حوار أبوظبي بين الدول الآسيوية المرسلة و المستقبلة للعمالة
Abu Dhabi Dialogue among the Asian Labor-Sending and Receiving Countries

Pilot Project on Skills Development, Certification and Recognition: Phase I Report (India)

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Executive Summary

This report provides an overview of the scientific committee's progress regarding the Pilot Project on Skill Development, Certification, Upgrading and Recognition.

An initial goal of research is to provide background research on the types of low-skilled workers who could potentially benefit from the pilot project. This study therefore designs experimental methods which provide a picture of the types of workers who apply for jobs. In this update report, we provide information on the demographic characteristics of workers applying for jobs – their income, religion, languages, etc. Since we track the workers, we are able to determine how much workers receive in their destination countries and match that with their original home country income as well as their initial expectations about what they will earn when they migrate. This gives us measures of the actual and expected "returns" to the worker's migration decision.

A key component of the pilot project involves skills development and training. A principal goal of this study is therefore to investigate whether the acquisition of new skills by low-skilled migrant workers through an accredited training program has an impact on various outcomes of migrant workers in the destination country. Specifically, the study attempts to determine whether certified workers (those who have been provided with skills through a training program) are more productive and perform better than their uncertified counterparts. Additional questions of interest in this study include issues around the impacts of migration on following: wages, subjective well-being or probability of remaining longer in the country. We ask whether perceptions and aspirations at the destination jobs change when workers receive the certified training.

Our pilot study examines the migrant worker corridor between India and the United Arab Emirates (UAE). We have obtained a number of preliminary results, which we provide in this update report. The preliminary findings do not suggest a definite impact of the training program on the workers' productivity and performance, given the low numbers of data points currently used in the test. Moreover, the preliminary results suggest that recruitment agents play a central role in the process of assisting local workers to obtain foreign job opportunities.

We caution that the results reported here represent a preliminary account of our research. As we collect more data and dig deeper into numbers and modelling, there is a chance some of these results may change.

Introduction

According to UN estimates, the UAE hosts the sixth largest population of migrants in the world, a surprising fact given the small size of the country in comparison to the five countries that dominate this ranking (USA, Germany, Russia, Saudi Arabia and the United Kingdom). This largely results from the high reliance of the country's labor force on migrant workers, the GCC being the "most popular destination for labor migrants of any world region" (Migration Policy Institute, 2013). In the UAE, migrant workers mainly originate from India, Bangladesh and Pakistan, and typically evolve in low-skilled or semi-skilled areas of the economy, such as the construction sector. Construction firms in the UAE primarily recruit labor from these countries. Typically, these firms interview and select qualified workers directly from the labor sending country.

In early 2015, the Governments of India and the UAE instituted a novel feature to this recruitment process. On a pilot basis, workers receive training in their home countries in the skills needed by the firms in the UAE, in areas such as carpentry, masonry or steel fixing.

The academic literature suggests that job training has a positive effect on labor outcomes such as workers' wages, productivity or the probability for reemployment. This effect is even more pronounced for unskilled workers. On the employers' side, it has been theorized that workers achieve their full value in firms that possess full training information about them, hence making them more valuable to the firm. Evidently, occupation-specific training yields better returns than general training, if the worker is employed in the sector for which he/she was trained. However, while it seems that skills certification could be advantageous for both parties involved, the general level of investment in training programs tends to be below the social optimum because of the conjunction of two events. On one hand, firms tend to under-invest in training programs as their inability to restrain workers' mobility creates positive externalities (i.e. other companies benefit from the training provided by one firm as employees move between jobs). On the other hand, because of their own financial constraints, workers are often barred from investing in their own training and effectively signal their skills to potential employers. In this context, public interventions can help resolve the mismatch. Governments can provide various kinds of incentives to increase the general level of training, or even finance it with public funds.

The ultimate goal of this study is to assess the effectiveness of the MOHRE training program as well as its impact on a wide range of outcomes. Five construction companies have participated during the different phases of this pilot project; the companies employ tens of thousands of workers. In this study, the companies recruit low-skilled workers from India. The skills training

is given to the workers after they have been selected by the firms. The goal of this study is to provide a statistical or quantitative measure of the impact of this skills training.

To get a good statistical test of the impact of this training, and to prepare for other questions on the broader impact of migration on the workers, we have a special design for our statistical experiments. We will use the randomized control trials (RCT) methodology. In particular, we perform two randomizations in our statistical experiment.

First, the firms interview workers who come to their job fairs in various cities in India. The firms identify those who are up to standard and those who are not. A typical part of the firms' processes involves over-sampling: the firms give offers to slightly more people than they need expecting some workers to decline or have visa issues before they arrive in the UAE. In our experiment, we formalize this over-sampling and explicitly assign over-sampling probabilities to the firm. In particular, out of the pool that the firm says are qualified and with an eye to the numbers required by the firms, a computer-generated randomization takes place. The job offers are then randomly assigned to some of the workers based on the over-sampling probability. In particular, in the first randomization, the job offers are given randomly by a computer-generated algorithm to those among the qualified workers.

At this stage, there are therefore three types of workers. There are the UNQUALIFIED workers who are deemed unqualified for the position by the firms. Among those who are deemed qualified by the firms, a random subset of these will be the TREATMENT group and offered jobs. The remaining workers from this pool are the CONTROL group – these are the people who are qualified but who do not get a job offer. It is important to note that there is a fixed number of jobs available. There will necessarily be qualified workers who do not get jobs. The randomization we are performing here is not reducing the number of jobs. Instead, it is assigning the fixed number of jobs available randomly among those who are qualified.

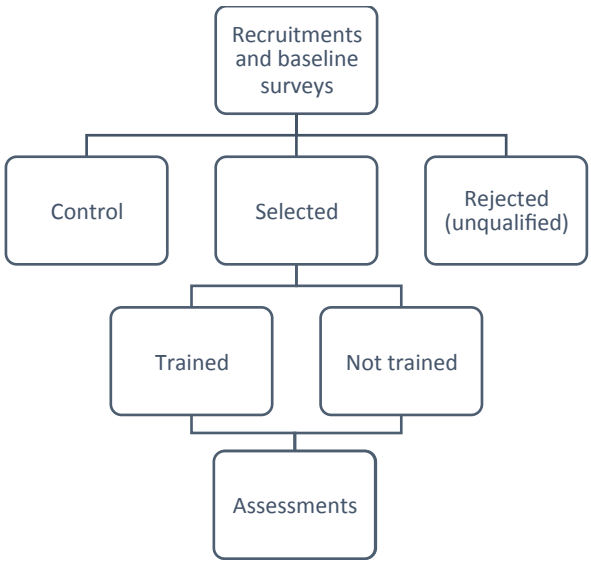
The skills training is only given to those who are in the TREATMENT group mentioned above. The workers in this group are the only ones who have job offers in the UAE, so naturally should be the target of the training. To determine the impact of the training we perform our second randomization. Among those who are in the treatment group, one-half of them are randomly chosen to receive the skills training. The other half do not receive the training.

The workers with job offers are then deployed in the UAE to begin their employment. Between six months and a year after the workers have arrived in the UAE, an assessment of the workers is performed. Each worker will be assessed on their knowledge of skills of their jobs, for which

they were trained back in their country of origin. By comparing the assessment scores of the workers who received training in India and those who did not, we will be able to obtain a measure of the effectiveness of such training. As we show in the paper, there is preliminary evidence suggesting that the training was indeed effective.

Experiment Design

Figure 1. Experimental Design



Note: Follow-up surveys will be conducted for the subjects in all groups.

The study follows an experimental design as illustrated above. Our initial pool of participants are workers in the country of origin who are seeking a job in the UAE. All these subjects participate in a baseline survey, and are subsequently divided into three different groups:

1- Unqualified: These workers fail to receive a job by the recruiting firm due to lack of qualifications.
2- Treatment group: These workers are randomly selected into the study and receive training assignments.
3- Control group: These workers are randomly selected out of the study. They do not receive training assignments.

With the help of recruitment agencies and the partner firms, we were able to interact with over 8,000 worker participants seeking employment in the UAE and perform job offer randomizations for almost 7,000 of them. Below is a breakdown of the first-stage randomizations assigned:

Table 1. Breakdown of first-stage randomization by occupation

Occupation	Treatment	Control	Unqualified	**Total**
CARPENTER	1,636	648	691	**2,975**
HELPER	368	136	1	**505**
MASON	1,250	339	156	**1,745**
STEEL FIXER	1,383	448	284	**2,115**
OTHER	591	80	186	**857**
Total	**5,228**	**1,651**	**1,318**	**8,197**

Overview of Activities

Recruitment and baseline surveys

In parallel to the recruitments, we also collect extensive information during a 30-minute survey conducted on site or via phone. We were able to collect 6,713 baseline data points. These surveys took place in various locations across India.

During these surveys, we collect demographic data (age, religion, education, marital status…), employment/income records, well-being estimates and various other measures. This data gives us baseline information that we can use as a basis for comparison in order to assess migration returns.

Training in India

A principal goal of this research is to determine whether those who receive training ultimately do better in the final places of employment and have higher productivity levels relative to those who did not receive training. While in India, workers who got a job offer to work in the UAE will also receive training in the skill most relevant to the job they applied for (masonry, carpentry and steel fixing).

To measure the real impact of this treatment, we randomly select half of the workers to receive training, while the other half does not. Below is a breakdown of the training randomizations by firm:

Table 2. Breakdown of training randomization by UAE employing firm

Firm	Randomized into training	Randomized out of training	Total
Firm 1	66	69	135
Firm 2	109	106	215
Firm 3	392	395	787
Firm 4	1,433	1,444	2,877
Firm 5	279	279	558
Total	2,279	2,293	4,572

The training sessions are supposed to take place in an accredited training centre. However, it was recently brought to our attention that the majority of the workers were trained in other locations that were not properly vetted by the UAE government partner. As of today, we are still waiting to receive more details on the extent of this.

Tracking surveys

Starting from August 2016 recruitment sessions, we have conducted regular tracking surveys with all baselined workers. The goal of these surveys is to keep tabs on the participants as we faced difficulties connecting with them during the first round of follow-up surveys. These surveys occur in two successive rounds, respectively 3 and 6 months after the baseline surveys have happened. We managed to collect 2,497 data points during these two rounds of surveys.

Assessments in the UAE

Upon their arrival to the UAE, workers in the study go through a skills assessment program. The goal of the assessment is to measure the workers' skill set and determine the impact of the training programme they went through in India.

One round of skills assessment was conducted from September 27 to October 12, 2016. 326 workers were involved; the process was overseen by partners of the Ministry of Human Resources and Emiratization (MOHRE).

The assessment consisted of two main sections: a theoretical examination and a practical test.

Follow-up surveys

We conducted follow-up surveys in India and the UAE one year after the baseline interviews. The data collected in these surveys allows us to measure the impact of labor migration by comparing the workers in the UAE to those in India.

Follow-up surveys in UAE

The first round of follow-up surveys took place in Dubai, between September 27 and October 12, 2016. In total, 326 workers participated in this initial phase.

The second round of UAE follow-up surveys started on February 12, 2018. A total 830 workers have been interviewed over 25 days of surveys. This round is ongoing and we expect to interview more workers in the coming months.

Table 3. Number of workers surveyed in the UAE by firm

Date	**Firm**	**Total**
September 2016 – October 2016	Firm 4	65
September 2016 – October 2016	Firm 2	261
February 2018 – Present	Firm 4	830
Total		**1,156**

Follow-up surveys in India

In India, 956 workers have been surveyed since October 2016. These surveys are also ongoing, and more data is forthcoming in the next few months.

Preliminary Findings

The data collected during the baseline and follow-up surveys allows us to measure the impact of migration on certain outcomes, such as income and well-being. We report below some preliminary findings of the research, with more reporting to be submitted.

The initial results indicate a clear impact of migration on workers' incomes. These are preliminary results as we hope to complete additional data collection in the coming months and improve the statistical significance of our results.

Summary of data recorded at baseline

Average age of sample	28.26 years

Religion	Hindu: 75.44%
	Islam: 11.29%
	Sikhism: 12.07%
	Christianity: 0.74%
	Other/unspecified: 0.09%
Languages spoken	Hindi: 76.49 %
	Tamil: 7.08%
	Bengali: 3.29%
	Other/unspecified: 13.14%
Marital Status	Married: 64.29%
	Single/Widowed/Divorced: 35.71%

Table 4. Demographic Information

Table 5. Average income levels and expectations by selection group

	TREATMENT	CONTROL	UNQUALIFIED
Average income in the previous year in India (USD)	$2,265.08	$2,268.61	$2,218.19
Average expected earnings in the UAE (first 12 months) (USD)	$4,796.13	$4,531.58	$4,513.75

Returns to migration

Income effect of migration

We use a simple regression analysis to measure the effect of migration to the UAE on the workers' monthly incomes:

$$Income_t = \alpha + \beta Migrated + \gamma Control + \in$$

Where α is a constant, $Migrated$ is a categorical variable that equals 0 if worker is in India and 1 if the worker is in the UAE, and $Control$ is a set of control variables. $\in$ is an error term. The regression results are listed below:

Table 6. Income effect of migration

(1)	(2)	(3)

VARIABLES	Monthly income at follow-up (USD)	Monthly income at follow-up (USD)	Monthly income at follow-up (USD)
Migrated	119.1***	100.6***	97.06***
	(11.76)	(20.45)	(20.82)
Monthly income at baseline (USD)		0.0127	0.0122
		(0.0330)	(0.0334)
Schooling level			-4.612
			(8.446)
Constant	201.8***	219.5***	237.2***
	(10.93)	(18.75)	(37.87)
Observations	957	411	402
R-squared	0.097	0.057	0.055

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Overall, our data suggests that workers who migrated as a result of our job offer treatment experience higher level of incomes in the UAE in comparison to those who were randomized out. This result is statistically significant, even as we control for the income level at baseline and the level of education of the workers.

Expectations vs. Reality

The follow-up data suggests that workers tend to overestimate the salary they expect to earn after migrating to the UAE. Indeed, a comparison of the expected incomes reported at baseline against the actual income reported in the UAE shows a statistically significant difference of more than $100 per month.

Workers also overestimate the number of hours they will be expected to work per day. Workers interviewed during the baseline surveys expected to work over 11 hours per day on average. However, their reported daily worker hours after migrating is 8.6 hours. This difference is also statistically significant.

Impact of training on assessments scores

Table 7. Average assessment score by training category (as a percentage of the total score)

	Not Trained	**Trained**
Average assessment score	71.73%	71.80%

Note: Maximum possible score varies by occupation between 400 and 500.

The average scores above do not suggest that there is a systematic effect of training on the workers' performance in the assessment. Trained workers and untrained workers perform at similar levels in the assessment. We suspect this could be in part because a large share of the recruited workers received training in non-accredited training centres; we need to receive more details on the extent of this before we can assert this.

We use a regression analysis to judge the preliminary impact of the training program on the workers' performance in the assessment. The simple regression equation is as follows:

$$Assessment\ score\ (as\ a\ percentage\ of\ total\ score) = \alpha + \beta Training + \gamma DateDifference + \in$$

Where α is a constant, $Training$ is a categorical variable that equals 0 if worker is not trained and 1 if the worker is trained, and $DateDifference$ represents the difference in days between date of assessment and date of arrival in the UAE. $\in$ is an error term.

Table 8. Regression coefficients for the effect of training randomization on assessment score

Assessment score (as percentage of total) (Outcome variable)	**Coefficient**	**Standard Error**	**t-score**	**P>t**
Difference between assessment date and arrival in days	0.0051	0.00015	3.49	0.0
Training category (dummy)	**0.0184**	0.0202	0.91	0.364
Constant	0.0540	0.0545	9.91	0

The results obtained through the regression analysis suggest that there is a positive correlation between the training program and the performance of workers during the assessment, controlling for the duration between the deployment date and the assessment date. As shown in table 10, training increases the expected assessment score by 1.84% (which represents a 7-point increase for masons, and a 9-point increase for carpenters and steel fixers). However, this effect is not statistically significant. Similar results are obtained when including controls for the workers' occupations.

Recruitment agents and fees

Our data suggests that 99% of the workers who interviewed for a job in the UAE employed the help of a recruitment agent. On average, the total reported amount charged by the recruitment agent is slightly over $900. This is three times the average monthly income reported by workers

in the UAE during the follow-up surveys. Indeed, workers who failed to migrate reported to have only paid on average 17.58% of the total recruitment fee at the time of the follow-up surveys.

Table 9. Recruitment Cost

	Workers in the UAE	**Workers in India**
Average Reported Total Agent fee charged (USD)	$966.40	$918.85
Average Percentage of the Paid Reported Agent fee	95.10%	17.58%

The recruitment fee does not generally cover the costs associated with obtaining a passport/visa, travel expenses or medical testing, although the recruitment agents do assist the workers in completing those tasks. Only 35.98% of the workers reported that the recruitment fee covered their travel expenses, 33.64% of the workers reported that the recruitment fee covered visa fees, and 3.97% of the workers reported that the recruitment fee covered the passport costs. However, most of the workers reported that the fee is inclusive of services such as assistance with application logistics, visa and passport application.

The data collected also gives insights on how workers usually learn about job opportunities in the UAE. The preliminary results indicate that the majority of workers learn about the job opportunity from recruitment agents.

Table 10. Job Information

	Migrated workers working with agents
Agent	53.30%
Family and Friends	42.13%
Advertisement	3.21%
Other	1.6%

Future Steps

We are conducting the last round of follow-up surveys in India and the UAE. After completion of this phase, we will have all the data needed to run statistical analysis and produce completed research.