

Sarkar, Sudipa; Chakravorty, Bhaskar; Lyonette, Clare

**Working Paper**

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GLO Discussion Paper, No. 724

**Provided in Cooperation with:**  
Global Labor Organization (GLO)

*Suggested Citation:* Sarkar, Sudipa; Chakravorty, Bhaskar; Lyonette, Clare (2020) : Social Identity and Aspiration - Double Jeopardy or Intersectionality? Evidence from Rural India, GLO Discussion Paper, No. 724, Global Labor Organization (GLO), Essen

This Version is available at:  
<http://hdl.handle.net/10419/226520>

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# Social Identity and Aspiration – Double Jeopardy or Intersectionality? Evidence from Rural India

Sudipa Sarkar  
Bhaskar Chakravorty  
Clare Lyonette <sup>\*†</sup>

November 27, 2020

## Abstract

This study investigates the relationship between individuals' social identity and their future aspirations in a developing country. We analyse primary survey data from participants of a large-scale skill-training programme that targets rural poor youths in India, focusing on two dimensions of individuals' identity: caste and gender. Our empirical findings suggest that training participants from the most socially disadvantaged groups – Scheduled Tribe (ST) and Scheduled Caste (SC) – have significantly lower income aspiration when compared to Other Backward Class (OBC) and Other Caste (OC) participants. Female participants also have significantly lower aspiration than their male counterparts. The aspiration gaps exist even after controlling for various background characteristics, including participants' pre-training personality traits and soft skills. Individual-level and household-level factors mediate some of the aspiration gaps based on caste and gender. We find evidence that for SC/ST female participants, the disadvantages on both caste and gender dimensions add up; this is reflected in their lower income aspiration levels, in comparison with all other groups. Thus, our results support the hypothesis of “double jeopardy” instead of “intersectionality” in this context.

**Key words:** Social identity; Aspiration; Intersectionality; Gender; Caste; India

**JEL codes:** J15; J16; O12; Z13

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\*All authors: Institute for Employment Research, University of Warwick. Email id: S.Sarkar.2@warwick.ac.uk (corresponding author), B.Chakravorty@warwick.ac.uk, C.Lyonette@warwick.ac.uk.

†Acknowledgment: This paper is part of a Global Challenges Research Fund (GCRF). Authors would like to acknowledge the financial support for this research from the Economic and Social Research Council (grant ref no. ES/S004904/1), UK. We thank Wiji Arulampalam, Beate Baldauf and Soham Sahoo for reading and commenting on the initial draft of the paper.

# 1 Introduction

Social identity – a person’s sense of belonging to a specific group within a society – is an important part of one’s self-concept (Tajfel et al., 1979; Tajfel, 2010). These group identities – such as black or white (based on skin colour), male or female (based on gender), and rich or poor (based on wealth) – influence people’s “beliefs about how they and others are supposed to behave” (Akerlof and Kranton, 2010, p.332). Disparities in economic outcomes between different social groups across the world have been documented over many years (Bertrand and Mullainathan, 2004; Akerlof and Kranton, 2000). While the existing discourse focuses mainly on explaining disparities in education and labour market outcomes (Kijima, 2006; Munshi and Rosenzweig, 2006; Hnatkovska et al., 2012; Sahoo and Klasen, 2018), much less has been done to investigate the differences in aspirations among social groups.

The concept of aspiration, as defined in the Oxford English Dictionary, is “a desire or ambition to achieve something” (Oxford English Dictionary, 1989). It signifies some goal or target and a desire to attain it, but also suggests the intention to exert effort towards realising the goal. Aspiration is therefore an important component of an individual’s behaviour that can influence the achievement of future outcomes. According to Haller and Miller (1963), aspirations motivate behaviour: “aspirations serve to mobilise and direct energy into action with respect to their objects, thus providing motive power for action” (Haller and Miller, 1963, p.11). Existing research has shown a positive link between aspirations, behaviour and achievement (Bernard et al., 2014), and achievement in turn has an impact on one’s well-being (Stutzer, 2004). The association between aspirations and behaviour has been studied in relation to educational attainment (Quaglia and Cobb, 1996; Page et al., 2007; Beaman et al., 2012), occupational choice (Haller and Miller, 1963; Haller et al., 1974; Cook et al., 1996), and chronic poverty (Dalton et al., 2016). The findings show a significant impact of aspirations on occupational choice, educational attainment, and chronic poverty. Therefore, aspiration plays a significant role in shaping the life trajectory of individuals. Appadurai (2004) calls for strengthening the ‘capacity to aspire’, especially among the poor, for future-oriented development. He argues that by developing the capacity of aspiration embedded in culture, poor individuals could find the resources required to contest and alter the conditions of their own poverty. Therefore, investigating the link between social group identity and aspiration is essential in a developing country context to understand the process of social and economic inequality in its entirety.

In this paper, we study the effect of social identity on aspiration in the Indian context. We explore two socially constructed identities, caste and gender, and investigate their association with individuals’ income aspiration. We investigate whether the amount of expected and preferred future earnings vary in such a way that individuals from lower-ranked social groups have lower income aspirations, compared to those from higher-ranked social groups, as found in the literature. This aspiration might be influenced by lower in-

comes of others in their social group (compared to those in higher-ranked groups) or may be due to poor self-image or expectations of discrimination in the labour market. We then investigate whether an individual's membership of multiple socially disadvantaged groups adds to or multiplies their overall disadvantage, reflected in their expectation and aspiration about income. The additivity assumption is referred to as "double jeopardy" in the literature on race and gender (Epstein, 1973; Almquist, 1975; King, 1988, p.47). (Crenshaw, 1990).<sup>1</sup>

Double jeopardy and intersectionality have previously been studied to understand gender and racial discrimination in western countries, mostly focusing on labour market outcomes – especially earnings – to investigate the gender gap for black and white people (Greenman and Xie, 2008; Browne and Misra, 2003). There is, however, limited evidence on social identities and their intersection within the Indian context, and how these identities interact in shaping individual aspiration. In this article, we aim to fill this gap by providing empirical evidence on the association between social identity (with a focus on both caste and gender) and one's future aspiration in the rural Indian context. We investigate whether pre-conceived notions of self-image, due to belonging to a specific social group, have a role to play in shaping one's future aspiration. We also explore the intersectionality between caste and gender, and test the double jeopardy hypothesis to see if two subordinate group identities lead to double disadvantage which is reflected in future aspiration.

We use baseline data from a longitudinal survey of participants of a skill-training programme named Deen Dayal Upadhyay Grameen Kaushal Vikas Yojana (DDU-GKY hereafter) in Bihar and Jharkhand, two backward states of India.<sup>2</sup> Since DDU-GKY mandates participation of rural, unemployed youths, aged between 18 and 35, and primarily from poor households, the participants of the scheme are relatively similar in terms of background.<sup>3</sup> We collect information on aspects that are not usually covered in existing datasets in India, such as, expectation about future income, aspiration, and personality traits and

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<sup>1</sup>The idea of intersectionality has made valuable contributions towards understanding the lives of minority women, who do not necessarily experience race in the same way as minority men or gender in the same way as white women (Browne and Misra, 2003; McCall, 2005) Yet few empirical studies on earnings inequality by race and gender have adopted this perspective (For an overview of these studies, see Browne and Misra (2003)).

<sup>2</sup>The government of India launched the DDU-GKY skill-building program nationwide as part of its "skill India" campaign in 2014, targeting disadvantaged rural youths. This is an important policy in light of the recent discourse on the low labour market outcomes of disadvantaged groups including women (Klasen and Pieters, 2015; Sarkar et al., 2019). DDU-GKY is a public-private partnership program where the training partners - called Project Implementing Agency (PIA), provide the training to a group of young people in a batch at a time, on different trades at their training centres. The program is mainly residential, lasting for about three to six months. According to the official website, the Indian government has invested more than Rs. 56 billion (roughly \$ 800 million) on this program. Since its inception, DDU-GKY has trained over a million youths and placed 55% of them in salaried employment.

<sup>3</sup>The programme implementation follows some criteria to identify 'most needy' households and include those with Below Poverty Line card, Government health insurance, participants in rural employment guarantee scheme (NREGA), member of Self-Help Group (SHG). Social inclusion is an important component under this programme and a composition of 50% SC/ST, 15% minorities, and 33% women, and 3% of persons with disabilities are encouraged.

non-cognitive skills. We capture information on Big-5 personality traits (conscientiousness, extraversion, agreeableness, emotional stability, and open mindedness), personal skills, interpersonal skills, grit, and work orientation skills. The baseline data was collected at the start of training (within two weeks of training inception). Our unique dataset provides us with an opportunity to investigate the relationship between social identity and income aspirations of training participants from relatively similar backgrounds while controlling for a range of individual and household characteristics.

We find that social identity plays a role in shaping the future expectation and aspiration of the young participants. Results suggest that participants from socially disadvantaged groups – Scheduled Caste (SC) and Scheduled Tribe (ST) – have significantly lower expected and aspired income, as compared to participants from Other Backward Class (OBC) and Other Caste (OC).<sup>4</sup> Participants from disadvantaged caste groups expect to earn 23% less and aspire to earn 22% less after one year of training completion compared to participants from Other caste. Similarly, female participants expect to earn 11% less and aspire to earn 14% less than male participants. We then follow the methodology from [Greenman and Xie \(2008\)](#) to test the intersectionality and double jeopardy hypotheses. Our analyses suggest the existence of double jeopardy and find no evidence of intersectionality in this context. We find empirical evidence that female participants from the SC/ST caste are doubly disadvantaged and incur two aspiration disadvantages additively, one associated with being female and another associated with being disadvantaged caste. Our results remain robust across different specifications, after controlling for personality traits and soft skills, as well as several individual-level and household-level factors.

We acknowledge the possibility that the participants enrolled in the training programme may be different in characteristics from non-participants. Comparing our sample with representative administrative data, we find that the participants in our sample predictably differ in some observable characteristics and thus, they may have different levels of aspiration (Table A2). As seen in the table, young people in our baseline sample have higher levels of education, compared with the non-participant sample of the same age group in the administrative data, although they earn a similar monthly amount. Therefore, it is likely that individuals with higher aspiration choose to enrol in the training programme. However, this should not affect our main results unless the propensity of individuals with higher aspiration to self-select into the training programme varies by caste group or gender. We discuss this issue further in the conclusion.

Our study contributes in multiple ways and adds particularly to four strands of literature. First, the literature of identity economics makes the concept of social identity central in the standard theory of individual behaviour and choice ([Akerlof and Kranton, 2000, 2002, 2005, 2008](#)). We add to this literature by investigating caste and gender identities

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<sup>4</sup>The caste system is a historical system of social stratification based on traditional hierarchies discussed in detail in the background section.

within the Indian context. The caste system in India is an ideal setting to study the role of social identity in shaping behaviour as it is a system of social hierarchy, which operates irrespective of income and wealth. This hierarchical caste system leads to individuals in higher-ranked castes viewing themselves as superior, when compared to individuals in disadvantaged castes with similar incomes. Similarly, gender norms are stronger in India than in western countries and gender segregation is visible in every sphere of life. Although caste-based and gender-based inequality and discrimination have been studied extensively in India (Deshpande, 2000, 2001; Sahoo, 2017; Sahoo and Klasen, 2018), relatively few studies have investigated whether these identities play a role in shaping aspirations.

Secondly, we contribute to the literature on intersectionality of multiple social identities such as gender, race, class, etc. (Browne and Misra, 2003; McCall, 2005). Intersectionality has been widely studied in the context of gender and race in western countries. For example, scholars have used the intersection between gender and race to investigate whether the gender disparity in labour market outcomes varies by race (Collins, 2000; Brewer, 1999; James and Busia, 1993). Our study adds to this strand of literature by exploring intersectionality of caste and gender in a developing country context.

The third strand of literature that we contribute to is the literature on the multiple or double jeopardy hypothesis (Greenman and Xie, 2008; Browne and Misra, 2003). This literature has similarly focused only on western countries and investigated if women of colour are doubly disadvantaged in economic opportunities and outcomes. We attempt to test this hypothesis empirically by investigating if disadvantaged caste females in India face double discrimination that shapes their income aspiration.

Finally, we contribute to the literature of aspiration and motivation studied mainly in social psychology (Oyserman, 2009; Oyserman and Destin, 2010). Identity-based motivation is proposed as a framework to understand disparities in achievement (Oyserman and Destin, 2010). However, the studies are mostly theoretical, and often lack supportive empirical evidence. Our empirical findings of identity-based income aspiration will add value to this theory-based literature.

The rest of this article is organised into six sections. We begin by outlining the caste system, caste-based discrimination and gender inequality in India. We then review the existing literature related to social identity, intersectionality, discrimination and aspiration, followed by the methodology and the data, survey design and survey instruments. Findings from the analysis are then presented, before discussion and conclusions from the research.

## 2 Background to identities in India

### 2.1 The caste system in India

The caste system is deeply rooted and ingrained in Indian culture. Its existence has created great social and economic inequalities, as it follows a hierarchical order and is a critical determinant of power and poverty in contemporary India. The caste groups are mutually exclusive, endogamous, hereditary, and occupation-specific. In ancient India, the caste system was called the Varna system, and there were four broad groups: Brahmins (priests and teachers), Kshatriyas (the warriors or often royals), Vaisyas (the merchants) and Sudras (the menial workers). There is another group of people, now called Dalits, that fell outside the caste system and the people belonging to these groups are treated as 'untouchable'. The varna system is roughly 2500 years old and, as the Indian economy started to grow over time and new castes emerged, it was transformed into jatis, a form of regional caste groupings. Though the jati and varna systems are very similar, the jatis are not a clear subset of varnas. The exact number of jatis is unknown but is estimated to be somewhere between 2000 and 3000 (Deshpande, 2008). In modern days, the Indian census classifies its citizens into four broad categories for the purpose of affirmative action: Scheduled Castes, the ex-untouchables (SCs hereafter), Scheduled Tribes, consisting of indigenous tribes (STs hereafter), Other Backward Class (OBC) and Other Castes (OC) who are also referred as 'General Caste'. In our study, we focus on these four categories and combine the most disadvantaged categories, SC and ST, together as these two groups are often placed together in various affirmative action plans by the government.

According to the most recent Indian statistics, SCs constitute around 20%, STs 9%, OBCs 43% and UCs 28% of the Indian population (Periodic Labour Force Survey, 2017).<sup>5</sup> However, looking at the poverty ratios defined as the percentage of persons below the poverty line, STs and SCs have the highest percentage of individuals below the poverty line (Table 1). Though the overall situation improved in 2011-12, poverty ratios are still much higher for SC/STs. This is reflected in our sample, as our survey data comes from the participants of a skill-training programme targeting below poverty line youth in rural India.

### 2.2 Gender in the Indian context

Feminists have long argued that gender is a socially constructed identity to maintain social hierarchy. Gender creates social differences between men and women that go beyond any biological or physiological differences (Browne and Misra, 2003; Amott and Matthaei, 1996). Therefore, gender inequality has existed, and continues to exist, in many societies

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<sup>5</sup>We do not use census data as a source to estimate the caste wise population since the OBCs are not counted as a separate category in the decennial Indian censuses. Therefore, the estimates are based on large-scale sample survey such as Periodic Labour Force Survey (PLFS).

across the world. In developing countries, gender inequality is more pronounced as resource constraints aggravate discrimination by investing less in women's human capital development. In addition, most developing countries operate under a patriarchal system whereby women are considered as second-class citizens. In India, various forms of gender inequality are observed throughout the life-course of individuals. This starts with a sex imbalance at birth due to sex-selective abortions, and includes differential human capital investments and also discrimination in the labour market, among others (Sahoo and Klasen, 2018; Kingdon, 2005; Dreze and Sen, 2004; Jensen, 2003). The consensus from the literature focusing on gender discrimination in India suggests that social norms play an important role in gender inequality in India.

### 3 Review of relevant literature

#### 3.1 Social identity and aspirations

The literature related to social identity began with Becker's "economics of discrimination" (Becker, 2010) which focused on the relationship between racial prejudice among whites and discrimination against racial minorities in a competitive model. Since then, discrimination has been studied intensely in economics. However, the direct effect of social identity on human behaviour and economic choices or outcomes was considered only recently, after the seminal work "Economics and Identity" by Akerlof and Kranton (2000). This study theoretically and empirically demonstrated that social identity affects economic behaviour and outcomes. The article employs economic models to gender discrimination in the workplace, the economics of poverty and social exclusion, and the household division of labour, to investigate the relationship between identity and economic outcomes. Following the publication of this work, many economists started working on the issue of social identity.

Another, relatively new, strand of literature has highlighted the importance of aspirations in determining individuals' future economic outcomes and well-being. For example, a small number of studies have explored the role that self-belief and aspirations play in determining these outcomes (Appadurai, 2004; Ray, 2006; Genicot and Ray, 2017) and the general consensus is that they are important. This literature also highlights that society plays a role in shaping aspirations and beliefs. Appadurai (2004) has argued that aspirations are socially determined and that the poor may lack "the [aspirational] resources to contest and alter the conditions of their own poverty" (Appadurai, 2004, p:29). The hypothesis that one's social identity may play a crucial role in determining one's beliefs, aspirations and eventual outcomes has been documented in the research of social psychologists (Oyserman, 2009; Oyserman and Destin, 2010). However, there is still limited evidence on the effect of social identity on aspirations. A small number of recent studies have investigated the relationship between social identity in shaping individual percep-



tion, educational aspiration and future outcomes, with some focusing on caste and gender in India (Deshpande, 2008; Genicot and Ray, 2017). However, empirical evidence remains scarce on social identity and income aspiration, using an appropriate measure of income aspiration, and particularly focused on developing countries (Beaman et al., 2012).

### 3.2 Double jeopardy or disadvantages

Social scientists have long argued that individual lives are not shaped by a single social classification; instead, each individual exists on multiple dimensions of privilege and disadvantage (Cho et al., 2013). Therefore, scholars have increasingly recognised the need to employ the theoretical framework of intersectionality, in which their central focus is the mutually reinforcing relationships among multiple systems of oppression, or the matrix of domination (Collins, 2000; Crenshaw, 1989, 1990). The initial formulations of the intersectionality framework focused mainly on the “double jeopardy” or “dual disadvantages” of race and gender faced by black women (Crenshaw, 1989, 1990; King, 1988; Beale, 1979). Scholars who study double or multiple jeopardies seek to understand and explain how disadvantage accumulates to shape the experience of discrimination for people with intersecting subordinate-group identities (Hancock, 2007). The hypothesis also assumes that racial discrimination remains the same across genders while gender discrimination remains the same across races. This literature, primarily based on western countries, has shown that black and Latino women remain at the bottom of the labour market reward structure: they earn the lowest wages (Browne, 1999), have the least decision-making power in the workplace (Browne et al., 2001; Maume Jr, 1999), and are most concentrated in “bad jobs” (Aldridge, 1999; Spalter-Roth and Deitch, 1999). Some studies suggest that minority women suffer the effects of both gender and ethnic prejudice in their society (Reid, 1984; Beale, 1979). However, contemporary scholars have cautioned against this “additive” approach as it still examines an individual’s group identities in isolation and ignores the existence of interaction (Bowleg, 2008; Browne and Misra, 2003).

### 3.3 Intersectionality

The contemporary approach of intersectionality focuses on the qualitative differences among different intersectional positions and argues that “the very meaning of manhood may vary when applied to one’s own racial group as compared to another group; similarly the meaning of a given racial category may vary for men and women” (Mullings and Schulz, 2006, p.5). In other words, according to the new intersectionality debate, gender discrimination may be less prominent among black, as compared to white, or vice versa. The literature focusing on the USA has established that gender and racial interaction exists in earnings. Greenman and Xie (2008) show that the race penalty in earnings is significantly lower for women than men in the USA. Similarly, they also find that the gender penalty in earnings

is smaller for ethnic minority groups, as compared to whites. Consequently, this study nullifies the additive or double/multiple jeopardy approach that the earnings inequality faced by black women is the simple sum of the racial wage penalty and gender wage penalty.

Clearly, little consensus exists regarding the empirical application and evidence of intersectionality, particularly in quantitative research (Cho et al., 2013; Choo and Ferree, 2010; MacKinnon, 2013; McCall, 2005). More specifically, prior research has not provided any evidence of a double disadvantage in aspirations among individuals belonging to socially disadvantaged groups.

### 3.4 Caste and gender intersectionality in India

The literature on inequality and discrimination in India has already shown that caste and gender inequalities exist in different dimensions. Disadvantaged castes and females face inequality and discrimination in educational and occupational outcomes (Munshi and Rosenzweig, 2006), wage earnings and consumption expenditures (Hnatkowska et al., 2012; Kijima, 2006), and ownership and performance of small businesses (Deshpande and Sharma, 2013, 2016). Furthermore, even successful low caste individuals may not be assessed on their own merits but rather through the lens of their collective stigmatized caste identity (Jaspal, 2011). An extensive literature has focused on the caste system in India and has further documented caste-based inequality and discrimination (Deshpande, 2000, 2004; Deshpande and Sharma, 2016). Similarly, a vast literature on gender disparities in India examines inequality in human capital investment (Sahoo, 2017; Sahoo and Klasen, 2018), discrimination in the labour market (Duraisamy and Duraisamy, 1999; Sahoo and Klasen, 2018), and differential health outcomes for women (Behrman, 1988). A few studies have also focused on the overlap between caste and gender (Deshpande, 2007). However, caste and gender intersectionality, in the context of aspiration in India, has not been studied so far. We aim to fill this gap by first investigating the effect of social identity on income aspirations and then empirically testing the intersectionality and double jeopardy hypotheses for caste and gender identities in India.

Our aim is to investigate if individuals with subordinate group identities aspire to earn less compared to individuals with dominant group identities. We hypothesize that social identities such as caste and gender will intersect to form the aspirational behaviour of individuals. As a result, women from disadvantaged caste may experience stigma related to both caste and gender and may have lower aspiration. It is also possible that women from disadvantaged caste experience lower levels of gender discrimination as compared to women from other caste. This may be reflected in their aspirational behaviour and they may not be on the lowest rung in terms of aspiration.

## 4 Data description and summary statistics

### 4.1 Survey and sample

The survey data was collected from training centres in both Bihar and Jharkhand of Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY hereafter), a skill training programme for rural unemployed youth aged 15-35 who have been identified as living in below poverty line (BPL) households. The majority of participants in both states come from poor households with a BPL card, as the DDU-GKY programme aims for Participatory Identification of Poor (PIP) as one of its main criteria for inducting candidates.<sup>6</sup> The programme specifically targets socially disadvantaged groups such as disadvantaged caste and female.

The study sample consists of 1769 trainees (881 from Jharkhand and 888 from Bihar) from 65 training batches (32 batches in Bihar and 33 batches in Jharkhand). The 65 batches were randomly selected from 29 training centres across Bihar and Jharkhand. A batch is defined as a group of students who enrol, have classes and graduate together and participants in all batches in the sample lived at the training centre during the training period. The average duration of classroom training in the sample is just over 3 months (103 days).

The average age of our baseline sample is 19.8 as provided in the summary statistics in Table 3. 58% of the sample are female, 49% are from SC/ST caste and 46% are from OBC caste. This reflects the targeting of disadvantaged social groups by the programme.

The study involved primary data collection between December 2019 and February 2020, using custom-designed survey questionnaires specific to this research. The survey data was collected from the young training participants during the first two weeks of the start of the training programme, using tablets on the Survey CTO platform.<sup>7</sup>

The questionnaire covered participants' background, including age, education, marital status, number of children and employment history. Household-level information was also collected, including type of house (pucca or kutcha), household head's occupation, number of earning members, land-holding, access to Below Poverty Line card, etc.<sup>8</sup> The survey also asked several questions related to future scenarios and hypothetical questions about earnings, occupation and post-training work placements.

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<sup>6</sup>Other than a BPL card, any unemployed youth belonging to households with Rashtriya Swasthya Bima Yojana (RSBY) card or Self-Help Group membership or a member accessing paid work under National Rural Employment Guarantee Scheme (NREGS) are eligible for the programme.

<sup>7</sup>This data does not demonstrate the effect of the training itself as the participants had just started the training when the baseline survey was conducted.

<sup>8</sup>*Pucca* and *kutcha* house refer to the houses built using strong materials such as cement, wood, iron, steel etc. and natural materials such as mud, brick, leaves, bamboos etc.

## 4.2 Measures of personality traits and soft skills

In order to measure the impact of personality and soft skills, the survey included the Big-5 measures of personality traits, as well as four measures of soft skills. In our survey we measure the Big-5 personality traits based on questions and variables adapted from [Soto and John \(2017\)](#). Fifteen questions measure five different facets of personality traits – (1) conscientiousness, (2) extraversion, (3) agreeableness, (4) emotional stability, and (5) open-mindedness. The answers are coded, ranging from “strongly agree” (1) to “strongly disagree” (5).<sup>9</sup> A higher score represents a more positive personality trait. We use principal component analysis (PCA), a widely used approach, to create aggregate scores for the five personality traits.

In addition to the Big-5 personality traits, we also try to capture the soft skills of the participants. Soft skills are traditionally considered complementary to hard skills, which are the abilities to perform a certain type of task or activity. Soft skills are now regarded as important labour market skills and include social aptitudes, language and communication capability, friendliness and ability to work in a team. We focus on four broad categories of soft skills: (1) personal skills or qualities, (2) inter-personal skills, (3) initiation and delivery skills, and (4) work orientation and knowledge of labour market skills. There are several statements under each of the four soft skill categories.<sup>10</sup> Similarly to the Big-5, participants answer in a five-point scale ranging from “strongly agree” (1) to “strongly disagree” (5). We use PCA to aggregate responses to a score for four soft skills measures, where a higher score represents a higher skill level.

## 4.3 Measures of aspirations

Our survey data also includes information on participants’ income aspiration in 12 months’ time, after completing the training programme. The question that is asked of the training participants is “What DO YOU THINK your monthly income will be 12 months after this training?” and the responses are recorded in Rupees. In addition to this question, the survey also asks about participants’ preferred income in 12 months after training completion: “What WOULD YOU WANT your monthly income to be 12 months after this training?” Both of these questions are appropriate measures of one’s aspiration, with one representing an expectation of what income is achievable, and the other representing a preference to earn a certain amount ([Bernard et al., 2014](#)). We use both these measures as the proxy of ‘expectation’ (expected income) and ‘aspiration’ (preferred income).

Apart from these two questions on future income, participants are also asked about an expected average salary in the job offered by the programme implementing agencies (PIAs) immediately after the training is completed. Though we use this variable in the

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<sup>9</sup>A table with all the statements under each of the Big-5 dimensions is provided in Appendix Table A1.

<sup>10</sup>Appendix Table A1 provides all the statements under each of the four soft-skills categories.

analysis we do not treat it as a proxy of aspiration: the expected salary level offered during the placement is a more realistic measure, driven by the information received by the participants about post-training job placements. As such, it does not capture the aspirations of the participants. All the indicators and survey questions are provided in Appendix Table A1.

## 5 Methodology

The empirical strategy follows a two-step procedure. In the first step, we quantify the expectation and aspiration gaps between groups with different social identity – caste-based and gender-based. In the second step, we estimate to what extent these expectation and aspiration gaps can be explained by other background characteristics and how much is attributed to social identity alone. The following model is initially estimated by Ordinary Least Squares (OLS) estimator:

$$Aspiration_i = \alpha_0 + \sum_j \alpha_{1j} Caste_{ij} + \alpha_2 Male_i + \mu_i \quad (1)$$

where  $Aspiration_i$  is defined as the log of aspired income of individual,  $i$ , and is a function of his/her social identity defined by binary indicators  $Caste_{ij}$  and  $Male_i$ .  $Caste_{ij}$  takes the value 1 if individual  $i$  belongs to caste  $j$ , where  $j \in (sc/st, obc, uc)$ , and 0 otherwise. We consider  $sc/st$  as the base category. However, equation (1) does not consider the fact that one's aspiration may also be determined by several individual and household-level factors that also vary by caste and gender. According to the literature on aspiration, human beings are unable and unwilling to make absolute judgements. Rather, they are constantly drawing comparisons from their environment, from the past or from their expectations of the future. As described by Stutzer (2004), people adapt to their previous income or consumption level and strive for higher aspiration. To capture these aspects we include previous earnings of the training participants, along with other individual characteristics in the vector of covariates denoted by  $Individual_i$ . The household-level characteristics that can also play a role in shaping one's aspirations are also included in the regression in  $Household_i$ . Moreover, people with higher ability or better motivation may have higher aspirations. These factors will mediate the aspiration gap between caste groups and different genders. Therefore, these characteristics need to be considered. To control for one's personality and soft skills we include personality trait measures and four measures of soft skills. We include these in  $Personality_i$  in equation (2):

$$Aspiration_i = \beta_0 + \sum_j \beta_{1j}Caste_{ij} + \beta_2Male_i + \beta_3Individual_i + \beta_4Household_i + \beta_5Personality_i + \eta_i \quad (2)$$

In the mediation analysis we estimate equation (2) where we sequentially add mediating factors based on individual-level characteristics (*Individual<sub>i</sub>*), household-level characteristics (*Household<sub>i</sub>*), and personality traits and soft skills (*Personality<sub>i</sub>*).

Next, we investigate intersectionality between caste and gender and test the double jeopardy hypothesis by adding an interaction term. The equation with the interaction term is written as:

$$Aspiration_i = \sigma_0 + \sigma_1UC_i + \sigma_2Male_i + \sigma_3UC_i \times Male_i + \sigma_4Individual_i + \sigma_5Household_i + \sigma_6Personality_i + \phi_i \quad (3)$$

In this equation, we combine Other Backward Class and Other Caste participants into one single category and refer them as upper caste (UC). Participants from SC/ST caste group remain as the reference category and we refer them as lower caste (LC). A significant  $\sigma_3$  will imply intersectionality between caste and gender.

To test the “double jeopardy” hypothesis we add the gender and caste interaction terms –lower caste male (*LC\_male*), upper caste female (*UC\_female*), and lower caste female (*LC\_female*) – as dummy variables where upper caste male (*UC\_male*) is the “dominant group” and the reference category in our next specification (4):

$$Aspiration_i = \gamma_0 + \gamma_1LC\_male_i + \gamma_2UC\_fem_i + \gamma_3LC\_fem_i + \gamma_4Individual_i + \gamma_5Household_i + \gamma_6Personality_i + \varepsilon_i \quad (4)$$

For double jeopardy or disadvantage, we should find negative and significant  $\gamma_1, \gamma_2$ , and  $\gamma_3$  where the magnitude of  $\gamma_3$  is approximately an addition of the magnitudes of  $\gamma_1$  and  $\gamma_2$ . In other words, the disadvantaged caste females as the doubly disadvantaged category should bear both caste and gender stigmas and thus, the aspiration gap should be the addition of caste gap and gender gap represented by,  $\gamma_1$  and  $\gamma_2$  respectively.

We also estimate all the four equations for the dependent variable *Expectation* defined as the log of expected future income of the training participants.

## 6 Analysis and findings

### 6.1 Descriptive findings

Figure 1a shows that average salary offered in the post-training job placement does not vary much by caste groups (first figure in 1a). However, aspired incomes after 12 months of training completion vary by caste (second and third figures in 1a). The density graphs for Expectation and Aspiration for disadvantaged caste (SC/ST), represented by the blue line in both panels, shows that SC/ST participants have lower aspired income, as compared to both OBC and OC. The density graphs for OC (represented by the green line) for both Expectation and Aspiration show the highest aspired income for this group. Similarly, for male and female participants (Figure 1b) there is no difference in average salary offered in post-training job, while aspired incomes vary by gender. The density graphs for Expectation and Aspiration show higher levels of aspired income for male participants (represented by the red line) compared to female participants.

Descriptive statistics about the background characteristics of the participants, disaggregated by caste and gender, are provided in Table 2. There are significant differences in the observable characteristics – both individual-level and household-level – for caste groupings. Participants from the lowest caste category – SC/ST – are likely to be less educated and enrolled in ‘Sewing machine operating’ and ‘Electrician/repairing’ courses, compared to the participants from OBC and OC. In terms of household-level characteristics, participants from the SC/ST caste are more likely to be from below poverty line households and with no agricultural land, compared to their counterparts. In an examination of personality traits, SC/ST participants score significantly lower in conscientiousness, emotional stability and open-mindedness, compared to participants from OBC and OC. Participants from the SC/ST caste group also score significantly lower in inter-personal skills, one of the four measures of soft skills, compared to both OBC and OC participants. Both personality traits and inter-personal skills are a reflection of one’s self-confidence and self-belief (Amirazodi and Amirazodi, 2011). Therefore, our descriptive findings suggest that participants from socially disadvantaged caste groups have somewhat lower self-confidence and self-belief, as compared to their counterparts in higher caste groups.

While looking at the gender differences in these background characteristics, statistically significant differences are observed only in individual-level characteristics; there is no significant difference in household characteristics, except a slightly higher number of male participants from the Muslim religion, compared to female. In terms of individual-level characteristics, female participants are more likely to be married, less educated and enrolled in ‘Sewing machine operating’ courses. Male participants score significantly higher in soft skills indices and all the Big-5 personality trait indices except extraversion, where female participants score significantly higher than their male counterparts.

Figure 2 presents the raw magnitudes of the expected future income (Expecta-

tion) and preferred future income (Aspiration) across caste groups and gender. The figure shows clear gaps in expectation and aspiration among caste groups and gender groups. Participants from SC/ST caste have the lowest income level, in terms of future expectation and preferred income, followed by OBC and OC, and the trends are almost the same for both male and female participants. The differences in aspirations, measured in monthly income in rupees, are statistically significant for both SC/ST and OBC, and SC/ST and OC, as presented in Table 2. Similarly, female participants have significantly lower aspiration levels than male participants. However, there is no significant difference in expected salary in post-training job placement between caste groups, and between male and female participants. This could be due to the uniformity in the nature of job placement in terms of monthly salaries that are offered to the DDU-GKY trainees after training completion. The expectation of the trainees is based on the information provided to them by the programme implementing agencies. However, the expected and preferred income after one year of training completion captures the future goals or ambitions of the young participants and as such are not influenced by the information provided.

## 6.2 Regression and mediation analysis

We have seen clear raw differences in aspiration across both social identities – caste and gender. However, these raw differences could be picking up the differences in various background factors that are presented in Table 4. It has already been shown that significant caste and gender differences exist in these background characteristics, personality traits and soft skills. Therefore, some of the effect of social identity may be channelled through these background factors and without considering these factors, the differences observed in aspirations cannot be attributed solely to one’s social identity. In this section we present the differences in expectation and aspiration estimated from equation (2) in Table 4. We sequentially add individual-level (col. 2), household-level (col. 3) and personality-related (col. 4) controls in the regression to see how caste-based and gender-based aspiration gaps are mediated by these factors.

The results suggest that although the caste-based differences in expectation and aspiration reduce in size, they remain sizable and statistically significant, even after controlling for all the background characteristics. On average, participants from OBC have 15% higher expected income and 16% higher aspired income, compared to SC/ST participants, after controlling for characteristics at the level of individual, household, personality traits and non-cognitive skills. The gap is even bigger between OC and SC/ST – 23% for Expectation and 22% for Aspiration. Looking at the gender gap, on average, male participants have significantly higher levels of Expectation (11%) and Aspiration (14%). The differences remain statistically significant at the 1% level across different specifications, after controlling for individual-level factors, personality traits, soft skills and household-level factors.



### 6.3 Intersectionality versus double jeopardy hypothesis

We examine the intersectionality of social identities by including interaction terms between caste and gender in the regression, as explained in the methodology (equation 3). We also test the double jeopardy hypothesis following the methodology proposed by [Greenman and Xie \(2008\)](#). We do this by investigating whether participants with multiple subordinate group identities (SC/ST female in our case) and single subordinate group identity (SC/ST male and OC female) have lower aspiration compared to the dominant group – OBC/OC male (presented in Table 6). For the ease of this exercise, we combine both OBC and OC into one single category and treat them as the dominant caste group.<sup>11</sup> Therefore, male participants belonging to OBC/OC caste group are the group with dominant social identities.

As shown in Table 5, the interaction term between caste and gender is not statistically significant for both Expectation and Aspiration, suggesting no existence of intersectionality in this case. However, we find strong evidence of double jeopardy in the results presented in Table 6. Female participants from SC/ST caste form the group with double sub-ordinate social identities and have the lowest levels of Expectation and Aspiration compared to participants from all other groups. The expectation and aspiration gaps for this group are 27% and 30% respectively, in comparison with the dominant group. The gaps are the approximate addition of caste disadvantages - represented by the difference between OBC/OC male and SC/ST male - and gender disadvantage, represented by the difference between OBC/OC male and OBC/OC female. For example, the expectation gap, 27%, is an approximate addition of caste disadvantages (17%) and gender disadvantages (12%) in expectation. Similarly, the aspiration gap, 30%, is an approximate addition of caste disadvantage, 15%, and gender disadvantage, 13% (Table 6). We also compare the aspiration levels between participants with single sub-ordinate group identities – SC/ST male and OBC/OC female – and find no statistically significant difference between them in both Expectation and Aspiration.

### 6.4 Sensitivity analysis

In this section we try to explore some of the mechanisms through which the caste gap and gender gap in income aspiration may vary. One way could be due to the prospects of different types of jobs that the trainees are offered after the completion of training. It is evident from the kernel density plots of post-training salary that there is no significant difference in expected salary across social groups. However, depending on their job prospects, the participants may form differential income aspirations one year after training completion.

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<sup>11</sup>Though OBC is considered as a socially backward caste group, they are better off as compared to SC and ST. Also, our findings suggest SC/ST trainees have significantly lower income aspirations than both OBC and OC. Therefore, we combine OBC and OC to compare with SC/ST for the ease of the intersectionality analysis.

Therefore, it is important to consider the different trades or training programmes in which the trainees are enrolled.

The choice of trade is potentially endogenous and it also depends on the availability of courses in the local training centres. Choice of training course could also be influenced by the social groups the participants belong to and is thus an outcome driven by social identity as well as aspiration. For example, half of the female trainees were enrolled in the trade sewing compared to less than one percent of male trainees (Table 2). This implies that gender plays a role in determining the choice of trade by directing young women towards a female-dominated occupation, sewing machine operator. Therefore, we do not include types of training in our main analysis, and perform a separate analysis including trade dummies. The results, after including these additional variables, along with the expected salary from post-training job placement, are presented in Table 7 and show that both the gender gaps and caste gaps in income aspirations reduce in size after including trade dummies and expected post-training salary. Moreover, the gender gap in Expectation disappears while a substantial gender gap (6%) still persists for Aspiration. Similarly, aspiration gaps remain substantial and statistically significant for caste groups except for UC. The results from this sensitivity analysis suggest that social identity plays a role in determining the income aspirations of young adults by influencing their choice of trade or the type of training programme.

## 7 Discussion and conclusion

In this paper, we investigate the link between social identity and individual aspiration using a unique dataset from India. The findings provide evidence that social identity, in the form of caste and gender, plays a role in shaping individuals' income expectation and aspiration. Female and disadvantaged caste individuals have significantly lower levels of expectation and aspiration about future income. We also find that caste disadvantage in aspiration does not vary by gender, and gender disadvantage in aspiration does not vary by caste, while the disadvantages accumulate and result in double jeopardy. Female trainees from the disadvantaged caste group, SC/ST, incur a double disadvantage which reduces their aspirations, when compared with every other group. This double disadvantage comes from belonging to two disadvantaged social groups – disadvantaged caste and female gender.

The findings from our primary survey data are particularly important as they help us to reflect on the livelihood potential and aspirations of young unemployed training participants from poor households in rural India., A caveat in generalising our results is that our sample of training participants are not representative of the entire rural youth population of India. Firstly, the data comes from two economically backward states. Secondly, there may be a selection issue as the youth with higher aspiration are likely to be self-selected into the training programme. However, our estimates of caste and gender gaps

are unlikely to be affected by selection if the propensity of individuals with higher levels of aspiration to self-select into the programme does not vary by gender or caste. On the other hand, it is possible that selection on the basis of aspiration is stronger for the disadvantaged groups in their decision to participate in the training programme. However, that would imply that our estimates are lower than the true caste/gender gap. These findings do shed light on the issue of caste and gender disadvantages and how they combine to shape individual aspiration in a pro-poor sample. Moreover, having a sample that is pro-poor and homogenous in terms of economic status helps us to analyse the impact of social identities, while holding the effect of class broadly unchanged.

There are arguments in favour of class-based reservations in India, removing reservations based on caste and gender (Darity et al., 2011; Deshpande, 2019). Our analysis implies that caste and gender have an important role to play in forming individual expectation and aspiration, even within a particular class. Therefore, our results highlight the importance of having affirmative actions based on caste and gender, rather than income/wealth or class, to promote equality in Indian society. Our findings contribute to the ongoing discourse by providing evidence that disadvantages can accumulate, depending on whether one belongs to multiple sub-ordinate group identities. While class, based on income/wealth, is an important dimension to consider, other social identities such as caste, gender, religion, sexuality etc., and their intersections, are also important facets to consider while designing policy instruments.

The findings also shed light on the issue of aspirational and forward-looking behaviour of individuals from different social groups. The existing literature has highlighted the importance of aspiration and the capacity to aspire in achieving better outcomes in life (Appadurai, 2004; Bernard et al., 2014). In a pro-poor sample like ours, this aspect is even more important, as aspiration may have long-term implications for overcoming poverty. If aspiration is driven by background characteristics and is shaped by social identity, it might hinder intergenerational mobility. Consequently, socially disadvantaged groups may continue to aspire less and be at the bottom of the social ladder. Therefore, it is imperative for policies to consider the inequality in psychological or behavioural aspects of individuals to promote a more egalitarian society.

## References

- AKERLOF, G. A. AND R. KRANTON (2010): "Identity economics," *The Economists' Voice*, 7.
- AKERLOF, G. A. AND R. E. KRANTON (2000): "Economics and identity," *The quarterly journal of economics*, 115, 715–753.
- (2002): "Identity and schooling: Some lessons for the economics of education," *Journal of economic literature*, 40, 1167–1201.
- (2005): "Identity and the Economics of Organizations," *Journal of Economic perspectives*, 19, 9–32.
- (2008): "Identity, supervision, and work groups," *American Economic Review*, 98, 212–17.
- ALDRIDGE, D. (1999): "Black women and the new world order: Toward a fit in the economic marketplace," *Latinas and African American women at work: Race, gender and economic inequality*, 357–379.
- ALMQUIST, E. M. (1975): "Untangling the effects of race and sex: The disadvantaged status of Black women." *Social Science Quarterly*, 56, 129–142.
- AMIRAZODI, F. AND M. AMIRAZODI (2011): "Personality traits and self-esteem," *Procedia-Social and Behavioral Sciences*, 29, 713–716.
- AMOTT, T. L. AND J. A. MATTHAEI (1996): *Race, gender, and work: A multi-cultural economic history of women in the United States*, South End Press.
- APPADURAI, A. (2004): "The capacity to aspire," *Culture and public action*, 59–84.
- BEALE, F. (1979): "Double Jeopardy: To Be Black and Female in The Black Woman: An Anthology (ed.) Toni Cadre," *New York: New American Library*.
- BEAMAN, L., E. DUFLO, R. PANDE, AND P. TOPALOVA (2012): "Female leadership raises aspirations and educational attainment for girls: A policy experiment in India," *science*, 335, 582–586.
- BECKER, G. S. (2010): *The economics of discrimination*, University of Chicago press.
- BEHRMAN, J. R. (1988): "Intrahousehold allocation of nutrients in rural India: Are boys favored? Do parents exhibit inequality aversion?" *Oxford Economic Papers*, 40, 32–54.
- BERNARD, T., S. DERCON, K. ORKIN, A. TAFFESSE, ET AL. (2014): *The future in mind: Aspirations and forward-looking behaviour in rural Ethiopia*, Centre for Economic Policy Research London.
- BERTRAND, M. AND S. MULLAINATHAN (2004): "Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination," *American economic review*, 94, 991–1013.
- BOWLEG, L. (2008): "When Black+ lesbian+ woman ≠ Black lesbian woman: The methodological challenges of qualitative and quantitative intersectionality research," *Sex roles*, 59, 312–325.

- BREWER, R. M. (1999): "Theorizing race, class and gender: The new scholarship of Black feminist intellectuals and Black women's labor," *Race, Gender & Class*, 29–47.
- BROWNE, I. (1999): "Latinas and African American women in the US labor market," *Latinas and African American women at work: Race, gender, and economic inequality*, 1–32.
- BROWNE, I., C. HEWITT, L. TIGGES, AND G. GREEN (2001): "Why does job segregation lead to wage inequality among African Americans? Person, place, sector, or skills?" *Social Science Research*, 30, 473–495.
- BROWNE, I. AND J. MISRA (2003): "The intersection of gender and race in the labor market," *Annual review of sociology*, 29, 487–513.
- CHO, S., K. W. CRENSHAW, AND L. MCCALL (2013): "Toward a field of intersectionality studies: Theory, applications, and praxis," *Signs: Journal of women in culture and society*, 38, 785–810.
- CHOO, H. Y. AND M. M. FERREE (2010): "Practicing intersectionality in sociological research: A critical analysis of inclusions, interactions, and institutions in the study of inequalities," *Sociological theory*, 28, 129–149.
- COLLINS, P. H. (2000): "Gender, black feminism, and black political economy," *The Annals of the American Academy of Political and Social Science*, 568, 41–53.
- COOK, T. D., M. B. CHURCH, S. AJANAKU, W. R. SHADISH JR, J.-R. KIM, AND R. COHEN (1996): "The development of occupational aspirations and expectations among inner-city boys," *Child development*, 67, 3368–3385.
- CRENSHAW, K. (1989): "Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics," *u. Chi. Legal f.*, 139.
- (1990): "Mapping the margins: Intersectionality, identity politics, and violence against women of color," *Stan. L. Rev.*, 43, 1241.
- DALTON, P. S., S. GHOSAL, AND A. MANI (2016): "Poverty and aspirations failure," *The Economic Journal*, 126, 165–188.
- DARITY, JR, W., A. DESHPANDE, AND T. WEISSKOPF (2011): "Who Is Eligible? Should Affirmative Action be Group-or Class-Based?" *American Journal of Economics and Sociology*, 70, 238–268.
- DESHPANDE, A. (2000): "Does caste still define disparity? A look at inequality in Kerala, India," *American Economic Review*, 90, 322–325.
- (2001): "Caste at birth? Redefining disparity in India," *Review of Development Economics*, 5, 130–144.
- (2004): "Decomposing Inequality: Significance of Caste," *The Dalit Question: Reforms and Social Justice*, 33–52.
- (2007): "Overlapping identities under liberalization: Gender and caste in India," *Economic Development and Cultural Change*, 55, 735–760.

- (2008): “Quest for equality: affirmative action in India,” *Indian Journal of Industrial Relations*, 154–163.
- (2019): “Double Jeopardy? Stigma of Identity and Affirmative Action,” *The Review of Black Political Economy*, 46, 38–64.
- DESHPANDE, A. AND S. SHARMA (2013): “Entrepreneurship or survival? Caste and gender of small business in India,” *Economic and Political Weekly*, 38–49.
- (2016): “Disadvantage and discrimination in self-employment: caste gaps in earnings in Indian small businesses,” *Small Business Economics*, 46, 325–346.
- DREZE, J. AND A. SEN (2004): “Gender inequality and women’s agency,” *Readings in indian government and politics: Caste, class and gender*, 338–387.
- DURASAMY, M. AND P. DURASAMY (1999): “Gender bias in the scientific and technical labour market: a comparative study of Tamil Nadu and Kerala,” *Indian Economic Review*, 149–169.
- EPSTEIN, C. F. (1973): “BLACK AND FEMALE-DOUBLE WHAMMY,” *Psychology Today*, 7, 57.
- GENICOT, G. AND D. RAY (2017): “Aspirations and inequality,” *Econometrica*, 85, 489–519.
- GREENMAN, E. AND Y. XIE (2008): “Double jeopardy? The interaction of gender and race on earnings in the United States,” *Social Forces*, 86, 1217–1244.
- HALLER, A. O. AND I. W. MILLER (1963): “THE OCCUPATIONAL ASPIRATION SCALE—THEORY, STRUCTURE AND CORRELATES.” .
- HALLER, A. O., L. B. OTTO, R. F. MEIER, AND G. W. OHLENDORF (1974): “Level of occupational aspiration: An empirical analysis,” *American sociological review*, 113–121.
- HANCOCK, A.-M. (2007): “When multiplication doesn’t equal quick addition: Examining intersectionality as a research paradigm,” *Perspectives on politics*, 5, 63–79.
- HNATKOVSKA, V., A. LAHIRI, AND S. PAUL (2012): “Castes and labor mobility,” *American Economic Journal: Applied Economics*, 4, 274–307.
- JAMES, S. M. AND A. BUSIA (1993): “A possible Black feminist link to social transformation?” *THEORIZING BLACK FEMINISMS*, 45.
- JASPAL, R. (2011): “Caste, social stigma and identity processes,” *Psychology and Developing Societies*, 23, 27–62.
- JENSEN, R. T. (2003): *Equal treatment, unequal outcomes?: Generating sex inequality through fertility behaviour*, Citeseer.
- KIJIMA, Y. (2006): “Why did wage inequality increase? Evidence from urban India 1983–99,” *Journal of Development Economics*, 81, 97–117.
- KING, D. K. (1988): “Multiple jeopardy, multiple consciousness: The context of a Black feminist ideology,” *Signs: Journal of Women in Culture and Society*, 14, 42–72.
- KINGDON, G. G. (2005): “Where has all the bias gone? Detecting gender bias in the intrahousehold allocation of educational expenditure,” *Economic Development and Cultural Change*, 53, 409–451.

- KLASEN, S. AND J. PIETERS (2015): "What explains the stagnation of female labor force participation in urban India?" *The World Bank Economic Review*, 29, 449–478.
- MACKINNON, C. A. (2013): "Intersectionality as method: A note," *Signs: Journal of Women in Culture and Society*, 38, 1019–1030.
- MAUME JR, D. J. (1999): "Glass ceilings and glass escalators: Occupational segregation and race and sex differences in managerial promotions," *Work and occupations*, 26, 483–509.
- MCCALL, L. (2005): "The Complexity of Intersectionality." *Signs: Journal of Women in Culture and Society* 30," .
- MULLINGS, L. AND A. J. SCHULZ (2006): "Intersectionality and Health: An Introduction." .
- MUNSHI, K. AND M. ROSENZWEIG (2006): "Traditional institutions meet the modern world: Caste, gender, and schooling choice in a globalizing economy," *American Economic Review*, 96, 1225–1252.
- OYSERMAN, D. (2009): "Identity-based motivation: Implications for action-readiness, procedural-readiness, and consumer behavior," *Journal of Consumer Psychology*, 19, 250–260.
- OYSERMAN, D. AND M. DESTIN (2010): "Identity-based motivation: Implications for intervention," *The Counseling Psychologist*, 38, 1001–1043.
- PAGE, L., L. L. GARBOUA, AND C. MONTMARQUETTE (2007): "Aspiration levels and educational choices: An experimental study," *Economics of Education Review*, 26, 747–757.
- QUAGLIA, R. J. AND C. D. COBB (1996): "Toward a theory of student aspirations," *Journal of research in rural education*, 12, 127–132.
- RAY, D. (2006): "Aspirations, poverty, and economic change." *Understanding poverty*, 1, 409–421.
- REID, P. T. (1984): "Feminism versus minority group identity: Not for black woman only," *Sex Roles*, 10, 247–255.
- SAHOO, S. (2017): "Intra-household gender disparity in school choice: Evidence from private schooling in India," *The Journal of Development Studies*, 53, 1714–1730.
- SAHOO, S. AND S. KLASEN (2018): "Gender segregation in education and its implications for labour market outcomes: Evidence from India," *IZA Discussion Paper No. 11660*.
- SARKAR, S., S. SAHOO, AND S. KLASEN (2019): "Employment transitions of women in India: A panel analysis," *World Development*, 115, 291–309.
- SOTO, C. J. AND O. P. JOHN (2017): "The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power." *Journal of personality and social psychology*, 113, 117.
- SPALTER-ROTH, R. AND C. DEITCH (1999): "'I Don't Feel Right Sized; I Feel Out-of-Work Sized" Gender, Race, Ethnicity, and the Unequal Costs of Displacement," *Work and Occupations*, 26, 446–482.
- STUTZER, A. (2004): "The role of income aspirations in individual happiness," *Journal of Economic Behavior & Organization*, 54, 89–109.

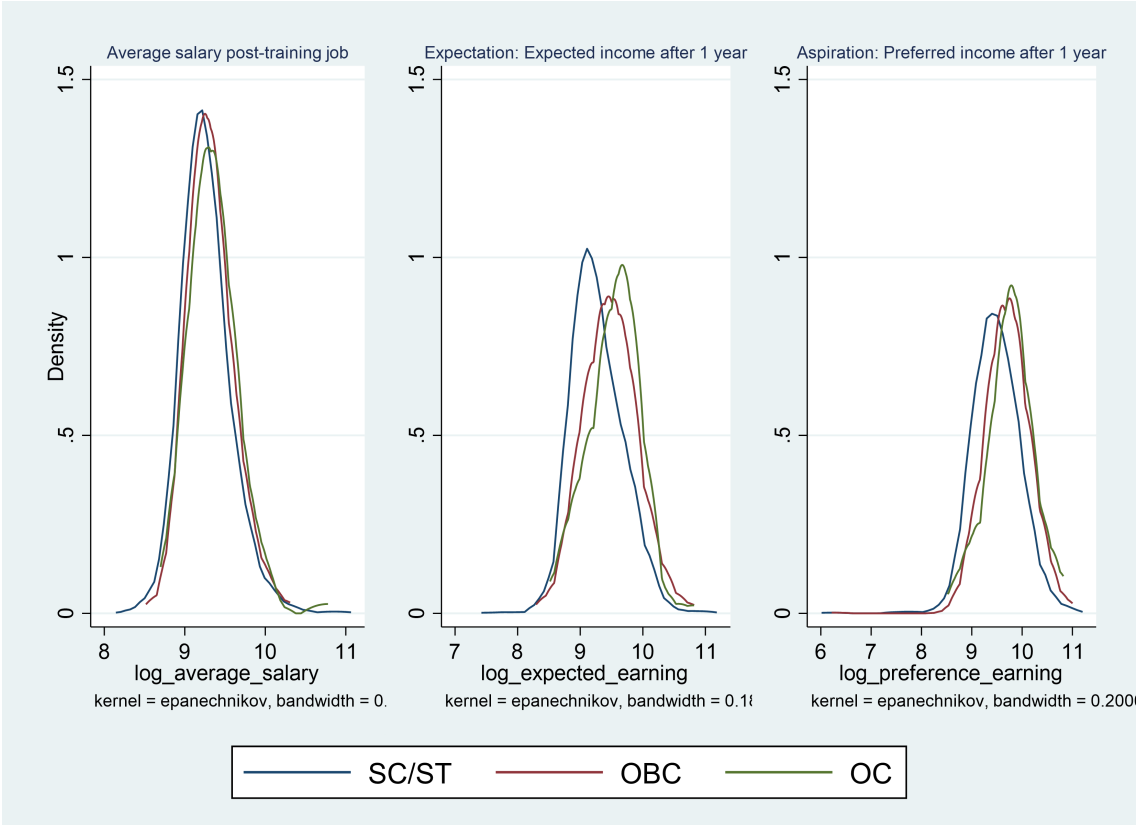
TAJFEL, H. (2010): *Social identity and intergroup relations*, vol. 7, Cambridge University Press.

TAJFEL, H., J. C. TURNER, W. G. AUSTIN, AND S. WORCHEL (1979): "An integrative theory of intergroup conflict," *Organizational identity: A reader*, 56, 65.



Figure 1: Kernel density estimates for post-training salary and aspired future incomes

(a) Panel A: By Caste



(b) Panel B: By Gender

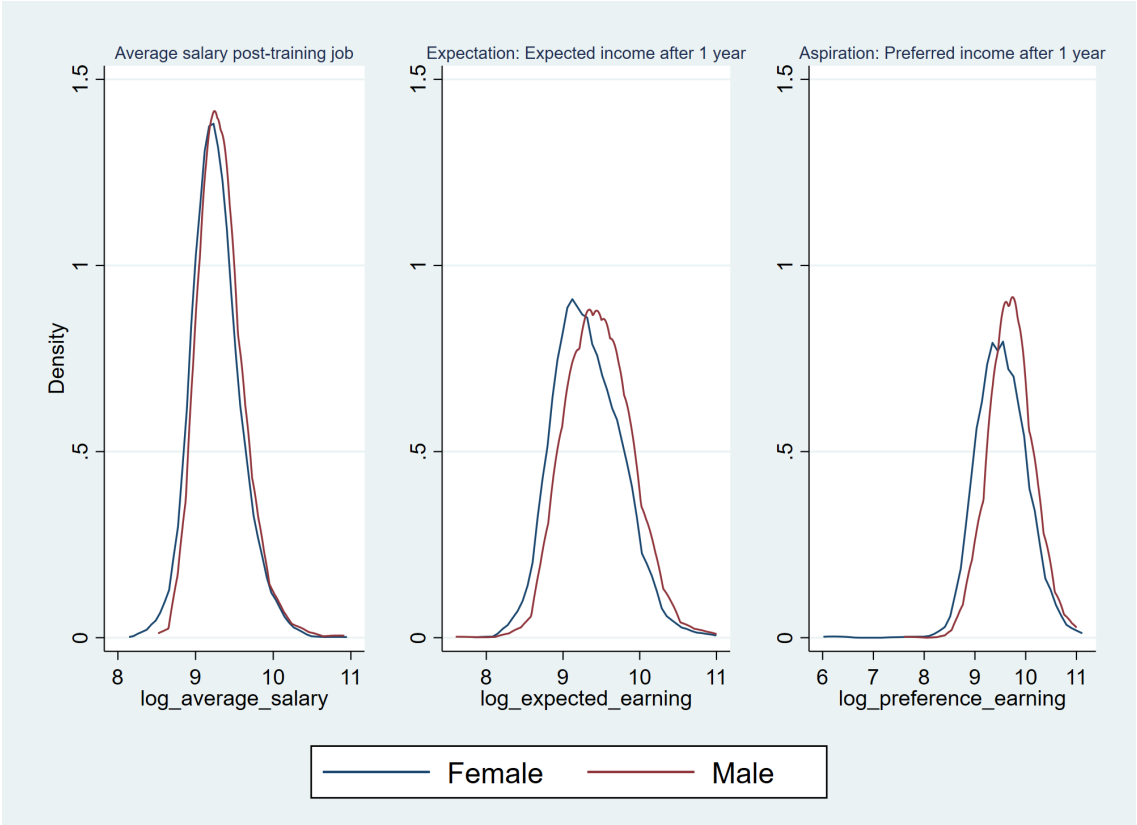


Figure 2: Raw differences in aspiration – by caste and gender

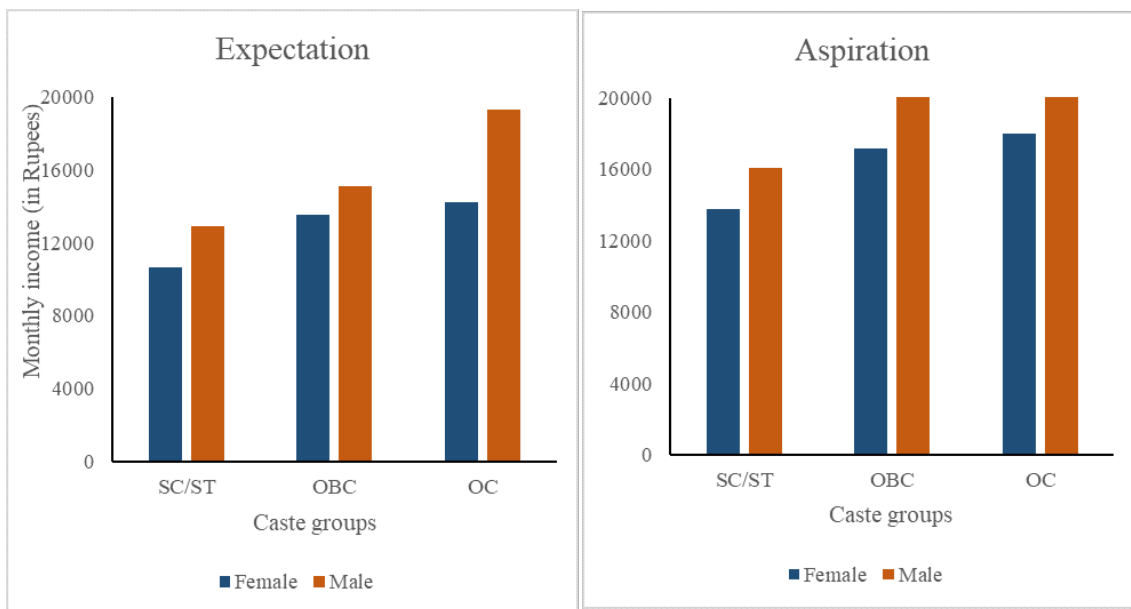


Table 1: Estimates of Poverty Ratio among Social Groups

	Rural		Urban	
	2004-05 [1]	2011-12 [2]	2004-05 [3]	2011-12 [4]
Scheduled Tribes	62.3	45.3	35.5	24.1
Scheduled Castes	53.5	31.5	40.6	21.7
Other Backward Classes	39.8	22.6	30.6	15.4
Others	27.1	15.5	16.1	8.2
All Population	41.8	25.7	25.7	13.7

Note: The poverty ratios, defined as the percentage of individuals below the official poverty line, among the social groups are estimated from the percentage distribution of persons of the respective social groups as obtained from the large sample survey consumer expenditure data of the National Sample Survey and the poverty line for all population.

Table 2: Descriptive statistics – by caste and gender

Variables	Caste differences					Gender differences		
	SC/ST	OBC	OC	Difference (OBC- SC/ST)	Difference (OC - SC/ST)	Female	Male	Difference
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Expectation: Expected earning	11348.25	14135.47	14744.05	2,787.22***	3395.80***	12012.39	13858.97	1846.57***
Aspiration: Preferred earning	14474.77	17988.13	19404.76	3,313.36***	4,929.99***	15224.29	17808.93	2,584.63***
<i>Individual characteristics</i>								
Age	19.7	19.84	19.8	0.15	0.1	19.6	19.99	0.39***
Married	0.06	0.11	0.11	0.05***	0.04	0.12	0.05	-0.07***
Education level: Primary, middle, and below	0.15	0.05	0.05	-0.10***	-0.10***	0.14	0.04	-0.10***
Education level: Secondary	0.4	0.34	0.35	-0.06***	-0.05	0.38	0.36	-0.03
Education level: Higher secondary and diploma	0.39	0.51	0.54	0.12***	0.15***	0.4	0.52	0.12***
Education level: Graduate and above	0.06	0.1	0.06	0.04***	0	0.07	0.08	0.01
Previous earning	859.62	688.75	770.59	-173.25	-88.03	295.19	1438.97	1,143.77***
Training course: Bank/hospitality/front office/retail assistant	0.17	0.39	0.41	0.22***	0.25***	0.372	0.145	-0.23***
Training course: Electrician/repairing/hardware	0.3	0.27	0.4	-0.03	0.10*	0.029	0.649	0.62***
Training course: Security guard/housekeeper/plumber	0.16	0.1	0.09	-0.07***	-0.07*	0.081	0.198	0.12***
Training course: Sewing	0.37	0.25	0.09	-0.12***	-0.28***	0.517	0.008	-0.051**
Average salary post-training placement	11057.92	11619.68	12223.53	561.76***	1165.61***	11050	11794.04	744.04***
<i>Household Characteristics</i>								
Religion: Hindu	0.91	0.91	0.75	0.01	-0.18***	0.91	0.89	-0.02
Religion: Muslim	0.01	0.09	0.25	0.08***	0.26***	0.05	0.07	0.03**
Religion: Other	0.09	0	0	-0.08***	-0.09***	0.05	0.04	-0.01
House type: kutchra	0.55	0.4	0.35	-0.15***	-0.20***	0.46	0.48	0.02
House type: Semi-pucca	0.16	0.3	0.28	0.14***	0.13***	0.23	0.22	-0.01
House type: Pucca Indira Awas Yojana	0.3	0.3	0.37	0.01	0.07	0.31	0.3	0
Below poverty line	0.88	0.81	0.67	-0.08***	-0.21***	0.83	0.85	0.01
Agricultural land	0.71	0.73	0.87	0.02	0.15***	0.73	0.71	-0.03
Household occupation: Family farm/business/self-employed	0.58	0.64	0.58	0.06***	-0.01	0.59	0.63	0.04
Household occupation: Salaried	0.16	0.17	0.28	0.01	0.11***	0.17	0.16	0
Household occupation: Casual wage earner	0.22	0.13	0.07	-0.08***	-0.14***	0.18	0.16	-0.02
Household occupation: Rentier/pensioner/unable to work	0.01	0	0.02	-0.01**	0.01	0.01	0.01	0
N	859	813	85			1031	738	

Table 2: Descriptive statistics – by caste and gender (end)

Variables	Caste differences					Gender differences		
	ST/SC	OBC	General/UC	Difference (OBC- ST/SC)	Difference (OC - ST/SC)	Female	Male	Difference
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
<i>Personality traits (indices)</i>								
Conscientiousness index	-0.078	0.084	-0.015	0.16***	0.06	-0.078	0.11	0.19***
extraversion index	-0.001	-0.004	-0.018	0	-0.02	0.071	-0.1	-0.17***
Agreeableness index	-0.015	0.012	-0.019	0.03	0	-0.065	0.091	0.16***
Emotional stability index	-0.109	0.106	0.138	0.21***	0.25**	-0.171	0.239	0.41***
Open minded index	-0.058	0.054	0.085	0.11**	0.14*	-0.043	0.06	0.10**
Inter personal skill index	-0.063	0.06	0.122	0.12***	0.19**	-0.066	0.093	0.16***
Personal skill index	-0.003	0.01	0.008	0.01	0.01	-0.058	0.084	0.14***
Initiation skill index	-0.027	0.031	0.014	0.06	0.04	-0.024	0.035	0.06
Work orientation skill index	-0.026	0.015	0.097	0.04	0.12	-0.052	0.071	0.12***
<i>N</i>	859	813	85			1031	738	

Note: Note: This table shows the mean of all variables. Column [1] shows the variable means for schedule caste/schedule tribe participants (SC/ST); Column [2] for other backward class (OBC); Column [3] for other caste (OC); Column [4] shows the difference in the variable mean between OBC and SC/ST; Column [5] shows the difference between OC and SC/ST. Column [6] depicts the mean of variables for females; Column [7] for males; Column [8] shows the difference in the mean between male and female participants. Expectation and Aspiration are defined as the expected monthly income and aspired monthly income in rupees of the training participants. The personality trait indices have been created by principal component analysis.

Source: Authors' own estimation from the baseline survey data of Xavier Institute of Social Service-University of Warwick, 2019-20.

Table 3: Summary statistics

VARIABLES	N	mean	sd
	[1]	[2]	[3]
Log expected earning	1,739	9.389	0.426
Log preferred earning	1,753	9.623	0.511
Caste (SC/ST)	1,757	0.489	0.5
Caste (OBC)	1,757	0.463	0.499
Caste (UC)	1,757	0.0484	0.215
Male	1,769	0.417	0.493
Age	1,769	19.76	2.492
Married	1,769	0.0865	0.281
Education (Primary, middle, and below)	1,769	0.0978	0.297
Education (Secondary)	1,769	0.37	0.483
Education (Higher secondary and diploma)	1,769	0.453	0.498
Education (Graduate and above)	1,769	0.0786	0.269
Monthly earnings	1,769	768.9	2,439
Religion (Hindu)	1,761	0.9	0.3
Religion (Muslim)	1,761	0.0574	0.233
Religion (Others)	1,761	0.0426	0.202
House type (kutchha)	1,765	0.47	0.499
House type (Semi-pucca)	1,765	0.226	0.418
House type (pucca-Indira Awas Yojana)	1,765	0.304	0.46
BPL card holder	1,754	0.838	0.369
Agricultural land holder	1,749	0.726	0.446
Household occupation (Family farm/business/self-employed)	1,768	0.61	0.488
Household occupation (Salaried)	1,768	0.166	0.372
Household occupation (Casual wage earner)	1,768	0.17	0.375
Household occupation (Rentier/pensioner/unable to work)	1,768	0.0543	0.227
pca conscientiousness index	1,769	-5.49E-09	1.158
pca extraversion index	1,769	1.14E-08	1.102
pca agreeableness index	1,769	-2.26E-09	1.168
pca emotional stability index	1,769	-3.52E-09	1.174
pca open mind index	1,769	3.67E-09	1.282
pca inter personal skill index	1,769	-6.32E-09	1.713
pca personal skill index	1,769	-8.47E-09	1.942
pca initiation skill index	1,769	-1.48E-08	1.514
pca work orientation skill index	1,769	1.10E-08	1.497
state (Jharkhand)	1,769	0.498	0.5
training type (Electrician/printing/repairing/hardware)	1,769	0.288	0.453
training type (Security guard/warehouse/welding)	1,769	0.13	0.336
training type (Sewing)	1,769	0.305	0.46

Note: Kutchha house refers to the houses built using natural materials such as mud, brick, leaves, bamboos etc. Pucca house type refers to those built using strong materials such as cement, wood, iron, steel etc. Indira Awas Yojana is a social welfare programme by the Indian Govt. to provide good quality housing for the rural poor in India. Log expected earning and log preferred earning are defined as the log of expected monthly income and log of aspired monthly income of the training participants..

Table 4: Regression results : mediation analysis

Variables	Expectation				Aspiration			
	No control	+ Individual control	+ Household control	+ Personality traits	No control	+ Individual control	+ Household control	+ Personality traits
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
<b>Caste (Reference category: SC/ST)</b>								
OBC dummy	0.21*** (0.02)	0.17*** (0.02)	0.15*** (0.021)	0.15*** (0.021)	0.24*** (0.024)	0.20*** (0.024)	0.16*** (0.026)	0.16*** (0.026)
OC dummy	0.26*** (0.056)	0.23*** (0.054)	0.23*** (0.055)	0.23*** (0.055)	0.29*** (0.063)	0.25*** (0.061)	0.22*** (0.065)	0.22*** (0.065)
<b>Gender (Reference category: Female)</b>								
Male dummy	0.15*** (0.02)	0.12*** (0.021)	0.12*** (0.02)	0.11*** (0.021)	0.17*** (0.023)	0.15*** (0.025)	0.15*** (0.025)	0.14*** (0.026)
Individual controls		Yes	Yes	Yes		Yes	Yes	Yes
Household controls			Yes	Yes			Yes	Yes
Personality traits and soft skills				Yes				Yes
Constant	9.22*** (0.015)	9.06*** (0.1)	9.08*** (0.104)	9.09*** (0.104)	9.43*** (0.019)	9.30*** (0.098)	9.37*** (0.103)	9.38*** (0.101)
Observations	1,728	1,728	1,685	1,685	1,741	1,741	1,699	1,699
R-squared	0.092	0.13	0.163	0.169	0.086	0.122	0.164	0.167

Note: Robust standard errors in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1. The dependent variables Expectation and Aspiration are defined as the log of expected monthly income and log of aspired monthly income of the training participants. Column [1] and [5] show the regression results without adding controls; Column [2] to [4] and Column [6] to [8] show the regression results progressively adding the Individual characteristics, household characteristics and personality traits mentioned in table

Table 5: Regression result: intersectionality

Variables	Expectation All control [1]	Aspiration All control [2]
Caste (UC)	0.14*** (0.026)	0.17*** (0.034)
Sex (Male)	0.10*** (0.028)	0.15*** (0.032)
UC × Male	0.02 -0.039	-0.03 -0.046
Individual control	Yes	Yes
Household controls	Yes	Yes
Personality traits and soft skills	Yes	Yes
Constant	9.10*** -0.104	9.37*** -0.101
Observations	1,685	1,699
R-squared	0.168	0.167

Note: Robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The dependent variables Expectation and Aspiration are defined as the log of expected monthly income and log of aspired monthly income of the training participants. UC includes OBC and OC.



Table 6: Regression estimates - group-wise differences in aspiration from 'dominant group'

Variables	Expectation All control [1]	Aspiration All control [2]
<i>Caste (Reference category: UC_male)</i>		
sex × caste (LC_male)	-0.17*** (0.031)	-0.15*** (0.035)
sex × caste (UC_fem)	-0.12*** (0.029)	-0.13*** (0.036)
sex × caste (LC_fem)	-0.27*** -0.029	-0.30*** -0.034
Individual control	Yes	Yes
Household controls	Yes	Yes
Personality traits and soft skills	Yes	Yes
Constant	9.37*** (0.108)	9.67*** (0.103)
Observations	1,685	1,699
R-squared	0.168	0.167

Note: Robust standard errors in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.  
The dependent variables Expectation and Aspiration are defined as the log of expected income and log of aspired income of the training participants. UC includes OBC and OC.

Table 7: Sensitivity analysis

Variables	Expectation	Aspiration
	[1]	[2]
Caste (OBC)	0.11*** (0.02)	0.11*** (0.025)
Caste (OC)	0.14** (0.055)	0.13** (0.062)
Male	0.04 (0.03)	0.06* (0.035)
Age	0 (0.005)	0 (0.005)
Married	0.04 (0.038)	0.04 (0.038)
Education (Secondary)	0.08*** (0.031)	0.08** (0.039)
Education (Higher secondary and diploma)	0.12*** (0.032)	0.14*** (0.04)
Education (Graduate and above)	0.12*** (0.047)	0.15*** (0.057)
Previous earnings	0 (0.005)	-0.00** (0.005)
Religion (Muslim)	0.05 (0.047)	0.04 (0.044)
Religion (Others)	-0.08 (0.052)	-0.18*** (0.05)
House type (Semi-pucca)	0.07*** (0.024)	0.14*** (0.031)
House type (pucca-Indira Awas Yojana)	0.06** (0.022)	0.06** (0.025)
BPL card holder	-0.04 (0.025)	-0.06** (0.029)
Agricultural land holder	-0.08*** (0.022)	-0.11*** (0.028)
Household occupation (Salaried)	0.06** (0.027)	0.03 (0.031)
Household occupation (Casual wage earner)	0.01 (0.025)	-0.06* (0.033)
Household occupation (Rentier/pensioner/unable to work)	0.06 (0.054)	0.02 (0.046)

Table 7: Sensitivity analysis (end)

Variables	Expectation	Aspiration
	[1]	[2]
pca conscientiousness index	-0.01 (0.008)	0 (0.013)
pca extraversion index	0.01 (0.009)	0.01 (0.011)
pca agreeableness index	0 (0.008)	0 (0.009)
pca emotional stability index	0.01 (0.008)	0 (0.01)
pca open mind index	0 (0.008)	0.01 (0.01)
pca inter personal skill index	0.01 (0.007)	0.01 (0.009)
pca personal skill index	0 (0.006)	0 (0.007)
pca initiation skill index	0.01 (0.009)	0 (0.013)
pca work orientation skill index	0 (0.007)	0 (0.009)
training type (Electrician/printing/repairing/hardware)	-0.04 (0.034)	-0.05 (0.039)
training type (Security guard/warehouse/welding)	-0.19*** (0.033)	-0.20*** (0.034)
training type (Sewing)	-0.24*** (0.027)	-0.28*** (0.034)
Average salary	0.00***	0.00***
Constant	0 9.10*** (0.106)	0 9.43*** (0.109)
Observations	1,685	1,699
R-squared	0.246	0.225

Note: Robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . The dependent variables Expectation and Aspiration are defined as the log of expected income and log of aspired income of the training participants.

# Appendix

Table A1: Indicators and definition used

Indicators	Questions/definitions
Expectation: Expected earning	What do you think your monthly income will be 12 months after this training?
Aspiration: Preferred earning	What would you want your monthly income to be 12 months after this training?
<b>Individual characteristics</b>	
Age	What is your age?
Married	Are you married?
Education level: Primary, middle, and below	What is the highest Education level completed?
Education level: Secondary	
Education level: Higher secondary and diploma	
Education level: Graduate and above	
Previous earning	Average monthly income during the last 12 months before training?
Training course: Bank/hospitality/front office/retail assistant	What trade/course have you registered for training?
Training course: Electrician/repairing/hardware	
Training course: Security guard/housekeeper/plumber	
Training course: Sewing	
Average salary post-training placement	What is the expected average salary of the job?
<b>Household Characteristics</b>	
Religion: Hindu	What is your Religion?
Religion: Muslim	
Religion: Other	
House type: kutcha	How is the house your household lives in?
House type: Semi-pucca	
House type: Pucca by Indira Awas Yojana	
Below poverty line	Does this household have a BPL card?
Agricultural land	Does your household own any agriculture land?
Household occupation: Family farm/business/self-employed	What best describes the occupation of head of HH
Household occupation: Salaried	
Household occupation: Casual wage earner	
Household occupation: Rentier/pensioner/unable to work	

Note: Kutcha house refers to the houses built using natural materials such as mud, brick, leaves, bamboos etc.

Pucca house type refers to the those built using strong materials such as cement, wood, iron, steel etc. Indira Awas Yojana is a social welfare programme by the Indian Govt. to provide good quality housing for the rural poor in India.

Table A1: Indicators and definition used (continued)

Indicators	Questions/definitions
<i>Personality traits (indices)</i>	
z_conscientiousness_index	I see myself as someone who does a thorough job I see myself as someone who tends to be lazy
z_extraversion_index	I see myself as someone who does things efficiently I see myself as someone who is talkative I see myself as someone who outgoing, sociable I see myself as someone who is reserved
z_agreeableness_index	I see myself as someone who is sometimes rude to others I see myself as someone who has a forgiving nature
z_emotional_stability_index	I see myself as someone who is considerate and kind to almost everyone I see myself as someone who worries a lot I see myself as someone who gets nervous easily
z_open_mind_index	I see myself as someone who relaxed, handles stress well I see myself as someone who is original, comes up with new ideas I see myself as someone who values artistic, aesthetic experiences I see myself as someone who has an active imagination
inter_personal_skill_index	I can present to a group and use well-organized format, the right words and clear speech I can read and understand written directions I can write information in a clear, logical, legible and correct manner I can work well in a team I can work well independently I can work with someone with different opinions than mine I can communicate well with people in various jobs and positions of leadership I can make decisions on my own I stand up for myself without putting others down

Table A1: Indicators and definition used (end)

Indicators	Questions/definitions
<i>Personality traits (indices)</i>	
personal_skill_index	I can identify and solve problems on my own I can set my own priorities and deadlines I am good at managing my time I am good at taking initiative and making decisions I am happy to have a go at things that are new to me
initiation_skill_index	I am a hard worker I know when I am good at something I am able to do things as well as most other people On the whole, I am satisfied with myself I learn from my mistakes and can accept feedback When my work is criticised, I try harder next time I usually come through difficult times with little trouble In uncertain times I usually expect the best I feel confident I can achieve what I want to do I feel positive about my future
work_orientation_skill_index	What happens to me in the future mostly depends on me I know how to find the kind of job I want I have the right skills and qualifications to find the kind of job I want I have the right experience to find the kind of job I want I think it will be easy for me to find the kind of job I want I know I can succeed at work Once you have a job it is important to hang on - to it even if you don't really like it A job is only a good job if it pays a lot A job is only a good job if it is permanent A job is only a good job if it is interesting A job is only a good job if it contributes to society A job is only a good job if it helps others

Table A2: Comparison: Baseline sample and sample from administrative survey

<b>Variables</b>	<b>Baseline data (2019-20)</b>	<b>PLFS data (2017-18)</b>
Caste (SC/ST)	48.9	28.92
Caste (OBC)	46.3	55.58
Caste (OC)	4.84	15.5
Male	41.7	52.12
Age	19.76	24
Marital status	8.65	55.84
Education (Primary, middle, and below)	9.78	64.14
Education (Secondary)	37	18.5
Education (Higher secondary and diploma)	45.3	11.64
Education (Graduate and above)	7.86	5.74
Monthly earnings	768.9	758.72
Religion (Hindu)	90	83.86
Religion (Muslim)	5.74	12.11
Religion (Others)	4.26	4.03
House type (kutchha)	47	-
House type (Semi-pucca)	22.6	-
House type (pucca-Indira Awas Yojana)	30.4	-
BPL card holder	83.8	-
Agricultural land holder	72.6	-
Household occupation (Family farm/business/self-employed)	61	55.65
Household occupation (Salaried)	16.6	9.69
Household occupation (Casual wage earner)	17	24.81
Household occupation (Rentier/pensioner/unable to work)	5.43	9.84
Observations	1,769	34,655

Note: Periodic Labour Force Survey (PLFS) data is a nationally representative large sample survey data. The sample includes 15 to 35 year old persons from rural households in Bihar and Jharkhand to make it comparable with our baseline sample. Some of the variables are not available in the PLFS survey.