



## The Productivity and Retention Effects of Soft Skills Training

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***In partnership with a large garment factory in India, this project designs and implements a randomized controlled trial to study the impact of a year-long, in-depth soft skills training programme aimed at empowering low-skilled female labourers. It shows that the programme had positive impacts on retention, attendance, productivity and promotion rates, with some of these impacts sustained long after the end of the programme.***

### Introduction

There is growing consensus that “soft” (non-cognitive) skills – such as the ability to allocate resources (e.g., time and money) effectively, interpersonal skills, communication, and time-management – can account as much for long-term economic wellbeing as cognitive ability and schooling. But how much of this relationship is causal? In partnership with a large garment manufacturing firm in India, we designed and implemented a randomized controlled trial with multi-level treatment randomization to study the direct and indirect spillover impacts of an in-depth soft skills training programme aimed at empowering low-skilled female labourers.

We find that the nearly year-long programme had positive impacts on a host of workplace outcomes, including retention, attendance, productivity, and promotion rates. Results from firm data up to nine months after programme completion show that some of these impacts were sustained long after the programme ended. Survey results at end-line are consistent with these workplace outcome impacts, with the weight of the evidence suggesting that the primary mechanism of impact was that workers’ stocks of soft skills increased. These positive impacts on labour supply and worker performance, though they were not directly encouraged or incentivized in the training programme, more than pay for the cost of administering the programme within the factory setting.

### Background on global apparel in India and female garment workers

Global apparel is one of the largest export sectors in the world, and vitally important for economic growth in developing countries. India is the world's second largest producer of textile and garments, with export value totalling \$10.7 billion in 2009-2010. With the steady transition of the employment share in India, and in much of the developing world, from rural agricultural self-employment to urban and peri-urban wage labour, the garment sector represents an unparalleled capacity to absorb this current and future influx of young, unskilled and semi-skilled labour.

Furthermore, women comprise the majority of the global garment workforce; and new labour force entrants tend to be disproportionately female in contexts like India where the baseline female labour force participation rate is low. Our research partner is the largest private garment exporter in India, and the single largest employer of unskilled and semi-skilled female labour in the country.



## Private Enterprise Development in Low-Income Countries

Female garment workers likely face unique constraints (lack of time and material resources, as well as poor emotional and physical health) that contribute to high rates of attrition, spotty attendance, and low workplace productivity. We hypothesized that teaching soft skills may help to alleviate some of these barriers; leading to increases in wellbeing, which then may translate to better on-the-job performance.

### Intervention

The Personal Advancement & Career Enhancement (P.A.C.E) programme was designed and first implemented by Gap Inc. specifically for female garment workers in developing countries. Our implementing partner, one of the largest garment exporters in India, implemented P.A.C.E. in five factory units in the Bangalore area. The goal of the programme is to empower women through life skills training.

The programme includes modules on communication, time management, financial literacy, execution excellence (which focuses on practices to help complete tasks well like goal setting and team work), and problem solving and decision-making. Group sessions (30-50 women) were held for two hours per week in designated P.A.C.E. spaces in the factories. The programme ran from July 2013 to May 2014.

Female garment workers were given the chance to enrol in a P.A.C.E lottery to take part in the programme. Women who had enrolled in the lottery were then randomly allocated to treatment or control in a two-step procedure: first, we allocated production lines to treatment or control, and second, we randomly chose treatment workers within treatment lines. This design allows us to identify spillovers of the programme to untreated workers on treatment production lines.

About 2,700 workers signed up for the treatment lottery, from which 1,087 were chosen for treatment. Out of the 1,616 workers not receiving the programme, 779 were on control lines (control group) and the remainder, 837, on treatment lines (spillover group).

### Results

We tracked workplace outcomes throughout the programme period and nine months post-programme completion. We also administered a survey to treatment and control workers one month after programme completion.

#### ***Impact on personal finance behaviour***

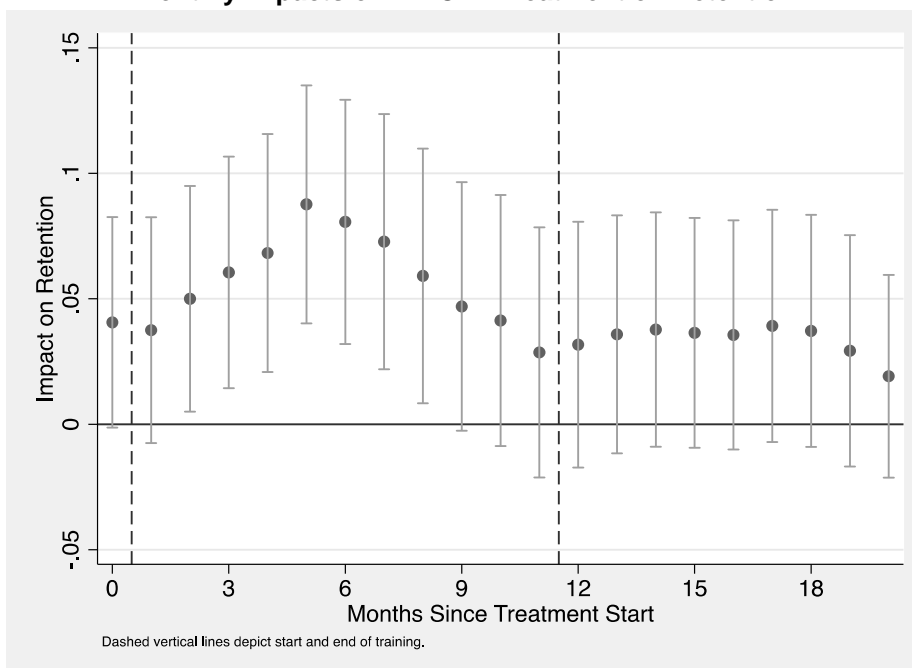
Survey results at end line show impacts on savings (particularly for children's education) and utilization of government and firm entitlement programmes (e.g., pension, subsidized healthcare and schooling, and subsidized housing). These results also highlight potential mechanisms for the observed productivity and career advancement impacts, via positive effects on self-assessment relative to peers and participation in skill development and production award or incentive programmes on the job.



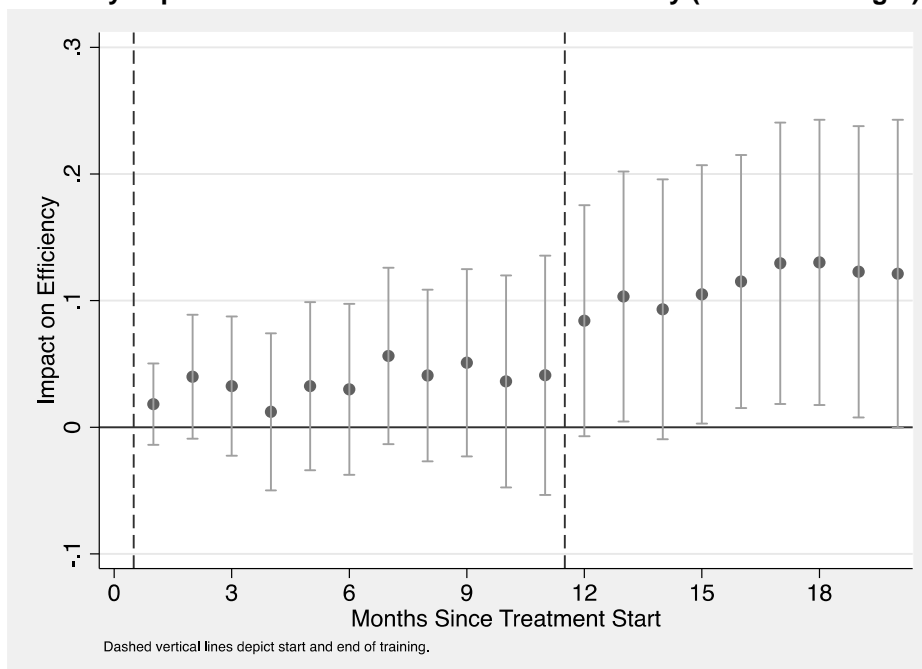
**Impact on workplace behaviour and outcomes**

Turning to workplace outcomes, we find positive impacts on worker retention, and some limited impacts on attendance, during the programme period. The bulk of positive impacts, however, come after programme completion: we find sustained effects on productivity, retention, and promotion rates, lasting until the last month of measurement, 9 months after programme completion.

**Monthly Impacts of P.A.C.E. Treatment on Retention**

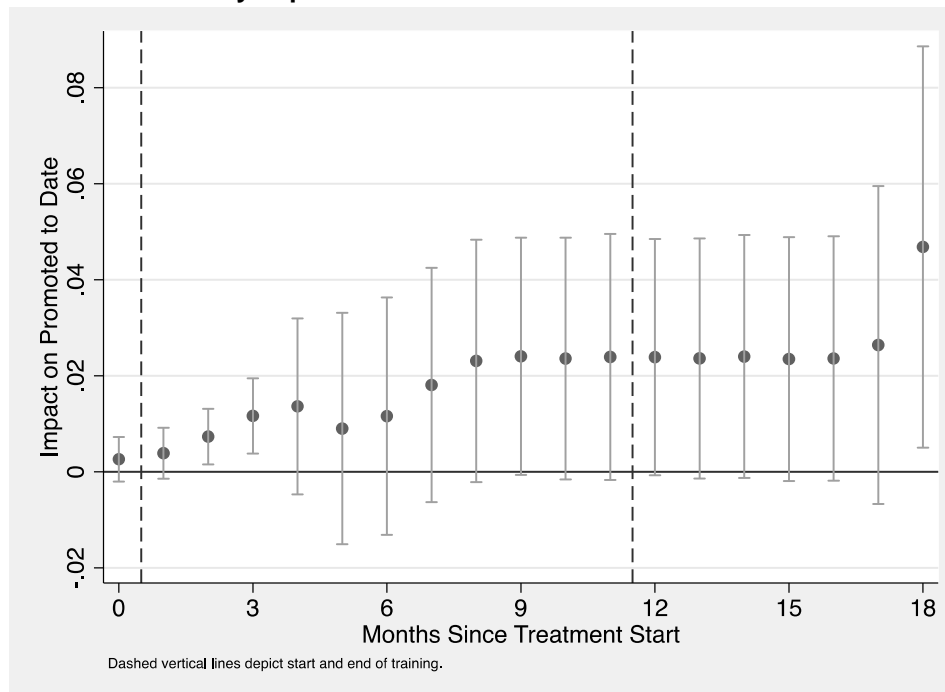


**Monthly Impacts of P.A.C.E. Treatment on Efficiency (Produced/Target)**





Monthly Impacts of P.A.C.E. Treatment on Promotion



### ***Spillover effects and complementarities***

Next we exploit the two-stage experimental design to identify spillovers. We find sizable spillover effects on labour supply, productivity, and career advancement for untreated workers who frequently worked closely with treated workers. These spillovers emphasize the importance of the complex experimental design used to identify both direct and indirect impacts of treatment. We also find evidence of complementarities in treatment impacts on production with more treated co-workers on the line improving productivity, controlling for one's own treatment status.

### ***Return on investment of the soft skills training programme***

Using actual costing data, we estimate a large return on investment – over 170 percent by the end of the programme period, and 4-5 times this amount by the end of our 9-month post-programme tracking period – for employer-based soft skills training.

### **Moving Forward...**

Our study demonstrates that employer-based soft skills training can generate large returns for both the employee and the employer. As is the case with many related training programmes, the particular programme we studied combined many aspects of soft skills. Future work on disentangling the various components of soft skills to see which dimensions result in the greatest impacts would be valuable.