

# Train Them to Retain Them: Work-Readiness and Retention of First-Time Women Workers in India

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## **Abstract**

In this paper, I explore when and why workplace training facilitates the retention of first-time workers from historically underrepresented groups in formal employment. I argue that training conducted by experienced trainers is effective at preventing such workers from dropping out soon after they are hired. I also argue that experienced trainers promote retention by inculcating “work-readiness” learning needed to survive at work, concentrating on self-presentation, interpersonal communication, work-life separation and self-reliance. I develop and evaluate this theory using ethnographic, personnel and survey data on a sample of first-time women workers entering a large factory in India, and exploiting exogenous variation in their assignment to trainers with varying levels of experience. This paper contributes to the literature on organizational inequality by demonstrating that workplace training can successfully foster retention of first-time workers from historically underrepresented groups, through the agents delivering the training and content of training. It also contributes to the socialization literature by focusing on an understudied population of workers, thus highlighting the significance of experienced socialization agents in organizations and the mechanism of work-readiness learning explicitly imparted in socializing newcomers.

Certain groups in society have been historically underrepresented in the formal labor force, unable to experience the monetary and non-monetary benefits associated with work (Baron and Bielby 1985; Reskin 2003; Epstein 2007). Research suggests that members of these historically underrepresented groups face economic, social and psychological barriers that prevent them from participating in formal employment, such that even when they gain entry into organizations, they often drop out soon after joining (Smith 2005). In the United States, for example, first-time black employees, single mothers and inner-city youth have been shown to quit disproportionately within weeks of joining organizations (Ballen and Freeman 1986; Holzer and Lalonde 2000). Similarly, women in developing countries, who have traditionally been absent from the labor force, are now entering factory employment but quitting in large numbers soon after joining (*New York Times* 2016). This high early turnover rate negatively impacts the workers themselves, since longer employment tenures have been shown to result in better economic and personal-welfare outcomes (Kabeer 2002). Early turnover also harms employers by imposing recruitment and training costs and by reducing diversity in the workforce (Slichter 1921).

Some scholars of organizational inequality have touted workplace training programs as an important route to retention of first-time workers from groups historically underrepresented in formal employment (e.g., Doeringer 1969; Newman and Winston 2016). To the extent that first-time workers have deficient knowledge and skills due to pre-labor-market processes, these scholars theorize, workplace training can bring them up to speed and enhance their career prospects (Lynch 2007). Other scholars assert, however, that such training programs are often poorly designed and not meaningfully linked to existing organizational structures, and are therefore ineffective (Kalev 2009; Dobbin 2009). Thus, though training programs have been widely adopted, there appears to be little consensus about *when* they are effective and about the

*mechanisms* through which training facilitates early retention of first-time workers from underrepresented groups.

The literature on organizational socialization offers an approach to this question. This literature, which investigates the processes that organizations use to socialize newcomers (Ashforth, Harrison and Sluss 2014; Saks and Gruman 2012), has produced two important findings: first, that certain people in organizations, such as peers and supervisors, play a central role in socialization processes by acting as *socialization agents*, and, second, that the *content of socialization* is the conduit or mechanism whereby socialization processes influence work-adjustment outcomes (Bauer, Morrison and Callister 1998; Saks and Ashforth 1997). This literature has tended, however, to predominantly study white-collar work in Western economies, where newcomers have been exposed to the norms of formal employment since childhood (Jablin 2001; Ashforth, Harrison and Sluss 2007); thus it has not identified the socialization agents and content best suited to first-time workers from historically underrepresented groups. Therefore, this paper investigates the conditions under which socialization agents facilitate retention of such workers and also explores the learning that underlies this process, thus contributing to the literatures on organizational inequality and socialization.

To investigate this question, I obtained unrestricted access to data from a garment factory in India that hires and trains impoverished women workers, a population that has historically been absent from the workforce (*New York Times* 2015). Adopting a full-cycle research approach (Fine and Elsbach 2000), I first conducted ethnographic fieldwork at the factory. This fieldwork produced two hypotheses about training, socialization and retention. I then tested the hypotheses using unique personnel data on a sample of 510 newcomers over a two-year period, supplemented with a detailed survey of a smaller sample of 50 newcomers. A fortuitous feature

of my setting, which I exploit to identify causal relationships, is that newcomers to the factory are assigned to trainers who conduct their training and socialization in a quasi-random manner.

Using this data and identification strategy, I uncover two important conditions under which workplace training facilitates the retention of first-time workers from underrepresented groups: (1) when it is conducted by experienced trainers, and (2) when it consists of “work-readiness” learning focused on self-presentation, interpersonal communication, work-life separation and self-reliance. This paper contributes to the literature on inequality in organizations by demonstrating that, contrary to indications from prior research, workplace training can indeed foster retention of first-time workers from historically underrepresented groups, through the agents delivering the training and content of training. It contributes to the socialization literature by focusing on an understudied population of workers, and by highlighting the importance of experienced socialization agents and work-readiness learning in training programs.

Below, after reviewing the relevant literature, I use qualitative data to develop two main hypotheses. I then describe how I tested these hypotheses with personnel records and survey data, and end by discussing the implications of this research for theory and practice.

## **RETENTION OF FIRST-TIME WORKERS FROM HISTORICALLY UNDERREPRESENTED GROUPS**

The organizational inequality literature argues that, in both developed and developing countries, early turnover is high among first-time workers from historically underrepresented groups (Moen 1985; Brinton et al 1995; Alon et al 2001; Smith 2005; Alon and Haberfeld 2007). For example, over half the black employees hired by a U.S. technology firm quit within a year (Petersen et al 2000). Similarly in India, about one-quarter of new female employees at call centers leave within forty-five days (Ranganathan and Kuruvilla 2008). Given these high early turnover rates, and the

costs imposed on employers and workers alike (Slichter 1919), it is imperative to investigate how organizations can foster retention of such workers. Specifically, because these workers quit soon after joining, investigating the organizational processes that newcomers encounter early in their organizational careers could be fruitful: one such practice is workplace training.

### **Impact of Workplace Training Programs**

Workplace training programs have been the subject of abundant research in management, sociology and economics (Taylor 1911; Becker 1964; Carnevale and Goldstein 1983; Knoke and Kalleberg 1994; Delaney and Huselid 1996; Bishop 1996; Lynch and Black 1998; Dobbin, Schrage and Kalev 2015). Human-capital theorists have argued that training programs are a means to augment workers' job-related skills and thus their productivity (Schultz 1961; Mincer 1962). Internal-labor-market theorists have posited that employer-sponsored training programs generate attachment to the employer and elicit organizational identification (Doeringer and Piore 1971; Osterman 1987). Irrespective of effects on worker productivity or organizational identification, some institutional theorists have asserted that the introduction of training programs is merely a response to coercive, normative and mimetic institutional pressures faced by firms (Scott and Meyer 1991; Monahan, Meyer and Scott 1994).

While general theories on the role and emergence of training programs abound, inequality scholars have concentrated on empirically investigating the effect of such programs on first-time workers from historically underrepresented communities. Some research has examined the role of government-sponsored job-training programs in encouraging first-time workers to join the workforce; the evidence is mixed on whether such public programs are effective (Martinson and Strawn 2003; Heckman et al 1999; LaLonde 1995; MDRC 2001). Other research has focused on in-house training programs that teach job skills by means of formal technical

education and informal coaching conducted by workplace supervisors (Doeringer 1969, National Civil Service League 1973; Holzer and Martinson 2005). Examples of such programs include Kaiser Aluminum's in-plant training program to make craft jobs accessible to black workers (Kalev 2009) and Bell System's program to accommodate new workers with educational deficiencies (Doeringer 2012).

On the one hand, scholars argue that such employer-sponsored training programs have the potential to reduce poverty and inequality by promoting retention of newcomers from minority communities (Kalleberg and Sorenson 1979; Holzer and Martinson 2005). To the extent that first-time workers from underrepresented groups lack skills because of pre-labor-market disadvantages, employer-sponsored job training helps them sustain employment (Doeringer 1969). Such training also allows workers to earn an income while improving their human capital, which motivates them to stay with the organization longer (Gritz 1993; Lynch 1992; Holzer 2001). On the other hand, scholars argue that in practice organizational training has not lived up to its potential to compensate for pre-labor-market disadvantages, and has had no effect on the careers of first-time workers from underrepresented communities (Solie 1968; Appelbaum and Berg 2001; Kalev 2009). Some scholars assert that training programs are often poorly designed and not meaningfully linked to actual organizational structures and practices, producing no discernible effect on retention (Hodson et al 1994; Dobbin 2009; Kalev 2009). Other scholars posit that training programs are sometimes adopted not to address the problem of early turnover but merely as a ceremonial gesture to reduce legal risk (Yang 2006).

Given this lack of consensus about when and why workplace training facilitates organizational retention, I turn to the literature on organizational socialization. In this literature, which has long studied training and socialization in white-collar settings in Western economies, I

discovered two concepts that have thus far been absent from the inequality literature's analysis of training: the agents who deliver training and the content of that training.

### **Socializing Organizational Newcomers**

Socialization – the process by which individuals learn to fit into a particular social context, whether a job role, occupation or organization – has received considerable scholarly attention (for reviews, see Ashforth, Harrison and Sluss, 2014; Saks and Gruman 2012). Findings from this rich body of work attest to the importance of socialization processes for people's eventual integration into groups and organizations (e.g., Bauer et al 2007; Saks and Ashforth 1997; Allen 2006). This research has also linked various forms of socialization to specific adjustment variables, ranging from attitudes and behaviors to outcomes such as satisfaction and turnover (e.g., Van Maanen and Schein 1979; Bauer et al 1998).

Specifically, scholars have found that organizational insiders, particularly peers and supervisors, play a central role in socialization processes by acting as socialization agents (Reichers 1987; Bauer, Morrison and Callister 1998; Kram 1988; Ramarajan and Reid 2016). Some organizations create formal roles (such as trainer or mentor) for socialization agents; elsewhere the role of socialization agent is informal (Saks and Gruman 2012; Sluss and Thompson 2012). Agents of both types typically provide advice, job instruction and social support (Louis, Posner and Powell 1983). Comparisons of socialization agents in different roles have found that some types of agents are more relevant than others for specific domains of socialization (Morrison 1993). For example, supervisor agents provide more role and performance information; co-worker agents provide more group-specific and social information (Ostroff and Kozlowski 1992). In the literature, however, “the emphasis has been on coworkers and supervisors” (Saks and Gruman 2012:42); less attention has been paid to formal socialization

agents, and in particular to individual differences among agents enacting the same role and to how these differences could affect outcomes.

Scholars have also argued that the content of socialization – what is actually learned – lies “at the heart of any organizational socialization model” and is the conduit or mechanism by which socialization influences adjustment outcomes (Cooper-Thomas and Anderson 2005: 117). For socialization to effectively bring a newcomer into the fold, the newcomer should come to know and understand the norms, values, tasks and roles that typify group and organizational membership (Saks and Ashforth 1997). Indeed, multiple typologies of socialization content have been proposed and tested (Chao et al 1994; Ostroff and Kozlowski 1992; Taormina 1994; Morrison 1993; Morrison 1995). These typologies agree that learning mostly entails familiarization with (1) the job role and (2) the nature of the organization. However, scholars have called for more research on “specific learning domains” that might be relevant in particular contexts or among particular populations of workers (Ashforth et al 2007: 20).

Overall, socialization research has predominantly studied white-collar work in Western economies (Bauer et al 1998; Saks and Ashforth 1997). Fisher (1986: 105) observed that this research has “tended to concentrate in the same few occupations,” using well-educated white-collar samples. Ashforth and colleagues (2007: 53) also noted that “we know relatively little about socialization in international contexts.” Importantly, white-collar workers in Western economies have been exposed to workplace and occupational norms even before they enter the workforce by their families, educational institutions and by the media (Jablin 2011).

In this paper, I study the impact of training and socialization on retention in a blue-collar organization that hires first-time workers from a historically underrepresented group in India. I investigate the conditions under which socialization agents effectively foster early retention, and

explore the specific learning that underlies this process. I thus contribute to our understanding of both organizational inequality and socialization.

## **THE SETTING: AN INDIAN GARMENT FACTORY EMPLOYING FIRST-TIME WOMEN WORKERS**

In India, women have historically had limited employment opportunities and have thus been underrepresented in the labor market (*New York Times* 2015). However, over the past decade, a new wave of garment-manufacturing enterprises have begun hiring rural women entering the labor force for the first time (*New York Times* 2016). Routinely, a handful of women with no prior work experience “walk in” to these factories seeking employment as entry-level sewing-machine operators. I obtained access to one such garment-manufacturing factory in the southern Indian state of Karnataka.

The factory that I studied is typical of export-oriented factories in Karnataka. It specializes in menswear, including shirts, trousers and jackets, and earns about \$0.5 million in annual revenues. The factory employs 2,000 workers, over 90 percent of whom are women. Like other factories in the region, it recruits predominantly from nearby villages where women have few alternative sources of employment; as such, more than half of the women the factory employs are first-time workers.

These new employees, who typically come from impoverished circumstances, can earn a stable income for the first time in their lives and help support their households. Though local women value the unprecedented opportunity to earn an income at the factory, a sizeable proportion of first-time women workers quit and voluntarily drop out of the workforce within months of joining. Those who manage to hold onto their jobs are fundamentally transformed by formal employment; others are simply unable to sustain employment, despite wanting to work

and recognizing the benefits of regular employment.

The factory that I studied has earnestly tried to retain all the women who join since employee churn is expensive. It has consistently offered an above-market wage and other attractive benefits such as child care. Given that one of the first organizational programs that the factory offers these women is training, this paper explores key features of the factory's training program and investigates how it impacts early retention of first-time women workers.

### **The Training Program**

Newcomers enter a training program after they are hired to learn a specific garment operation. The program is individualized; that is, each newcomer is trained one-on-one by a single trainer. The focus of the program is on practical, on-the-job skills. A newcomer is assigned to an empty sewing machine on the line where she will eventually work in; it is there, on the production line, that training is conducted. For the most part, a newcomer sits at her designated machine while the trainer stands beside her offering instructions and suggestions. During training, therefore, newcomers interact almost exclusively with their trainers.<sup>1</sup>

On average, training lasts about three weeks. After learning to operate a sewing machine, newcomers are taught a specific operation, such as stitching a shirt collar; they practice on "mock pieces," first to execute the operation satisfactorily and then to increase their speed. Once they achieve "80 percent efficiency" – a measure used internally to evaluate the number of pieces produced in an hour – they are deployed on the production line.

### **FULL-CYCLE RESEARCH DESIGN**

To investigate the impact of the training program on early retention of first-time women workers at the factory, I adopted a full-cycle research approach, which combines inductive and

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<sup>1</sup> Because training is not conducted in a classroom or in groups, peer and cohort effects are minimal.

deductive methodologies (Fine and Elsbach 2000; Cialdini, 1980). I first conducted ethnographical fieldwork and interviews at the garment factory, which generated my theory and hypotheses. I then tested the hypotheses using unique personnel data on the training and attrition outcomes of individual workers, supplemented by a hand-collected survey.

### **Qualitative Methods**

The ethnographic observation I conducted with two research assistants between June 2014 and June 2015 produced over 200 single-spaced pages of fieldnotes about the training process. To prevent bias in our observations, this qualitative data was collected prior to seeing any quantitative data. I also conducted 45 in-depth interviews at the factory, with all eleven trainers and samples of newcomers, supervisors, industrial engineers and human-resource managers. Observation focused on newcomers' experiences, from the time they first "walked in" to the factory through the recruitment and training processes to deployment on the lines. The interviews concentrated on stresses that newcomers faced at the workplace, their conflicts over whether to remain at the factory, and individual trainers' approaches to training. I also conducted five "home visits" to newcomers in their villages, on holidays or on weekends, to familiarize myself with their home lives and to meet their families.

I analyzed this qualitative data inductively, using Atlas.ti (Glaser and Strauss 1967; Strauss and Corbin 1990). Analysis consisted of multiple readings of field and interview notes, composition of analytical memos, and tracking of patterned activities and issues over time.

## **QUALITATIVE FINDINGS AND HYPOTHESIS DEVELOPMENT: THE AGENTS AND CONTENT OF TRAINING**

### **Heterogeneity among Trainers**

I began my fieldwork by observing and interacting with a sample of first-time women workers

when they arrived at the factory seeking a job. My fieldnotes describe these women as “very nervous . . . and also incredibly quiet, quite the contrast from the women working in the lines who chat away with abandon.”<sup>2</sup> My notes describe my effort to converse with one 24-year-old first-time worker: “I could barely hear her voice as she spoke, she shied away from making eye contact, her hands and legs were shaking . . . and her mouth quivered as she spoke.” The hiring manager explained: “Most of these women have rarely stepped out of their home. . . . They’ve never seen anything like a factory before, and everything and everyone is intimidating to them.”

Within a few weeks, however, some but not all of the women exhibited a dramatic transformation in self-confidence. For example, a month after I first met her, the same 24-year-old called to me across the shopfloor, “Hi, Akka [big sister], have you eaten breakfast yet?” This time she looked right at me, and her body language exuded self-assurance. But this kind of transformation was not universal; other newcomers remained shy and diffident. These varied trajectories were apparent to others as well. As one HR manager said, “Yes, some change fast. They open up a lot more and talk more. In fact, it is important that they change and adjust in the first three months . . . or else they quit and never come back.” My observation of the sample of newcomers revealed that, indeed, many first-time workers quit within less than three months; these dropouts seemed disproportionately to be those who remained “scared, timid and hesitant when answering questions.” For example, one woman who left the factory after six weeks said to me, “I am disappointed in myself . . . but I just couldn’t do it.”

To pinpoint why some first-time women workers persisted and others did not, I interviewed several managers and veteran workers. Both groups emphasized the important effect of training and, in particular, of trainers on retention. “The trainer has the important task

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<sup>2</sup> Quotations in this section not explicitly attributed to specific informants are from my fieldnotes.

of preparing the newbie for the world of work – and especially for the world of garment-factory work, which is a high-stress, physically challenging work environment,” one manager said. “If the trainer does their job well, the workers are set for life.” Management’s position was that all trainers did their job well, but the word on the shopfloor was that “the experienced ones are better.” One worker listed the experienced trainers by name and commented, “These trainers are very good. All the workers love them.”

Training in this factory was conducted by eleven trainers, all former line employees who had been promoted to the role of trainer after demonstrating exceptional skill at a wide range of garment operations. The length of the trainers’ experience varied, and I observed that the pedagogical approach of the experienced trainers differed strikingly from that of their less-experienced counterparts. The trainers had considerable autonomy; they were free to interpret training protocols and manuals as they saw fit. Thus the training experiences of women assigned to trainers varied markedly: about half of the first-time women workers I was observing were assigned to experienced trainers, and these newcomers seemed to emerge from training better adjusted and they stayed at the factory longer.

The literature on organizational inequality has paid scant attention to the question of how different trainers might differentially affect worker retention.<sup>3</sup> The socialization literature has theorized about the individuals responsible for training in organizations, designating them *socialization agents*, and has shown that they play an important role in newcomers’ adjustment (Saks and Gruman 2012; Bauer et al 1998). Moving beyond this literature, however, my field data suggest not only that formal socialization agents play a central role in socialization but also

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<sup>3</sup> For a notable exception, see Bezrukova et al (2012).

that individual agents with varying levels of experience enact the same role differently, differentially affecting retention. Building on this field observation, I hypothesize:

***Hypothesis 1:*** When first-time women workers are assigned to experienced trainers, they are more likely to be retained.

### **Work-Readiness Learning**

Having observed newcomers assigned to both experienced and less-experienced trainers, I was intrigued by how different trainers fostered retention. My observation revealed important differences in the content of the training provided by experienced and less-experienced trainers. Less-experienced trainers focused virtually exclusively on job-specific knowledge, such as “ensuring that operators excel in production” but experienced trainers additionally imparted knowledge on what I call *work-readiness*. One experienced trainer characterized work-readiness as “the right mindset to deal with work so that [workers] don’t break down at every slight thing.” Another observed that newcomers “need to be taught how to interact with employees, how to stay motivated. . . . Just knowing the operation is not enough.” Coding of my qualitative data revealed that work-readiness in this context has four components, to which experienced trainers devoted roughly equal attention: self-presentation, interpersonal communication, work-life separation and self-reliance. A focus on these four components that could affect newcomer retention distinguished the training approaches of experienced trainers from those of less-experienced counterparts.

***Self-Presentation.*** Experienced trainers advised newcomers, in a way that less-experienced trainers did not, on how to present themselves at work. This advice ranged from “what to wear to work” and how to “smile, be cheerful and appear confident” to fundamental aspects of learning to work such as time discipline. An experienced trainer told me, for example, that “I advise my trainees on how to make sure they reach the factory by nine in the morning

[because] the idea of reaching somewhere by a certain time is new to them.” Newcomers corroborated the value of such advice. One new employee, assigned to an experienced trainer, said she she used to “wake up when the sun rose, finish her household chores, walk to the bus stop and take the first bus that came by,” resulting in scolding at the factory gate, until her trainer helped plan her commute. A newcomer assigned to a less-experienced trainer said that “no one has advised me on this issue, and to this day I’m always late.”

***Interpersonal Communication.*** Experienced trainers also taught their trainees interpersonal communication skills. These skills similarly extended beyond simply learning the norms of communication at the factory to fundamentally learning how to approach and talk to strangers. All trainers, experienced or not, seemed to agree that, as one put it, “if [newcomers] don’t talk openly and get over their shyness, they will not learn the operation properly.” More importantly, “they will never survive on the lines [where] there are lots of people around” and “supervisors often shout and coworkers often comment on newcomers.” Experienced trainers used multiple strategies to get newcomers to “open up.” One said, for instance, that “I often reveal personal information about myself, and disclose how scared I was when I first joined work, in order to get trainees to talk.” I observed another experienced trainer introducing a trainee to other workers on the line and encouraging her to “make friends.” Less-experienced trainers, by contrast, asserted that whether or not trainees acquired such interpersonal skills “depended on [their] nature,” and that “some automatically pick it up while others don’t.”

***Work-Life Separation.*** The experienced trainers whom I observed continually advised their trainees to strike a balance between home and work. One asserted that “failing to separate work and home lives is a key reason why women quit. . . . These women face a lot of personal issues that affect them at work. They get up at 5 a.m., do everything at home, handle chores,

cook, clean, take care of children and, to top it all, they often have financial problems and unsupportive family members.” Each of the experienced trainers I interviewed described trainees who, in the words of one trainer, “cried every day worrying about their family and personal problems.” Experienced trainers thus considered it crucial to understand each trainee’s personal situation and to “counsel these women on how to deal with balancing work and personal issues.” Less-experienced trainers, by contrast, avoided “messy personal issues.” Thus newcomers assigned to less-experienced trainers more often reported being “exhausted” and “stressed.” One even reported “brain freezes as a result of home and work pressures.” By contrast, newcomers assigned to experienced trainers more typically reported that they were, in the words of one trainee, “getting used to managing” both home and work.

***Self-Reliance.*** Finally, experienced trainers saw it as part of their job to help newcomers become self-reliant enough to take care of themselves at the factory. In the words of one trainer, “When the newcomers come in, . . . [they are unfamiliar with] even the basics [of] how to eat or go to the bathroom [in public].” Also, she added, “Work pressure is something completely new to the employee,” causing them to neglect their own needs even more. Thus, one experienced trainer explained, they “needed to treat [newcomers] like children at first.” For example, one experienced trainer said that she “insists on [her newcomers] drinking water regularly, shows [them] around the line [so that they] know where the restrooms are” and advises them “on eating right and on time, because some operators skip meals to catch up on work.” According to one trainer, many newcomers assigned to experienced trainers had “established a routine where they come into work at 9 a.m., drink water and visit the restroom at 10 a.m., have tea at 11 a.m. and lunch at 12:30 p.m.” Less-experienced trainers, by contrast, asserted that these matters were “too

basic and personal” and “cannot be taught.” Interviews with newcomers assigned to less-experienced trainers revealed that many of them “did not know where the bathroom was.”

The organizational inequality literature has paid little attention to such basic training content (Dobbin, Schrage and Kalev 2015); the socialization literature, in keeping with its focus on white-collar workers in Western economies where newcomers are more likely to already understand the basics of work-readiness (Ashforth et al 2007), has focused on familiarization with the job role and the organization. My field data uncover work readiness as an under-theorized socialization content area and further delineate four dimensions of work readiness. Building on this qualitative data, I hypothesize:

***Hypothesis 2:*** Experienced trainers foster retention of first-time women workers by imparting work-readiness learning about self-presentation, interpersonal communication, work-life separation and self-reliance.

Having derived two testable hypotheses from my fieldwork, about when and why organizational training might be effective in facilitating early retention, I collected quantitative data on the training and work experiences of a sample of first-time women workers to test these hypotheses.

## **QUANTITATIVE DATA, MEASURES & METHODS**

The quantitative data consist of personnel records on a main sample of 510 first-time women workers who entered the garment factory over the two-year period from October 2012 through September 2014, and survey data on a survey sample of 50 first-time women workers. None of these women had prior employment experience, as revealed by their job applications. The personnel records provided data on the newcomers’ (1) *baseline characteristics*, such as age and educational level; (2) specific information from *training records*, such as trainer assignment and length of training; and (3) *workplace outcomes*, such as daily output and attrition. Absent personnel data on the “work readiness” mechanism, I surveyed 50 newcomers who graduated

from training and entered the lines in January–February 2015. The 15-page survey captured data on these newcomers’ training experiences and enabled me to measure their work-readiness using a scale based on my ethnographic observation.

Table 1 presents descriptive statistics on the 510 newcomers in my main sample. It is striking that 12 percent left the factory within one month and 46 percent left within three months of joining. Clearly, numerous women are unable to sustain employment despite wanting to work and recognizing the benefits of regular employment. Demographically, the survey sample did not differ from newcomers in the main sample who joined the factory during the same two-month period. However, workers entering the factory in different seasons vary slightly in their demographic characteristics; thus, the survey sample was more likely to be married and to have children than the main sample of 510 workers who had joined over a two-year period. Given these differences, I control for a host of demographic variables, including marital status and number of children, in all my models, and my main analyses include fixed effects for every month/year combination between October 2012 and September 2014. For a discussion of the implications of possible differences between the survey sample and the main sample, see the Limitations section.

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To test Hypothesis 1, I use the main sample to estimate the impact of assignment to experienced trainers on newcomers’ likelihood of retention. I use OLS models predicting newcomer retention as they offer an easy percentage interpretation given the dichotomous dependent variable; results are robust to the use of logit or probit models instead. Standard errors in all models are clustered by trainer, allowing me to account for error structures robust to a group-level covariance. To test Hypothesis 2, I similarly use an OLS model with standard

errors clustered by trainer to estimate the impact of assignment to an experienced trainer on work-readiness, this time using the survey sample. I use this approach rather than adding the work-readiness variable to the regression estimating retention because data for this mechanism is unavailable for the 510 newcomers in the main dataset.

### **Dependent Variable: Organizational Retention**

Using attrition data captured by the firm for the main sample,<sup>4</sup> I measured organizational retention in three ways: (a) the probability of remaining at the firm one month after being hired, (b) the probability of remaining three months post-hire, and (c) the probability of remaining long-term. Most of the analyses reported here use the second measure. I used a three-month cutoff because interviews with trainers, supervisors and managers revealed a prevailing belief that a newcomer who survived her first three months at the factory would be retained over the long term. This cutoff also allowed me to equalize comparison of newcomers irrespective of their start dates. Because the start dates of the newcomers in my dataset were distributed over the two-year period between October 2012 and September 2014, I observed their careers for different lengths of time: I observed those who joined in October 2012 for 24 months, but the window was shorter for those who joined in September 2014. To mitigate the effects of such right-censoring of my dependent variable, I used data on attrition between October 2012 and December 2014 and observed each newcomer for three months to determine whether she left during that period.

I constructed my second measure for newcomers' probability of remaining one month after entering the workforce similarly for the main sample. This measure allowed me to test

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<sup>4</sup> All attrition was voluntary. The firm did not fire any newcomers during the two-year period of my observation.

whether trainer assignment matters immediately after joining the organization. Finally, I used a non-parametric measure of organizational retention, namely, a hazard rate measuring survival in the organization over the long term. This measure accounts for the fact that newcomers entered my dataset at different points and allows me to use the full two years of attrition data.

### **Independent Variable: Assignment to Experienced Trainers**

Trainers at the factory differed very little along most observable dimensions other than the duration of their work experience.<sup>5</sup> On that dimension, however, they varied widely. Trainers had between 5 and 15 years of work experience; the average was 9.6 years [standard deviation = 3.3]. The median trainer had 9 years of work experience; I defined experienced trainers as those whose work experience exceeded the median. Thus, experienced trainers had more than nine years of experience, and less-experienced trainers had nine or fewer years. Using this criterion, five of the eleven trainers were experienced. I dichotomized this variable because doing so provided a better model fit than did use of a continuous variable. This decision also facilitated communicating the results of my study, though the results are similar with a continuous trainer-experience variable.

This study measures work experience as the total number of years that a trainer had worked in her life. Other measures, such as years as a trainer or years at this factory, yield only minor differences. Similarly, using different thresholds to measure experience such as being in the top quartile of the experience distribution did not alter the results significantly.

### **Control Variables**

All my analyses controlled for demographic, human-capital and family-status characteristics that

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<sup>5</sup> The trainers were all Hindu women; 70 percent were from the state of Karnataka. Their average age was 32, and 90 percent were married. Their families averaged 4 members, including 1.5 children. Trainers reported about 10 years of formal education and earned about Rs. 425 (\$8.50) per day. They trained an average of 7 trainees per month; training a newcomer took about 20 days. Trainers had 5, 8, 9, 10, 13, 14 or 15 years of work experience.

could affect newcomers' retention. I controlled for marital status, family size, number of children, age, years of education, home state and religion. I also controlled for pre-existing sewing skills, using newcomers' scores on "the bag test," a unique feature of the recruitment process that calls for using a sewing machine to join two identical pieces of cloth on three sides.<sup>6</sup>

In the main analyses of the effect of trainer assignment on retention, I further controlled for features of the workplace and the trainer that could influence retention. I controlled for duration (in days) of training, line assignment (jackets versus trousers), operation assignment (parts versus assembly) and month/year of hiring (because specific early workplace experiences could affect a newcomer's decision to stay). I also controlled for matches between trainers' and trainees' religion, age and home state, since trainer–trainee homophily could influence retention.

#### **Mechanism Variable: Work-Readiness**

I measure the work-readiness of the survey sample using a scale that draws on my ethnographic observation of non-job-related factors that appeared to affect first-time workers' survival in the workplace and ability to deal with working life. The scale consists of twenty statements, five each about the four key dimensions of work-readiness: self-presentation, interpersonal communication, work-life separation and self-reliance. Respondents rated each statement on a five-point Likert scale (from Strongly Disagree to Strongly Agree).

I developed the scale after determining that no such quantitative scale existed, though the concept of work-readiness appears in research on U.S. federal training programs. I was encouraged to do so by research suggesting that qualitative exploration of phenomena can be a legitimate and powerful technique in the development of quantitative scales (Steckler, Kenneth,

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<sup>6</sup> Applicants are graded A for good performance, B for average performance and C for poor performance on the bag test.

Goodman, Bird, & McCormick 1992; Patterson 2001). To compose the scale, I relied heavily on qualitative analysis, using Atlas.ti, of observational data and interviews with trainees and both experienced and less experienced trainers. Analysis of the interview data revealed twenty salient aspects of work-readiness (such as being able to ask for a bathroom break, knowing how to dress at work and the like) that fell naturally into four broad categories.

The resulting twenty-item work-readiness scale incorporated the recommendations of DeVellis (2003) to use simple language and avoid ambiguities. To establish reliability, a research assistant familiar with the aims and objectives of the research reviewed the data, categories and themes; discussion led to agreement on the final content of the scale. The Cronbach's alpha for this work-readiness measure was 0.73. Individual items were scored from 1 to 5; total scores were calculated by averaging the twenty items. Higher scores indicate superior work-readiness. The scale appears in Table 2; results of a confirmatory factor analysis appear in Appendix A.

INSERT TABLE 2 ABOUT HERE

### **Identification Strategy**

To test the effect of assignment to experienced trainers on work-readiness and retention, a typical first step would be to compare the careers of newcomers assigned to experienced and less-experienced trainers. In most settings this comparison would be insufficient, however, because assignment of trainers to newcomers could be correlated with certain characteristics of the newcomers. A unique and fortuitous feature of my setting is that assignment to trainers was as-good-as-random: it depended on the timing of a newcomer's entry.

Newcomers were assigned to trainers by an industrial engineering (IE) manager who worked in the managerial wing of the factory, far from the training room and shop floor, and never met the newcomers. The IE manager kept a running tab of the number of trainees being

taught by each trainer; when a newcomer arrived, she was assigned to the trainer with the fewest trainees at the time. Trainers trained an average of seven newcomers per month, but because training was individualized, not conducted in groups, they could have varying numbers of trainees at a given point in time. This method of assignment was thus quasi-random and uncorrelated with newcomers' characteristics. To verify quantitatively the quasi-random nature of trainer assignment, I conducted basic mean comparisons of the descriptive characteristics of newcomers assigned to experienced and less-experienced trainers to identify any systematic differences. The results appear in Table 3. Along most human-capital and demographic variables, newcomers assigned to experienced and less-experienced trainers did not differ.

INSERT TABLE 3 ABOUT HERE

Given the absence of a systematic sorting process in trainer assignment, I test the impact on retention and work-readiness of assignment to experienced trainers by comparing the mean career outcomes of newcomers assigned to experienced and less-experienced trainers.

## **QUANTITATIVE RESULTS**

The findings show that assignment to experienced trainers has a large and significant effect on retention of first-time women workers: assignment to experienced trainers is associated with a higher probability of persisting in formal employment after one month, three months and two years. I also find that work-readiness is the mechanism that underlies the assignment effect: exposure to experienced trainers helps first-time workers become work-ready by equipping them with skills essential to survival at work. In keeping with this finding, assignment to experienced trainers is less salient for referred newcomers likely to already be work-ready, and more salient for older women especially lacking in work-readiness.

### **Assignment to Experienced Trainers and Retention of First-Time Women Workers**

This section tests Hypothesis 1: that when first-time women workers are assigned to experienced trainers, they are more likely to be retained. Figures 1 and 2 present basic mean comparisons of newcomers' probability of retention after one month and after three months, based on assignment to experienced or less-experienced trainers. Figure 1 shows the effect of trainer assignment on one-month retention. The 95-percent confidence-interval bars around the means indicate that the two groups' probabilities of retention are statistically different. Figure 1 offers preliminary support for Hypothesis 1 by showing that, for women assigned to experienced trainers, the probability of remaining in formal employment differs from that of counterparts assigned to less-experienced trainers by 10 percentage points.

INSERT FIGURE 1 ABOUT HERE

Figure 2 replicates Figure 1 but uses a longer time period, three months. It provides even stronger evidence that trainer assignment impacted women's probability of retention, by showing that the effect grows larger over time. Newcomers assigned to less-experienced trainers had a 55-percent probability of retention three months after joining; for similar newcomers assigned to experienced trainers, the probability of retention was 75 percent. Figure 2 thus offers additional support for Hypothesis 1 by showing that the probability of remaining in formal employment for women assigned to experienced trainers differs from that of counterparts assigned to less-experienced trainers by 20 percentage points.

INSERT FIGURE 2 ABOUT HERE

Figure 3 uses a Kaplan Meier curve to illustrate the effect of trainer assignment on long-term retention; it analyzes the entire two years of attrition data. The curves show the survival rate to be higher for newcomers assigned to experienced trainers than for those assigned to less-experienced trainers throughout the observation period. After 10 months of tenure, for example,

fewer than 30 percent of newcomers assigned to less-experienced trainers remain in formal employment; for those assigned to experienced trainers, the corresponding number is around 50 percent. These results are consistent with the previous models and offer more support for Hypothesis 1.

INSERT FIGURE 3 ABOUT HERE

Table 4 presents least-squares models of the analyses testing the effect of training assignment on three-month retention. It includes a host of control variables. Though random assignment is a key strength of my study, I include numerous control variables in nested models to determine their effect on retention and to ensure the exogeneity of my main independent variable. All models use individual-level, cross-sectional observations with standard errors clustered by trainer. The sequence of models is as follows: Model 1 includes only newcomer-characteristics control variables; Model 2 adds workplace-level control variables; Model 3 adds trainer control variables; and Model 4 adds the key independent variable of interest, assignment to an experienced trainer.

INSERT TABLE 4 ABOUT HERE

In Models 1, 2 and 3, control variables generally show the expected effects or no effects at all. In Model 1, married women are more likely to be retained after three months; older women and more educated women are less likely to be retained. This finding is consistent with predictions in the literature that married women entering the workforce will be more committed to formal employment to meet their families' economic needs (Kabeer 2002), and that older and more educated women will struggle with the physically demanding and low-status nature of garment production (Paul, Majumder and Begum 2000; Kabeer 2005). Other controls show no effects. It is noteworthy that the number of children does not have a significant effect on

retention, possibly because in India grandparents typically provide child care. In Model 2, such workplace-level factors as line and operation assignment are not correlated with retention, which is unsurprising given the standardized nature of work throughout the factory. Similarly in Model 3, trainer–trainee match based on home state, age and education has no effect on retention: though homophily could matter in other settings, trainers at this factory are fairly homogenous in most respects other than the duration of their work experience.

Model 4 adds assignment to an experienced trainer as a variable, allowing us to test Hypothesis 1. We see that the variable has a significant impact on three-month retention, and that it improves the fit of the model ( $\chi(1) = 21.12, p < 0.001$ ). Note that the coefficient is positive and statistically significant, showing that assignment to experienced trainers increases newcomers' probability of being retained after three months by 24.4 percent. Table 4 thus shows that the effect of assignment to experienced trainers on three-month retention is large, significant and robust to a wide range of control variables. Table B1 in the Appendix replicates these results for one-month retention; Table B2 presents a Cox Hazard Rate model estimating the odds that newcomers will leave the organization during the two-year observation period; the table shows a hazard rate that is positive but less than one indicating the lower likelihood of leaving for workers assigned to experienced trainers. The results presented in both tables are consistent with those discussed here.

### **Mechanism: Why Does Trainers' Experience Matter?**

Having shown support for Hypothesis 1, to test Hypothesis 2 – that experienced trainers affect retention of first-time women workers by imparting work-readiness learning – I first directly tested the effect of experienced trainers on the work-readiness reported by the survey sample of 50 newcomers. I then explored the effect of experienced trainers on two groups in my

main sample, those most and least likely to be work-ready. Finally, I ruled out two possible alternative mechanisms – job-related skills and organizational identification – to explain the experienced-trainer effect.

***Direct Test of Mechanisms.*** As noted earlier, I measured the mechanism of work-readiness using a scale based on ethnographic observation. To investigate whether work-readiness is a key mechanism underlying the assignment effect, Table 5 fits a least-squares model to estimate the effect of assignment to an experienced trainer on newcomers' work-readiness. Again, the table presents nested models: Model 1 includes newcomer control variables and Model 2 adds the variable of assignment to an experienced trainer.

INSERT TABLE 5 ABOUT HERE

Model 1 reveals no statistically significant relationship between newcomer characteristics and work-readiness. This lack of statistical significance might be a function of the low sample size, though we also have no priors about the relationship between demographic characteristics and work-readiness, given that work-readiness is a relatively new concept in the academic literature. Model 2, however, reveals that assignment to experienced trainers has a positive and statistically significant effect on work-readiness and improves model fit ( $\chi(1) = 6.03, p < 0.01$ ). In particular, newcomers assigned to experienced trainers attain higher work-readiness scores than those assigned to less-experienced trainers: the difference in scores is 0.154, which amounts to a 5-percent increase in work-readiness among newcomers assigned to experienced trainers. This result offers support for Hypothesis 2.

***Heterogeneity in the Main Assignment Effect for Subsamples of Newcomers.*** The previous analysis suggests that work-readiness could be an important mechanism by which experienced trainers impact newcomers' retention. An additional test of this mechanism would

be to measure the effect of experienced trainers on the newcomers most and least likely to be work-ready. I tested the effect of trainer assignment on two such groups: first-time workers referred by existing employees, who were presumably mentored on work-readiness by those who referred them; and workers over the age of 30, who, according to interviews with management, have difficulty adjusting to the fast-paced environment of garment production.

Table 6 fits a least-squares model predicting the probability that these two subsamples of newcomers will remain in formal employment for three months. The sequence of models is as follows: Model 1 includes only newcomer controls; Model 2 adds the experienced-trainer assignment variable; Model 3 adds a variable interacting assignment to an experienced trainer with referral to the firm; and Model 4 adds a variable interacting assignment to an experienced trainer with being over 30. Thus Models 3 and 4 explore how the main positive and significant effect of assignment to experienced trainers differs for referred newcomers and older newcomers respectively.

INSERT TABLE 6 ABOUT HERE

The results in Models 1 and 2 mimic those presented in Table 4. Importantly, the interaction terms in Models 3 and 4 are both large and statistically significant. In particular, in Model 3 the coefficient for assignment to an experienced trainer is 0.233, but when this variable is interacted with the referral variable, the coefficient is -0.246. This result suggests that, though experienced trainers have a large and positive effect on retention of non-referred workers, their impact on referred workers is effectively zero (-0.023,  $p=0.79$ ). In Model 4, the coefficient for the Experienced Trainer \* Older interaction term is 0.136, suggesting that for workers over the age of 30, the effect of assignment to an experienced trainer is especially salient (0.307,  $p<0.01$ ). In sum, Table 6 suggests that the effect of an experienced trainer is much smaller for

newcomers likely to already be work-ready, and much larger for those less likely to be work-ready. These results reinforce confidence that work-readiness underlies the effect of experienced trainers on retention, providing further support for Hypothesis 2.

***Ruling Out Alternative Mechanisms.*** Finally, I test two alternative mechanisms that could underlie the effect of experienced trainers: that experienced trainers impart job-related skills or inculcate organizational identification in their newcomers, which could affect newcomer retention. The training literature designates both mechanisms as important functions of training programs (Mincer 1962; Osterman 1987); the socialization literature identifies them as important learning domains (Ashforth et al 2007). However, neither finds support in my qualitative data. To test these mechanisms quantitatively, I measure job-related skills via average daily output after graduating from training, where the idea is that more technically skilled newcomers will produce greater output. The firm captures such output data using radio frequency identification tags attached to every garment produced. I measure organizational identification using a standard scale, developed by Mael and Ashforth (1992) administered to the survey sample. Table B3 in the Appendix demonstrates that experienced trainers do not in fact instill more job-related skills or stronger organizational identification in their trainees than less-experienced trainers. Thus these alternative mechanisms are not pertinent in my context.

## **CONCLUSION AND DISCUSSION**

This paper examines the effect of workplace training programs on retention of first-time workers from groups historically underrepresented in formal employment. Using qualitative data from observations and interviews at a garment factory in India, I hypothesized that training programs can foster retention when conducted by experienced trainers who focus on imparting work-readiness learning, defined as non-job-related skills essential to survive at work, including

self-presentation, interpersonal communication, work-life separation and self-reliance. Exploiting the setting's practice of randomly assigning newcomers to trainers with varying levels of experience, I used quantitative data on 510 first-time women workers to causally estimate the impact of trainer assignment on newcomers' probability of retention. I found that assignment to experienced trainers increased first-time workers' probability of retention after three months by 20 percent. I further investigated the mechanism of work-readiness using survey data on a smaller sample of 50 newcomers and found that those assigned to experienced trainers reported feeling 5 percent more work-ready than those assigned to less-experienced trainers. I also found, for my main sample, that assignment to experienced trainers had a weaker effect on newcomers referred to the firm, who had probably acquired work-readiness from the friends who referred them, and a stronger effect on older workers who typically have more difficulty adjusting to a fast-paced and physically demanding workplace. These findings reinforce confidence in the mechanism of work-readiness.

### **Contributions to Understanding of Training to Remediate Inequality**

These findings contribute to our understanding of workplace training programs in four ways. First, organizational studies have produced inconsistent findings on the question of whether workplace training programs foster retention of first-time workers from historically underrepresented groups, adding fuel to the debate on whether training, whether employer- or government-sponsored is effective at all (Heckman et al. 1999; LaLonde 1995). Some scholars have argued that workplace training brings first-time workers "up to speed" and thus promotes retention (Holzer and Martinson 2005). Others have demonstrated that, in practice, training programs are often poorly designed and not meaningfully linked to actual organizational structures, and are thus ineffective (Dobbin 2009). This paper demonstrates that training

programs can indeed be effective, under some conditions, at retaining such workers. Thus the paper urges a shift of focus from *whether* training programs facilitate retention of first-time workers to *when* and *why* they are effective.

Second, previous studies have not specified the conditions under which training programs are effective at retaining entrants from historically underrepresented groups. This paper demonstrates that the individual trainer plays an important role in the success of a training program, echoing human-resource-management scholarship highlighting the importance of “train-the-trainer” initiatives (Hatcher 1999; Schmidt 2007). This paper further demonstrates that experienced trainers impact retention through the content of the training they impart: they inculcate work-readiness by focusing on self-presentation, interpersonal communication, work-life separation and self-reliance in a way that less-experienced counterparts do not. Thus, the paper shows how the agents and content of training can affect retention of first-time workers from groups historically underrepresented in formal employment, thereby sharpening classic human-capital and internal labor market theories of training (Becker 1964; Doeringer and Piore 1971). The paper also highlights that previous studies’ findings of null effects of training might be accounted for by a focus on trainers who imparted only strictly job-related skills.

Third, scholars of inequality have long been interested in the persistently low labor-force participation of groups historically excluded from formal employment (Reskin 1998; Reskin 2001; Kossek and Pichler 2007; Mandel and Semyonov 2006; Yu 2002; Zambrana 2011). Several studies have investigated how organizations can facilitate labor-market *entry*; for example, scholars have studied the impact of outreach through “diversity fairs” (Rivera 2012), joint appointments in academia (Smith and Tian 2017) and referral-based recruitment (Fernandez and Fernandez-Mateo 2006; Peterson et al 2000). Less attention has been paid, however, to the

problem of *early attrition* of first-time workers. This paper demonstrates that a sizeable proportion of first-time women workers at a garment factory in India drop out within months after entry, and sheds light on how to retain such workers. Its findings suggest that, in order to understand the labor-force participation of historically underrepresented groups, the literature needs to focus as much on retention as on entry.

Finally, some gender research has focused specifically on the struggles that women face in sustaining formal employment and have highlighted how women sometimes “opt out” of the labor market (Stone 2007; Percheski 2008). This paper suggests that training focused on work-readiness learning might help prevent women workers from opting-out. Indeed, some elements of work-readiness learning that the paper uncovers such as work-life separation might be especially relevant for women workers, in light of the fact that women often bear heavier loads than men in terms of family responsibilities, including caregiving and household labor (Brines 1994; Bittman and Wajcman 2000).

### **Contributions to Understanding of Socialization**

My findings also contribute in three ways to the socialization literature. First, the literature has largely focused on the context of white-collar work in Western economies (Ashforth et al 2007; Fisher 1986; Bauer et al 1998; Saks and Ashforth 1997). It is relatively silent on socialization tactics of particular relevance to low-wage work and to the developing world, where socialization might be especially crucial. By focusing on an understudied population of workers, this paper demonstrates how socialization operates differently for first-time workers from a historically underrepresented group while also expanding our theoretical understanding of socialization.

Second, with respect to the agents of socialization, the literature has focused on informal socialization agents, such as peers and supervisors, rather than agents whose explicit formal role is to train newcomers (Saks and Gruman 2012; Morrison 1993; Ostroff and Kozlowski 1992; Louis, Posner and Powell 1983; Reichers 1987). This paper helps explicate the important effect of formal socialization agents—prevalent in many organizations, such as the many U.S. hospitals that employ nurse-educators—on retention of newcomers. It also points out within-role variation in the effectiveness of socialization agents by demonstrating that experienced, female trainers are more successful than less-experienced, female trainers at retaining first-time women workers in India. Patterns might similarly emerge when exploring other sources of within-role variation, such as when comparing the effectiveness of male versus female socialization agents, for example (Eagly, Karau and Makhijani 1995). Thus the paper takes seriously the idea that the particular individuals who implement programs and procedures within firms significantly influence outcomes (Castilla 2011).

Finally, with respect to the content of socialization, existing scholarship has largely focused on the job role, and on familiarization with the organization and its norms and culture (Saks and Ashforth 1997). This paper concentrates instead on a distinct kind of learning that I call *work-readiness*. I use qualitative data to delineate the dimensions of work-readiness and to develop a work-readiness scale for use in future work. The existing literature has assumed that first-time workers possess a basic understanding of how to work in the formal economy; I argue that these skills need to be learned (Vallas 2001; Willis 1997). My findings reveal that first-time workers from underrepresented groups lack awareness of how to conduct themselves at work, due to lack of exposure to formal employment. This paper's focus on a developing country thus highlights a domain of learning that pertains to newcomer socialization more generally.

## **Limitations and Policy Implications**

While this study makes important contributions to the literatures on organizational inequality and socialization, here I highlight some limitations. This study was conducted at a single garment factory in southern India with a sample of first-time, low-wage women workers. For purposes of generalizability, it would be useful to replicate the study globally, at various kinds of organizations that employ first-time workers from groups historically underrepresented in formal employment, including organizations that rely less exclusively on first-time workers, such that trainers would need to facilitate integration between first-time workers and more experienced workers.

The survey sample that I used to measure work-readiness quantitatively consisted of 50 first-time workers who were not part of the original sample of 510 newcomers. Though findings from the main-sample and survey-sample analyses are internally consistent, it would be useful to measure the work-readiness of a larger sample of workers and to collect data on their retention; doing so would allow for mediation analyses to overcome issues arising from differences between samples.

These limitations notwithstanding, this study has implications for both public policy and organizational practice. At the state level, governments would benefit from creating training programs to facilitate the retention of first-time workers from historically underrepresented groups. For firms that contend with severe attrition among first-time workers, this paper has two practical implications. First, it highlights the importance of the first months in determining whether such workers will adjust to formal employment. Second, it draws attention to the design of training-and-orientation programs. Both assignment of trainers and the content of training have a decisive impact on whether first-time workers continue to work.

In sum, this study demonstrates that training programs significantly influence retention of first-time workers. Such workers often lack the basic skills needed to deal with working life; the trainers they encounter can influence whether they become work-ready and succeed in formal employment. Approximately 1 billion such workers are entering formal employment as a result of globalization and job creation; these findings have the potential to shape policies that will facilitate their retention.

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## FIGURES AND TABLES

Table 1: Descriptive Characteristics of Main Newcomer Sample (n=510)

	mean	sd
Fraction Female	1	0
Work Experience (years)	0	0
Fraction Married	0.371	0.483
Number of Children	0.392	0.697
Family Size	3.075	1.278
Age	24.18	5.311
Years of Education	7.751	3.268
Fraction from Karnataka	0.786	0.410
Fraction Hindu	0.971	0.169
Fraction with A Grade on Sewing Test	0.239	0.427
Fraction Referred to Work	0.116	0.320
Fraction Working in Jacket Lines	0.659	0.475
Fraction Working on Assembly Operations	0.625	0.484
Number of Days Spent in Training	21.51	13.72
Per Day Wages (in Rupees)	252	0
Fraction Assigned to Experienced Trainers	0.425	0.495
Fraction from Karnataka Assigned to Trainer from Karnataka	0.524	0.499
Difference in Age Compared to Assigned Trainer	10.116	7.607
Difference in Years of Education Compared to Assigned Trainer	2.829	3.412
Fraction Still Working after 1 Month	0.888	0.315
Fraction Still Working after 3 Months	0.637	0.481

Table 2: Work-Readiness Scale

<b>Variable Description</b>	<b>Values</b>	<b>Statistics (Survey Sample)</b>
<i>Self-Presentation at Work</i>	1=Strongly Disagree	Mean=3.28
I know how to dress for work.	2=Disagree	SD=0.23
I present myself confidently at work.	3=Neither Agree nor Disagree	Alpha=0.73
I am often late to work. ( <i>reverse</i> )	4=Agree	
I take responsibility for my tasks at work.	5=Strongly Agree	
I am disciplined in meeting my targets each day at work.		
<i>Interpersonal Communication</i>		
I have made friends at work.		
I am scared of my supervisor at work. ( <i>reverse</i> )		
I reply back when I'm spoken to at work.		
I ask questions when in doubt at work.		
I defend myself when I'm criticized without reason at work.		
<i>Work-Life Separation</i>		
I struggle to balance work and home life. ( <i>reverse</i> )		
I worry about my children and family while at work. ( <i>reverse</i> )		
I am constantly tired at work. ( <i>reverse</i> )		
My work routine is stressful. ( <i>reverse</i> )		
I miss my family at work. ( <i>reverse</i> )		
<i>Self-Reliance</i>		
I take care of my health at work.		
I skip meals at work. ( <i>reverse</i> )		
I drink plenty of water at work.		
I go to the bathroom when I need to at work.		
I seek medical help when I am not feeling well at work.		

Note: *Reverse* designates items that were reverse-coded.

Table 3: Descriptive Characteristics of Newcomers Assigned to Less-Experienced and Experienced Trainers

<i>Newcomers by Assignment to</i>	Less-Experienced Trainers	Experienced Trainers	Difference
Fraction Married	0.341 (0.475)	0.410 (0.493)	-0.069
Number of Children	0.352 (0.632)	0.447 (0.775)	-0.095
Family Size	2.997 (1.223)	3.180 (1.344)	-0.183
Age	23.77 (4.980)	24.74 (5.691)	-0.970**
Years of Education	7.863 (3.275)	7.599 (3.259)	0.264
Fraction from Karnataka	0.775 (0.418)	0.802 (0.400)	-0.027
Fraction Hindu	0.973 (0.163)	0.968 (0.177)	0.005
Fraction with A Grade	0.256 (0.437)	0.217 (0.413)	0.039
Fraction Referred to Work	0.116 (0.321)	0.115 (0.320)	0.001
Observations	293	217	

mean coefficients; sd in parentheses

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

*Note:* Experienced trainers have over 9 years of work experience (above the median)

Figure 1: Effect of Trainer Assignment on First-Time Women Workers' Likelihood of Retention One Month after Entry



Figure 2: Effect of Trainer Assignment on First-Time Women Workers' Likelihood of Retention Three Months after Entry



Figure 3: Effect of Trainer Assignment on First-Time Women Workers' Long-Term Survival in Formal Employment (Kaplan-Meier)



Table 4: OLS Regression of Effect of Trainer Assignment on Three-Month Retention of First-Time Women Workers

	(1)	(2)	(3)	(4)
Family Size	0.013 (0.017)	0.008 (0.019)	0.012 (0.021)	0.008 (0.020)
Number of Children	0.031 (0.022)	0.015 (0.030)	0.013 (0.029)	0.010 (0.026)
Married	0.174*** (0.029)	0.219*** (0.028)	0.218*** (0.028)	0.218*** (0.032)
Age	-0.012** (0.005)	-0.013** (0.006)	-0.019 (0.015)	-0.015 (0.010)
From Karnataka	-0.079 (0.066)	-0.035 (0.054)	-0.019 (0.084)	0.074 (0.075)
Years of Education	-0.012* (0.006)	-0.009 (0.006)	-0.019 (0.069)	-0.009 (0.032)
Hindu	0.056 (0.124)	0.008 (0.117)	0.016 (0.127)	0.005 (0.132)
A Grade on Sewing Test	-0.004 (0.040)	-0.002 (0.031)	-0.004 (0.033)	0.003 (0.035)
Working in Jacket Lines		0.119 (0.082)	0.159* (0.080)	0.011 (0.050)
Working on Assembly Operations		0.008 (0.033)	0.016 (0.036)	0.007 (0.039)
Number of Days Spent in Training		0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Trainer-Trainee Both from Karnataka			-0.009 (0.072)	-0.146 (0.090)
Trainer-Trainee Age Gap			-0.005 (0.012)	-0.002 (0.005)
Trainer-Trainee Education Gap			-0.011 (0.069)	-0.001 (0.033)
Experienced Trainer Assignment				0.244*** (0.051)
Constant	0.922*** (0.208)	0.802*** (0.219)	1.044*** (0.307)	0.910** (0.377)
Month/Year FE	No	Yes	Yes	Yes
Observations	510	510	510	510
R Squared	0.050	0.126	0.131	0.169

Standard errors clustered by trainer are in parentheses

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

Note: 185 workers quit the firm within three months of joining.

Table 5: OLS Regression of Effect of Trainer Assignment on Work-Readiness of First-Time Women Workers

	(1)	(2)
Family Size	0.005 (0.044)	-0.004 (0.045)
Number of Children	0.070 (0.068)	0.066 (0.069)
Married	-0.013 (0.174)	-0.051 (0.195)
Age	-0.001 (0.007)	0.004 (0.007)
From Karnataka	-0.005 (0.092)	-0.012 (0.108)
Years of Education	0.006 (0.009)	0.002 (0.010)
Hindu	0.172 (0.139)	0.202 (0.130)
A Grade on Sewing Test	0.030 (0.145)	0.063 (0.143)
Experienced Trainer Assignment		0.154*** (0.035)
Constant	3.030*** (0.230)	2.923*** (0.189)
Observations	50	50
R Squared	0.127	0.226

Standard errors clustered by trainer are in parentheses

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

Data come from a survey of 50 newcomers;

Work-readiness is measured on a 5-point ascending Likert scale;

Mean of work-readiness is 3.28 and standard deviation is 0.23;

See Table 2 for a detailed description of the scale.

Table 6: OLS Regression of Effect of Trainer Assignment on Three-Month Retention of Referred and Older Workers

	(1)	(2)	(3)	(4)
Family Size	0.012 (0.016)	0.008 (0.018)	0.009 (0.019)	0.010 (0.018)
Number of Children	0.031 (0.022)	0.033 (0.021)	0.031 (0.020)	0.025 (0.022)
Married	0.175*** (0.029)	0.163*** (0.023)	0.158*** (0.024)	0.173*** (0.021)
Age	-0.012** (0.005)	-0.013** (0.005)	-0.013** (0.005)	-0.017*** (0.004)
From Karnataka	-0.083 (0.064)	-0.088 (0.070)	-0.086 (0.071)	-0.086 (0.070)
Years of Education	-0.012* (0.006)	-0.012* (0.006)	-0.014** (0.005)	-0.012* (0.006)
Hindu	0.059 (0.124)	0.071 (0.144)	0.079 (0.149)	0.074 (0.142)
A Grade on Sewing Test	-0.001 (0.040)	0.009 (0.035)	0.006 (0.037)	0.007 (0.037)
Referred to Work	0.046 (0.060)	0.048 (0.064)	0.150** (0.064)	0.050 (0.062)
Experienced Trainer Assignment		0.195*** (0.033)	0.223*** (0.032)	0.172*** (0.037)
Experienced Trainer * Referred			-0.246** (0.083)	
Experienced Trainer * Older				0.136*** (0.040)
Constant	0.911*** (0.210)	0.856*** (0.240)	0.848*** (0.245)	0.937*** (0.227)
Observations	510	510	510	510
R Squared	0.051	0.091	0.097	0.095

Standard errors clustered by trainer are in parentheses

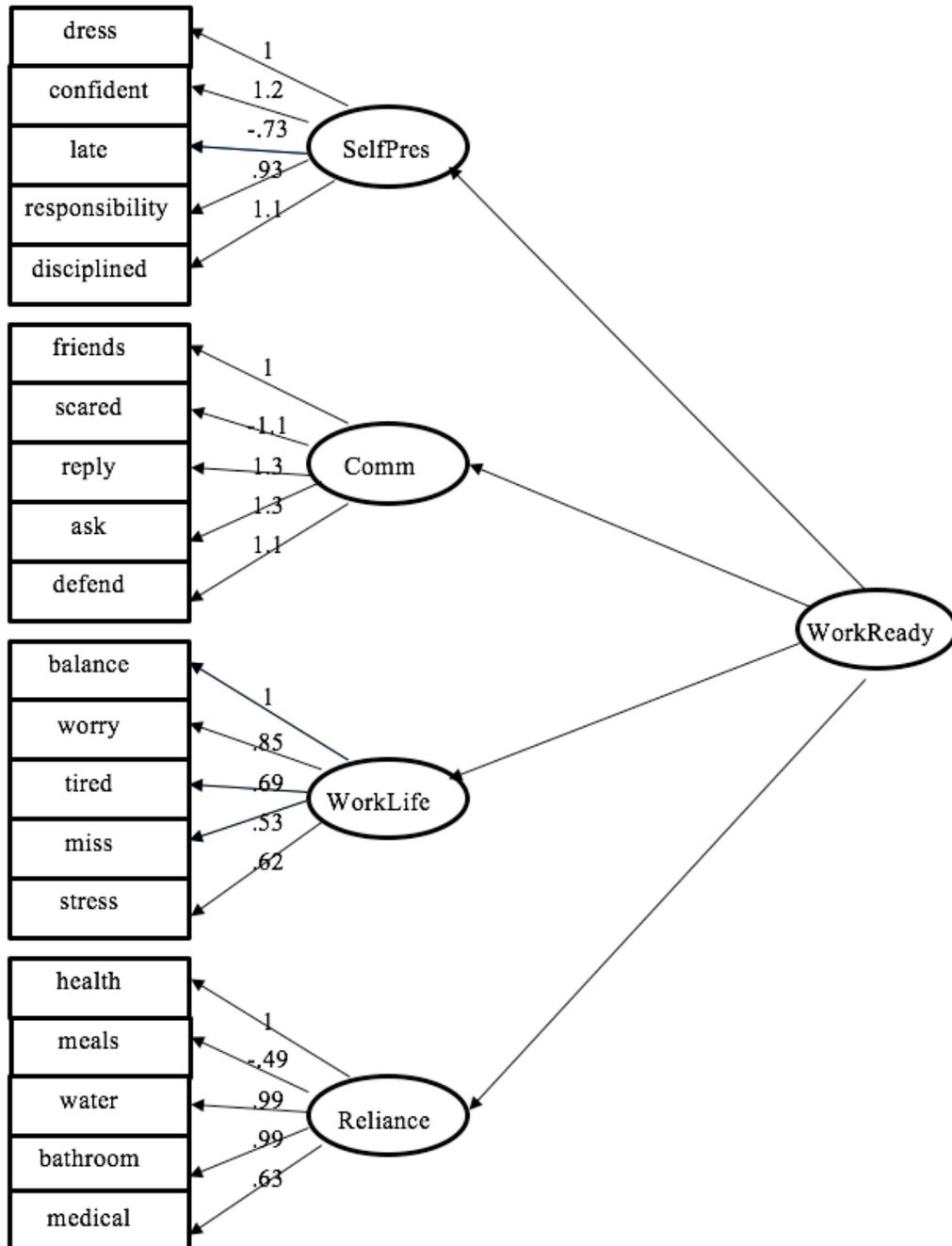
\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

59 workers in the sample were referred to the firm;

The sample consisted of 79 “older” workers over the age of 30 at the time of hire.

## Appendix A: Confirmatory Factor Analysis of Work-Readiness Scale

To test the properties of the work-readiness scale, I performed confirmatory factor analysis by recruiting 200 participants in Amazon’s Mechanical Turk to fill out the scale. Participation was open only to women from India. The survey took approximately 5 minutes; participants were paid \$0.50. The results, presented below, confirm the scale composition. All coefficients had  $p < 0.01$  and the fit of the model was good ( $\chi^2(169) = 464.91, p < 0.01$ ).



## Appendix B: Additional Tables

Table B1: OLS Regression of Effect of Trainer Assignment on One-Month Retention of First-Time Women Workers

	(1)	(2)	(3)	(4)
Family Size	0.007 (0.006)	0.003 (0.013)	0.005 (0.013)	0.003 (0.012)
Number of Children	0.009 (0.018)	0.002 (0.025)	-0.001 (0.024)	-0.003 (0.023)
Married	0.026 (0.031)	0.037 (0.030)	0.040 (0.028)	0.040 (0.027)
Age	-0.001 (0.002)	-0.001 (0.002)	-0.008 (0.008)	-0.006 (0.005)
From Karnataka	-0.057** (0.026)	-0.006 (0.021)	-0.004 (0.028)	0.037 (0.033)
Years of Education	0.005 (0.006)	0.005 (0.005)	0.029 (0.035)	0.033 (0.025)
Hindu	0.014 (0.099)	-0.021 (0.101)	-0.016 (0.103)	-0.020 (0.103)
A Grade on Sewing Test	-0.014 (0.026)	-0.028 (0.031)	-0.028 (0.031)	-0.025 (0.031)
Working in Jacket Lines		0.104** (0.046)	0.128** (0.045)	0.064* (0.032)
Working on Assembly Operations		0.042 (0.026)	0.047 (0.027)	0.043 (0.027)
Number of Days Spent in Training		0.004** (0.001)	0.004** (0.001)	0.004*** (0.001)
Trainer-Trainee Both from Karnataka			0.007 (0.027)	-0.053 (0.033)
Trainer-Trainee Age Gap			-0.007 (0.007)	-0.006 (0.003)
Trainer-Trainee Education Gap			0.023 (0.033)	0.028 (0.022)
Experienced Trainer Assignment				0.107*** (0.023)
Constant	0.887*** (0.084)	0.621*** (0.137)	0.587** (0.033)	0.528* (0.022)
Month/Year FE	No	Yes	Yes	Yes
Observations	510	510	510	510
R Squared	0.010	0.112	0.116	0.133

Standard errors clustered by trainer are in parentheses

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

Note: 57 workers quit the firm within one month of joining.

Table B2: Cox Hazard Rate Model of Effect of Trainer Assignment on the Hazard of Leaving for First-Time Women Workers

	(1) Hazard Ratio	(2) Hazard Ratio
Family Size	0.840*** (0.049)	0.849*** (0.051)
Number of Children	0.943 (0.108)	0.925 (0.107)
Married	0.420*** (0.067)	0.431*** (0.069)
Age	1.031** (0.016)	1.037** (0.016)
From Karnataka	1.269** (0.144)	1.250 (0.172)
Years of Education	1.025 (0.019)	1.027 (0.020)
Hindu	0.806 (0.176)	0.772 (0.183)
A Grade on Sewing Test	0.912 (0.115)	0.892 (0.106)
Experienced Trainer Assignment		0.637*** (0.081)
Observations	510	510
Pseudo R <sup>2</sup>	0.019	0.023

Exponentiated coefficients

Standard errors clustered by trainer are in parentheses

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

Table B3: OLS Regression of Effect of Trainer Assignment on Daily Output and Organizational Identification for First-Time Women Workers

	(1) Output	(2) Output	(3) Identification	(4) Identification
Family Size	0.283 (1.396)	0.364 (1.375)	-0.022 (0.034)	-0.018 (0.037)
Number of Children	0.783 (3.918)	0.893 (4.038)	0.091 (0.076)	0.093 (0.080)
Married	-1.455 (6.632)	-1.782 (6.813)	-0.169 (0.103)	-0.150 (0.104)
Age	-0.026 (0.328)	-0.076 (0.314)	0.005 (0.013)	0.003 (0.013)
From Karnataka	0.397 (4.436)	0.494 (4.526)	-0.237* (0.103)	-0.233* (0.094)
Years of Education	-0.313 (0.650)	-0.339 (0.649)	0.042* (0.016)	0.044* (0.018)
Hindu	-3.435 (5.323)	-3.115 (4.878)	-0.281** (0.099)	-0.296** (0.103)
A Grade on Sewing Test	-5.215 (5.651)	-5.415 (5.598)	0.085 (0.095)	0.069 (0.112)
Experienced Trainer Assignment		2.065 (4.315)		-0.076 (0.081)
Constant	53.898*** (8.902)	53.936*** (8.971)	3.802*** (0.115)	3.855*** (0.113)
Observations	90	90	50	50
Mean of DV	46.920	46.920	3.783	3.783
Std. Dev. of DV	16.736	16.736	0.330	0.330
R Squared	0.028	0.032	0.189	0.201

Standard errors clustered by trainer are in parentheses

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

Note: Data for Models 1 and 2 comes from RFID output data on a subsample of newcomers; data for Models 3 and 4 comes from a survey of 50 newcomers.

Daily output is measured as the number of pieces produced, adjusted for the standard time needed to produce the piece; thus the measure is comparable across workers who produce different pieces. Such data is available only for 90 of the 510 new joiners since the factory began collecting this data in January 2013, for three of its eleven lines. Organizational Identification is measured on a 5-point ascending Likert scale from Ashforth and Mael (1992).