

The right person for the right job:
Can information about job prospects reduce
dropout in a large Indian training programme?

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Introduction

- ▶ Training the labour force is the primary policy for increasing skills and labour productivity to address youth unemployment.
- ▶ However, designing successful training programmes is difficult (Blattman and Ralston, 2017; McKenzie, 2017).
- ▶ Dropout during training and the lack of retention in placement jobs are common problems plaguing skill training programmes.
- ▶ Hypothesis: Misinformation of trainees about the training programme and placement jobs may cause substantial dropout.
- ▶ Intervention: Provide information since the very beginning of the training spell.

Context: DDU-GKY

- ▶ Skill training-cum-placement program launched in 2014.
- ▶ Focussed on rural poor youth and school drop-outs.
- ▶ The scheme follows public private partnership model.
- ▶ Training, placement and tracking done by private training partners (PIA).
- ▶ Government covers all training costs (accommodation and food) and provides stipend post training
- ▶ Short-term training in range of trades with guaranteed job placement.

Our Project

- ▶ We design an information intervention that takes the form of two information sessions, one before the training starts and the second before trainees are placed with employers for on-the-job training.
- ▶ We randomise these interventions across 90 training batches enrolled under DDU-GKY in Bihar and Jharkhand.
- ▶ We use administrative and survey data to analyse the effects of these interventions on training completion, job uptake and retention, and other intermediary and secondary outcomes.

Related literature

- ▶ Many studies in developed countries on the impact of training programs. Latest meta-analysis Card, Kluve and Weber (2017)
 - ▶ Impact of vocational training programs modest compared to cost, but heterogeneous across public and contexts
- ▶ Findings from developed countries cannot be applied directly to the context of developing countries.
- ▶ Less studies in context of developing countries but growing body of literature (Betcherman, Dar and Olivas, 2004).
 - ▶ More recent studies. Hirshleifer et al. 2016 (Turkey); Alzua et al. 2016 (Argentina); Attanasio, Kugler, Meghir 2011; Attanasio, Medina, Meghir 2017 (Colombia); Maitra and Mani 2017 (India); McKenzie 2017 (Systematic review).

Outline

Introduction

Design

Empirical Strategy

Data and Descriptive Statistics

Team Experience

Design

Research Hypotheses

We hypothesise two probable likely for dropout.

- ▶ The first is the lack of information about the training program (content, structure, timeline) and placement jobs. Leads to mismatch between the trainee's expectations, and what the programme offers, both at the training and placement stages.
- ▶ The second is the lack of job readiness of the candidates and household members in case placements require transition to states outside the residence state.

Research Questions

- ▶ Can targeted information delivered during the training phase, alleviate the lack of information, and better align their expectations, and lead to better training and placement outcomes?
- ▶ Can an intervention delivering simple messages about the training-to-job transition increase job uptake and retention?

Intervention A

This intervention takes place between batch inception and "batch freezing".

- ▶ Objective: Informed decision making regarding enrolment in the training.
- ▶ Rationale: Before batch freezing, trainee dropout has low cost for training providers
- ▶ Details about the structure and provisions under the training scheme.
- ▶ List of detailed characteristics (job title, company name, location (city and state), and compensation package (net monthly wage and in-kind benefits) of **PAST** placement jobs

Intervention B

This intervention takes place a few days before the batch leaves the training centre for job placement.

- ▶ Objective: Informed decision making regarding job takeup.
- ▶ Rationale: Job readiness.
- ▶ Detailed characteristics of positions (job title, company name, location (city and state), and compensation package (net monthly wage and in-kind benefits) that are actually available to them for placement (**CURRENT** placement).
- ▶ Motivation and career progression

Experimental design

- ▶ Cluster randomised controlled trial with two arms:
 - ▶ A and B together in treatment batches,
 - ▶ no intervention in the control batches.
- ▶ Randomisation at the batch level, stratified at the state by sector/trade level.
- ▶ 90 batches in Bihar and Jharkhand: 45 treated, 45 control.

Data collection

- ▶ Primary Data : Four survey rounds.
 1. Baseline survey
 2. Midline survey
 3. First endline survey
 4. Second endline survey
- ▶ MIS data from Bihar Rural Livelihood Promotion Society (BRLPS) and Jharkhand State Livelihood Promotion Society (JSLPS)

Timeline

- ▶ Period 0: individuals decide to go to the DDU-GKY centre
- ▶ Period 1 (Waiting period): Baseline survey
- ▶ Intervention A is done in the treatment group.
- ▶ End of period 1: candidates decide to continue the training
- ▶ Period 2 (classroom training): Midline survey
- ▶ Intervention B is done in the treatment group.
- ▶ End of period 2: candidates decide to take up the job
- ▶ Period 3 (placement): First endline survey
- ▶ At the end of period 3: candidates decide to stay in the job.
- ▶ Placement+5 months: Second endline survey

Empirical Strategy

Econometric analysis

- ▶ Main sample: individuals present at baseline.
- ▶ Randomisation strata: state (Jharkhand or Bihar) times sector: total of 13 strata.
- ▶ Batch b is in treatment group if $T_b = 1$, in the control group if $T_b = 0$.

Balancing check

- ▶ First, check whether our randomisation achieves balance between treatment and control at baseline, we estimate for each covariate X_j :

$$X_i = \beta T_{b(i)} + \delta_{s(i)} + \varepsilon_i.$$

where δ_s denote as fixed effects for strata.

Main specification

- ▶ Consider outcome y_i , our main estimation model is:

$$y_i = \beta T_{b(i)} + X_i' \alpha + \delta_{s(i)} + \varepsilon_i.$$

β is the intention-to-treat estimate, the quantity of interest in our setting.

- ▶ Estimation by post-double-selection lasso.
- ▶ P-values obtained by randomisation inference.

Main outcomes

- ▶ The main outcomes are measured using endline and midline survey data.
- ▶ First outcome:
 - ▶ Job retention five months after the end of the training
- ▶ Other primary outcomes:
 - ▶ Dropout before batch freezing.
 - ▶ Dropout before placement conditional on being in the frozen batch.
 - ▶ Placement conditional on having completed classroom training.

Heterogeneity

We will consider the following dimensions of heterogeneity:

- ▶ sex (female vs not).
- ▶ social background (Scheduled Caste / Scheduled Tribes vs not).
- ▶ education (completed higher secondary vs not).
- ▶ expectations (expected earnings 12 months after training).

Data and Descriptive Statistics

Table 1: Sector-wise batches surveyed in Bihar

Sector	Control	Treatment	Total
APPAREL	3	3	6
BFSI	3	3	6
CONSTRUCTION	7	7	14
HEALTHCARE	1	1	2
IT	6	6	12
LOGISTICS	1	1	2
RETAIL	4	4	8
TOURISMHOSPITALITY	3	3	6
TOTAL	28	28	56

Table 2: Sector wise batches surveyed in Jharkhand

Sector	Control	Treatment	Total
APPAREL	9	9	18
AUTOMOTIVE	1	1	2
CONSTRUCTION	5	5	10
HEALTHCARE	1	1	2
SECURITY	1	1	2
TOTAL	17	17	34

Total 13 Strata (State*Sector)

Table 3: Respondents surveyed at baseline

Sex	Bihar	Jharkhand	Total
Male	862	339	1,201
Female	695	587	1,282
Total	1,557	926	2,483

Bihar	Control	Treatment
Male	468	394
Female	360	335
Total	828	729

Jharkhand		
Male	159	180
Female	321	266
Total	480	446

Table 4: Balance at Baseline- Treatment and Control

Respondent characteristics			
Variable	Control	Treatment	P-value
Respondent Age	19.90	19.65	0.035
Gender	0.52	0.53	0.396
Current hypothetical earning	706.05	953.53	0.032
Future hypothetical earning	1738.30	2020.80	0.152
Expected earning post training	12516.05	12530.03	0.507
Preferred earning post training	16304.21	16127.97	0.356
Likelihood of training completion	9.49	9.43	0.164
Likelihood of job post training	8.99	8.93	0.296
Expected minimum salary	9107.11	9333.92	0.197
Expected maximum salary	13375.68	13834.05	0.096
Expected average salary	11247.47	11533.36	0.153

Table 5: Balance at Baseline- Treatment and Control

Respondent other charecteristics			
Variable	Control	Treatment	P-value
Training usefulness	9.35	9.30	0.298
Satisfaction training	9.47	9.45	0.34
Difficulty immediate family	0.93	1.16	0.031
Difficulty future family	1.39	1.56	0.16
Internet use	0.49	0.52	0.112
Respondent migrate	0.12	0.13	0.372
Household head_father	0.84	0.81	0.084
Respondent caste_ST	0.19	0.18	0.45
Respondent caste_OBC	0.46	0.50	0.141
Respondent caste_general	0.06	0.07	0.331
Household type_nuclear	0.94	0.93	0.172

Table 6: Balance at Baseline- Treatment and Control

Household charecteristics			
Variable	Control	Treatment	P-value
No. of earning members	1.47	1.50	0.199
Monthly household earning	10236.01	11724.31	0.01
HH having agriculture land	0.62	0.69	0.018
HH having BPL card	0.80	0.77	0.076
HH having RSBY card	0.40	0.38	0.28
HH having RSBY card	0.73	0.75	0.256
HH ever worked in MNREGA	0.26	0.23	0.094
No. of family members	5.34	5.35	0.493
Relatives migrate	0.48	0.50	0.222

Table 7: Balance at Baseline- Treatment and Control

Expected likelihood of getting jobs after training

Variable	Control	Treatment	P-value
Getting job outside state	7.85	7.86	0.474
Accepting job inside state	8.41	8.35	0.324
Retention in job inside state	8.31	8.28	0.42
Accepting job outside state	8.25	8.15	0.33
Retention in job outside state	8.19	8.04	0.209

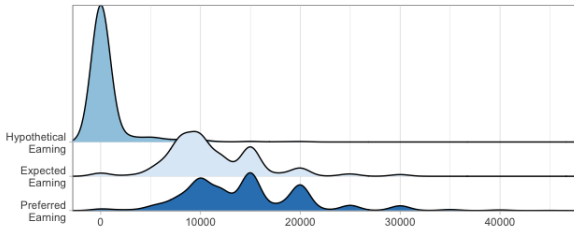
Table 8: Balance at Baseline- Treatment and Control

Respondent psychological characteristics

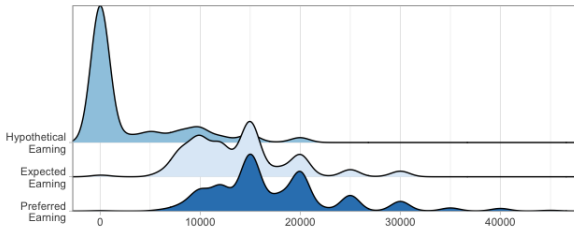
Variable	Control	Treatment	P-value
BIG5 Extraversion	3.29	3.28	0.302
BIG5 Agreeableness	3.74	3.77	0.172
BIG5 Conscientiousness	3.81	3.88	0.028
BIG5 Neuroticism	2.45	2.43	0.252
BIG5 Openness	3.90	3.98	0.044
Grit	3.39	3.43	0.09
ASE	2.11	2.09	0.213

Expected and preferred earning based by gender

Earnings: Expectations and Hypotheticals 1 Year Later (Women)



Earnings: Expectations and Hypotheticals 1 Year Later (Men)



Enrolment in sector by gender

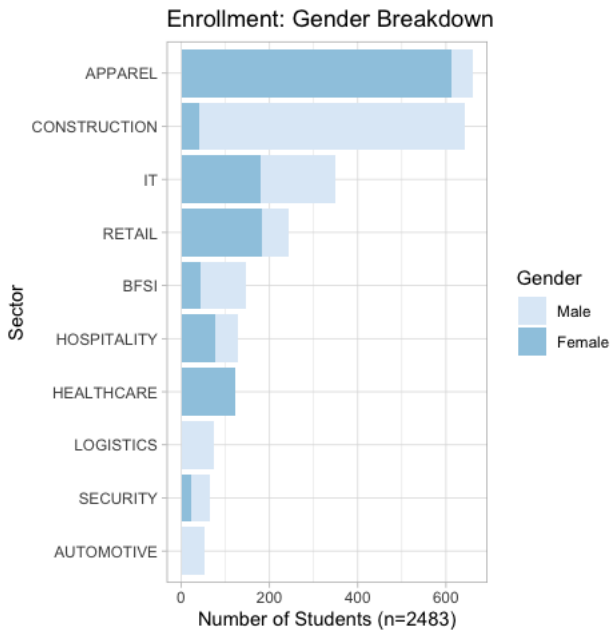


Table 9: Class room dropout by gender

Classroom dropout by gender	Total	Percent	Cum.
Present	2,133	85.9	85.9
Dropout	350	14.1	100
Total	2,483	100	

Classroom dropout	Male	Female	Total
Present	990	1,143	2,133
Dropout	211	139	350
Total	1,201	1,282	2,483

Ongoing projects on DDUGKY

Mobilisation Intervention-Bihar

Introduction

▶ Problems

- ▶ Many players involved during mobilisation, viz. PIA, JRP etc. Information during mobilisation of candidates is non-standardised.
- ▶ Selection of (not) needy candidates to the program, leading to dropout.

▶ What do we do

- ▶ Use standardised and realistic information on location and wage in jobs during mobilisation.

Research Design

- ▶ 3 treatment arms and 1 control group
 - ▶ Treatment 1: True distribution on past DDU-GKY Job Salary information
 - ▶ Treatment 2: True distribution on past DDU-GKY Job Location information (from information project).
 - ▶ Treatment 3: True distribution on past DDU-GKY Job Salary + Location.
- ▶ The true information is gender-specific.
- ▶ Information for Salary is divided as: Less than 6K, 6K-8K, 8K-10K, 10K-12K, more than 12K
- ▶ Information on Location is divided as: Inside Bihar and Outside Bihar (if there are 10 people like you, how many get...)
- ▶ Individual-level randomization.

Data

- ▶ Baseline survey (expectation, counterfactuals, etc.)
- ▶ Followup survey 1 (1 week after baseline)
- ▶ Followup survey 2 (4 weeks after baseline)
- ▶ Administrative data

Parent Engagement- Pilot Stage

Introduction

▶ Hypotheses

- ▶ Parents/Household head is crucial to the decision of training completion and job retention.
- ▶ Low awareness about training program and jobs provided post training (salary,location).
- ▶ Provide standardised realistic information to parents and candidates.

Research Design

- ▶ Baseline survey with candidates.
- ▶ Baseline survey with household head over phone and invite to visit the training center on a fixed day.
- ▶ Information intervention with candidates and household head.
- ▶ Midline and followup endlines
- ▶ Piloting the design.

Thank You