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Choosing to be trained: Do behavioral traits matter?

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ABSTRACT

In this paper, we examine the determinants of self-selection into a vocational training program in India. To do this we combine data from an artefactual field experiment with survey data collected from the targeted community. We find that applicants and non-applicants differ in terms of socio-economic characteristics (measured using a survey), as well as selected behavioral traits (elicited using an artefactual field experiment). Even after controlling for a range of socio-economic characteristics, we find that individuals who have higher tolerance for risk, and are more competitive, are more likely to apply to the training program. This suggests that focusing only on the socio-economic and demographic characteristics might not be sufficient to fully explain selection into the program. Participants' behavioral traits are also crucial in influencing take-up rates in such programs. Our results suggest that as a methodology, there is valuable information to be gained by dissecting the black box of unobservables using data on behavioral traits.

1. Introduction

Worldwide recession along with increasing unemployment has renewed interest in training-programs that help workers accumulate additional skills to obtain new jobs or retain current ones. The economic benefits of participating in such training programs are substantial in developing countries.[1] However, these programs can help attenuate unemployment only if the targeted individuals volunteer to participate in the program. If instead, they refrain from participating in these specialized avenues of skill building, then increasing the supply of training schools and programs as a policy achieves little toward the final goal of improving labor market outcomes and welfare. For a policy-maker then, there is a case not just for promoting labor market training programs, but also to target them better to reap maximum welfare gains through increased

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[1] Attanasio et al. (2011), Maitra and Mani (2013), and Blattman et al. (2014) respectively find that training increases paid employment and/or self-employment opportunities for women in Colombia, India, and Uganda respectively.

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participation. To achieve this, it is crucial to identify the selection process that identifies the factors influencing participation into the program.

Our goal in this paper is to focus on the participation decision, i.e., to determine whether individuals who apply to a training program, and those who do not, differ systematically along measured behavioral traits and socio-economic characteristics.[2] Identifying these traits can help us design and promote skill-building programs more effectively in the future.

Self-selection has been previously studied in different contexts such as entrepreneurship (Cramer et al. (2002) in Netherlands; Bauernschuster et al. (2010) in Germany), participation into a labor market training program in the US (Heckman and Smith, 2004), a school incentive program in India (Barnhardt et al., 2009), a microfinance, soft skills and entrepreneurship program in Uganda (Bandiera et al., 2012), and a migration program for Tongans (McKenzie et al., 2010). However, all these papers have relied only on the use of survey data to estimate the participation or selection equation, leaving out possible sources of differences arising due to variation in behavioral characteristics between participants and non-participants. We aim to fill this crucial gap by examining the differences between applicants and non-applicants in a labor-market training program in terms of both behavioral traits and socio-economic characteristics. We do this by combining data from a unique artefactual field experiment and responses from primary surveys.[3]

The training program we examine was widely advertised to women between the ages of 18 and 39 years, having 5 or more grades of schooling, and residing in selected resettlement colonies (or slums) in New Delhi, India. Participants in the artefactual field experiment reported in this paper consisted of a randomly selected pool of applicants (who applied to the training program), and non-applicants (those who chose not to apply in spite of receiving the advertisement). Our artefactual field experiment was designed to elicit unobservable behavioral characteristics such as risk attitudes, confidence level, and attitudes toward competition. We also administered a detailed household survey, which allowed us to examine household characteristics that can further influence the self-selection.

Our results show that the probability of applying to the training program can vary in terms of both socio-economic and behavioral characteristics. We find that younger women, with prior experience in stitching and tailoring, not belonging to the Backward Caste (a description used by the Government of India to identify socially and economically disadvantaged groups), belonging to relatively richer households, and those with a higher dependency ratio (defined as the ratio of number of children aged less than 5 to the number of adult women in the household), have a significantly higher probability of applying to the training program. Further, the results from our artefactual field experiment reveal that women with greater preference for risk and competition are significantly more likely to apply to the training program. In contrast to what has been done previously in the literature, this suggests that focusing only on the socio-economic and demographic characteristics might not be sufficient to fully explain selection into the program. Participants' behavioral traits are important determinants of self-selection into labor market training programs and can influence take up rates in such programs.

While individuals can vary along many behavioral dimensions, we chose to investigate three important dimensions that can critically influence the choice of selecting/applying into the program. The first source is risk preference. It is well documented that risk attitudes affect important life choices including occupational choices (Castillo et al., 2010), investment in higher education (Belzil and Leonardi, 2009; Chen, 2003), and technology adoption (Liu, 2008). Additionally, in developing countries incomplete financial markets fail to smooth economic risks, and institutional hurdles make any investment fraught with uncertainty. As a result, only individuals with a higher tolerance for risk might be willing to engage in any investment activity. Joining a skill accumulation program is an investment activity that involves considerable time and monetary costs with often delayed and uncertain benefits. Consequently, one would expect that, risk attitudes might play a role in the decision to participate in the training program.

Second, we examine whether competitiveness influences the participation decision into the training program. Previous literature suggests that differences in competitiveness influence wage differences, educational choices, workplace choices, and influence the evolution of gender differences (Niederle and Vesterlund, 2007; Gneezy et al., 2009; Andersen et al., 2013; Flory et al., 2010; Buser et al., 2012). This leads us to hypothesize that differences in competitiveness possibly impact the decision to apply for an income enhancing training program as well.

Third, confidence is claimed to have a significant impact on labor market outcomes (Koszegi, 2006; Bénabou and Tirole, 2002), although credible empirical evidence on the effect of confidence on labor market outcomes is rare due to the difficulty in measuring and obtaining data on confidence. It has been pointed out that the level of confidence can affect wage rates (Fang and Moscarini, 2005), performance in financial markets (Biais et al., 2005), entrepreneurial behavior (Cooper et al., 1988; Camerer and Lovallo, 1999; Bernardo and Welch, 2001; Koellinger et al., 2007), and can explain the persistence of intergenerational inequality in income and education (Filippin and Paccagnella, 2009).

The three behavioral traits we have identified are obviously important for those interested in entrepreneurship and self-employment opportunities. These traits however, are also relevant for those interested in seeking wage employment. Job-seekers are typically exposed to risk related to the probability of finding a job, and face the uncertainty of receiving higher

[2] The training program is discussed in Section 2.1 of this paper. Maitra and Mani (2013) show that training increased the probability of being employed in casual or full-time work by 6.4 percentage points, and the probability of being self-employed by 4 percentage points.

[3] According to the taxonomy developed by Harrison and List (2004), the experiment reported in this paper would be termed an artifactual field experiment. That is, we examine behavior using similar rules and procedures as in a laboratory but employ a non-standard subject pool. Using a recent classification system developed by Charness et al. (2013), the experiment could also be referred to as an *extra-lab* experiment.