

# Vocational training for youth in LMICs: some operational and impact evaluation perspectives

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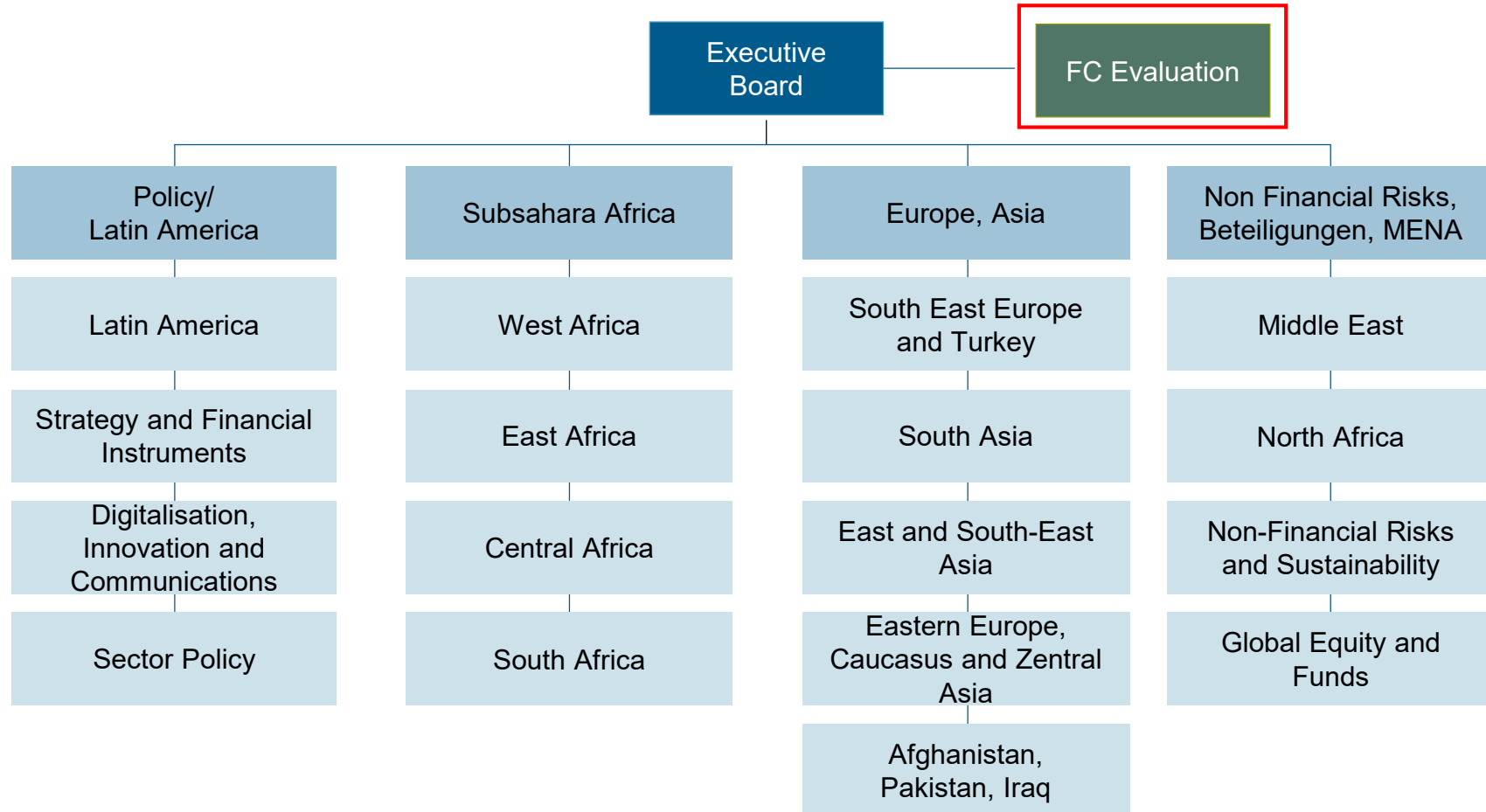
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## **Background:**

**Independent evaluation at KfW Development Bank**

# The independent evaluation function at KfW development bank



# The independent evaluation function: 3 pillars

## (1) Project Evaluations

- Annual representative random sample of completed Financial Cooperation projects
- Systematic ex-post project success rating applying OECD DAC criteria
- Key pillar of our evaluation work, implemented since 2001
- More than 1,100 project evaluations available

## (2) Development Impact Lab

- Large-scale impact evaluations addressing key topics for the operational business
- Methodologically rigorous
- The question determines the method => “form follows function”
- 25 IEs started since 2020

## (3) Institutional Learning

- Biennial evaluation report; peer discussions; sector retreats
- MAPME: Open source geo data initiative
- **Interactive Database for Evaluation and Learning IDEaL**
- <https://www.kfw-entwicklungsbank.de/ideal/#/enViewDefault>



**... and now for the actual topic**

## Starting point

- LMIC labor market challenges: un(der)employment, low wages, low rates of job creation, high levels of informality, large youth cohorts, skills mismatch, etc.
- Jobs serve to “boost living standards, raise productivity, and foster social cohesion” (WDR 2013)
- Labor earnings are a key driver of poverty reduction
- Investments into vocational skills and other educational interventions aim at increasing workers’ employment probability and earnings

## Some key policy questions

- What do we know about the effectiveness of vocational skills training and related programs?
- What are key design features: Demand-driven? Life skills component? Paid internships?
- How large are the effects? Short- and long-run?
- And: how can we combine academic evidence generation on program effects with the practical reality of running development interventions?

# Goals for this talk

Labor market interventions over the educational lifecycle

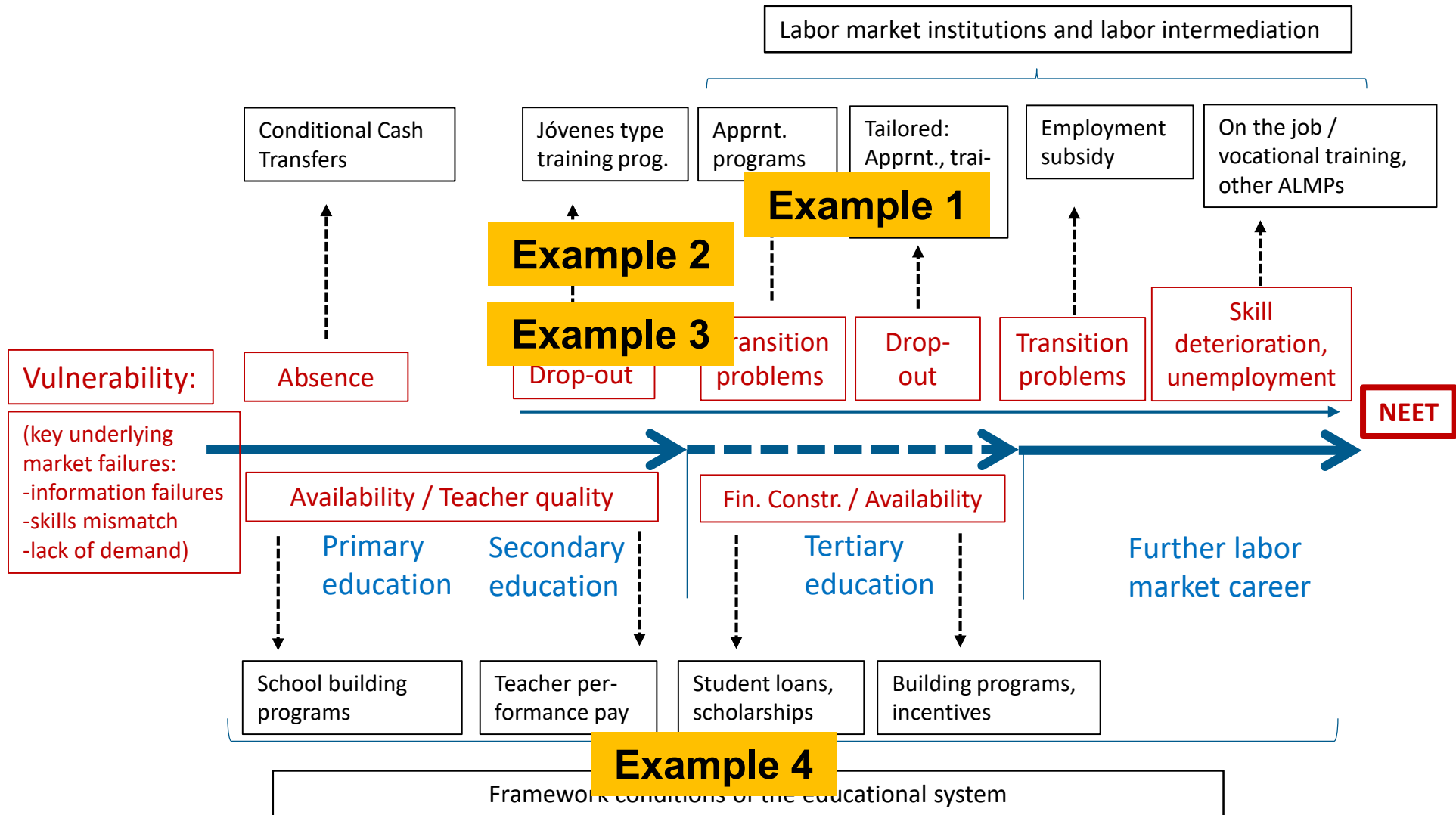
Examples:

1. (Teaching) soft skills and vocational training: “Galpao Aplauso” in Rio de Janeiro
2. The prototypical demand-driven mini-dual-system: “Juventud y Empleo” in the Dominican Republic
3. Basic TVET and cash-for-work: “Integrated skills training” in Lebanon
4. TVET modernization to address skills mismatch: “Promotion of TVET” in Vietnam

Some (subjective) conclusions



# Labor market interventions over the educational lifecycle



# 1) (Teaching) soft skills and vocational training:

**“Galpao Aplauso” in Rio de Janeiro**

## Context

- The importance of combining technical / vocational training with socio-emotional training => life skills / non-cognitive skills
- Reason: target group of disadvantaged youths often without completed schooling, and/or coming from problematic, dysfunctional family and social context
- Research project with Inter-American Development Bank (IDB)
- Emphasis on: Innovative approaches to teach “life skills”
- “A ganar” => sports; “Galpao Aplauso” => theater







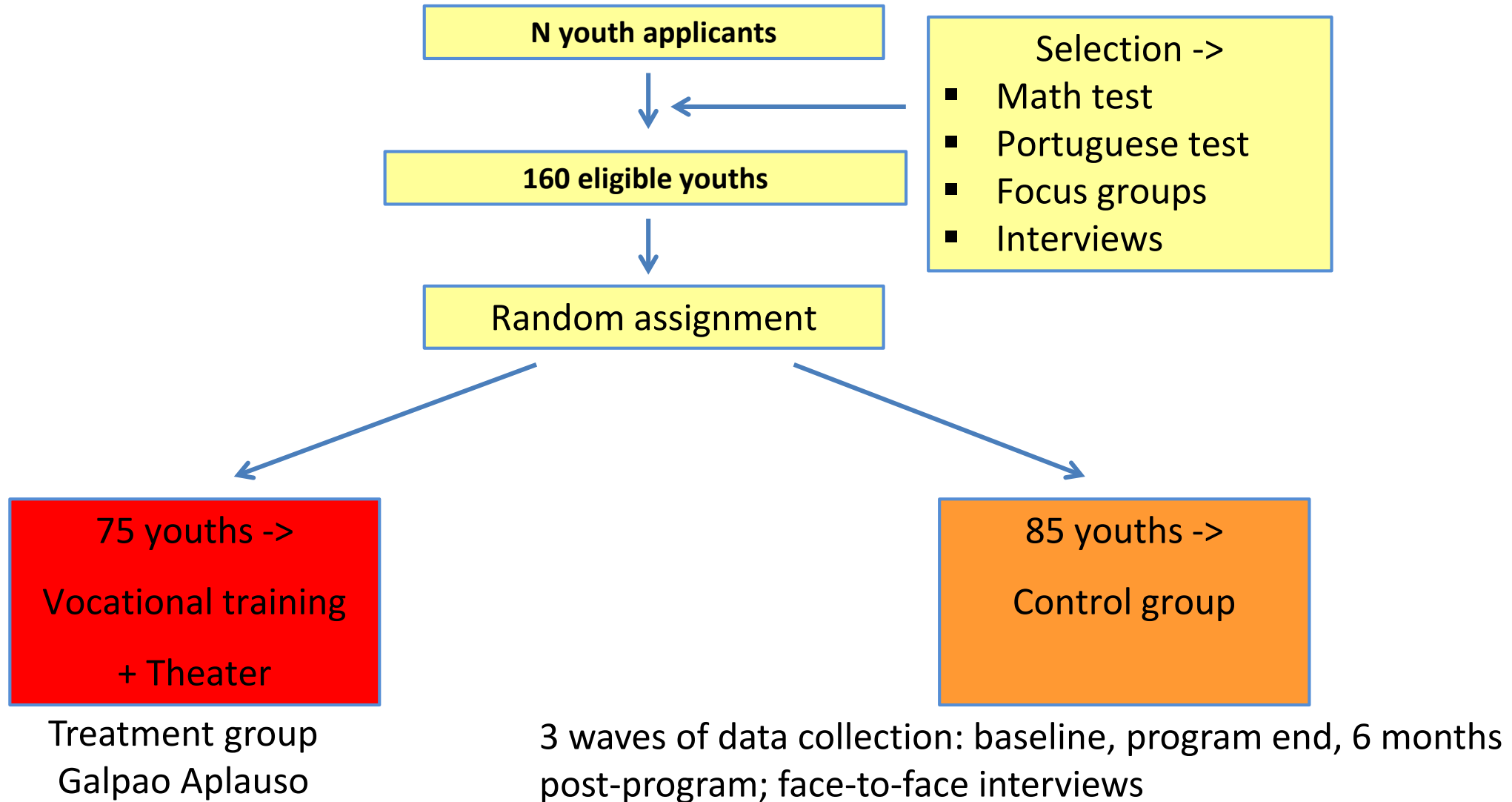








# RCT design per cohort





# “Galpao” treatment effects on labor market outcomes

	Last week salaried job	Unconditional monthly labor income (in R\$)
	(1)	(2)
Treatment×1st follow-up	0.038 [0.064]	90.576 [62.866]
Treatment×2nd follow-up	0.129* [0.069]	175.664** [76.118]
Mean control, 1st follow-up	0.747	663.280
Mean control, 2nd follow-up	0.837	856.701
Observations	949	944
Individuals	358	358
R-squared	0.112	0.232
	Formal Contract	Weekly hours
	(4)	(5)
Treatment×1st follow-up	-0.003 [0.084]	-0.064 [2.211]
Treatment×2nd follow-up	-0.011 [0.093]	-0.876 [2.275]
Mean control, 1st follow-up	0.802	42.964
Mean control, 2nd follow-up	0.821	43.404
Observations	579	664
Individuals	307	322

- Economically large impacts
- Specific market with rather high formality
- Socio-emotional skills: only impact on self-control
- Impacts through skills and signaling

## **2) The prototypical demand-driven mini-dual-system:**

**“Juventud y Empleo” in the Dominican Republic**

# The “Juventud y Empleo” program

- In place since 2003, co-financed by the DR government and the IDB
- One of the “Jóvenes” programs implemented in many LAC countries since the 1990s
- “Demand-driven”: training institutions have to bid for funding, and prove collaborations with firms that provide the internships
- Possibly as close as it gets to a public policy in a LMIC



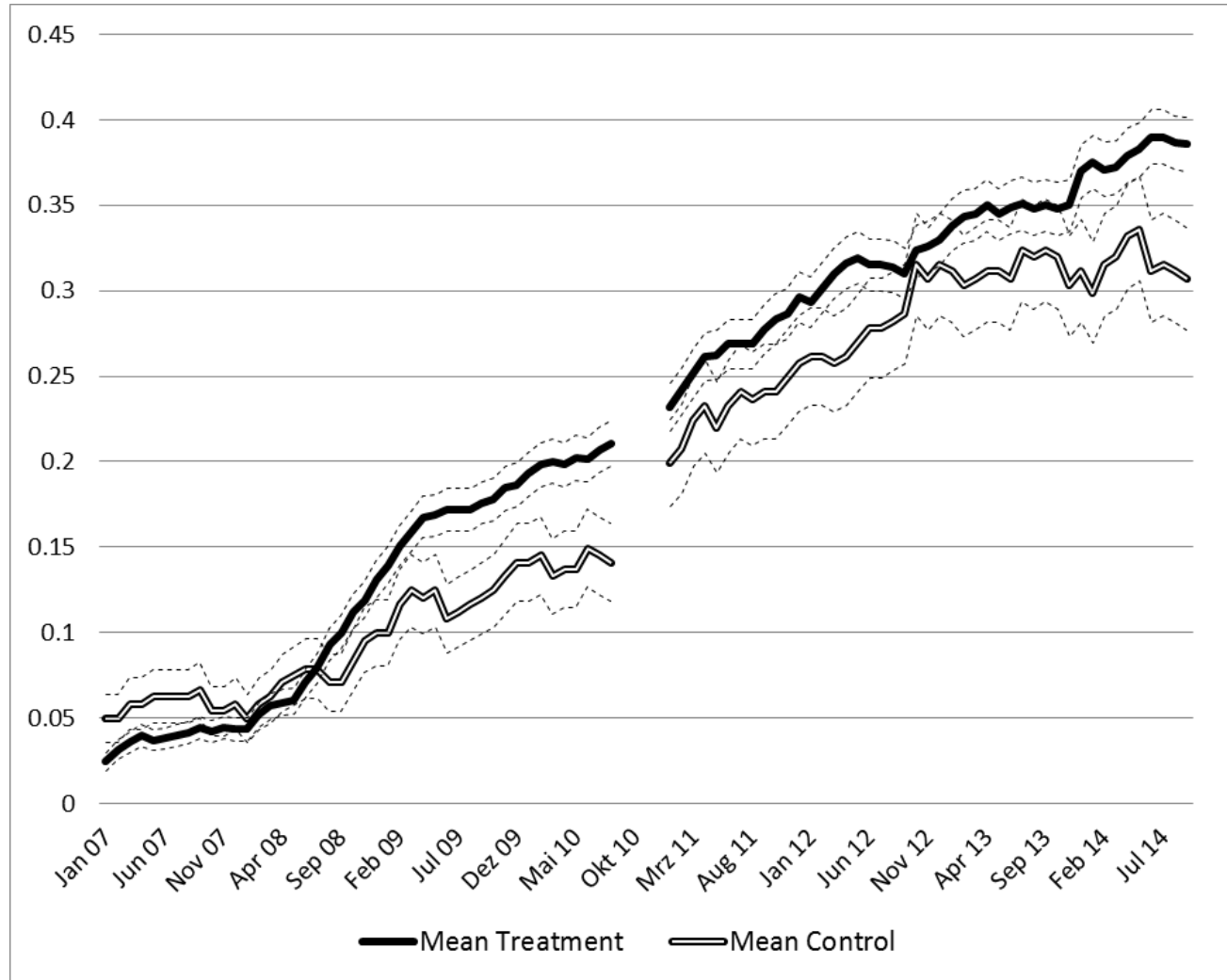
## The “Juventud y Empleo” program

- First training program in LAC evaluated using an RCT -> short-run effects for the 2004 cohort studied in Card et al. (2011) -> Small impacts on formality and earnings
- Implementation challenges for the experiment -> we re-designed the 2008 cohort for a large-scale, long-run RCT using a waitlist design
- Target group: 16-29 years of age, poor neighborhoods, not in education; at most high school, unemployed or inactive, Dominican nationals
- Mini-dual-system: Skills training of 225h total -> 150h vocational training in a low-skill qualification (hairstylist, admin assistant, mechanic) + 75h soft skills training. Afterwards: 3 months internship in a private firm

# ITT effects “Juventud y Empleo” 7 yrs after random assignment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Outcomes	All	Women	Men	Santo Domingo	Santo Domingo Women	Santo Domingo Men	Age 16-21	Age >21
<i>Employed</i>	0.0048	0.0165	-0.0059	0.0393	0.0614	-0.0089	-0.0026	0.0206
	(0.0180)	(0.0254)	(0.0225)	(0.0362)	(0.0476)	(0.0491)	(0.0264)	(0.0273)
Mean control group	0.724	0.641	0.865	0.705	0.635	0.855	0.737	0.711
<i>Employed with health insurance</i>	0.0395**	0.0228	0.0776**	0.0810**	0.0896**	0.0618	0.0295	0.0465*
	(0.0191)	(0.0235)	(0.0311)	(0.0339)	(0.0388)	(0.0680)	(0.0292)	(0.0242)
Mean control group	0.237	0.202	0.298	0.221	0.162	0.348	0.286	0.187
<i>Employed with written contract</i>	0.0248	0.0180	0.0403	0.0405	0.0334	0.0373	0.0227	0.0163
	(0.0169)	(0.0207)	(0.0284)	(0.0299)	(0.0366)	(0.0562)	(0.0269)	(0.0223)
Mean control group	0.189	0.155	0.246	0.189	0.155	0.261	0.225	0.151
<i>Monthly earnings</i>	341	268	575	1,007**	1,032**	1,031	483	143
	(265)	(273)	(521)	(462)	(438)	(1084)	(350)	(384)
Mean control group	5000	3599	7368	4879	3443	7961	5213	4778
Observations	3,279	2,041	1,238	1,020	677	343	1,729	1,549

# Long-run labor market trajectory: Men, formal employment



### **3) Basic TVET and cash-for-work:**

**“Integrated skills training” in Lebanon**

## Context and program

- German Ministry for Economic Cooperation and Development (BMZ) finances through KfW Development Bank this non-formal vocational training program, implemented by UNICEF
- Fragile economic and political context; low labor demand; few employment opportunities for females
- Target group encompasses vulnerable Lebanese youth and Syrian refugees
- Program components: (1) 300h basic literacy and numeracy (if needed); (2) 120-250h vocational training (e.g. health sector, agriculture, textile, construction), (3) Life skills 20-50h; then (4) Cash-for-work: USD 400 for 40 days (conditional on successfully completing #2)



# Impact evaluation

- Jointly implemented by KfW, UNICEF and AIR, tailor-made to the context
- DiD design, N=1,040 T+C at baseline, about half of C receive other programs
- Outcomes studied: employment, employability, health lifestyle, psychosocial well-being
- Mixed methods approach with in-depth data collection combining quantitative aspects (youth survey) and qualitative aspects (KII, IDI, MSC analysis)

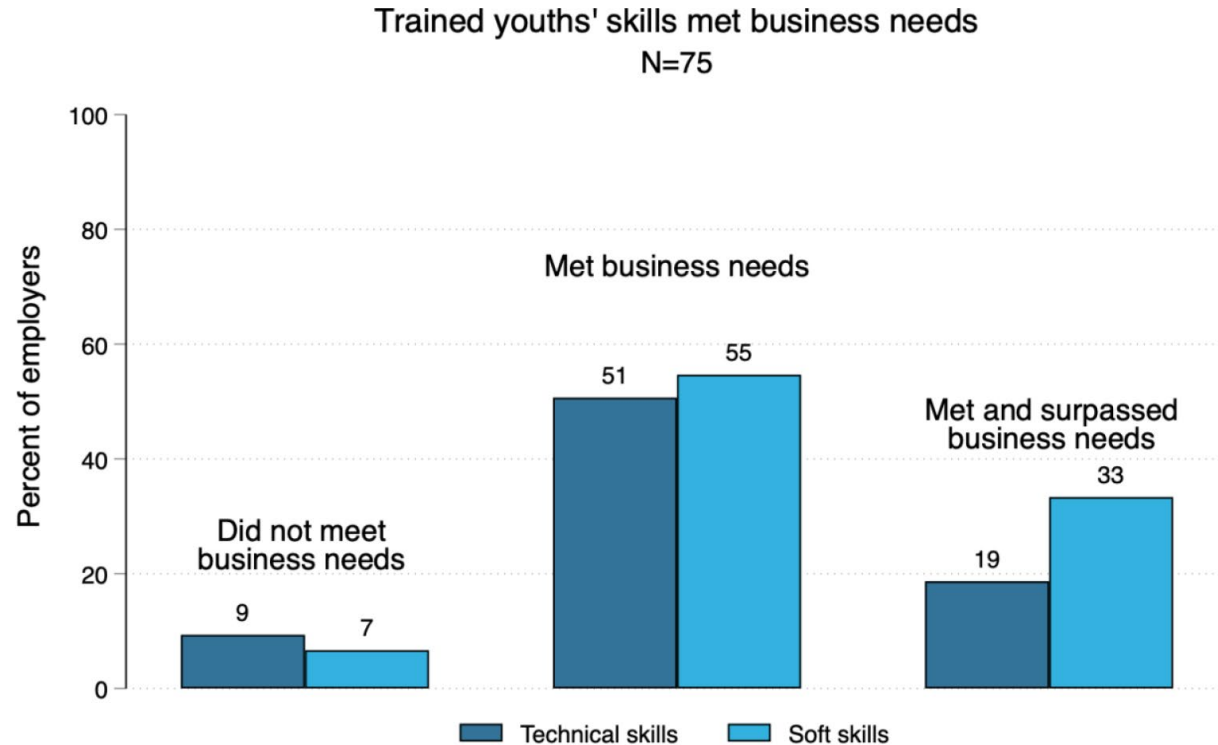


Source:  
UNICEF

# Estimated employment effects

Outcome	Impact – Treatment vs Comparison	Impact – Treatment vs Untrained	Endline Treatment Mean	Endline Treatment N	Endline Comparison Mean	Endline Comparison N
<b>Employment</b>						
Youth is employed	0.07	0.10**	0.40	360	0.33	521
Formal employment	0.04***	0.06***	0.08	360	0.03	521
<b>youth employment quality</b>						
Has a job with regular hours	0.06	0.14	0.69	98	0.59	144
Works at least full week	0.03	0.06	0.69	101	0.74	109
Maximum working hours in a day	1.29***	1.90**	8.33	110	7.60	115
Take home pay (log LBP, monthly)	-0.38	-0.05	14.14	110	13.62	148
Received non-salary benefits from employer	0.13	0.22*	0.40	68	0.18	85
Satisfied with employment	0.04	0.01	0.64	143	0.53	174

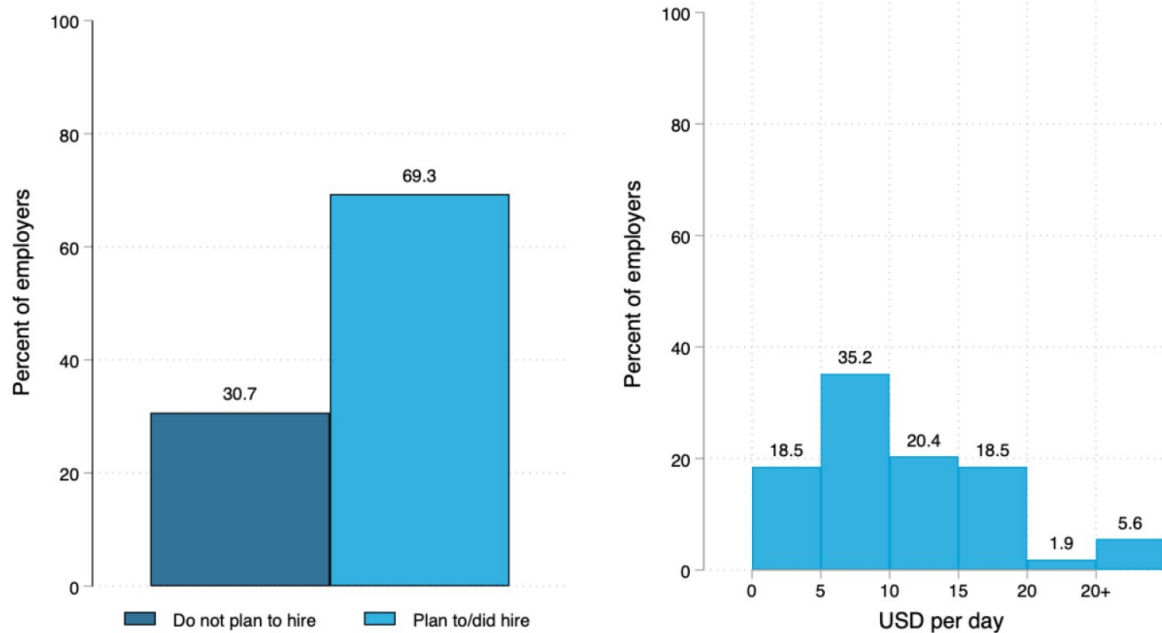
# A (typical?) conundrum: Whereas employers report that the program teaches the right skills...



# ... only one third of employers is willing to hire at the CfW wage

Employers' plans to pay trainees

All Employer N (left) = 75; Willing Employer N (right) = 54



Left panel includes all employers. Right panel includes only those willing to hire a trainee

—Another third would hire at a lower wage

—Which, according to youth, is not sufficient to make a living

### Additional findings:

—Somewhat larger effects for Lebanese vs. refugees

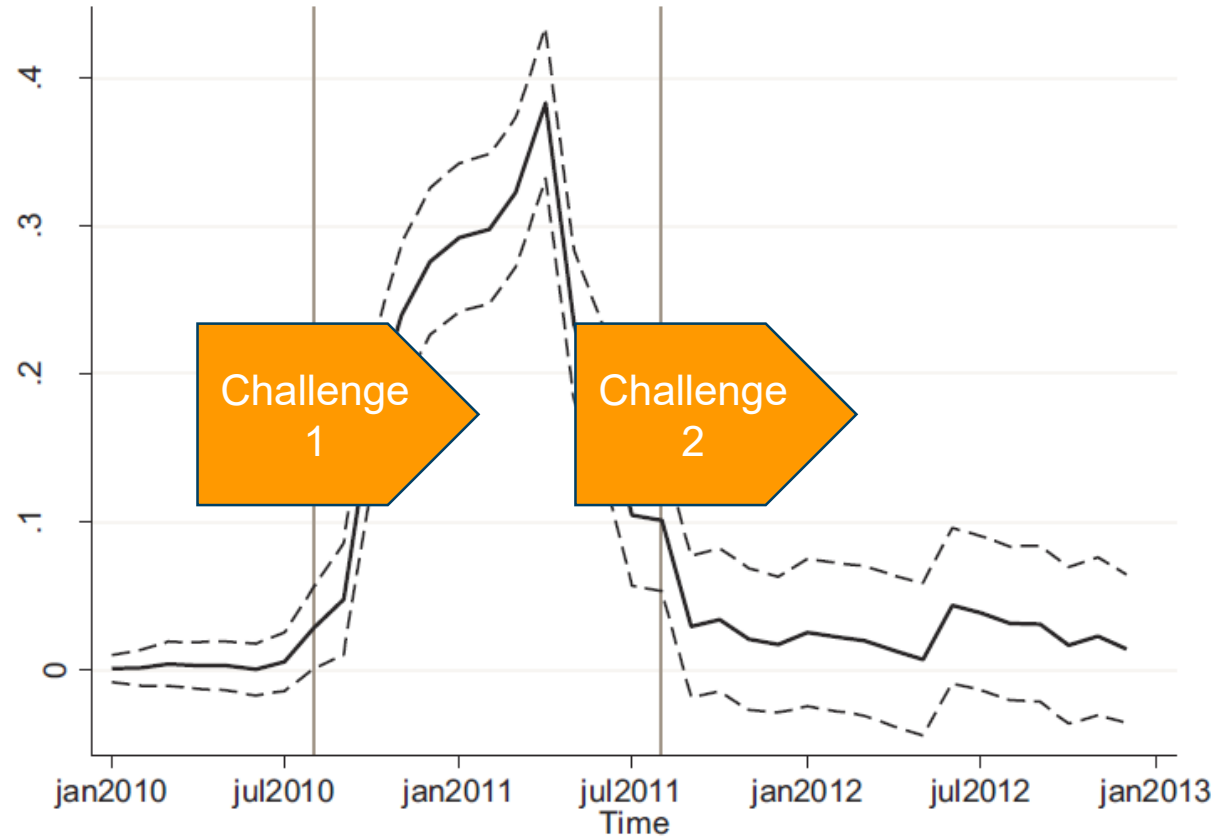
—Program more effective for women

—Important impacts on psychosocial well-being, self-esteem



... a result which reminds me of a typical challenge for labor market programs in low demand markets

FIGURE 1.—TREATMENT EFFECT ON EMPLOYMENT, BY MONTH

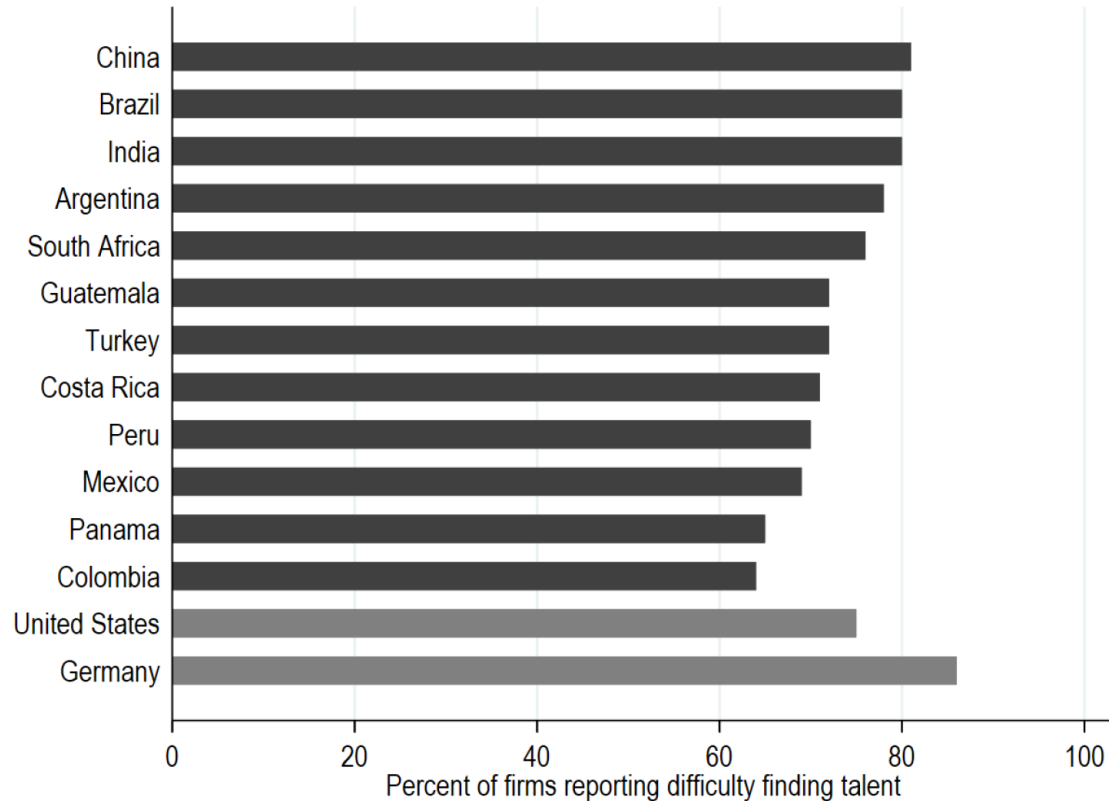


Source: Groh, Krishnan, McKenzie, Vishwanath (2016)

Month-by-month treatment effects on employment, with 95% confidence intervals indicated by the dashed lines. The two vertical lines indicate the period between which the vouchers were announced and the last possible date for voucher use.

## **4) TVET modernization to address skills mismatch: “Promotion of TVET” in Vietnam**

# Many firms in LMICs struggle to find talent with the skills they need



Source: Carranza and McKenzie (2023), using data from Manpower Group Employment Survey

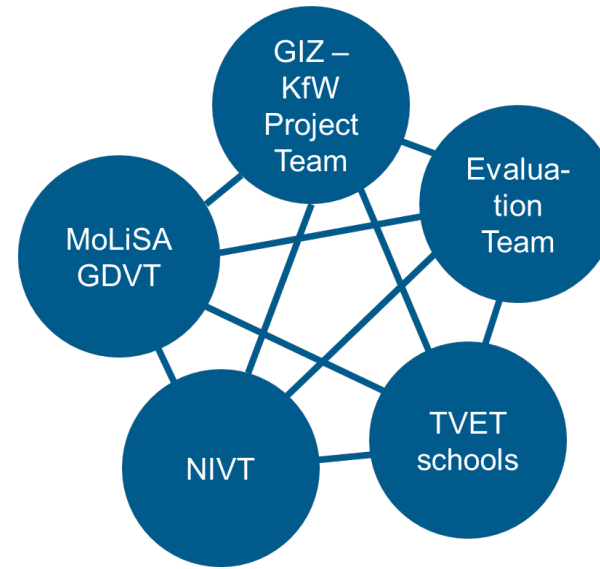


# Promotion of TVET Vietnam

- Program implemented by GIZ and KfW since 2006
- Supports TVET in three components: i) Teacher training, ii) Curricula reform, iii) Technical support (machinery)
- Objective: better match supply and demand on the labor market for TVET graduates in Vietnam => Increase employment chances of youths
- Supported occupations => Metalwork: Welding, Metal Cutting; Electrotechnics / Electronics; Mechatronics; Textile / Garment







- Green: 9 treatment schools
- Red: 8 comparison schools
- 8.999 graduates
- Difference-in-Differences uses two dimensions participation yes/no and supported occupation yes/no to assess the treatment effect

## Estimated employment effect (ATT, occupation-weighted)

Group	Supported occupation	Non-supported Occupation	Difference
Treatment schools	0.771	0.601	0.170
Control schools	0.771	0.765	0.006
Difference			0.164*** Diff-in-Diff

Additional findings:

- Salaries increase, treated graduates find jobs faster and in larger firms
- Match quality: re-training in firms still occurs, but shorter durations

## Some (subjective) conclusions

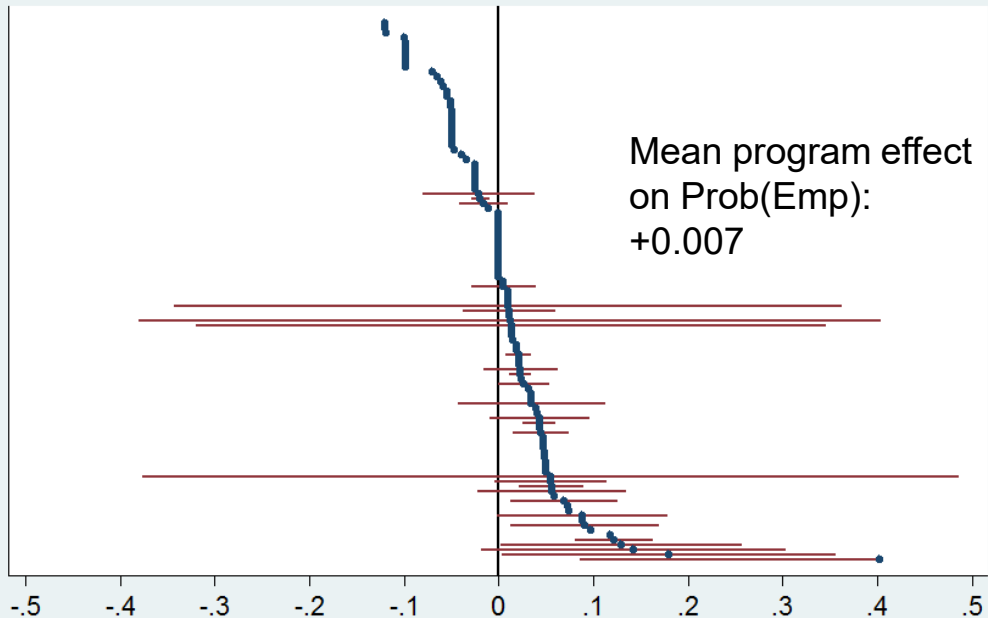
Are these “small” or “large” effects?

=> Compare with the effect sizes in the meta analysis of  
Card, Kluve, Weber (2018)

Specifically: HICs vs. LMICs for short-, medium-, and long-run  
labor market program effects

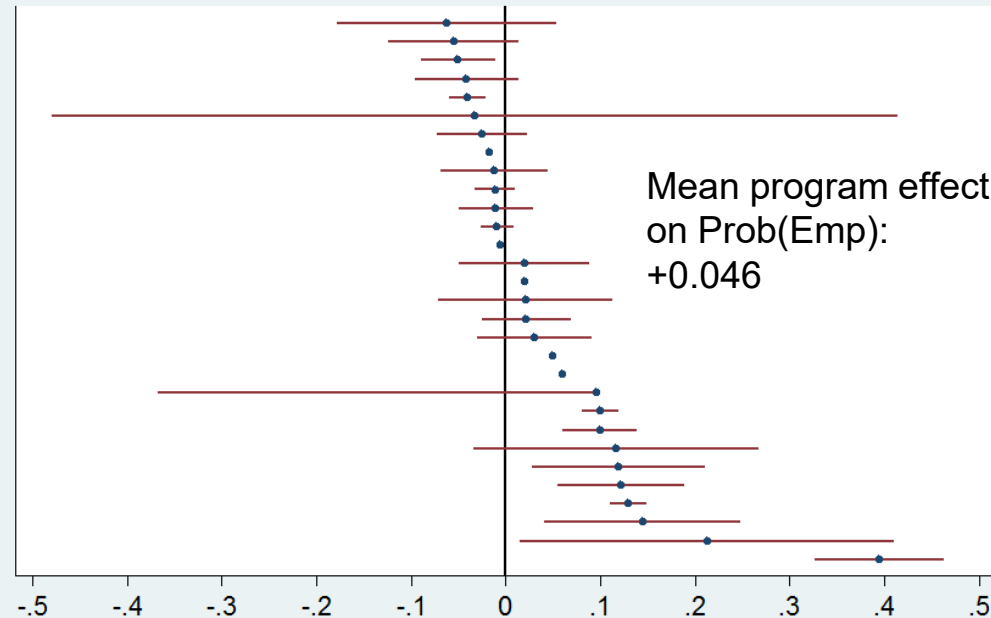
Short term effect sizes

OECD countries



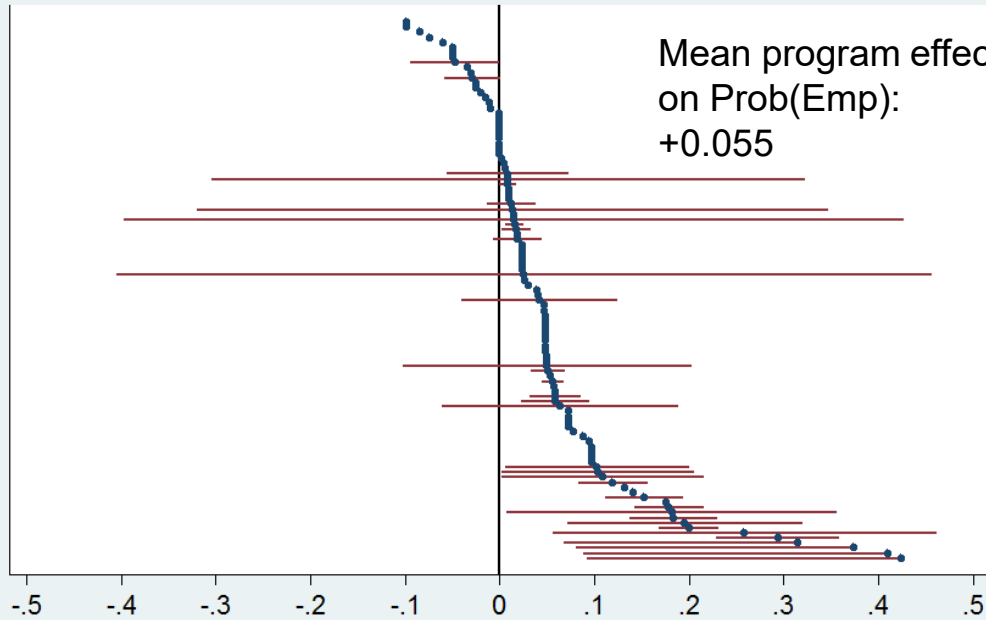
Short term effect sizes

non-OECD countries



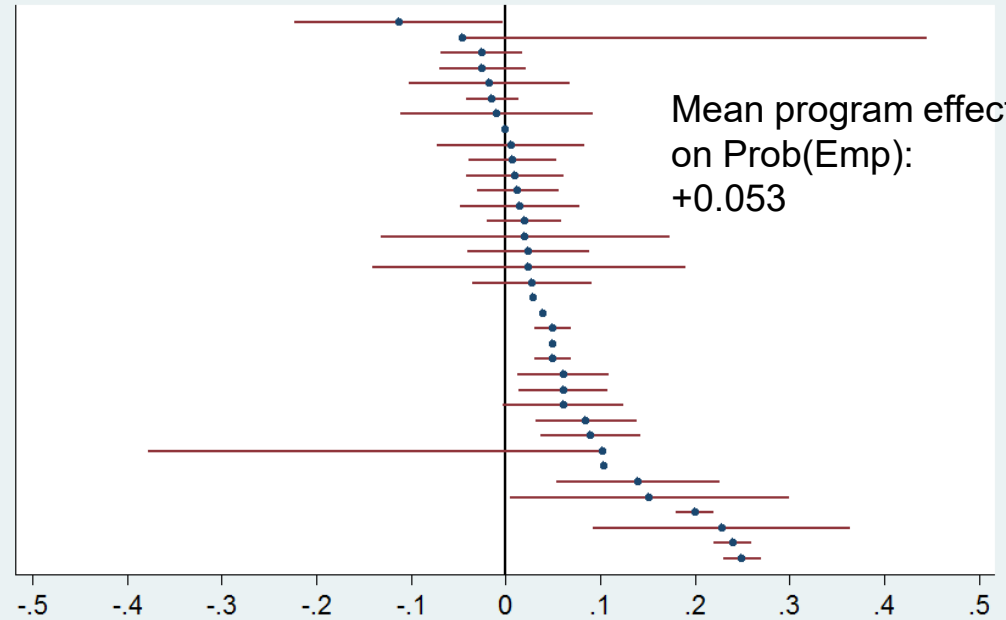
Medium term effect sizes  
OECD countries

Mean program effect  
on Prob(Emp):  
+0.055

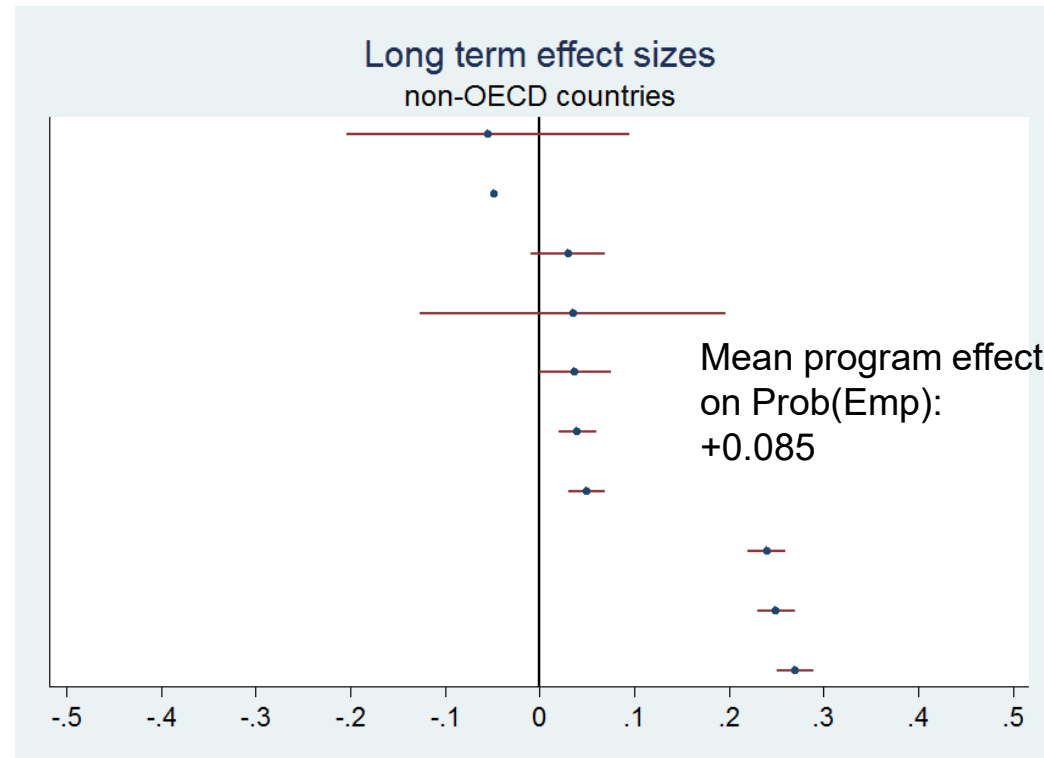
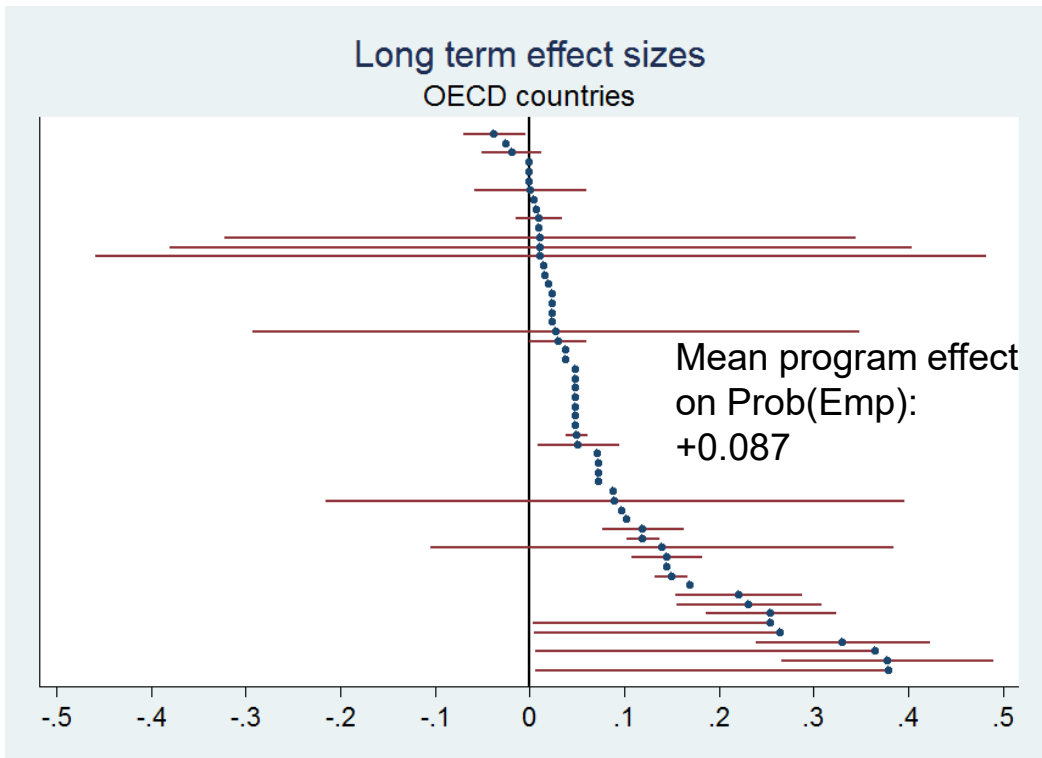


Medium term effect sizes  
non-OECD countries

Mean program effect  
on Prob(Emp):  
+0.053







Source: Data from Card, Kluve, Weber (2018)

## Conclusions

- The evidence shows that vocational skills programs in LMICs have, on average, significant positive – and often sizeable - impacts on labor market outcomes
- Effects on non-cognitive skills: no clear picture how malleable these are in the short run by (small) life skills components, but long-run positive impacts likely, also due to their transferability
- Demand-driven design of vocational training is key
- School-to-work transition in a low-demand market?
- Matching impact evaluations to operational practice is a challenging but manageable task

**Thank you.**

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