how it is implemented. Work under MGNREGA, however, is physically-demanding manual work, and is referred to in the literature as “employment of last resort” (Wray, 2007).

MGNREGA is one the largest and most ambitious public works programmes in the world. It legally entitles all rural adults (ages 18 and over) to 100 days of work in public works per household per year, at minimum wages.<sup>1</sup> Given its prominence, MGNREGA and

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<sup>1</sup> MGNREGA guarantees the right to manual work at government-set wages for unskilled workers in rural households, with a reserved quota for women. Originally, MGNREGA wages were linked to State minimum wages, but these were de-linked in January 2009 in favour of government-set

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its impacts have been extensively studied, especially the positive impacts on women's employment. We add to this vast literature by opening up another angle of enquiry – does MGNREGA employment contribute to women's empowerment and transformative gender equality? Is this impact short of potential, and if so, how can we bridge this gap?

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MGNREGA-specific wages. Interested adults must first apply for a job card at the Gram Panchayat, issued within 15 days, and which could include all interested adult members of the household. Registered adults then submit applications for work and are entitled to employment within 15 days, otherwise the government must provide unemployment benefits. The Act was implemented in three phases. It was started in 200 backward districts in February 2006. It was then expanded to an additional 130 districts in April 2007, and implemented nationwide in April 2008. (Government of India, 2016).

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## 2. Women in India's rural labour market<sup>2</sup>

Remarkable economic growth in the past years, at an average increase of seven per cent per year between 2004 and 2012, suggests increased employment opportunities for men and women. However, labour force participation rates have declined, from 63.7 per cent in 2004–05 to 55.9 per cent in 2011–12.<sup>3</sup> The decline was most pronounced in rural areas, where participation rates shrank 8.9 percentage points, from 67.7 per cent to 58.8 per cent. In 2011–12, participation for rural women was 35.8 per cent, significantly lower than for men (81.4 per cent), and the gender gap widened by 9.1 percentage points during this period.

For those rural women who were in the labour force in 2011–12, it was much harder to find employment. The unemployment rate of rural women (3.4 per cent) was more than double that of rural men (1.6 per cent). Furthermore, while the unemployment rate of rural men remained unchanged from 2004–05, the rate for rural women increased substantially, from 1.8 per cent. These numbers appear small, but they mask significant levels of underemployment. In the context of limited social security systems, women and men engage in employment for survival, often in low quality, low pay, and low security jobs. The increase in women's unemployment in rural areas happened in spite of improving education. In 2004–05, only 32.3 per cent of rural women had at least primary education, and 58.5 per cent had no education. In 2011–12, the share of rural women with at least primary schooling reached 42.6 per cent, and the incidence of no schooling declined to 47.5 per cent. This corroborates findings by Bourmopula, Kapsos and Silberman (2016), which suggest that the impact of increased education on women's labour force participation in India has been modest.

The way in which women and men engage in employment is also different, in terms of type of engagement (principal or subsidiary) and status in employment (wage, contributing family work, or self-employed). In 2011–12, about four in ten employed rural women worked as a contributing family worker, in contrast to approximately one in ten men (figure 1). Statistically, contributing family work is carried out for household enterprises or businesses for the market, but for which there is no direct payment. In turn, while 40.4 per cent of employed rural men were own-account workers, the share was considerably lower for women, 18.3 per cent. Casual labour employed just over one-third of both rural men and women, but the type of casual work differs – casual employment in public works employed 4.2 per cent of rural women, and only 1.0 per cent of rural men. This suggests public work programmes indeed provide greater employment opportunity for rural women. Finally, regular wage employment was small, accounting for approximately one in ten employed rural men and one in 20 women.

Despite persisting gender differences in status in employment in rural areas, there have been changes between 2004–05 and 2011–12. The share of employed rural women who were unpaid family workers decreased 7 percentage points, from 47.3 per cent. Also notable was the increase in the share of women in casual public works, which was only 0.2 per cent in 2004–05. Likewise, the incidence of wage work amongst rural women rose, from 3.8 per cent.

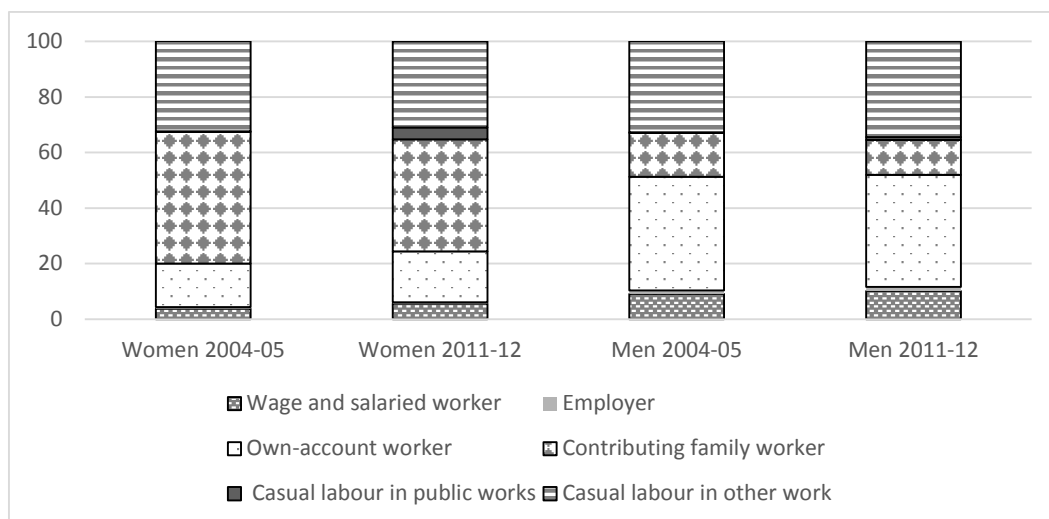
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<sup>2</sup> Data used in this section are from the India National Sample Survey Office (NSSO), the National Sample Surveys (NSS) from 2004–5 and 2011–12.

<sup>3</sup> Labour force includes usual primary and subsidiary status (UPSS) ages 15+, unless otherwise specified. UPSS considers persons who worked less than 30 days during the past 365 days to be outside the labour force or unemployed. Principal status is working 182–365 days in the year, and subsidiary status is working 30–181 days per year



Figure 1. Status in employment of rural women and men aged 15+, 2004-05 and 2011-12



Source: Authors' calculations based on NSSO data.

Women are much more likely to partake in subsidiary employment only, defined as work between 30 and 181 days per year. Overall, in 2011–12, in rural India, one-third of the employed labour force engaged in the labour market exclusively in subsidiary capacity. However, 63.1 per cent of rural women did so, in sharp contrast to 6.3 per cent of rural men. Moreover, engagement solely in subsidiary activities has been on the rise, mostly a reflection of trends for women. Overall in rural India, exclusive subsidiary employment rose 3.9 percentage points since 2004–05, but the increase was of 9.0 points for women and merely 0.7 points for men. Although these trends are not necessarily related, the rise in both woman's engagement in casual public works employment and their increasing engagement in the labour force in subsidiary capacity could be connected to employment offered under MGNREGA.

Women made up 89.8 per cent of all rural persons in subsidiary employment in 2011–12. A look into what these people did most of their time (usual activity status) further reveals deeply entrenched gender patterns. Almost all of these rural women, 95.8 per cent, were primarily engaged in domestic duties or “household work”, outside of the labour force, in contrast to one in twenty men. On the other hand, only 1.4 per cent of rural women working only in subsidiary capacity were unemployed as principal activity status, i.e. available or looking for employment most of their time, in contrast to one-fourth of men. Furthermore, more than half of rural men exclusively in subsidiary employment (55.8 per cent) were indeed primarily engaged in education, compared to only 2.3 per cent of women.

In a nutshell, significant gender disparities in the rural labour market persist. Rural women are much less likely than rural men to participate in the labour force, find employment and undertake paid economic activities as their primary activity. Rural women are often engaged solely in domestic duties, either completely outside of the labour force or engaged in it marginally. These trends are noted in spite of significant improvements in women's education levels, which nevertheless continue to lag behind men's, and in the context of strong economic growth. This is perhaps a reflection of social norms, which often dictate gender roles and restrict women to household and reproductive activities.

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### 3. Women's paid employment, empowerment and MGNREGA

In India, as noted in the section above, the rate of participation of women in the labour market is low, and declining, even at a time of high economic growth. In this context, even though MGNREGA did not have a stated intention to enhance women's participation, this seems to be one of the areas where it made the maximum impact (Azam, 2012; Das, Joshi and Vanneman 2015; Dasgupta and Sudarshan, 2011). Why it did so is instructive.

In general, the literature indicates that a number of factors are associated with women's participation in the labour market, including education, marital status, children and social norms. Amongst reasons that contribute to enhancing women's participation in paid employment is educational attainment (Eckstein and Lifshitz, 2011; Tansel, 2001). Some have suggested a U-shaped relationship between education and women's employment, whereby poorly educated women's employment is distress-driven in contrast to that of better educated women, compelled to work by attractive wages (Klasen and Pieters, 2012).

Social norms play a key role in determining gender outcomes in many countries. This is especially relevant in the case of India, where women's role in society is constrained by gender and familial relations and their activities are often confined to (unpaid) care work (Das, 2006; Klasen and Pieters, 2012). It has also been noted that unmarried women often participate in the labour market in large numbers, while married women's decisions are dependent upon their care functions and the presence of dependents in the household, children or elderly (Bardhan, 1979; Cunningham, 2001). Several studies document a negative relationship between the number of children and women's labour force participation in India (Dasgupta and Goldar, 2005; Massod and Ahmad, 2009), and it has been noted that it is particularly difficult for married women with children to participate in paid employment in countries where there is no private or public support for care (Daly and Lewis, 2000; Esquivel, 2016; ILO, 2016; Kimmel, 1998; Nicodemo and Waldmann, 2009).

As noted earlier, feminist scholars since the 1970s have argued that access to paid employment increases women's bargaining power within the household and is critical for enhancing women's economic and social status and women's empowerment. Agarwal (1997) notes that access to paid employment is a factor that contributes to a rural woman's bargaining strength within the family vis à vis subsistence needs.<sup>4</sup> Anderson and Eswaran (2009) find that women who earn independent income have considerably greater autonomy than those who do not. Studies of women in India and Bangladesh present evidence that paid employment contributes to women's position and decision-making power within the household (Dutta, 2000; Salway Jesmin and Rahman, 2005). Working women are found to be more likely to manage money, contribute to household decisions on purchase of goods, move more freely outside of the home, and are better able to accumulate personal assets. Working outside of the home could also empower women by allowing access to the public sphere (Dutta, 2000) and increasing self-worth (Sudarshan, 2014).

The concept of "empowerment" has been much discussed and debated in the literature (ASPBAE and FAO, 1993; Batliwala, 2007; Cornwall and Edwards, 2010; Kabeer, 1994; Kabeer et al., 2011). Empowerment relates to various dimensions of change that lead to an enhanced sense of self-worth and social identity, a capacity to exercise strategic control over resources and lives, that contribute to a more just distribution of power and possibilities, in the home and in society (Kabeer, 2008). At the core of empowerment as is commonly

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<sup>4</sup> The other factors are ownership of assets such as arable land, access to communal resources, as well as access to traditional support systems such as kinship and caste groups, support from NGOs and the State, and perceptions about needs, contributions and social norms.

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understood, is an enhanced sense of self-esteem (Sudarshan, 2014) and an increased ability to negotiate the constraints of their everyday lives (Cornwall and Edwards, 2010; Cornwall, 2016).

In this paper, we define empowerment as the ability of women to exercise control over decisions that affect their lives and the lives of their families. This relates to “collective” household models, which assume that household members may have different preferences and, as such, intra-household decisions (i.e. household behaviour) are the result of a bargaining process (Agarwal, 1997; Chiappori, 1992; Folbre, 1986; Vermeulen, 2000).<sup>5</sup> We hypothesise that, under certain conditions, paid employment leads to empowerment of women, and this in turn has the potential for bringing about transformative equality. Paid employment is linked to control over household decisions in the “collective” household labour supply model, which is explicitly based on individual preferences and where control over resources influences bargaining within the household. This model implies that women’s increased control over household resources and, thereby their bargaining power within the household, may have other effects that relate to the households’ socio-economic situation – including potentially breaking the cycle of disadvantage. In this way, empowerment can lead to “transformative equality”. Fredman, Kuosmanen and Campbell (2016) have defined transformative equality with four dimensions: breaking the cycle of disadvantage, promoting respect for dignity and worth, accommodating difference by achieving structural change, and promoting political and social inclusion.

However, paid employment does not always mean decent work or empowerment. This may be especially the case when work is casual, informal, or when working conditions are poor – low income, low skill, no voice or protection. This is particularly true in those contexts where women’s work is driven by necessity and distress, and is almost always correlated with unfavourable working conditions. Under such circumstances, work, even if paid, is not empowering or equalising.

Work in public works programmes such as the MGNREGA is usually “employment of the last resort” – hard manual labour at minimum wages for unskilled work. In the MGNREGA programme, workers “self-select” entry to the programme, and therefore only the very poor and those who are in dire need of a fall-back option would take up such work. In past programmes in India (such as in the Maharashtra Rural Employment Guarantee Scheme), it is therefore not surprising that such employment of last resort has often been taken up by rural women, as their opportunities to access decent work are the lowest.

A rights-based intervention, MGNREGA explicitly focuses on social equity concerns, with design elements intended to modify prejudicial attitudes and behaviours towards socially vulnerable groups, including women. Specifically, the Act creates a legal and institutional framework for the right to work, and the right to wage parity at minimum wage. The law is particularly important for women workers by: reserving at least one-third of workdays for women; creating opportunities for unskilled manual labour; mandating that work be provided locally; and stipulating the provision of on-site child care for children under 6 years of age, if there are more than five at a given worksite. Moreover, the guaranteed minimum wage often surpasses real average wages received by women, corroborating the hypothesis that MGNREGA can contribute to women’s economic and social empowerment (through providing higher wages, increasing incentive for women’s labour market

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<sup>5</sup> In contrast, the traditional “unitary” model assumes that there exists a single utility function for the household and it does not take into account the underlying preferences of the household members. Pooled household income plays a role in the decision-making process, while its distribution across household members does not matter (Becker, 1965).

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participation, and creating higher potential for significant contributions to household income).

Two issues require mention. By design, MGNREGA is a household guarantee – with a total of 100 days of work for the household – and therefore which household member, men or women, works at MGNREGA sites is expected to be a household decision. Secondly, MGNREGA, as a government guarantee, is distinct from other low-skilled manual work. MGNREGA work is paid at the legislated minimum wage, and can often be deposited directly into the bank accounts of workers to avoid corruption and leakages (at least on paper).

There has been much discussion on MGNREGA's impact on household poverty. Liu and Deininger (2013) examine the impact of MGNREGA participation on nutritional consumption (calorie and protein intake) and asset accumulation in five districts of Andhra Pradesh. They find programme-induced increases in consumption expenditure and asset accumulation, particularly for scheduled casts and tribes and households reliant on casual employment. Sarkar, Kumar and Supriya (2011) suggest the programme has led to gradual improvements in a number of socio-economic indicators, including income and expenditure on education in West Bengal. Ravi and Engler (2015) analyse MGNREGA welfare impacts and find that the programme significantly increases monthly per capita expenditure on food and non-food consumables and reduces the number of foregone weekly meals by households.

However, studying MGNREGA in the state of Bihar, Dutta et al. (2014) conclude the programme's potential to reduce poverty is not fully realized, largely due to unmet demand for work. Moreover, the authors find that few people understand that after getting a job card, they need to apply for work to get employment, understand their right to the statutory wage, access to employment within 15 days, weekly wage payments, unemployment allowances, and facilities to be provided at the worksite. They also find that women are less likely than men to participate in poorer states – i.e. women are more likely to be rationed out of programme work than men.

In terms of MGNREGA's impact on women, several studies have been conducted that can be categorised into four main groups:

**MGNREGA's contribution to women's participation on paid employment:** The consequences of MGNREGA on women workers were analysed by Khera and Nayak (2009) using qualitative data collected in worksites across 10 districts in North India. They found that almost half of interviewed women would not have worked outside of the home had it not been for MGNREGA. This is reiterated by findings from Panjak and Tankha (2010), who suggest that through MGNREGA women have the ability to earn income independently. Azam (2012) uses NSSO data and difference-in-difference methods to find that MGNREGA has a positive impact on labour force participation, share of public works in total casual employment, and on wages of casual workers. Importantly, although Azam did not set out to examine MGNREGA impacts on women, findings showed that women have benefitted more than men across all three dimensions. Dasgupta and Sudarshan (2011) and Khera and Nayak (2009) note that some specific institutional features in MGNREGA have been attractive for women. One-third of programme work is reserved for women, and for every worksite where there are five young children, there is a paid child minder, releasing women from taking care of young children. Work close to home has also encouraged many women to take up MGNREGA employment. Moreover, in some cases, when payment is made into the women's bank account, it thereby ensures payment directly reaches the woman, and not the male members of the household. Ravindar (2016) suggests that MGNREGA is the main source of alternative employment for women and that the programme has led to decreasing dependence of women on men in the district of Warangal, Telangana State. Yet, Ravindar (2016) finds that many women are leaving young children

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unattended at home as there are no child care facilities at work sites. The author also finds increasing wages for women in other activities, such as agricultural labour. Gnyaneswar (2016) outlines a number of issues hindering women's participation in the programme and curbing their potential for empowerment, including social attitudes in regards to women's work outside of the home, negligence of own-site childcare facilities, and low levels of awareness of the programme.

**MGNREGA's wage impact:** Ghosh (2014) highlights the role played by MGNREGA in increasing women's wages. Gender gaps in rural wages tended to decline in most places, even in those with less presence of MGNREGA work, possibly due to higher reservation wages for women as a consequence of the programme. Dasgupta and Sudarshan (2011) argue that MGNREGA has had a positive impact on women's wages in the rural economy. They also show that participation in MGNREGA is negatively correlated to the actual average agricultural wage gap in the State prior to programme implementation. In other words, where the gap between women and men's earnings were higher, more women were likely to join the programme offering a legislated minimum wage.

**MGNREGA's impact on family welfare through women's employment:** Examining women in MGNREGA in Odisha, Minati (2014) suggests women have benefitted individually through access to income for own and family needs and at the community level through increased presence at the Gram Sabha and participation in local governance. Many consider effects on children's education (Afridi, Mukhopadhyay, and Sahoo, 2016; Das and Singh, 2013; Dev, 2011; Li and Sekhri (2013). MGNREGA has contributed to child's educational enrolment and well-being by enhancing women's wages. Afridi, Mukhopadhyay, and Sahoo (2016) use MGNREGA to show that increasing the labour market participation of mothers improves time spent in school and better educational attainment. Dev (2011) suggests a positive relationship between MGNREGA employment and children's educational outcomes. Yet, results are mixed. Das and Singh (2013) and Li and Sekhri (2013) find evidence, albeit weak, that the programme is not associated with improved children's education. Desai, Joshi and Vanneman (2015a) examine IHDS data to show that children's educational performance increased along with MGNREGA employment in participating households, compared to children's education outcomes in non-MGNREGA households.

**MGNREGA's impact on women's empowerment:** Some studies have focused on the effects of rising women's economic resources in the household, showing that greater economic power translates into greater bargaining power, thus allowing individuals to steer household resource allocation. Kar (2009) outlines three dimensions along which MGNREGA may impact women's empowerment, including: (i) effects on income-consumption (rise in income of women workers increases ability to choose consumption basket); (ii) intra-household effects (allowing women to access paid work, thus widening the scope of their decision-making roles at home); and (iii) community effects (after MGNREGA introduction, women's participation in local governance processes increased). Panjak and Tankha (2010) carried out a field survey in Bihar, Jharkhand, Rajasthan and Himachal Pradesh and found that paid MGNREGA employment provided women with greater choice and capabilities. Keerthi and Kamala's (2016) review of MGNREGA's impacts finds that women have benefitted tangibly and intangibly, by providing broader choices and capabilities, and investments on children's education, increasing their bargaining power and self-confidence. That women benefit from higher wages is a much welcome development, however, women's economic and social empowerment relates to the extent to which they can access their earnings independently. Holmes, Sadana and Rath (2011) find that when women did not have access to payments into their own or joint bank accounts, the programme had limited or no impact on household relationships. Pellisery and Jalan (2011) conducted an in-depth study of the village of Manchala, in Andhra Pradesh, and confirmed that MGNREGA increased the choices available to women.

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## 4. Data and methodology

This paper draws on two rounds of nationally representative panel data from the IHDS.<sup>6</sup> The survey contains modules on households and individuals with information on demographic characteristics, work in and outside of the home (with specific questions on MGNREGA employment in the second round), and income and expenditure, health and education. In addition, there is a module on gender relations addressed to one ever-married woman in the household aged between 15–49 years old. Women over the age of 49 in the second round who had been interviewed in the first round were re-interviewed. This module covers explicit measures of intra-household bargaining dynamics, including household decisions on expenditure, fertility, and women’s freedom of movement.

We assess the quality of IHDS data by comparing it to NSS data (Annex A). Differences in questionnaire design prevent comparison of many important indicators, including those on employment and gender relations. However, a comparison on demographic variables, such as literacy, caste, religion, household size, and marital status suggests the data collected by IHDS corresponds to that collected by the official labour force survey.

IHDS surveyed over 40,000 households across 33 states and union territories in 2004–05, the year before MGNREGA started, and in 2011–2012, after nationwide implementation of the programme. Eighty-three per cent of original households (90 per cent in rural areas), as well as split households if in the same village or town, were re-interviewed in 2011–12. Because we are interested in longitudinal analysis and MGNREGA targets rural Indians, we restricted our panel to individuals in rural areas who were interviewed in both rounds. In addition, as we investigated changes in the labour market, we further limited our panel to individuals who were of working age in 2004–05 (that is aged 15 and over).

The IHDS data provides an advantage over other datasets by covering a woman’s self-assessed degree of control over key aspects of household decision-making at two points in time. It is clear from previous research that many women accessed paid employment in MGNREGA sites. The literature also confirms that paid employment is often positively related to bargaining power in the household and control over decision-making. In this context, we used IHDS data to investigate whether access to paid employment, in particular MGNREGA work, is positively related to control over resources and decision-making in the household.<sup>7</sup>

We investigated the relationship between work status of women, and MGNREGA work, and the position of women in intra-household dynamics. Therefore, we restricted the panel to women who, in each round of the survey, answered all of the following questions on decision-making:<sup>8</sup>

- Please tell me who in your family decides the following things: whether to buy an expensive item such as a TV or fridge? Do you have any say?

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<sup>6</sup> This survey is conducted by the National Council of Applied Economic Research (NCAER), in New Delhi, India, in collaboration with researchers at the University of Maryland.

<sup>7</sup> Paid work includes salary work and casual agricultural and non-agricultural labour. It does not include self-employment.

<sup>8</sup> We take answers at face value, however it is important to remember that survey responses, particularly regarding sensitive behaviours, can be subject to a number of biases. Previous research has shown the gender of the interviewer can influence responses (Flores-Macias and Lawson, 2008). Moreover, sensitive questions may elicit responses that adhere to social norms and expectations.

- 
- Please tell me who in your family decides the following things: how many children you have? Do you have any say?
  - Please tell me whether you have to ask permission of your husband or a senior family member to go to the local clinic?
  - Do you yourself have any cash in hand to spend on household expenditures?

IHDS's module on gender relations includes additional questions. The questions above were chosen to exemplify diverse dimensions of empowerment, including decision-making with regards to financial assets (expenditures, direct access to financial resources), fertility, and mobility while maintaining the largest possible sample.

In order to better assess change, we further restricted our panel to women who were married and living with their spouse in both rounds of the survey, excluding women who became widowed, divorced or whose husband left the household. We thus have a sample of 15,618 women, and a total of 31,236 observations pooled across both survey years.

Our analysis was carried out in three steps. First, we looked at labour market outcomes based on the idea that MGNREGA, by guaranteeing employment, is positively associated with women's paid work. Then, we examine the relationship between work status of women, and MGNREGA work, and their position in intra-household dynamics. Next, we investigated the transformational aspect of the MGNREGA programme.

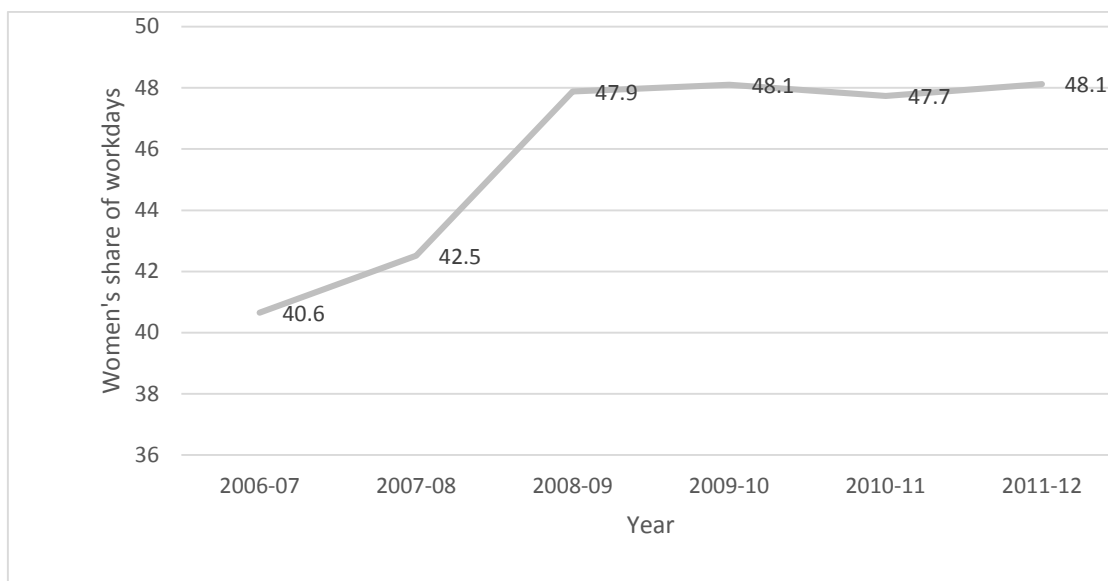
#### **4.1. MGNREGA and paid employment for women**

Official government data on MGNREGA show that the share of workdays allotted to women has been on the rise (figure 2). Women's share of workdays under the scheme increased from 40.6 per cent in 2006–07, or about 368 million days of work, to over 1 billion workdays in 2011–12, or 48.1 per cent of total. For all India, the share of MGNREGA work going to women has, thus, surpassed the minimum quota in all years.<sup>9</sup>

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<sup>9</sup> However, the national data masks significant variance at the State level. In 2011-12, women's programme participation was less than one-third of workdays in a number of states. Women's share was lowest in Uttar Pradesh (17 per cent), Jammu and Kashmir (18.3 per cent), Pondicherry (81.8 per cent), and highest in Kerala, (92.7 per cent).

Figure 2. Women's share in MGNREGA work days from 2006-07 to 2011-12



This rise in women's share of total workdays in MGNREGA is in line with two trends observed in the NSS data. Between 2004-05 and 2011-12, there were increases both in women's employment in casual public works and in their engagement in the labour force in subsidiary capacity. MGNREGA, with 100 workdays limit, constitutes a source of subsidiary employment, defined as between 30 and 181 days of work per year.

An important question here is: what did MGNREGA workers do before they worked for the programme? The longitudinal character of IHDS data allows us to gain better insight into changes in women's activities over time.

Table 1 presents the number and share of women and spouses in our panel who worked, or not, in MGNREGA in 2011-12. Figure 3 shows the patterns of work engagement of women who were aged 22 and over in 2011-12, and hence were of working age (defined as 15 or older) in 2004-05, and responded to both rounds of the survey (as previously defined). We look at these patterns separately for those who worked under MGNREGA in 2011-12 and those who didn't. We also examine their spouses' labour market outcomes.

Table 1. Share of women and spouses by MGNREGA work status in 2011-12

	Women	Spouses
No MGNREGA work	86.9	84.3
MGNREGA work	13.0	15.7
Total	100.0	100.0

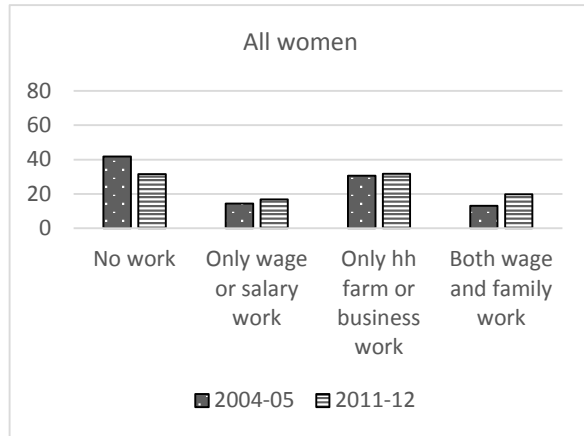
Note: Panel comprises married women (and spouses) who live with their spouse, responded to screening questions on gender relations in both rounds of the survey, and who were aged 15 + years old at the time of the first survey round.

Source: Authors' calculations using panel from IHDS data.

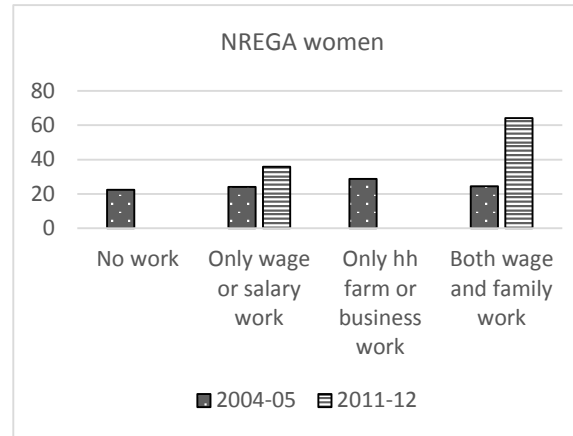


Figure 3. Historical work patterns of MGNREGA participants and non-participants ages 22+ in 2011–12

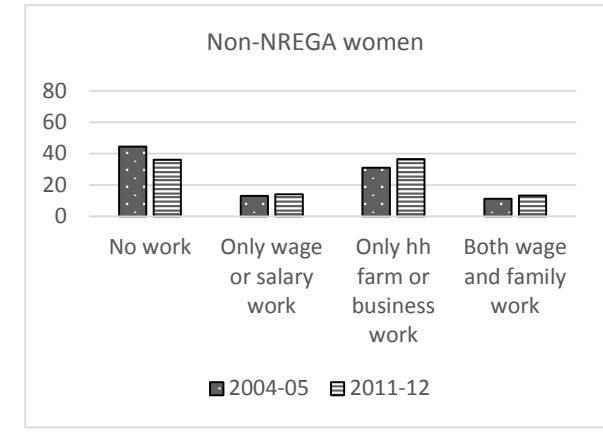
Panel A. All women



Panel B. Women who worked in MGNREGA in 2011–12



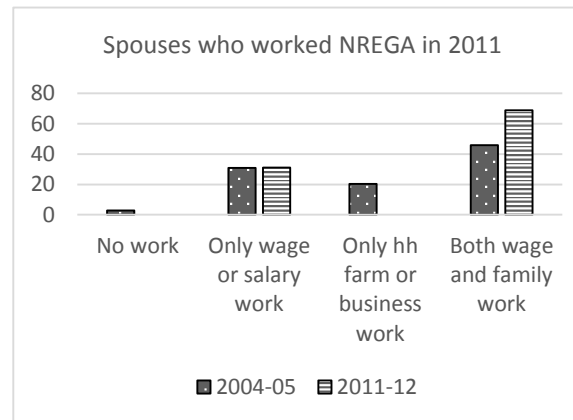
Panel C. Women who did not work MGNREGA in 2011–12



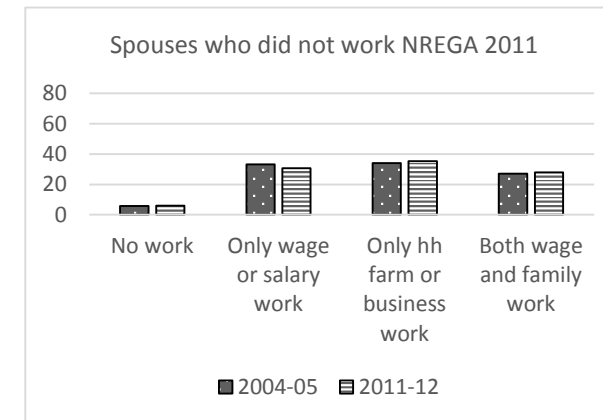
Panel D. All spouses



Panel E. Spouses who worked in MGNREGA in 2011–12



Panel F. Spouses who did not work MGNREGA in 2011–12



Source: Authors' calculations using panel created from IHDS data.

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As Desai, Joshi and Vasneman (2015b) suggest, MGNREGA provided the first paid work opportunity for many women. Roughly half of the women who worked in MGNREGA in 2011–12 were not working for pay in 2004–05 (figure 3, panel B). Of these, 22.5 per cent did not work for even one day in 2004–05 – this is only true for 2.8 per cent of spouses (figure 3, panel E) – and 28.8 per cent only worked in 2004–05 as unpaid labour, in family farms or businesses. This is in line with fieldwork observations by Sudarshan, Bhattacharya and Fernandez (2010) in the states of Himachal Pradesh, Kerala, and Rajasthan. The researchers found that MGNREGA persuaded many women to engage in work outside of the home for the first time.

Moreover, 35.8 per cent of women working in MGNREGA in 2011–12 engaged exclusively in paid work, in contrast to 24.2 per cent in 2004–05. In addition, the programme expanded opportunities for secondary employment and for combining unpaid family work with paid work. Over 64 per cent of those women who worked in MGNREGA engaged in both paid and unpaid labour in 2011–12, relative to 24.5 per cent in 2004–05.

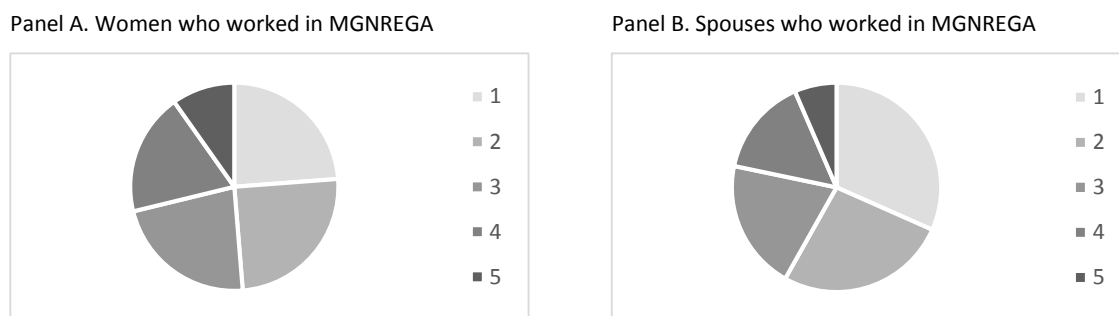
In sharp contrast, the patterns of work engagement among women who did not participate in MGNREGA work in 2011–12 remained largely unchanged in the period (figure 3, panel C). Similarly, the changes in employment patterns for all women were much less pronounced (figure 3, panel A) than for the group of women who engaged in MGNREGA work in 2011–12.

Given the self-selection criteria of MGNREGA and the hard manual labour at minimum wages it entails, it is usually the poorest households who avail of this programme. In general, we found that MGNREGA workers in 2011–12 were from households among the 60 per cent lowest income group. However, there are significant gender dimensions. Almost six in ten spouses who engaged in MGNREGA work belonged to the bottom 40 per cent of households in terms of income. The share among women from the bottom 40 per cent who engaged in programme employment was lower, at just under five in ten. This implies that for men, the programme works effectively as employment of last resort, and MGNREGA was accessed by the poorest. In contrast, many women working in MGNREGA, while in the lower income groups, were not amongst the poorest households – perhaps because other opportunities for paid work are few for women.<sup>10</sup>

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<sup>10</sup> Sudarshan, Bhattacharya and Fernandez (2010) found that in households with a single earner, wage work with daily payment is preferred and MGNREGA is not the first option. Where there are two earners, given disparities in market wages, usually the woman works in MGNREGA. We observed that 53.2 per cent of households in which either the woman or the spouse (or both) worked in MGNREGA in 2011–12 were among the poorest 40 per cent of sample households. The figures above refer to all women and all spouses, irrespective of each other's engagement in programme work. However, 66.3 per cent of households in which only the spouse engaged in MGNREGA work in 2011–12 were comprised of the bottom 40 per cent households. In contrast, the share was 39.4 per cent for households in which only the woman engaged in MGNREGA work.

Figure 4. Income quintile distribution of women and spouses who worked in MGNREGA, 2011–12



Note: 1 means lowest income quintile.

Source: Authors calculations using panel from IHDS data.

## 4.2. MGNREGA, paid employment for women and women's empowerment

In a setting in which social norms restrain women's economic participation and engagement in paid employment outside of the home, the provision of legal entitlement to paid work, through MGNREGA, may shift social and economic outcomes in their favour and contribute to transformative equality.

MGNREGA provides legal entitlement to work at the household level, and thus intra-household relations and decision-making will likely influence women's take-up of the legal right to employment. In addition, MGNREGA is designed as employment of last resort – it is manual, low-skill and low-pay work, and limited in terms of days. Yet access to paid work, and a bank account in a woman's name in some instances, could have an impact on intra-household bargaining and her status in the household. As evidenced above, the programme is positively associated with women's access to paid work outside of the home. Paid employment is one of the most prevalent ways of increasing access to economic resources and there is significant evidence that this access yields bargaining power in the household (as noted earlier). Dasgupta (2003) found that for self-employed women in Gujarat, membership to the Self-Employed Women's Association (SEWA) increased their control over household resources and decision-making.<sup>11</sup>

We postulate that paid employment is positively linked to women's control over household resources and decision-making. We use a fixed-effects logit model to investigate the relationship between the work status of women, i.e. whether or not she engages in paid work, and the likelihood that she participates in major household decisions regarding household expenditures, children and her own mobility.

Much of the literature on the empowerment of women through MGNREGA relies on cross-section qualitative data. The IHDS dataset is particularly useful because it allows us to observe changes overtime on a number of indicators, including those related to employment, income, financial inclusion, and gender relations. In this context, we examine

<sup>11</sup> Dasgupta (2003) used the People's Security Survey carried out by the ILO's Socio-economic Security Programme in Gujarat, India, which included questions on whether or not women exercised control over their incomes, and household expenditure to run a logit model examining the relationship between women's self-employment and control over household resources.

changes in gender relations and dynamics in intra-household bargaining power for women who participate in paid, and MGNREGA, employment relative to those who do not.

We construct an index that captures four different dimensions of women's control over resources and intra-household decision-making power, as noted in the start of Section 4. This index combines yes/no answers for each question – a yes assumes the value of one if positive for women's empowerment (e.g. if a woman doesn't require permission to go to the local clinic or has cash in hand), and no equals zero. Therefore, the index ranges from zero to four; zero meaning no control over household resources and decision-making and four meaning a lot of control. Table 2 shows the descriptive statistics of the estimation sample. On average, there has been an increase in women's participation in household decision-making.

Table 2. Descriptive statistics of estimation sample, 2004–05 and 2011–12

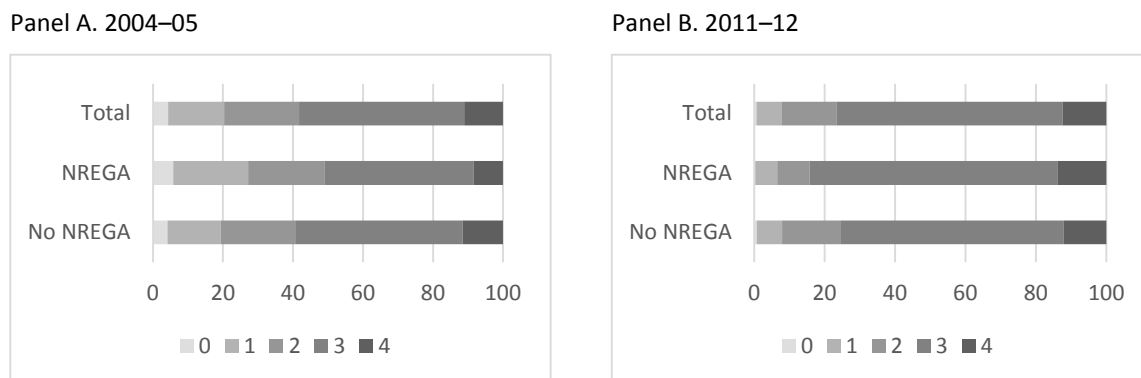
	2004–05	2011–12
<b>Personal and household characteristics</b>		
Age	31.665 (0.065)	38.896 (0.069)
Years of education	3.299 (0.033)	3.419 (0.033)
No. working-age household members	4.123 (0.017)	3.855 (0.014)
Number of children	2.732 (0.013)	3.089 (0.012)
Household income	47,381.140 (592.414)	118,368.000 (1,713.703)
Debt	0.354 (0.004)	0.472 (0.004)
<b>Power-related variables</b>		
Involved in decision to purchase expensive item	0.678 (0.004)	0.793 (0.003)
Involved in decision on number of children	0.796 (0.003)	0.923 (0.002)
Free to go to local clinic without permission	0.183 (0.003)	0.170 (0.003)
Has cash in hand to spend on household expenditures	0.791 (0.003)	0.920 (0.002)
Control over resources and decision-making index	2.448 (0.008)	2.806 (0.006)
No. of obs.	15,336	15,294

Note: Parentheses report standard deviation. Number of observation changes by year due to missing data.

Source: Authors' estimates based on panel from IHDS data.

A closer look at the index on control over resources and decision-making reveals (figure 5) that women who engaged in MGNREGA in 2011–12 were less likely to have more control in 2004–05, relative to other women. In contrast, in 2011–12, women who worked in the programme were associated with a higher degree of control over decision-making.

Figure 5. Index on control over household decisions by MGNREGA by year, 2011–12 status



Note: 0 means no control over household resources and decision-making; 4 means a lot of control.

Source: Authors' estimates based on a panel from IHDS data.

We use a fixed-effects model to better understand the relationship between women's paid work, MGNREGA work, and women's intra-household bargaining power. The main methodological issue in estimating the causal relationship between women's work status and their power position in the household lies in the fact that women who engage in paid work (and different kinds of it) are likely to differ from those who do not. There might be some (ex-ante) observed characteristics, such as income, but also unobserved characteristics, such as personality, that simultaneously explain taking up paid employment and the outcome of interest. We also face the issue of reverse causality – women who have more intra-household power may also be more likely to engage in paid employment due to unobservable characteristics.

To address these concerns, the longitudinal structure of the data is exploited and individual fixed-effects estimators are utilized, assuming that selection into paid work is explained by unobserved heterogeneity captured by time-invariant individual-specific characteristics. As the data includes one women per household, the fixed-effects also capture household-specific invariant characteristics. In sum, we believe the use of a fixed-effects model minimizes potential concerns over endogeneity by accounting for fixed individual and household factors which could simultaneously affect women's paid employment and intra-household power.

Moreover, results from the Mundlak test support the choice of fixed-effects. Mundlak's (1978) alternative to the Hausman test accounts for possible correlation between the individual specific effects and covariates (Hsiao, 2014).<sup>12</sup>

<sup>12</sup> As we have reason to believe that such correlation might exist – for instance, a woman who has more drive and willingness to work for pay might be more likely to study longer, and hence these factors could be correlated – Mundlak's approach avoids biased estimation. Mundlak proposes that the fixed-effects are projected in the means of the time-varying regressors,  $\alpha_i = \theta_1 \overline{PaidWk}_i + \theta_2 \overline{UnpaidWk}_i + \theta' \overline{X}_i + w_i$ , where  $w_i$  is normally distributed with mean zero and a standard deviation  $\sigma_w$  and is uncorrelated with the regressors or its means (Greene and Hensher, 2009). Using Mundlak's approach, we test and reject the hypothesis that the means of all time-varying coefficients

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Our basic model is a logit regression as follows:<sup>13</sup>

$$\begin{aligned} Control_{it} = & \gamma_1 PaidWk_{it} + \gamma_2 UnpaidWk_{it} + \gamma_3 NREGA_i + \gamma' X_{it} \\ & + \theta_1 PaidWk_i + \theta_2 UnpaidWk_i + \theta' \bar{X}_i + w_i + \varepsilon_{it} \end{aligned} \quad (1)$$

The dependent variable  $Control_{it}$  represents the outcome of interest for women  $i$  at time  $t$  ( $t = 2004-05, 2011-12$ ). It transforms our index on control over household decisions into a binary variable for ease of result interpretation.  $Control_{it}$  takes the value of 0 if the index yields a total of 0–2 (little power); an index of value 3–4 is coded as 1 (more power). A mid-point threshold for the index-to-binary conversion would be 2.5, however, given it is not observed, we opted for the higher threshold of 3. A test with an alternative lower threshold – whereby  $Control_{it}$  was coded 1 if the sum of positive answers was 2 or more – yielded results with the same sign but larger coefficients, suggesting that the threshold of 3 is appropriate and conservative.

$PaidWk_{it}$  is a dummy indicating the woman  $i$  worked for pay (either as a salary worker or daily labourer in agricultural and non-agricultural activities) for at least one day in year  $t$ , and equals 1 if yes.  $UnpaidWk_{it}$  takes the value of 1 if the woman  $i$  worked, but not for pay in year  $t$ .  $NREGA_i$  identifies the group of women who worked in the MGNREGA programme in 2011–12, assuming the value of 1 for these women both in 2004–05 and 2011–12. This dummy allows us to observe whether the group of women who engaged in MGNREGA work have a different relationship with control over decision-making than other women, irrespective of current work status. These are our main explanatory variables of interest.

$X_{it}$  is a vector of observed time-variant characteristics of the individual and household. It includes number of working-age household members, number of the children<sup>14</sup> and of years of education of the woman, log of household income, a dummy for household debt, and a dummy for year taking value of 1 if in the second round (2011–12).<sup>15</sup> These covariates were chosen based on previous literature on women’s decision-making power and capture factors which could influence women’s control over household resources and decisions. The number of working age household members indicates possible contributors to household income, and thus potential decision-makers. The number of children in the household relates to care duties and low fertility rates are often associated with women’s empowerment. Education is traditionally viewed as one of the main tools for women’s empowerment. Household debt is likely to reduce the control that women have over their earnings, and household income is expected to be negatively related to control, as the larger the total household income the less likely that women have a say in its expenditure. Finally,  $\varepsilon_{it}$  is an error term that captures all other unobserved time-varying disturbance, robust to heteroskedasticity since errors may be correlated – their variance might vary with one or more of the explanatory variables.

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are zero, which suggests that there is correlation between time-invariant unobservables and our covariates, evidence for fixed-effects estimation.

<sup>13</sup> The questionnaire was directed at one woman per household in 2005, and we are using only women who answered both rounds.

<sup>14</sup> The number of children variable captures all children the woman gave birth to by 2004-05; in 2011-12, it captures only those who are alive.

<sup>15</sup> As it is reasonable to expect that heading the household perfectly explains a woman’s power position in said household, we do not include it in the equation

This model is then slightly modified by the introduction of an interaction term, which changes the equation to:

$$Control_{it} = \gamma_1 PaidWk_{it} + \gamma_2 UnpaidWk_{it} + \gamma_3 NREGA_i + \gamma_4 Year_t NREGA_i + \gamma' X_{it} + \theta_1 PaidWk_i + \theta_2 UnpaidWk_i + \theta' X_i + w_i + \varepsilon_{it} \quad (2)$$

$Year_t NREGA_i$  is an interaction dummy that takes the value of 1 if the women worked in MGNREGA and the year is 2011–12, when MGNREGA work was actually carried out. This term allows us to assess whether MGNREGA work has a different relationship with the  $Control_{it}$  variable relative to all other paid work.

#### 4.2.1. Estimation and results

The results are reported in table 3 as odds ratios. First, we run the regressions with the full sample. This allows us to examine the overall association of paid work, unpaid work, and the women involved in MGNREGA with the *Control* variable (table 3, columns 1 and 2). Then, we limit the sample to women who did not work for pay in 2005 (table 3, columns 3 and 4). This way, we ensure that all women under examination started at the same baseline, i.e. no paid work. Columns 1 and 3 display results for equation (1), while columns 2 and 4 report the outcomes of equation (2).

Analysing the full sample (table 3, column 1), we find that in 2011–12, the odds of women having control were twice as high as in 2004–05. The odds that women have control in household decisions are 16 per cent higher for women who engage in paid work relative to others. The introduction of the interaction term somewhat changes the results (table 3, column 2). The finding that the odds of women having control over household decisions were significantly higher in 2011–12 is maintained. However, this is captured separately for women who worked in MGNREGA and those who didn't. The odds ratio for *NREGA* reflects the association between MGNREGA women and the *Control* variable in 2004–05, while the odds ratio for *YearNREGA* reflects that relationship in 2011–12. The odds ratio for *Year* indicates the relationship between all other women and the variable *Control* in 2011–12. We find that, controlling for all other factors, all non-MGNREGA paid work (*PaidWk*) is not statistically significantly associated with *Control*.

Table 3. Regression of control over household resources and decision-making on work status

	(1) Full sample [Eq.1]	(2) Full sample [Eq.2]	(3) Women who did not work for pay in 2005 [Eq.1]	(4) Women who did not work for pay in 2005 [Eq.2]
PaidWk	1.164*** (0.067)	1.000 (0.060)	1.573*** (0.123)	1.211** (0.108)
UnpaidWk	0.749*** (0.039)	0.776*** (0.041)	0.726*** (0.040)	0.741*** (0.041)
NREGA	0.897*** (0.036)	0.641*** (0.035)	0.842** (0.053)	0.628*** (0.052)
Year	2.109*** (0.150)	1.932*** (0.138)	1.776*** (0.151)	1.774*** (0.151)
YearNREGA		2.305*** (0.203)		2.105*** (0.284)
Age	1.020** (0.009)	1.019** (0.009)	1.019* (0.010)	1.018* (0.010)
Years of education	1.001 (0.013)	1.002 (0.013)	1.005 (0.015)	1.006 (0.015)
No. of children	1.022 (0.024)	1.027 (0.024)	1.031 (0.027)	1.032 (0.027)
No. of working-age household members	0.918*** (0.011)	0.913*** (0.011)	0.898*** (0.012)	0.896*** (0.012)
Log of household income	0.946** (0.023)	0.951** (0.023)	0.955* (0.026)	0.959 (0.026)
Debt	0.920** (0.038)	0.930* (0.038)	0.878*** (0.042)	0.884** (0.043)
N	30,630	30,630	22,157	22,157

Note: Exponentiated coefficients; Standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

In contrast, unpaid work is consistently negatively associated with control over household resources and decision-making. Similarly, higher household income is negatively correlated with women’s control in the household, and so is debt. Older women are slightly more likely than younger women to have control, while the number of working-age household members is negatively associated with women’s control. The impact of the number of children and the woman’s education are not significant.

Finally, *NREGA* in equation (1) reflects the relationship between the women who would work in *MGNREGA* and *Control*, controlling for actual work engagement and all other factors. We find that, as a group, the women who chose to work in *MGNREGA* were negatively associated with control over household resources and decision-making (column 1).

Restricting the estimation sample to women who did not work for pay in 2005 leads to similar results to a great extent (columns 3 and 4). The results of equation (1) in column 3



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suggest paid work (*PaidWk*) is positively associated with *Control*, and that, controlling for work status and all other factors, MGNREGA women (*NREGA*) were negatively associated with *Control*. Introducing the interaction term does not change the storyline (column 4) but allows us to see the impact of MGNREGA on *Control* relative to the impact of all other paid work on *Control*. Paid work in MGNREGA (*YearNREGA*) is positively associated with *Control*, and so is all other paid work (*PaidWk*), but more so MGNREGA. In 2011–12, MGNREGA-engaged women were 2.1 times more likely than other women to have *Control*, while the odds that women engaged in non-MGNREGA paid work had control over household resources and decision-making were 1.2 times higher than for other women. There are a number of possible explanations. It could be that moving from no-work to occasional work (MGNREGA) leads to greater control over household decisions than engagement in paid employment of longer duration – i.e. displaying the ability to work for pay could affect women’s bargaining position, and perhaps to a greater extent than working per se.<sup>16</sup> It could also be that wages received by women in MGNREGA are higher than those in other paid work, which could impact changes in women’s bargaining position in the household. The stronger effect of MGNREGA work vis à vis other paid work could also be a short-term effect captured by the 2011–12 survey. Yet, even if women did not work for pay in 2011–12 (i.e. did not work or engaged in unpaid work), they were more likely to have *Control* then than in 2004–05, as reflected in the coefficient for *Year*. We find that, controlling for year, unpaid work is negatively associate with *Control*.

Education and number of children are not significant. Conversely, debt is negatively associated with *Control*, as is household income in column 3, and a higher number of working age household members is inversely related with women’s control over household resources and decision-making. Older women are more likely to have *Control*.

In sum, we find that paid employment is positively correlated with the variable *Control*. Controlling for year (i.e. actual MGNREGA work), women who engaged in the programme were less likely to have control over household resources and decision-making. However, in 2011–12, when MGNREGA work was actually taking place, the odds of having *Control* were higher for MGNREGA women relative to all others, than the odds for women engaged in other paid work. Unpaid work is consistently negatively correlated with control over household resources and decision-making. Similarly, debt and the number of household members of working age are inversely correlated with *Control*. Age is positively associated with control over household resources and decision-making. Years of education and number of children are not significantly related to *Control*, while the significance of household income varies.

### **4.3. MGNREGA, paid employment for women and transformative equality**

A legislative measure such as an “employment guarantee” could, potentially, be transformative if it addresses concerns of social and economic equity and household division of resource access and use, as noted by Devereux and Sabates-Wheeler (2004). They categorize social protection intervention initiatives in four groups: (i) protective, (ii) preventive, (iii) promotive, and (iv) transformative measures, which are not mutually exclusive. In this framework, MGNREGA has the potential of being transformative in so far as it seeks to address concerns of social equity and exclusion of women – even though these are not the primary objectives of the programme. We posit that MGNREGA would be

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<sup>16</sup> Studying the Maharashtra Employment Guarantee Scheme, Haddad and Kanbur (1992) found long-reach effects, i.e. that the employment guarantee transformed intra-household dynamics by altering outside options, irrespective of programme take-up

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transformative if it helps break the cycle of disadvantage, in the sense noted by Fredman, Kuosmanen and Campbell (2016).

Gender norms often dictate that household and care work be delegated to women. If MGNREGA leads to women's paid work outside of the home, and hence to their increased absence from the household, the burden of care could adversely affect particularly older female children. On the one hand, older children, particularly girls, could stay home to care for younger siblings and the household; on the other hand, increased household income could result in higher investment in children's education. Therefore, a generational disadvantage that is transmitted to girls from poor households is lack of schooling, or when enrolled, high drop out rates or low school attendance in order to take care of younger siblings and housework, especially when the mothers go out to work.

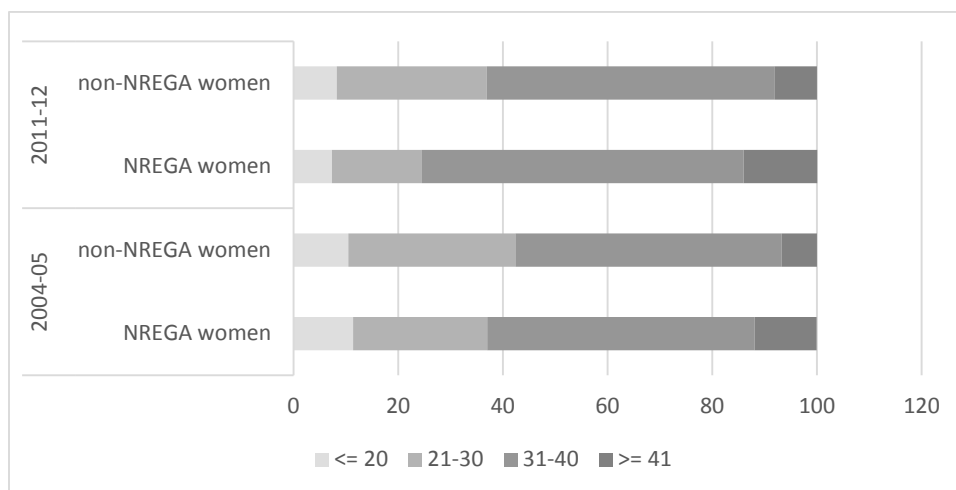
Evidence is mixed. Mani et al. (2014) observed that MGNREGA participation was strongly associated with substantive positive effects on grade progression, reading and math test scores in Andhra Pradesh. Using the same dataset on Andhra Pradesh, Afridi, Mukhopadhyay, and Sahoo (2016) also showed that increasing labour market participation of mothers through MGNREGA employment contributes to children spending a higher amount of time in school and better educational attainment. Using IHDS data, Desai, Joshi and Vanneman (2015a), found that the children in MGNREGA participating households are more likely to attain higher education and improve learning outcomes than their peers; Desai et al. (2015b) find similar positive results. Conversely, Li and Sekhri (2013) suggest women's participation may increase the shadow value of children's time in the household. Das and Singh (2013) find that older girls experienced a decline in schooling in light of women's employment in MGNREGA.

Our previous results suggest that women's paid work, more specifically MGNREGA work, is positively associated with women's control over household resources and decisions. Does this control over household decisions result in girls going to and spending longer hours in school? To answer this question, we look at the education of the oldest girl (between 5–14 years old) in the household, proxied by weekly hours spent in school over the month preceding the survey.

Figure 6 examines the weekly hours the oldest girl of the household spent in school during the month preceding the survey interview. In 2004-05, 63.0 per cent of girls in households in which the women participated in MGNREGA in 2011–12 spent over 30 hours a week in school, in contrast to 57.7 per cent of girls from households in which the women would not work in MGNREGA. The main difference was at the upper end of the distribution – 6.8 per cent of girls in non-MGNREGA households spent more than 40 hours in school weekly, in contrast to 11.9 per cent in MGNREGA households.

In 2011–12, these differences were much more pronounced. In households in which the women worked in MGNREGA, 75.5 per cent of girls spent more than 30 hours in school weekly, and 14.0 per cent were in school more than 40 hours per week. In non-MGNREGA households, the share was 63.2 per cent, only 8.1 per cent of which were in school more than 40 hours.

Figure 6. Percentage distribution of girl's time spent in school by women's MGNREGA status and year



Source: Authors' estimates based on a panel from IHDS data.

Although this seems to suggest that MGNREGA is associated with girls' education, these descriptive statistics do not account for endogeneity. It could be that households in which women volunteer to work in MGNREGA are households where gender norms are relaxed and are more likely to value girls' education.

To test the hypothesis that MGNREGA is transformative, we use a Mundlak fixed-effects model to examine trends between the time spent in school by the oldest girl and women's MGNREGA status, controlling for whether these women had control over household resources and decision-making as reflected in the binary control variable. We use a linear model, as follows:

$$Schoolhours_{it} = \gamma_1 Year_t + \gamma_2 NREGA_i + \gamma' X_{it} + \theta' \bar{X}_i + w_i + \varepsilon_{it} \quad (3)$$

We then add an interaction dummy for MGNREGA women in year 2011–12, when programme work is actually carried out:

$$Schoolhours_{it} = \gamma_1 Year_t + \gamma_2 NREGA_i + \gamma_3 YearNREGA_i + \gamma' X_{it} + \theta' \bar{X}_i + w_i + \varepsilon_{it} \quad (4)$$

Where  $Schoolhours_{it}$  represents the number of weekly hours the oldest girl in the household (ages 5–14) spent in school over the past month.  $Year_t$  takes the value of 1 if 2011–12 and zero if 2004–05.  $NREGA_i$  is a dummy taking the value of 1 for women who worked in MGNREGA.  $Year_t NREGA_i$  is a dummy that interacts  $NREGA_i$  women and  $Year_t$ , and assumes the value of 1 if women worked in MGNREGA and the year is 2011–12, when they were effectively working in the programme.  $X_{it}$  introduces controls for household income, women's education, spouse's education, number of working-age female members of the household and the binary variable for control over household resources and decision-making, as these might affect the household decision to send the girl to school.

Next, the equation is run with a triple interaction variable,  $Year_t NREGA_i Control_{it}$ , which takes the value of 1 for a woman who worked in MGNREGA, if the year is 2011–12, and the woman had control over household resources and decision-making (i.e. the binary variable  $Control_{it} = 1$ ). To better assess where the impacts are coming from, we have interaction terms also for year and MGNREGA women ( $Year_t NREGA_i$ ), year and  $Control$  ( $Year_t Control_{it}$ ), and NREGA women and  $Control$  ( $NREGA_i Control_{it}$ ). The first is the

interaction term used in equation (4). The second captures the relationship between control over household resources and decisions and year with girls' schooling; it takes the value of 1 if the year is 2011–12 and the women has *Control*. If we believe there has been, for instance, societal changes between 2004–05 and 2011–12, it could be that the correlation between *Control* and girls' schooling changes with the year. Finally, the third reflects the relationship between women who worked in MGNREGA in 2011–12 and *Control*, irrespective of the year (i.e. actual MGNREGA work status) and girls' time in school. The regression can be expressed as:

$$Schoolhours_{it} = \gamma_1 Year_t + \gamma_2 NREGA_i + \gamma_3 Year_t NREGA_i + \gamma_4 Year_t Control_{it} + \gamma_5 NREGA_i Control_{it} + \gamma_6 Year_t NREGA_i Control_{it} + \gamma' X_{it} + \theta' \bar{X}_i + w_i + \varepsilon_{it} \quad (5)$$

The equations above assess the relationship of any MGNREGA work and girl's education. However, one could argue that the intensity of MGNREGA work has a role to play. MGNREGA could have two effects on girls' school attendance. On the one hand, women's paid work (and income) could have a positive impact on girl's education. On the other hand, at a certain point, the shadow price of girls' schooling might become too expensive. For example, the working woman does not have time to do household and care work and neither does the girl, who is in school, but hiring a servant is too expensive and therefore the girl might need to spend more time at home. To assess this, we allow the relationship between MGNREGA and girl's education to be non-linear and run a cubic function of the following form:

$$Schoolhours_{it} = \gamma_1 NREGA_{days} + \gamma_2 NREGA_{days}^2 + \gamma_3 NREGA_{days}^3 + \gamma' X_{it} + \varepsilon_{it} \quad (6)$$

Where the *Schoolhours* of girls is a function of *NREGA\_{days}* (the number of the women's MGNREGA work days) and the covariates used in equation (3) – i.e. household income, women's education, spouse's education, number of working-age female members of the household and the binary variable for control over household resources and decision-making.

#### 4.3.1. Estimation and results

Table 4 summarizes the results. Column 1 reports results of equation (3), column 2 those of equation (4), and column 3 of equation (5). We find that, accounting for women's control over household decisions and year, women who worked in MGNREGA in 2011–12 (*NREGA*) are positively associated with girls' time in school. Accounting for all other factors, our variable for control over household resources and decision, *Control*, is no longer significant. Overall, in 2011–12, girls' spent more time in school. This is captured by *Year* in column 1 and *Year* and *YearNREGA* in column 2. The interaction term, *YearNREGA*, compared to *Year*, in column 2, suggests that MGNREGA women, when actually working in the programme, were positively associated with girls' education, but to a lesser degree than all other women in 2011–12. Household income, number of adult female household members, and education of the women and their spouses are not significant.

The results in column 3 indicate that when women were working in MGNREGA and had control over household decisions (*Year<sub>t</sub>NREGA<sub>i</sub>Control<sub>it</sub>*), there was a positive relationship with girl's education. Girls from households in which the women worked in MGNREGA and had *Control* spent 1.2 extra hours in school every week, relative to all others. The relationship between MGNREGA work and girls' education is only significant

if the women have *Control*, otherwise it isn't (*YearNREGA*).<sup>17</sup> Likewise, having *Control* and being in the group of women who would work in MGNREGA in 2011–12 (*NREGA*), is not significantly associated with girls' schooling when the woman is not actually working in the programme (*NREGAControl*). However, we do find that having *Control* in 2011–12, while not working in MGNREGA, is slightly negatively associated with girls' time spent in school.

Table 4. Regression of girl's weekly school hours on MGNREGA status

	(1)	(2)	(3)
NREGA	1.538*** (0.253)	1.063*** (0.353)	1.259** (0.503)
Year	1.792*** (0.212)	1.678*** (0.220)	2.105*** (0.333)
YearNREGA		0.925* (0.477)	-0.734 (0.976)
Control	-0.017 (0.250)	-0.074 (0.251)	0.159 (0.315)
YearControl			-0.630* (0.378)
NREGAControl			-0.353 (0.700)
YearNREGAControl			1.200** (0.481)
Log of household income	-0.235 (0.155)	-0.234 (0.155)	-0.234 (0.155)
No. of female working-age household members	-0.034 (0.125)	-0.040 (0.125)	-0.037 (0.125)
Years of education	-0.00904 (0.083)	-0.005 (0.083)	-0.004 (0.083)
Spouse' years of education	0.067 (0.076)	0.067 (0.076)	0.066 (0.076)
N	11,502	11,502	11,502

Our investigation of the relationship between MGNREGA work intensity and girl's education is presented in table 5 and figure 7. We find that the relationship is not linear. MGNREGA work is positively associated with girl's education when the women work up to about 30 days in the year. After this point, programme work becomes negatively associated with the time girls' spend in school. This is in line with literature that suggests that women's paid work is often accompanied by a transfer of the burden of household and care work to girls in the household (Das and Singh, 2013; Li and Sekhri, 2013).

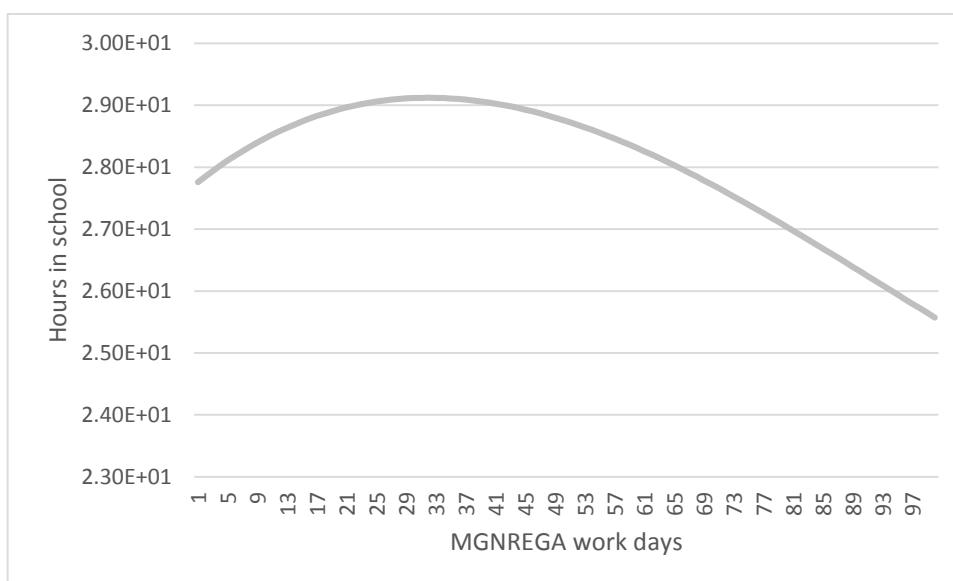
<sup>17</sup> We tested and confirmed that the sum of the coefficients for *YearNREGA*, and *YearNREGAControl* is statistically different from zero.

Table 5. Regression of girl's education on women's MGNREGA working days

	(1)
NREGAdays	0.098** (0.049)
NREGAdays^2	-0.002** (0.001)
NREGAdays^3	0.000* (0.000)
Log of household income	0.508* (0.282)
No. of female working-age household members	-0.134 (0.255)
Years of education	-0.128 (0.082)
Spouse' years of education	0.005 (0.062)
<i>N</i>	1,525

Note: Standard errors in parentheses. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Figure 7. Older girl's education and women's MGNREGA work days



Source: Authors' estimates based on a panel from IHDS data.

In a nutshell, our results suggest that there is some positive link between MGNREGA employment and educational attendance of the older girl in the family.<sup>18</sup> One could argue that, to the extent that paid employment in MGNREGA is linked to an improvement in women's bargaining power in the household, and this is translated into ensuring that girls

<sup>18</sup> To further test the hypothesis that women's engagement in MGNREGA work is associated with girls' education, we ran equation (3) using the binary control variable as the main explanatory variable, controlling for MGNREGA participation and found no significant relationship.

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attend school, there is scope for “breaking the cycle of disadvantage”. However, when MGNREGA work is more intensive, and there is no support for household care work, it is likely that the older girl child in the family has to help out. We find that this relationship is by no means straightforward. Up to a certain point, MGNREGA is positively associated with girl’s education. Yet, after a certain threshold, 33 days of MGNREGA work, the relationship becomes inverse and girls’ time in school declines when MGNREGA days of work increase.

Transformative equality is defined as breaking the cycle of disadvantage through changes in the power relations between genders both at the household and societal levels. Our analysis at the micro-level suggests that MGNREGA has a positive effect on women’s paid employment outside the home and on women’s control over key household and individual decisions. It could also contribute to breaking the cycle of disadvantage in so far as the oldest girl child spends longer hours in school when the woman in the household works for MGNREGA. However, as our analysis shows, when we take the intensity of work into account, the picture is less rosy – the longer the time spent by the woman in MGNREGA work, the less likely that the older girl will spend longer hours at school. One could argue that the burden of care work moves from the woman to the older girl child in the household when the woman spends longer time at work. Ideally, we would need to trace these families over a longer period, not just over the two years for which we have data, to assess if girls continued to go to school, and whether the options for the next generation were better than those available to the women working under MGNREGA.

However, even if we did have access to several years of data to track these micro-level relationships, these would not be sufficient to support transformational claims. Such claims would require accompanying changes at the broader, macro and societal level. Some scholars have argued that at the societal level, there is a positive MGNREGA impact on women’s average wages (Dasgupta and Sudarshan, 2011). On the other hand, we do not have enough evidence as to whether or not this changes macro-level gender relations. Underlying this, is the idea is that transformative change and gender equality relates to all rights for women and girls, including not only economic aspects, but also civil, social, and political. We therefore do not have enough evidence to suggest that MGNREGA has contributed to transformative equality, though there is certainly potential for it.

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## 5. Does MGNREGA's legal promise translate into *de facto* guaranteed employment?

Thus far, we have assessed the relationship between MGNREGA and women's paid employment, as well as the one between paid employment, women's empowerment and its "transformative" consequences. Now, we examine whether MGNREGA's impact falls short of potential. To this end, we look at rationing – that is whether all who want to work in MGNREGA are able to secure work under the programme within programme rules (i.e. up to 100 days of work per year per household).

Rationing is connected to the potential for women's empowerment and transformative equality in two ways. First, there is a direct connection to the extent that limited actual availability of MGNREGA employment means less women will have the opportunity to work in the programme and, as a result, realize benefits related to its empowerment potential. Second, borrowing from bargaining theory in "collective" household models, changes in options of employment outside of the household can have strong impacts on behaviour and welfare even for persons not directly affected by these options (Blundell et al., 2007). That is to say, the latent option to take up paid work outside of the home, guaranteed by MGNREGA, could affect the bargaining position of women who do not undertake work through the programme. However, this is the case only if the work option is actually available, or perceived as such. Haddad and Kanbur (1992) find that, depending on the credibility of the programme, an employment guarantee has a long reach, as it alters intra-household dynamics by altering outside options.

The second round of the IHDS included questions on participation in and demand for MGNREGA work. The survey included questions on the number of job cards a household has, and whether anyone applied for a job card but did not get it. For households with MGNREGA job cards, the survey asked the number of household members on the card, along with the number of days worked in the past 12 months and why not all eligible days were worked. Reasons included lack of interest, work not available, payment problems, low wage rate, received payment instead of work, and other reasons. In addition, the section on wage work collected information on MGNREGA work.

The information was collected at the household level and, as a result, does not allow us to assess rationing by gender. However, if we find rationing is a problem at the household level, it indicates that women would be affected, hindering potential programme impacts. Moreover, examining programme rationing in Bihar, Dutta et al. (2014) find that women are less likely than men to participate in poorer states, women are more likely to be rationed out of programme work than men.

Unmet demand for MGNREGA work (rationing), can occur in a number of ways. It may relate to whether a household is able to access employment under the scheme. Rationing may also be connected to differences between the number of work days desired and actually worked. Furthermore, rationing may occur indirectly due to real or perceived problems with work availability and other issues.

Many households either did not work under the MGNREGA scheme or did not work all eligible days due to lack of interest, these were households which did not face programme rationing. Similarly, households who either worked all eligible days or received payment in lieu of work were not rationed out. Together, these two groups of households accounted for about 63 per cent of total rural sample households.

That is to say that for more than one in three rural households, MGNREGA did not work as a *de facto* employment guarantee of up to 100 days of work per year. Approximately four per cent of the sample rural households were unable to participate in the programme.



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These were households which did not already have a MGNREGA job card and from which a member applied but was unable to get a MGNREGA job card.<sup>19</sup> Moreover, card-holding households (43.8 per cent of total) were affected by rationing directly, i.e. due to lack of work availability (27.6 per cent), or indirectly, because wages were perceived as too low, they experienced problems with payments or due to other reasons (5.4 per cent of households). These results are in line with Desai, Joshi and Vanneman (2015b), which analysed rationing with the IHDS dataset, through a different sample.

Rationing could be examined in greater detail. A number of studies, such as Das, Joshi and Vanneman (2015), Dutta et al. (2014), and Liu and Barrett (2013) have investigated the relationship between rationing and income levels, and consumption expenditure at national and state levels. Yet, the existence of programme rationing, as indicated in our basic analysis, suggests MGNREGA's impact falls short of potential. Given that we find (i) MGNREGA to be associated with paid work opportunities for women, and (ii) paid work to be associated with women's empowerment, it is logical to conclude that unmet demand for paid work through the programme leads to sub-optimal effects on woman's empowerment.

One of the programme's main proponents, Jean Dreze (2016), suggests stagnant wages and persistent delays in payment are some of the main reasons not many households have worked the entire 100-day entitlement. Dutta et al. (2014) outline a number of theoretical reasons that might explain the unmet demand of such an employment guarantee programme. These include situations in which a programme faces hard budget constraints and wages are set too high, in light of programme demand – the authors suggest this was the case with MGNREGA's precedent, the Maharashtra Employment Guarantee Scheme. Rationing could also occur as a result of high local administrative costs, as localities often face constraints in terms of the skilled labour necessary for implementing the scheme. Relatively skilled labour is required for registering MGNREGA demand, vetting project proposals, monitoring and reporting activities and so on. However, in most poor areas, in which we could expect programme demand to be higher, skilled labour is scarce. Furthermore, corruption may hinder local MGNREGA implementation in the context of village politics. Desai, Joshi and Vanneman (2015b) highlight further complicating factors, including the often conflicting interests of workers and private employers in villages and friction between different levels of administration.

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<sup>19</sup> In total, about one-tenth of rural households fall into this category, including households which had no job cards and households which already had a job card. It is worth remembering that a household may have more than one job card. While multiple adult members may be registered in one card, it is not always the case that all adult members are registered on one or any MGNREGA job cards. Therefore, it could be that an adult in a household with a job card wanted to work but applied and wasn't able to get a job card, as was the case in 6.2 per cent of households

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## 6. Conclusions

The rural employment guarantee programme in India has been an opportunity for women to enter paid employment and as this study has shown, a first time experience for many of them. However, we also find that while men working in MGNREGA sites were likely to come from the poorest households, for women this was not necessarily so – women working in MGNREGA were distributed amongst the lower income groups, not entirely from the poorest groups. While the average income of our sample with households of married women where men work in MGNREGA is INR 65,901 annually, the average income of households where the woman works in MGNREGA is INR 76,734 annually. With only 13.4 percent of women of working age having paid employment (excluding self-employment), it is clear that employment opportunities for women in rural India are few. Furthermore, when there are fewer opportunities for employment, in general, women tend to get crowded out of the labour market by men (Bourmpoula, Kapsos and Silberman, 2016). In such a situation of limited employment opportunities, women have taken to the “last resort employment” legislated by the MGNREGA for work.

It has been argued by some feminist scholars, such as Agarwal (1997), Folbre (1986) and Kabeer (2008) amongst others, that paid employment is empowering, and strengthens women’s bargaining position in the household. Like others, we find that MGNREGA has been instrumental in ensuring paid employment for women – about half of those who worked in MGNREGA in 2011–12 were either out of the labour force or working in unpaid work in 2004–05. The IHDS data includes questions about women’s decision-making in the household which makes it useful to analyse whether access to paid employment, and MGNREGA employment in particular, enhanced women’s status and access to resources as well as decision-making in the household. We find that, indeed, paid employment has a positive and significant effect on women’s control over household decisions. Various design aspects of MGNREGA – work at government legislated minimum wages, work close to home, facility for child care at the work site – have contributed to the programme’s positive effect on women’s employment. As Dasgupta and Sudarshan (2011) noted, in those regions where the gap between women’s and men’s actual wages was larger, more women joined MGNREGA, where scope for wage discrimination between women and men is less.

We also found that controlling for other factors, women who worked in the MGNREGA programme in 2011–12 were significantly more likely to have control over household decisions than others. MGNREGA is therefore positively related to women’s empowerment. This leads us to the question – Does this change in household bargaining status for the women who worked in MGNREGA sites contribute to what Fredman, Kuosmanen and Campbell (2016) refer to as transformative gender equality, in the sense that it breaks the cycle of disadvantage?

We argue that one way of assessing this would be to see whether the next generation of girls in the households are more likely to get a school education – attend school instead of working at home or outside, given that education, in general, is strongly related to employment outcomes. There have been mixed findings on girls education in the literature – some have argued that MGNREGA contributed to girls taking care of younger siblings and leaving school, while others have established a positive relation between MGNREGA and children’s education. We examine the relationship between women’s MGNREGA work and the older girls’ time spent in school, controlling for whether women have control over household decisions, and find that there is significant evidence, though weak, that the likelihood of the oldest girl spending more hours in school is greater for households in which the women worked in MGNREGA relative to all others. This relationship is stronger when the woman working in MGNREGA has control over household decisions as well. This fact, though significant, is not by itself enough to create a case for “breaking the cycle of disadvantage”. More information about the household over a longer period of time would be

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required before one can make a case for MGNREGA bringing about a transformation in gender relations. Furthermore, when we account for work intensity, we find that the relationship between the hours spent in school by the older girl child and the woman's days worked under MGNREGA is no longer linear – there is a declining impact. One explanation for this is that the older girl child often takes on the responsibility of household chores that the older woman would normally do. In fact, after 33 days of work in MGNREGA by the woman, we notice that the relationship between woman's work in MGNREGA and time spent in school by the older girl is reversed.

While there are several important gender aspects of the programme, MGNREGA is not a full employment programme. It is a fall-back option and an employment of last resort for poor rural households, guaranteeing 100 days of work annually for a household, for income security. That too, is often not realised – work demanded is not always provided, again as our analysis indicates.

These household level findings about women's participation in MGNREGA employment and their household bargaining power and empowerment, need to be viewed in the broader macro context of shrinking women's labour force participation rates, rise in rural women's unemployment rates and the poor quality of women's employment in general, at a time when the economy is expanding. Women are staying longer in education, but as noted in Bourmpoula, Kapsos and Silberman (2016), this can explain only a small part of the decline in women's labour force participation. Social norms about what constitutes appropriate behaviour for women still prevail in societies and communities – and the bulk of care work continues to be women's responsibility. Employment opportunities for rural women in India are few, and even shrinking in the face of the mechanization of agriculture (Mehrotra et al., 2016). Fall-back options in MGNREGA-type legislated employment, which are well-intentioned and carefully crafted to ensure social equity, are indeed important. As our analysis and that of others shows, MGNREGA has played a role in changing power relations, especially at the household level.

However, transformative gender equality requires action addressing macro structures that create gender inequalities in the first place, including social norms, and interconnections with economic power which are ingrained in gender relations across the economic, social and political spheres (GADN, 2016). Barriers persist in hindering women's participation, including work opportunities, gender pay gaps, expectations about appropriate roles for women, and the bulk of care work. Complementary legislation and macro policies have a critical role to play in enhancing women's employment opportunities, such as through investment in infrastructure, education, non-farm employment, public support for care services and ensuring equal pay for work of equal value. In particular, micro and macro level policies are needed to change perceptions (both inside and outside of the household) of women's worth and capabilities, and acceptance of women working in paid employment outside the home. Only then can transformative gender equality be achieved.

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## 8. Annex A

We assessed the quality of IHDS data by comparing it to NSSO data. Differences in questionnaire design prevent comparison of many important indicators, including those on employment and gender relations. However, a comparison on demographic variables, such as literacy, caste, religion, household size, and marital status suggests the data collected by IHDS corresponds to that collected by the official labour force survey.

Table 1. Comparison of IHDS I and II with NSS 61st and 68th rounds

	2004-05		2011-12	
	IHDS	NSS 61 <sup>st</sup> round	IHDS	NSS 68 <sup>th</sup> round
<b>Rural population</b>	73.9	74.5	65.5	69.6
women	49.3	49.9	49.4	49.6
men	50.7	51.0	50.6	50.4
<b>Average household size</b>	6.6	6.3	7.2	5.6
<b>% Literate ages 5+</b>				
Men	73.0	59.24	77.0	74.7
Women	51.6	40.76	59.3	52.5
<b>Caste</b>				
Scheduled Tribe	9.3	10.3	9.6	10.5
Scheduled Caste	23.4	21.3	22.3	20.2
Other Backward Caste	42.2	42.9	43.8	44.7
Others	20.8	25.5	19.7	24.6
<b>Religion</b>				
Hindu	83.0	83.4	83.1	83.8
Muslim	11.3	11.5	12.5	11.4
Christian	2.1	2.1	1.44	2.0
Sikh	1.5	2.0	1.3	1.9
Others	2.1	1.0	1.7	0.9
<b>Marital Status</b>				
Never married	48.4	48.7	48.1	46.8
Married	46.2	46	46.6	48.1
Divorced	0.4	0.3	0.4	0.2
Widowed	5.0	4.9	5.0	4.9

Source: Authors' calculations using IHDS and NSSO data.



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