

Evaluating youth employment policies with administrative data: methodological and practical challenges

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**Youth employment partnerSHIP: evaluation studies in Spain,
Hungary, Italy and Poland**

Conference of the Czech Evaluation Society
9 June 2021

Background: Youth employment partnerSHIP

Research project in international cooperation:

- Evaluation studies in Spain, Hungary, Italy and Poland
- Counterfactual impact evaluation of active labour market policy programmes
- Motivation: high share of young persons, who are **Not in Education, Employment or Training (NEETs)**

Research outputs: <http://yepartnership.ibs.org.pl/publications>

Hungarian evaluation:

- Can a short-term job trial programme kick-start young jobseekers' career?

<http://yepartnership.ibs.org.pl/p/can-a-short-term-job-trial-programme-kick-start-young-jobseekers-career>

- Counterfactual evaluation of youth employment policies - Methodological guide

<http://yepartnership.ibs.org.pl/content/uploads/2021/02/Methodological-guide.pdf>

COUNTERFACTUAL EVALUATION OF YOUTH EMPLOYMENT POLICIES - METHODOLOGICAL GUIDE

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Tips and experiences from the evaluation of labor market programs aiming at young people in
Poland, Spain, Italy and Hungary

Main issues covered:

- **Use of and access to administrative data**

- **The process of the evaluation:**
 - How to choose a specific programme to evaluate?
 - Choice of the outcome variable
 - What are the goals of the programme?
 - Choice of the counterfactual evaluation method
 - Heterogenous effects

- **Presentation and interpretation of the results for policymakers**
 - Conclusions for design and implementation, external validity, deadweight losses, cost efficiency



“My question is: Are we making an impact?”

THE USE OF ADMINISTRATIVE DATA

The beauty of administrative data:

- High or full coverage, large sample sizes
- Usually high reliability and completeness
- Bias from self-reporting is less of an issue
- Potential of link different databases

Administrative data sources for labour market analysis:

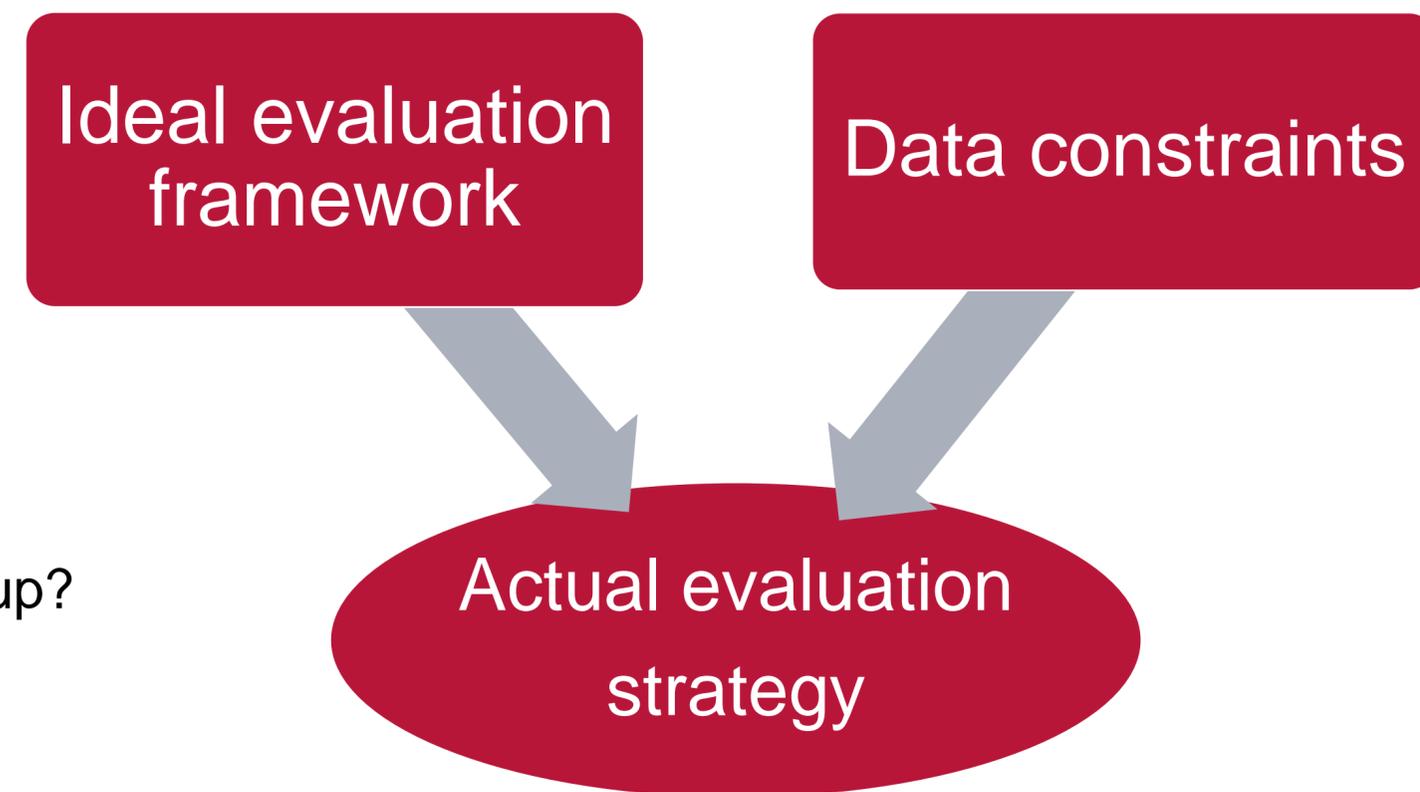
- Social security (Pension, health authorities)
- Public employment services (PES)
- Unemployment registries
- Tax authority database (Personal and corporate income)
- Employer databases



MAIN CHALLENGES WITH ADMINISTRATIVE DATA

Main challenges:

- Legal or practical obstacles to accessing and linking datasets
 - Is there a formal procedure for obtaining access to admin data or is it discretionary?
 - Data protection considerations vs bureaucratic barriers
- Does a country level database exist?
- Can we identify the programme participants, or only the eligible group?
- Does the database contain the necessary variables?
 - Pool of background variables might be limited (family status, education)
 - Labour programme participants are often not followed up: hard to get outcome variables



Linking different administrative databases might be a solution

(e.g. PES with social security, linked employer-employee databases)

COUNTERFACTUAL IMPACT EVALUATION

Main problem: the counterfactual world is not observed



The evaluator has to infer from actual data

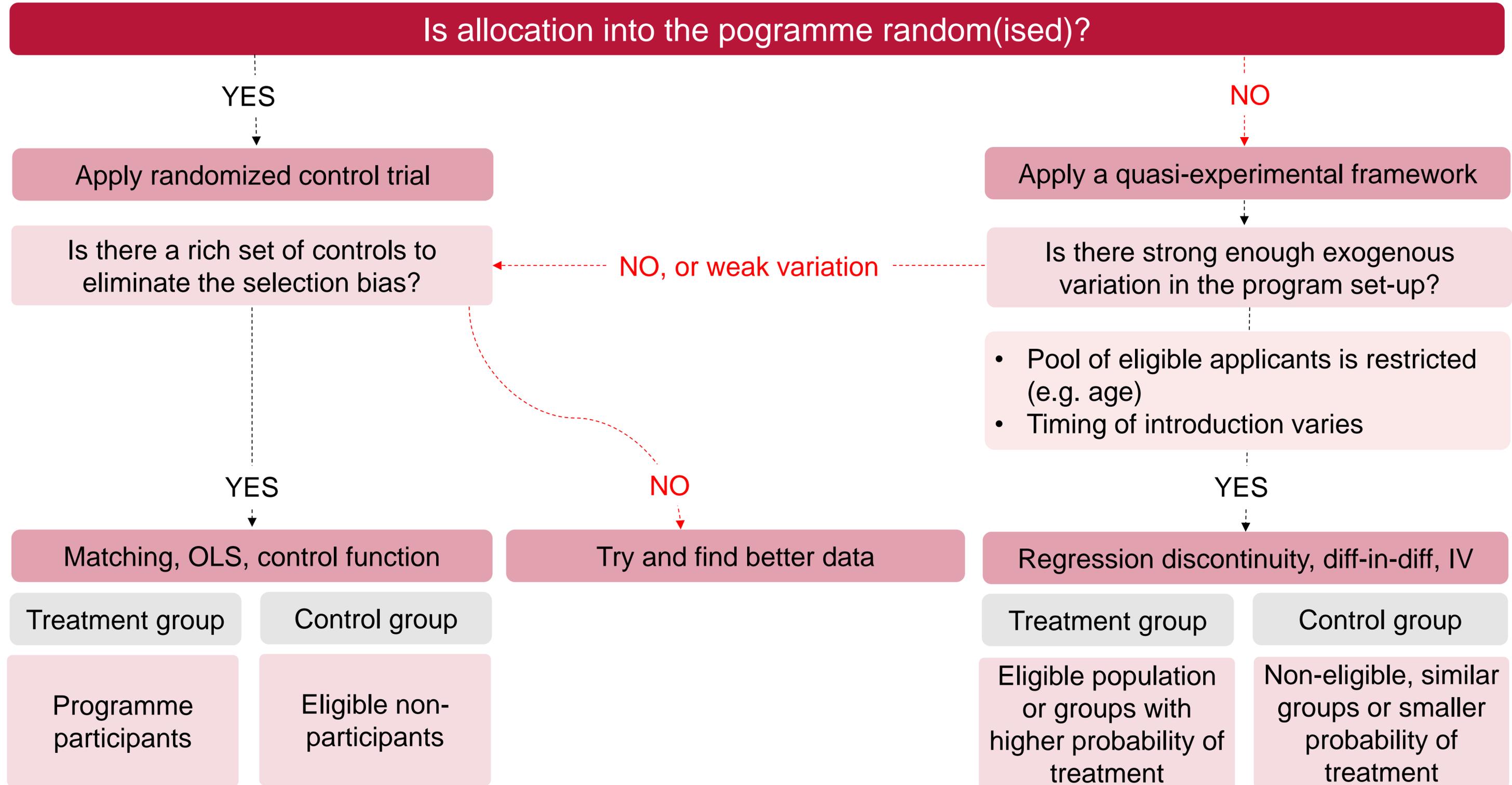
But: non-participants might differ from participants in observed and unobserved characteristics



Selection bias:

- **Baseline difference:** the outcome of the two groups are different even without the policy
- **Heterogeneous policy effect:** the policy affects participants and non-participants differently

HOW TO CHOOSE AN IDENTIFICATION STRATEGY?



AN APPLICATION: COUNTERFACTUAL EVALUATION OF THE 90-DAY JOB TRIAL PROGRAMME IN HUNGARY

90-day job trial

- One of the various programmes within **Youth Guarantee of EU**, introduced in 2015
- Short term wage subsidy, up to 100% of total labour costs
- Subsidized period: 90 days, no obligation of further employment → cheap, but might kick-start employment by a good introduction

Main questions:

Q1 Who are selected into the program from the pool of registered jobseekers?

- Principle of Youth Guarantee: priority to long-term unemployed, vulnerable and socially excluded groups

Q2 What is the effect of participation in the job trial program on

- Work: probability of being employed 6 months after the program and cumulative days within 6 months after completing the programme
- Wages: cumulative wages within 6 months after completing the program

IDENTIFICATION STRATEGY

Identification is a challenge:

- Hard to find exogenous variation and a good control group
- Hard to separate the job trial from other Youth Guarantee programmes (same eligibility rules, same time)



Propensity score matching program participants using two control groups

1. Participants of public works program (and have not participated in YG)
2. Participants of training programs

How can we remove the selection bias?

PROPENSITY SCORE MATCHING

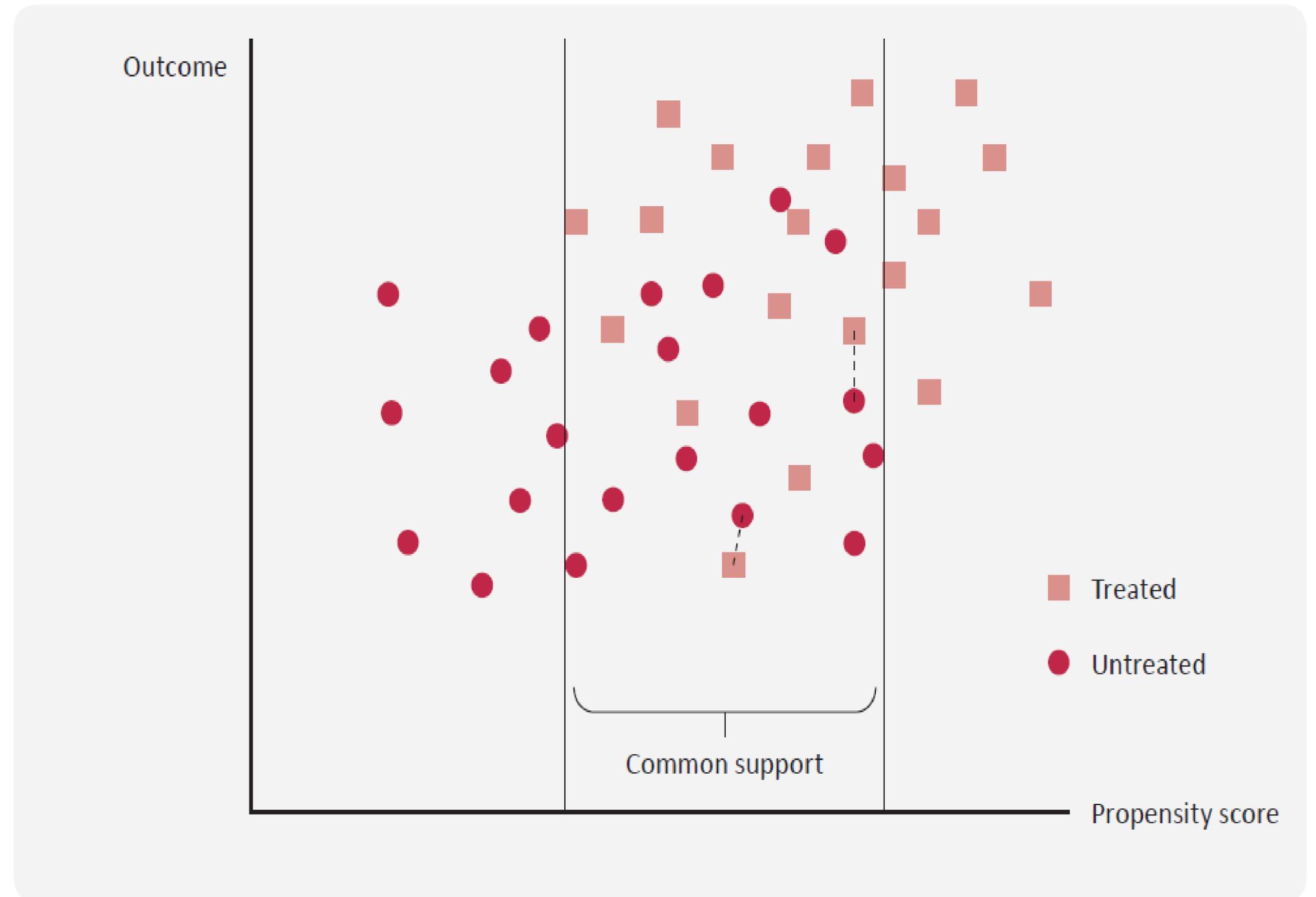
➤ Basic idea: compare programme

participants with similar non-participants

➤ Similar: has the same chance to

participate in the programme

(has similar propensity score)



DATA, OUTCOME AND CONTROL VARIABLES

Data: Admin3

- a large database consists of linked datasets of administrative authorities:
tax, social security, health, public employment service, educational authority
- Individual level, random 50% sample of the population
- Data on program details, employment, wages, benefits from 2003
- Created and owned by the Databank of the Centre of Regional and Economic Studies

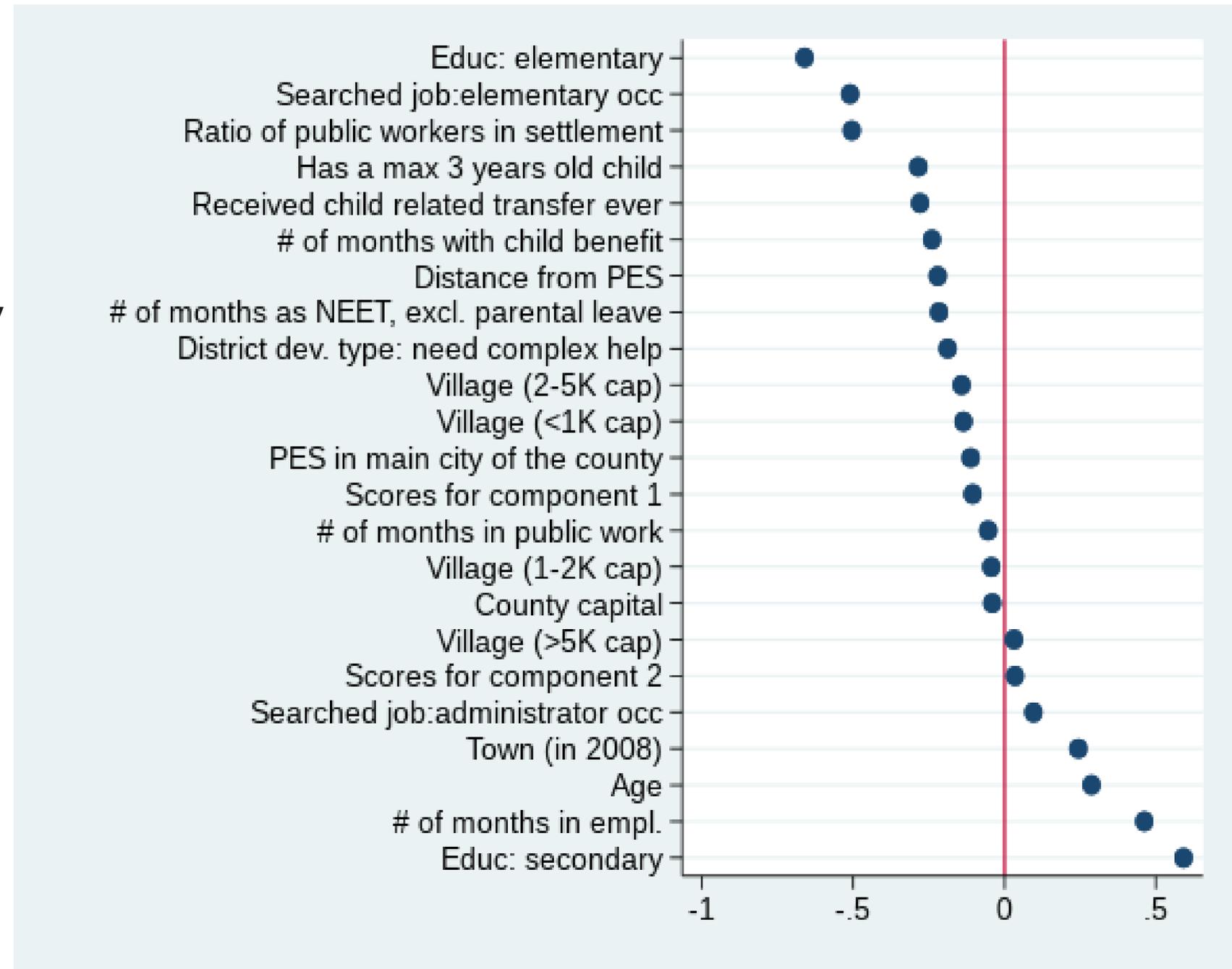


Rich set of:

- **Control variables:** full labour market history, education background, health status, benefits and transfers, competence test scores, type of settlement, distance to public employment service etc.
- **Outcome variables:** employment status and wage income after completion of the programme

SELECTION INTO THE TREATMENT GROUP: CREAM SKIMMING

- Job trial (and YG) participants are the most employable registered jobseekers
 - More educated
 - Longer employment history, shorter NEET history
 - Shorter maternity history
 - Lower prob. to live in small villages
 - Lower prob. to search elementary jobs
- Contradicts principle of Youth Guarantee: priority should be given to most vulnerable groups and long term unemployed



SOME OTHER RESULTS

- Participation in job trial increases the probability of working 6 months after the programme compared to public works participants significantly by 6-8% points
- Selection accounts for more than half of the raw mean difference in the probability of being employed between the treatment group and public works participants
- But no significant difference compared to training participants
- Higher educated programme participants have better outcomes 6 months after the programme, but compared to the control group, the **impact** is similar on participants with basic education
 - **Higher priority should be given to disadvantaged youth**
- Gender dimension: mothers are less likely to participate, the participant women are even more selected than males and the policy effect is weaker → **Policy should foster participation of young mothers**

Thank you for your attention!

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