

# VOCATIONAL TRAINING AND LABOUR MARKET TRANSITION: A RANDOMIZED EXPERIMENT AMONG CAMBODIAN DISADVANTAGED YOUNG ADULTS

Chandarany Ouch

Cambodia Development Resource Institute (CDRI)

**ADB–Asian Think Tank Development Forum 2018**

**22-23 August 2018**

**Australian National University**

**Canberra, Australia**

# Context

- Labour force is characterised by a large number of young and low-skilled people in many developing countries
  - But the majority are either unemployed or in low-paying informal jobs (Elder 2014)
- Youth aged from 15-30 in Cambodia in 2014:
  - 33% of total population
  - 77% are in the labour force
- About 28% of youth completed primary education while other 28% completed secondary education in 2014
  - Our young people enter the labour market with low skills

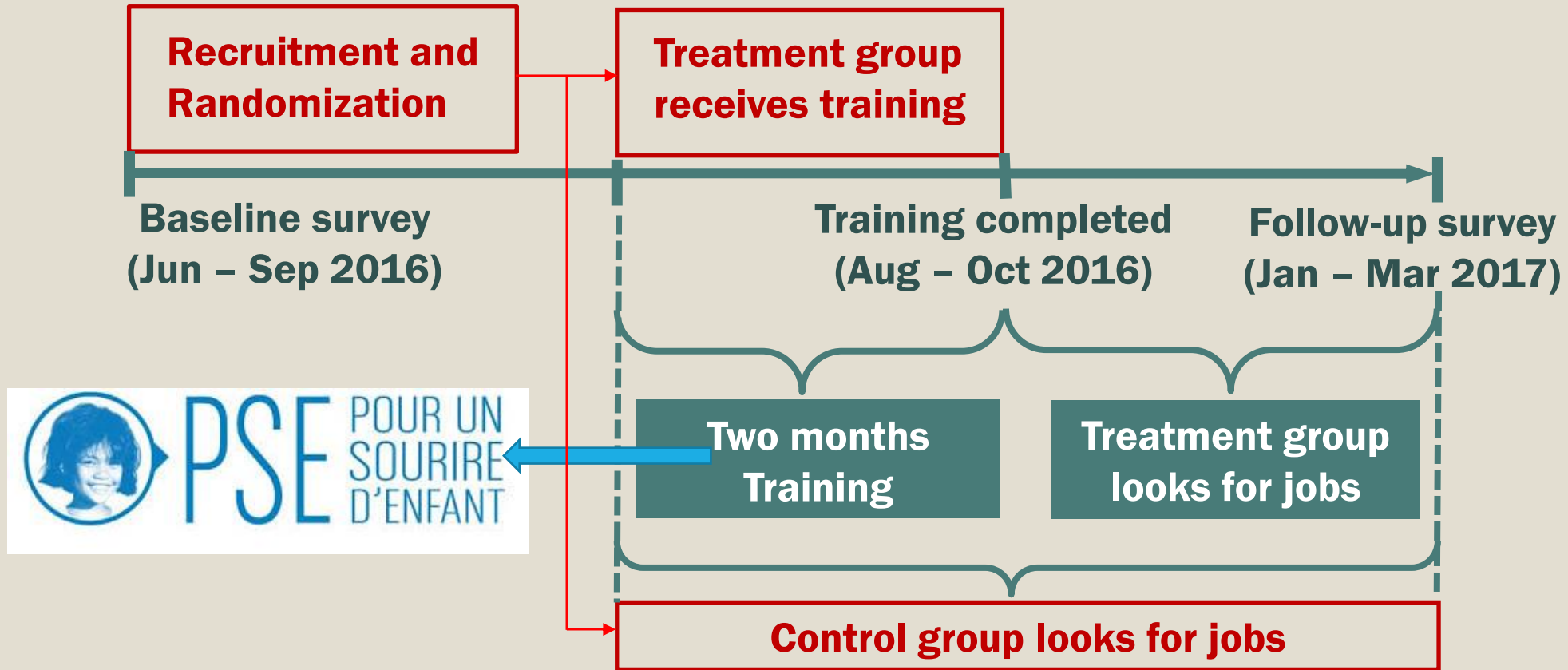
# Motivation

- Vocational training is widely considered as a potential approach to develop employment skills of young people and reduce unemployment, poverty and crime!
- Scant evidence on the effectiveness of training in developing countries
- Mixed findings from recent randomised evaluations of vocational training programs on employment, earnings, and skills development (i.e, Attanasio et al., 2011; Card et al., 2011; Cho et al., 2013; Hirshleifer et al., 2016)
- New research approach and new evidence to inform job- and skill-related policy discussion in Cambodia.

# Research objective and questions

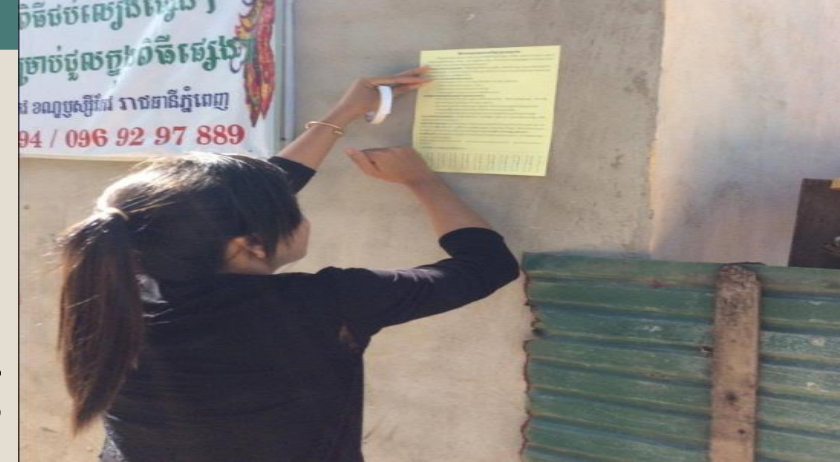
- Use RCT to examine the impact of a short-term vocational training program in hospitality on employment
- Focus on youth (aged 15-30) from low-income households in Phnom Penh
- Answer the following questions:
  - Does training help individuals obtain a job?
  - What are the barriers to take-up training and to complete it?

# Research design



# Intervention

- Provide two-month training in housekeeping
- Participation Criteria:
  - low-income young adults (aged 15-30)
  - living in Phnom Penh
  - being able to read and write
  - willing to participate in the training
- The targeted recruitment areas: Slums in 9 districts (out of 12) of Phnom Penh
  - Village visits to distribute/post the recruitment advertisement
  - Received registration during village visits and through phone call



# Intervention (con't)

- Four rounds of trainings and participants received:

Recruitment round	School fee, study materials, uniform and lunch	Rice allowance: 3.5 kilograms per week	Free shuttle bus service	Transportation allowance
Round 1	Yes	Yes	Yes	No
Round 2	Yes	Yes	Yes	No
Round 3	Yes	Yes	Yes	\$1 per training attendance
Round 4	Yes	Yes	Yes	\$1 per training attendance

- Participants completed the training received a certificate from PSE.

# Two-month training program (full-time)



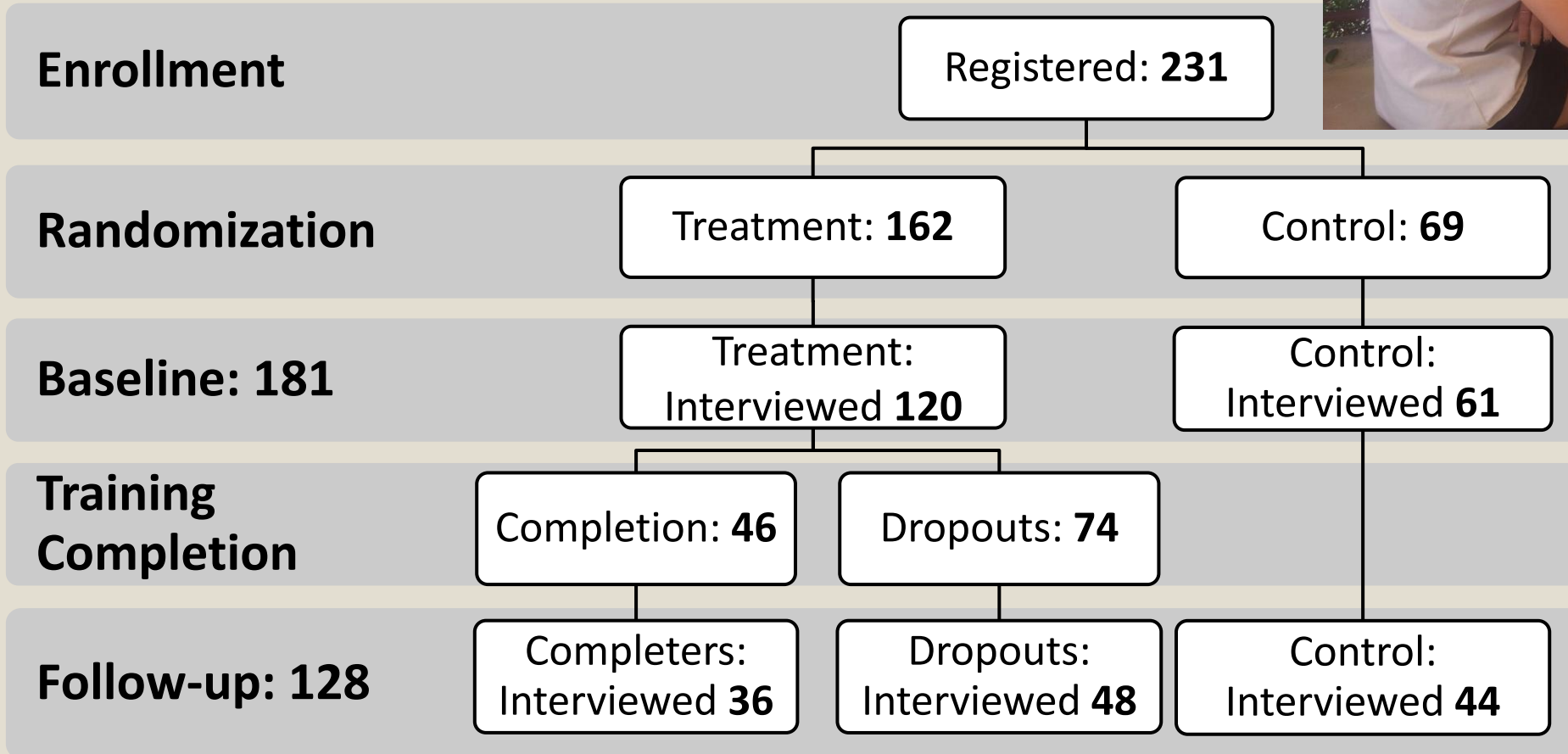
One-month classroom  
lecture (180hrs)



One-month practice  
sessions at PSE (180hrs)



# Data



# Attrition

Attrition takes a value 1 if individuals in the baseline survey could not be traced during the follow-up survey and 0 otherwise.

	Attrition	Attrition
	(1)	(2)
Treatment	0.020	0.034
	(0.071)	(0.073)
Age		0.011
		(0.010)
Education (years)		-0.006
		(0.011)
Male (=1)		0.042
		(0.074)
Married (=1)		0.037
		(0.089)
Observations	181	181

Notes: This table reports marginal effects from the probit estimations. Regressions include recruitment round dummies. Robust standard errors reported in parentheses.

# Variable definition

<b>Outcome variables</b>	<b>Definition</b>
<b>Employed</b>	= 1 if the participant is employed (full-time, casual or self-employed), 0 otherwise
<b>Full-time/ casual employment</b>	= 1 if the participant is employed full-time or for casual wage, 0 otherwise
<b>Self-employment</b>	= 1 if the participant is self-employed/ own-account worker
<b>Hour worked</b>	Number of hours worked during the last week
<b>Monthly earnings (0000 riels)</b>	Total monthly earnings during the last month

# Descriptive stat. and baseline comparison

Individual Characteristics	Treatment	Control	Difference	Labour Market Outcomes	Treatment	Control	Difference
Age	20.70 [3.73]	21.36 [3.38]	-0.66 (0.67)	Employed	0.23 [0.42]	0.34 [0.48]	-0.11 (0.08)
Male (=1)	0.61 [0.49]	0.52 [0.51]	0.08 (0.09)	Full-time/casual employment	0.18 [0.39]	0.23 [0.42]	-0.05 (0.07)
Education (years)	7.49 [2.96]	7.05 [3.58]	0.44 (0.59)	Self-employment	0.05 [0.21]	0.11 [0.32]	-0.07 (0.05)
Married (=1)	0.17 [0.37]	0.39 [0.49]	-0.22*** (0.08)	Hours worked	9.48 [19.08]	16.93 [26.76]	-7.46* (4.09)
Work experience (months)	8.41 [22.33]	10.20 [17.07]	-1.80 (3.85)	Monthly earnings (0000 riels)	11.58 [23.06]	15.07 [23.38]	-3.48 (4.31)
Training experience (=1)	0.23 [0.42]	0.18 [0.39]	0.04 (0.08)				
Observations	84	44		Observations	84	44	

Notes: Standard deviation reported in brackets and standard errors in parentheses

# Estimation methods

- Effects of offering the program: Intent-to-treat effects (ITT)

$$Y_{ijt} = \beta_0 + \beta_1 TRAINING_i + \beta_2 t + \beta_3 TRAINING_i * t + \beta_4 X_i + \tau_j + \varepsilon_{ijt} \quad (1)$$

- Effects of receiving/completing the program: Treated-on-treated effects (TOT)

$$R_i = \gamma_0 + \gamma_1 TRAINING_i * t + \gamma_2 t + \gamma_3 X_i + \delta_i + \tau_j + u_{ijt} \quad (2a)$$

$$Y_{ijt} = \alpha_0 + \alpha_1 \widetilde{R}_i + \alpha_2 X_i + \tau_j + v_{ijt} \quad (2b)$$

# Results: Intent-to-treat Effects (ITT)

	LPM (1)	Probit (2)
Employed	0.110 (0.106)	0.090 (0.104)
Full-time/ casual employment	0.100 (0.106)	0.099 (0.103)
Self-employment	0.010 (0.054)	0.014 (0.052)
Hours worked	4.712 (6.308)	
Monthly earnings (0000 riels)	-12.189 (8.821)	
Observations	256	256

Notes: This table reports the coefficients of interaction term in equ (1). Dependent variables are in the first column. Regressions control for age, education, gender, marital status and recruitment round dummies. \*For probit regressions in column 2, we use margins with contrast operator in Stata 14 to estimate the average interaction effects. Robust standard errors clustered at the individual level are reported in parentheses.

# Completion effects (TOT) – IV

	<b>TOT</b> (1)	<b>TOT</b> (2)
Employed	0.269 (0.257)	0.265 (0.255)
Full-time/ casual employment	0.235 (0.251)	0.232 (0.250)
Self-employment	0.034 (0.122)	0.034 (0.123)
Hours worked	11.456 (15.736)	10.709 (15.551)
Monthly earnings (0000 riels)	-30.247 (21.361)	-29.845 (21.440)
First-stage F stat.	55.338***	56.270***
<b>Observations</b>	<b>256</b>	<b>250</b>

# Barriers

- Examine individual barriers to taking up and completing the training
- Explore whether the differences among individuals including personality traits, intrinsic and extrinsic motivations and risk and time preferences influence the completion rates



# Dropout behaviour – Reasons

Reasons	% of Total Dropout Sample		
	Total	Female	Male
Household/family obligation (including taking care children/family members)	31.9	35.0	29.6
Had no transportation to training institute	23.4	10.0	33.3
Found work opportunities	17.0	30.0	7.4
No monetary incentive for participating in the training	8.5	10.0	7.4
Lost interest in training/ Dissatisfied with training	6.4	0.0	11.1
Others (got married, migration, sick)	12.8	15.0	11.1
Observations	47	20	27

# Differences in Personality Traits, Self-esteem and Intrinsic and Extrinsic Motivations between Completers and Dropouts

<b>Panel A: Personality Traits and Self-esteem:</b>	Openness	Conscientiousness	Extraversion	Agreeableness	Neuroticism	
	(1)	(2)	(3)	(4)	(5)	
Completion vs. Dropouts	0.111	0.087	0.171*	0.134	0.171	
	(0.099)	(0.108)	(0.094)	(0.101)	(0.112)	
Observations	84	84	84	84	84	
<b>Panel B: Intrinsic and Extrinsic Motivations:</b>	Intrinsic motivation	Extrinsic motivation	Enjoyment Scale	Challenge Scale	Outward Scale	Compensation Scale
Completion vs. Dropouts	0.010	0.017	0.015	0.012	0.018	0.025
	(0.013)	(0.014)	(0.019)	(0.024)	(0.019)	(0.027)
Observations	84	84	84	84	84	84
<b>Panel C: Risk and Time Preferences</b>	Switching row in risk	Switching row in time				
Completion vs. Dropouts	-0.007	-0.007				
	(0.018)	(0.024)				
<b>Observations</b>	80	82				

This table reports marginal effects from the Probit estimations. Dependent variable is in the first column. The number of observations is from the follow-up survey. Regressions controls for age, gender, education, marital status and recruitment round dummies. Robust standard errors clustered at the individual level are reported in parentheses

# Conclusion and lessons learned

- No effects of training program on employment outcomes
- Training alone is not enough for disadvantaged young people to break into the labour market
  - Job-readiness training, job placement assistance, career guidance and counselling
- Including saving or income generation activities for participants during the training and providing transportation assistance may prevent dropouts

# THANK FOR YOUR ATTENTION!

