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# Impact Evaluation of an ESF-Funded ALMP for People with Disabilities

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[www.budapestinstitute.eu](http://www.budapestinstitute.eu) | Vilnius, 5 July 2013



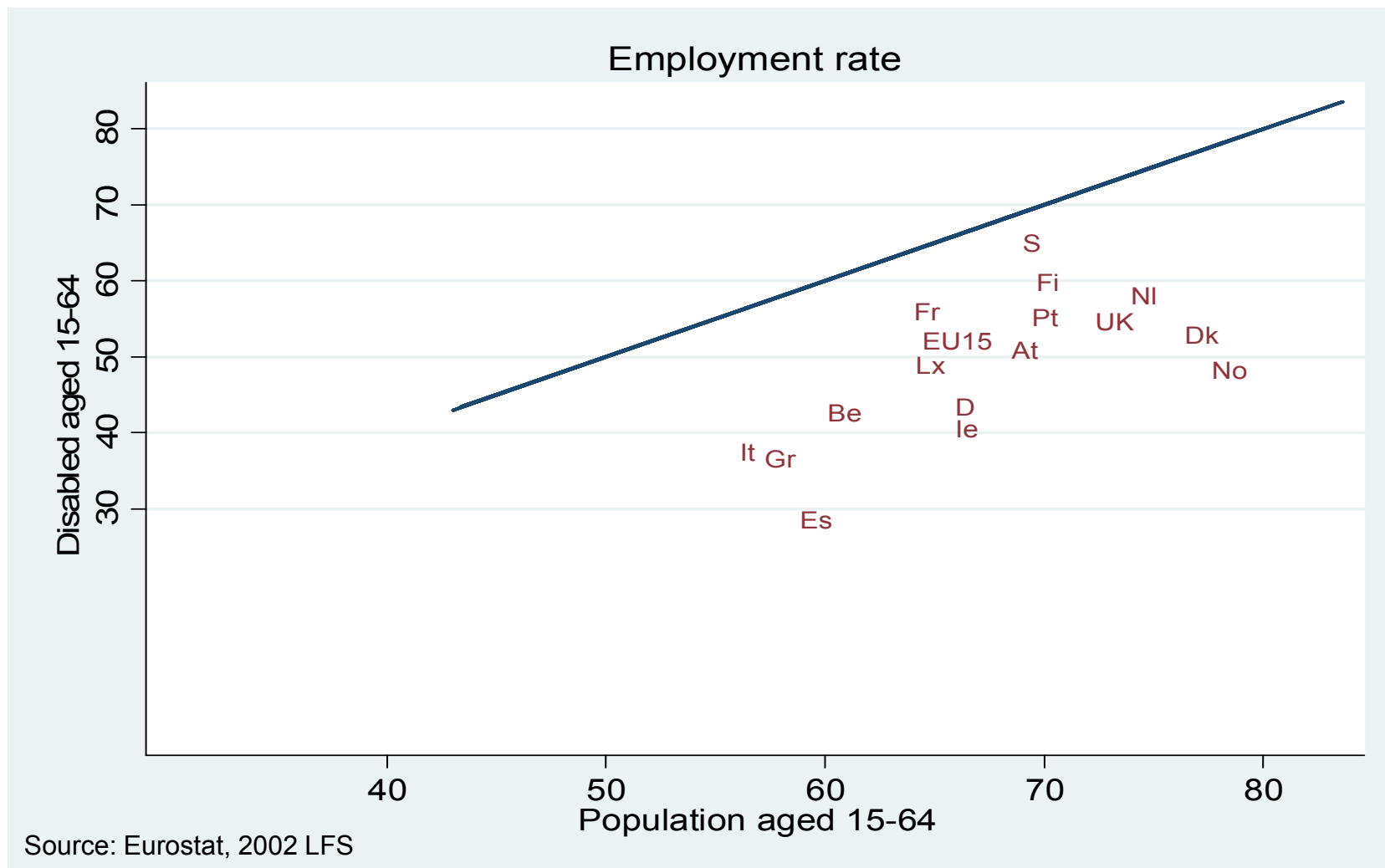
## The Budapest Institute – in brief

- Established in 2008 by four economists
- Independent research and analysis to support policymaking, including impact evaluation
- Expertise in:
  - employment policy
  - social policy
  - education policy
  - quality of business environment
  - better regulation

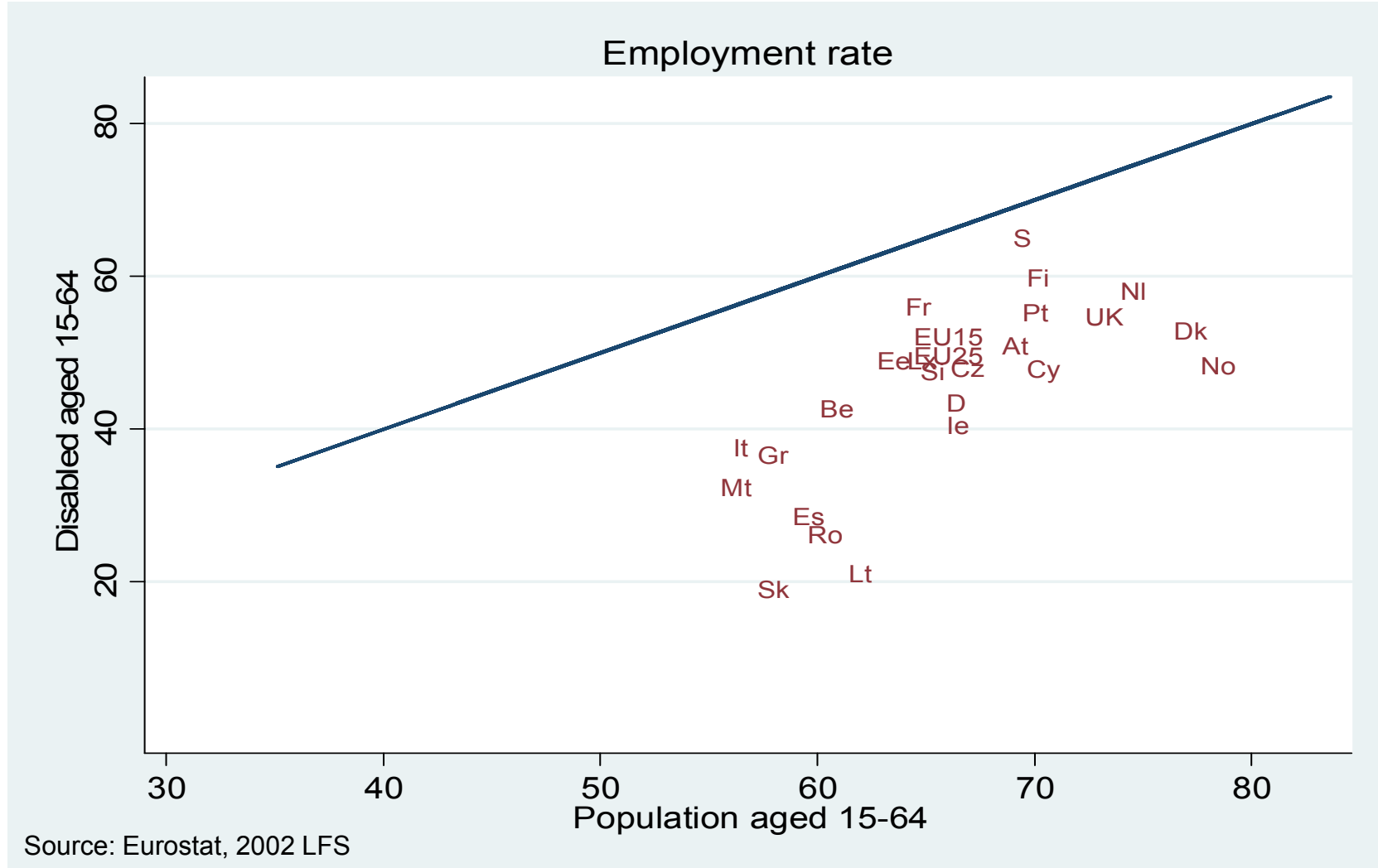
# Outline

- Employment of the disabled in the EU
- Paradigm shift and the SROP 1.1.1 programme
- Data
- Selection and impact evaluation methodology
- Results and discussion
- Conclusions
- Lessons and suggestions regarding evaluation

# Employment of the disabled in Hungary

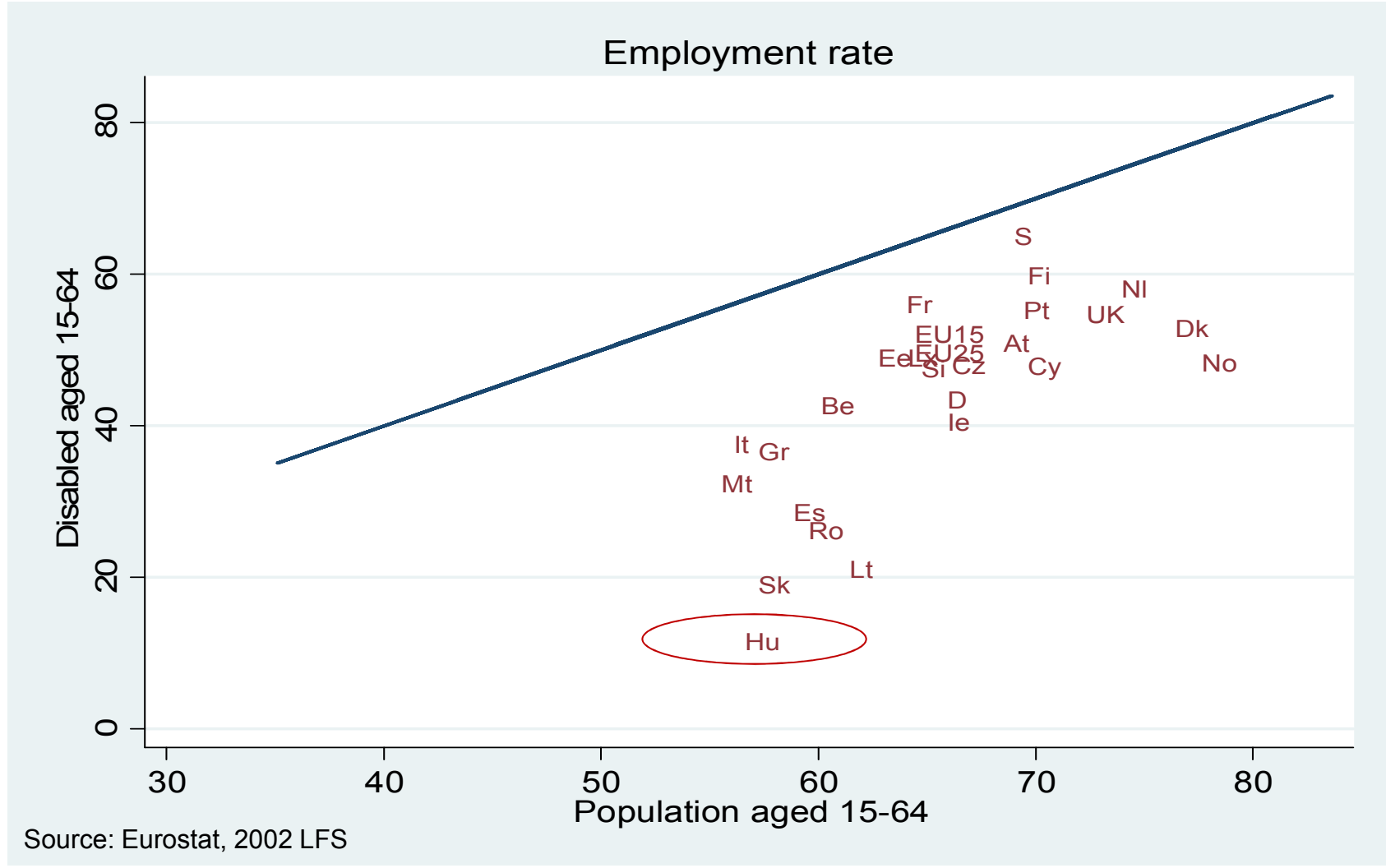


# Employment of the disabled in Hungary



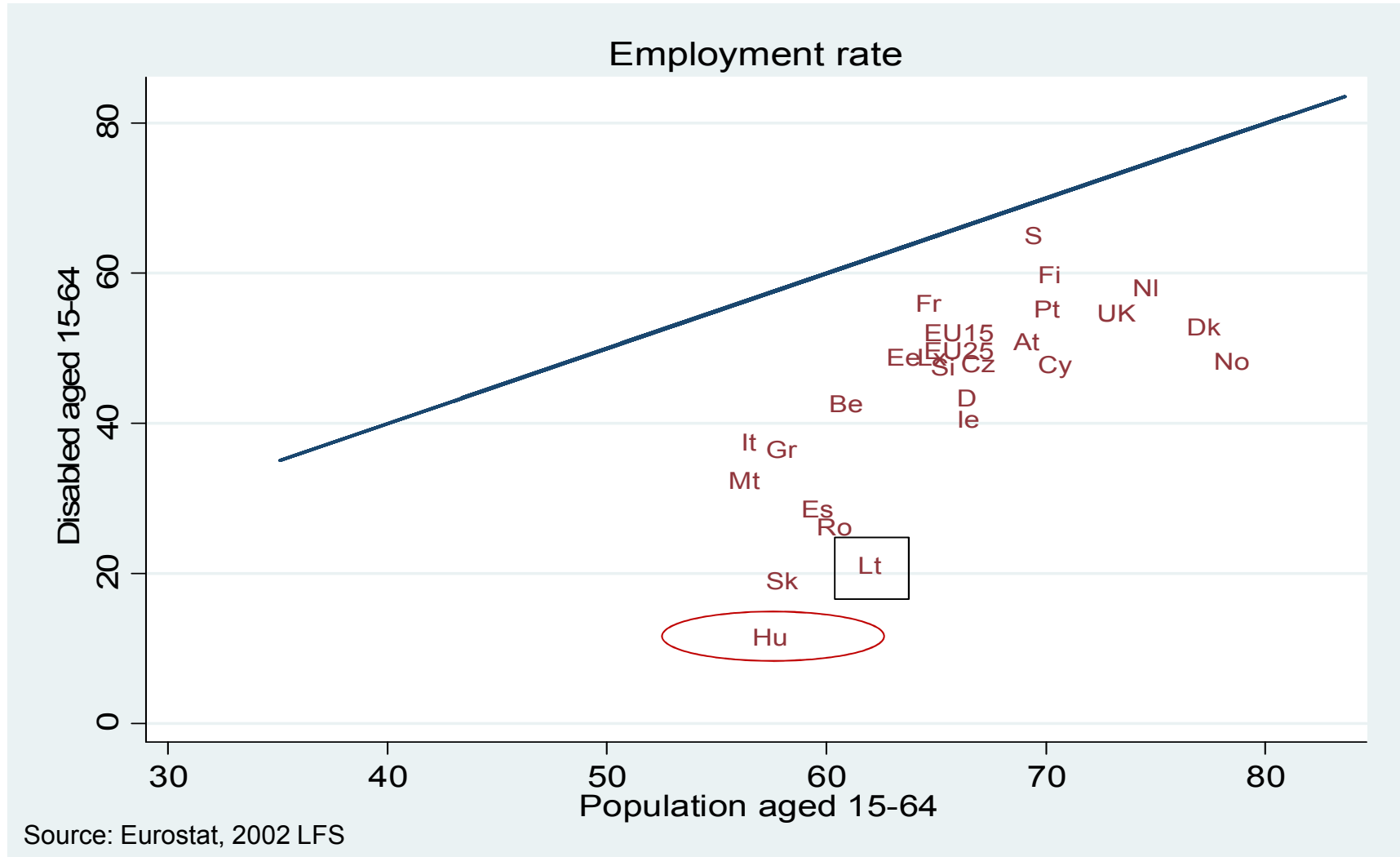
Source: Eurostat, 2002 LFS

# Employment of the disabled in Hungary

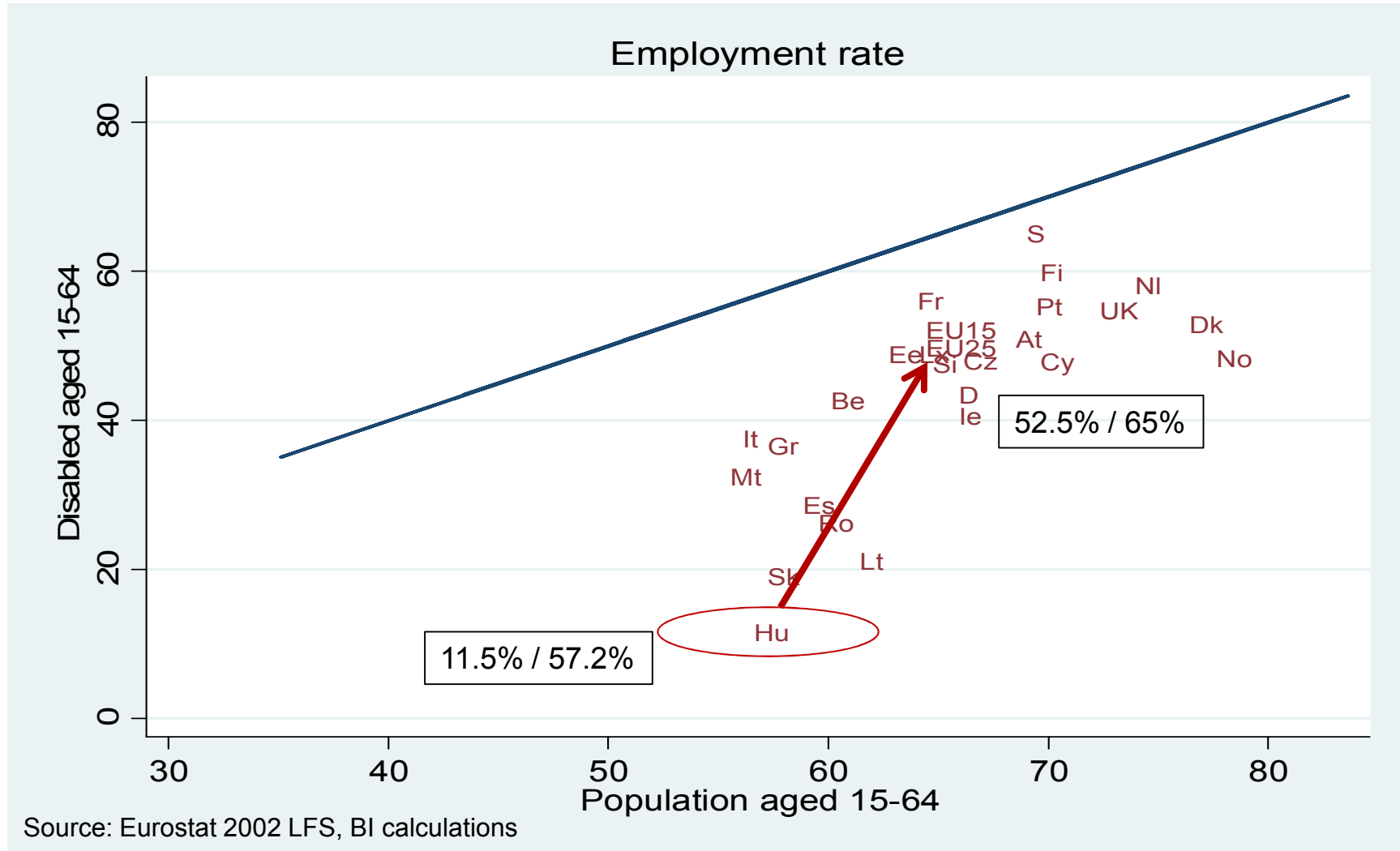


Source: Eurostat, 2002 LFS

# Employment of the disabled in Hungary



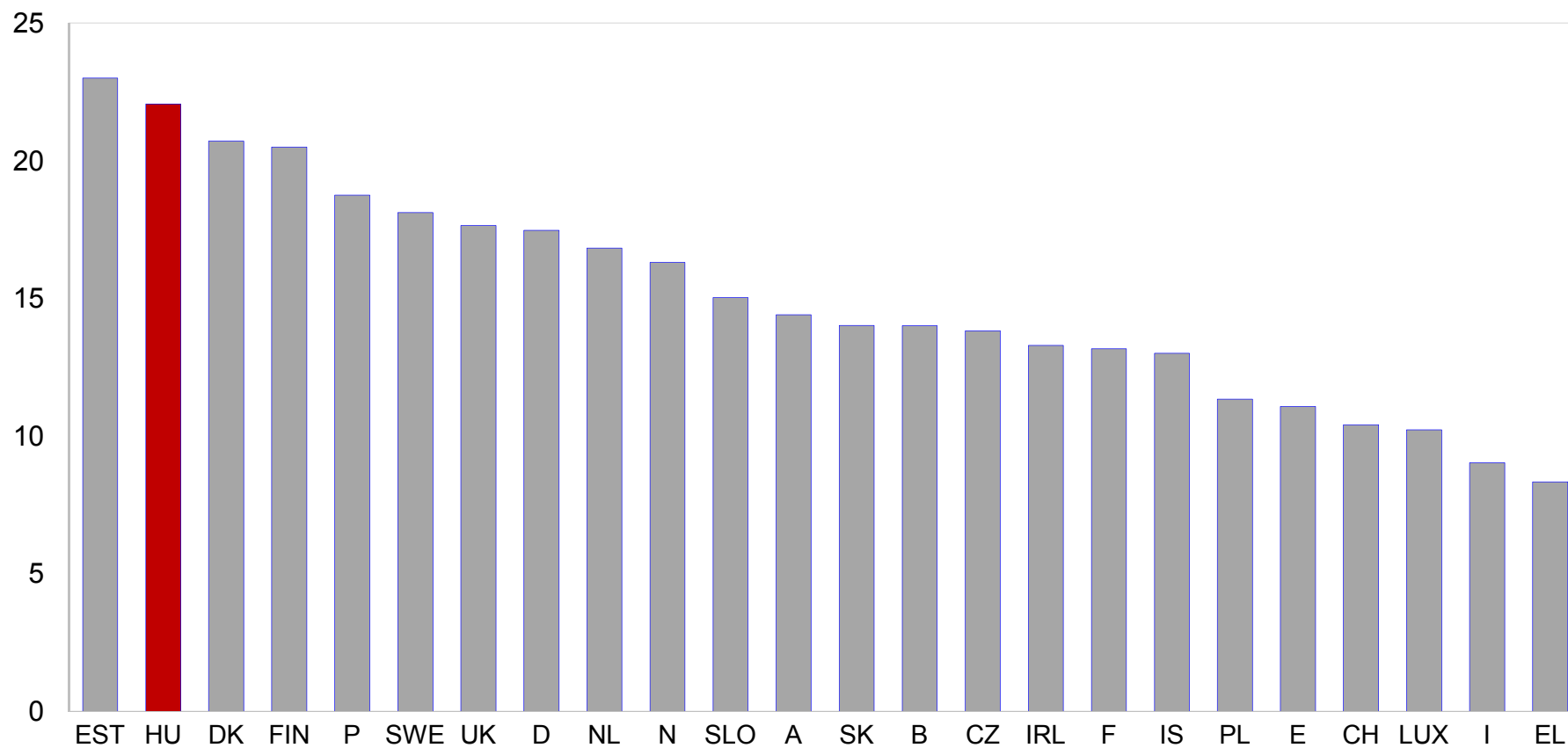
# Employment of the disabled in Hungary





# People with disabilities in Hungary

## Prevalence of disability, age 20-64



Source: OECD

## Policy answer – a paradigm shift in LMPs

- Shift from pension-type benefits towards active labour market measures
- Hungarian example: SROP 1.1.1 ALMP
  - target: people with disabilities
  - goal: reactivation/reemployment
  - 2008-2013
  - mentoring, counselling, training, wage subsidy
  - average package: either training or wage subsidy + mentoring and labour market counselling

## Programme participants

- Recipients of a new rehabilitation subsidy
  - At least 50% loss in work capacity
  - Replaced disability pension, insurance based
  - Offered automatically with no sanctions if refused to participate
  - Coverage: 1/4 of the pool (~6,500 out of ~28,000)
- Recipients of an incapacity benefit
  - 40-50% loss in work capacity
  - Coverage: low (~4,000 out of ~150,000)

## Similar international examples & results

Evaluation results of ALMP's are controversial  
(Kluge, 2010, Hudomiet and Kézdi, 2008)

- National Supported Work Programme, USA  
(Ham and LaLonde, 1996)
  - 90/65/40% reemployment
  - Long term impact: 10%points
- New Deal for Disabled People, UK  
(Orr et al., 2007)
  - Impact: 7-11% points

## Data sources

- NLO programme participation records (treated)
  - entering between 01 March 2008 -31 Dec 2010
- NLO unemployment register (control)
  - 100% sample of the unemployed between 01 Mar 2008 -31 Dec 2010
- Tax registry data on start of work contract
  - for control and treated, until Oct 2012

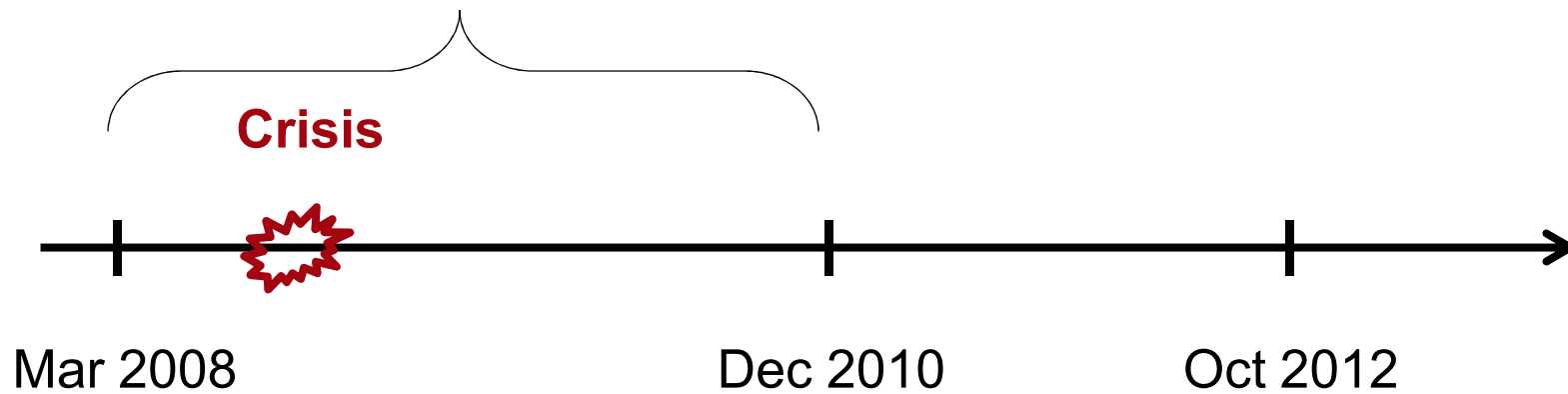
→ linked together at the level of the individual

## Variables in the NLO data

- age, sex, education
- disability
- previous spells of unemployment
- spells of benefit receipt
- programme participation (entry, exit)
- measures within complex programme
- date of entering job

# Time frame

Entries into the programme



Entries into employment/  
unemployment

## Selection into the programme

Selection model

$$P(TREATED = 1|X) = \Phi(X'\beta)$$

Programme participants are more educated

- New rehabilitation subsidy recipients(2/3): self-selection
- Old rehabilitation subsidy recipients(1/3): creaming?



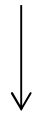
## Selection into the programme

	Treated group	Control group	Test	Differ?
No. of people	10 911	153 275	t-test	.
Man	0.45	0.47	t-test	yes
Age	43.95	46.22	t-test	yes
Unemployment rate	0.11	0.11	t-test	yes
Type of settlement	.	.	chi2-test	yes
Education	.	.	chi2-test	yes

Source: BI calculations from NLO data

## Focus: the uneducated

- Primary education at most (8th grade or less)
- Recorded in the unemployment register
  - All controls were registered
- Not participated in other programs



~1,700 participants

## Focus: the uneducated

	Included participants	Excluded participants	Test	Differ?
No. of people	585	4 345	.	.
Age	44.740	45.550	t-test	yes
Region	.	.	chi2-test	no
Settlement size	.	.	chi2-test	yes
Education	.	.	chi2-test	yes
Employment in/after	0.510	0.470	t-test	no
Employment after	0.070	0.080	t-test	no
Employment – medium term	0.530	0.490	t-test	yes
No reentering – short term	0.870	0.890	t-test	no
No reentering – medium term	0.870	0.890	t-test	no

Source: BI calculations from NLO data

## Impact evaluation: the method

- Impact of programme participation on the probability of reemployment /reentering unemployment (TOT)
- Compare to counterfactual
  - Selection of a control group by matching (one-on-one nearest neighbour matching combined with propensity score estimation)
  - Control group with same observed characteristics (age, sex, education, employment history, location)

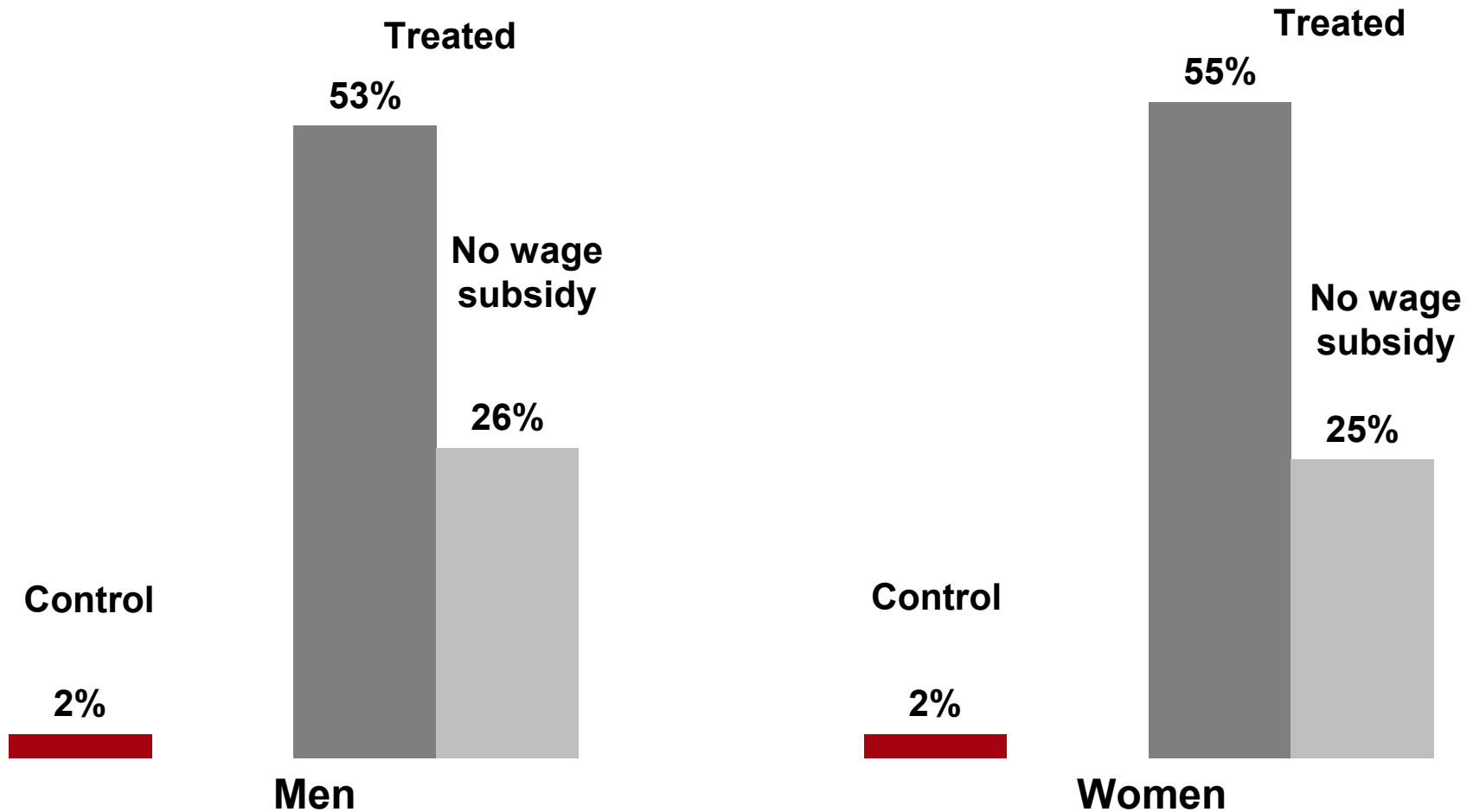
## Treated vs. control group comparison - men

	Treated group	Control group	Test	Differ?
Age	46.05	46.64	t-test	no
Unemployment rate	0.11	0.11	t-test	no
Unemployment history	194.23	225.62	t-test	no
Employment history	798.48	928.60	t-test	no
Long term unemployed	0.49	0.49	t-test	no
Type of settlement	.	.	chi2-test	no
Region	.	.	chi2-test	no

Source: BI calculations from NLO data

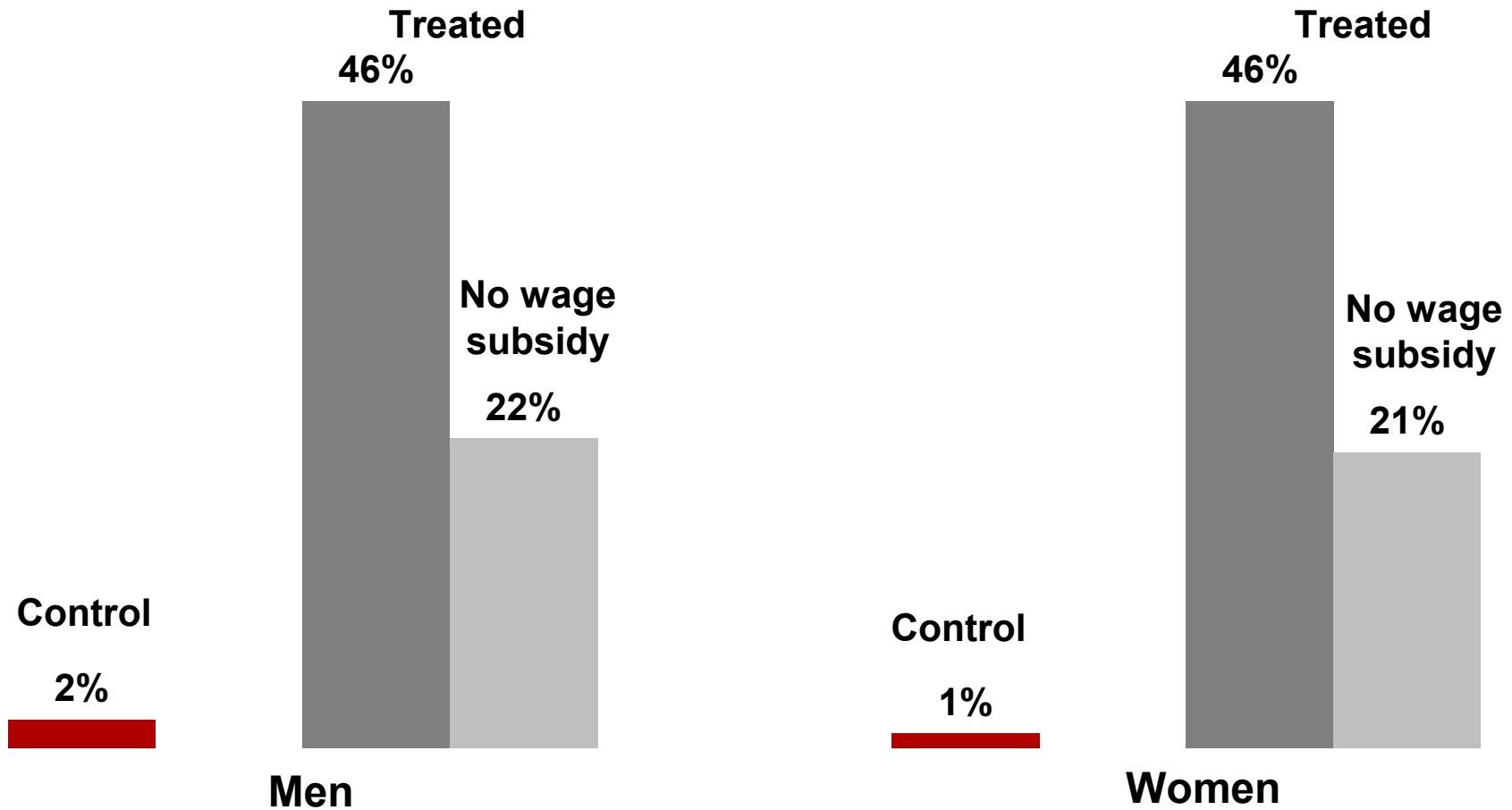
# Impact of SROP1.1.1 w/wout wage subsidy

## Employment rate



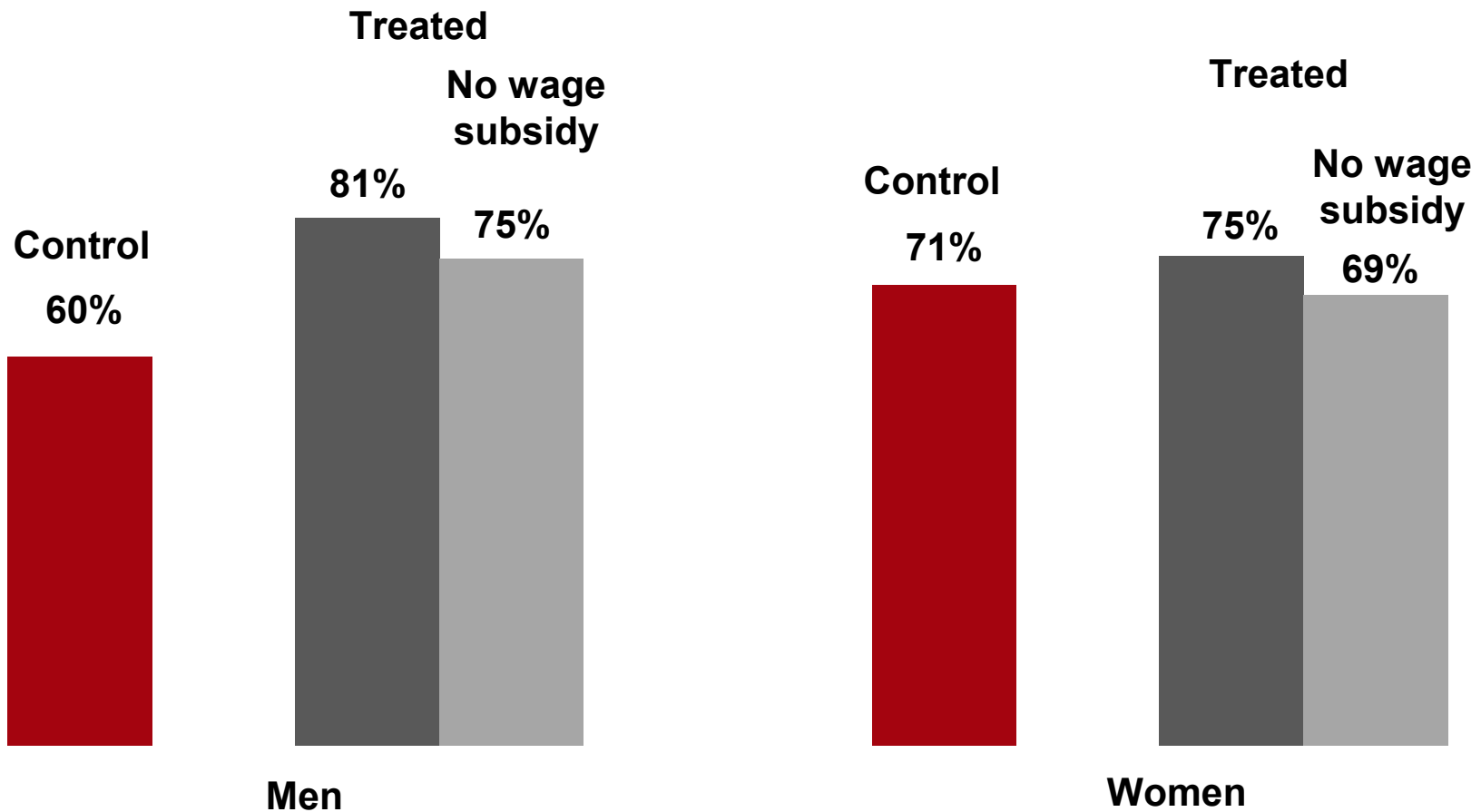
# Impact of SROP 1.1.1 – long term unemployed

## Employment rate



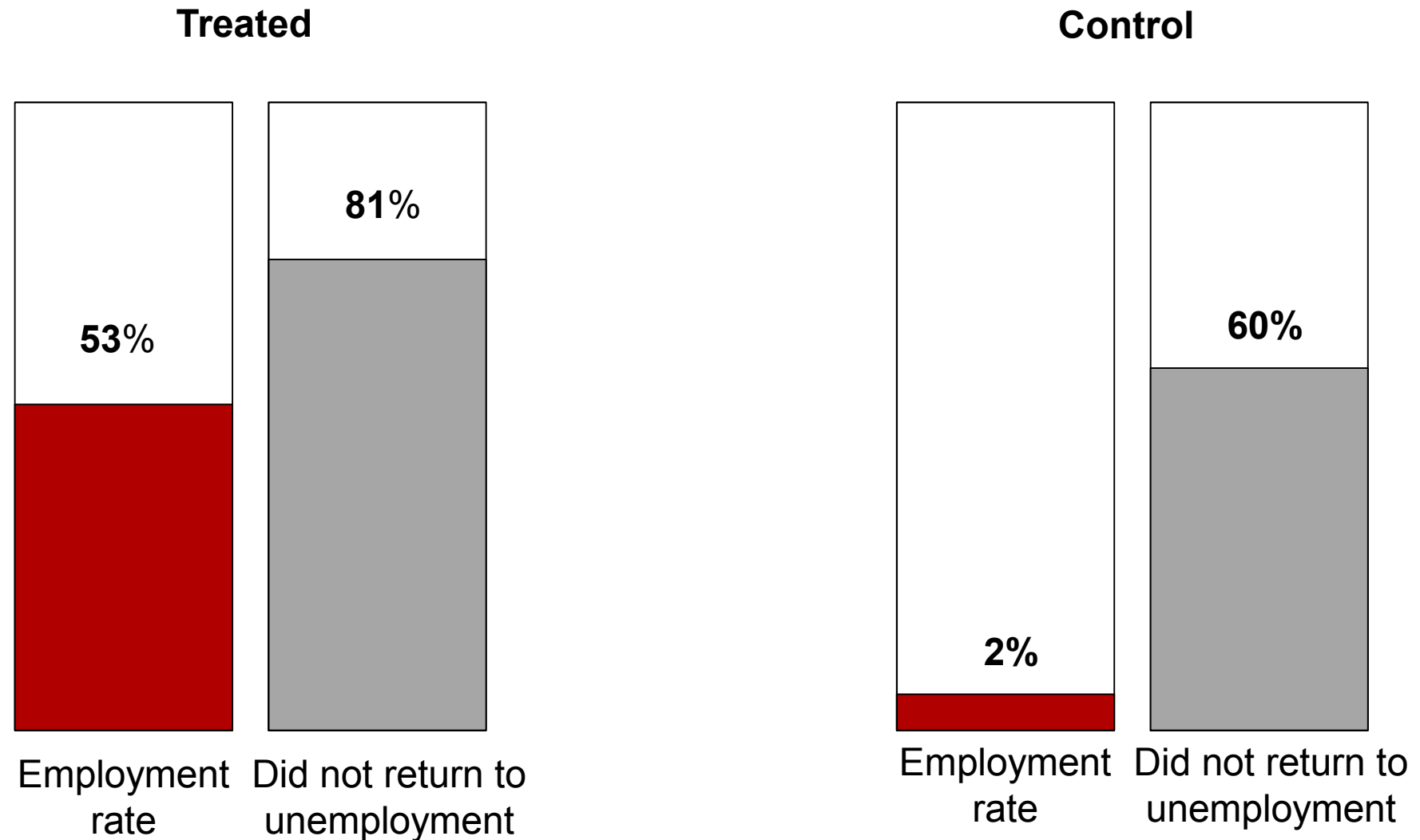
# Impact of SROP 1.1.1 – w/wout wage subsidy

Did not return to unemployment register

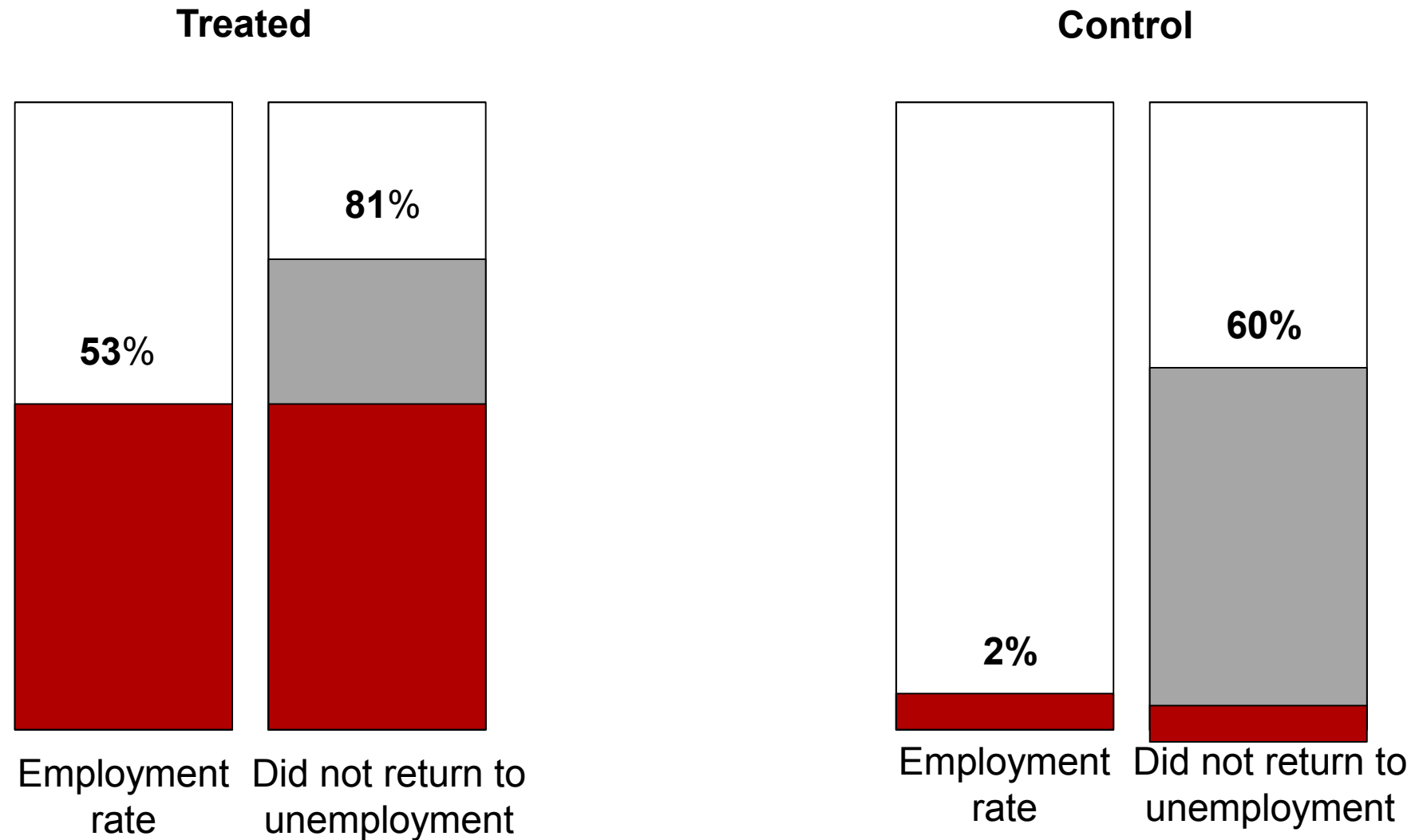




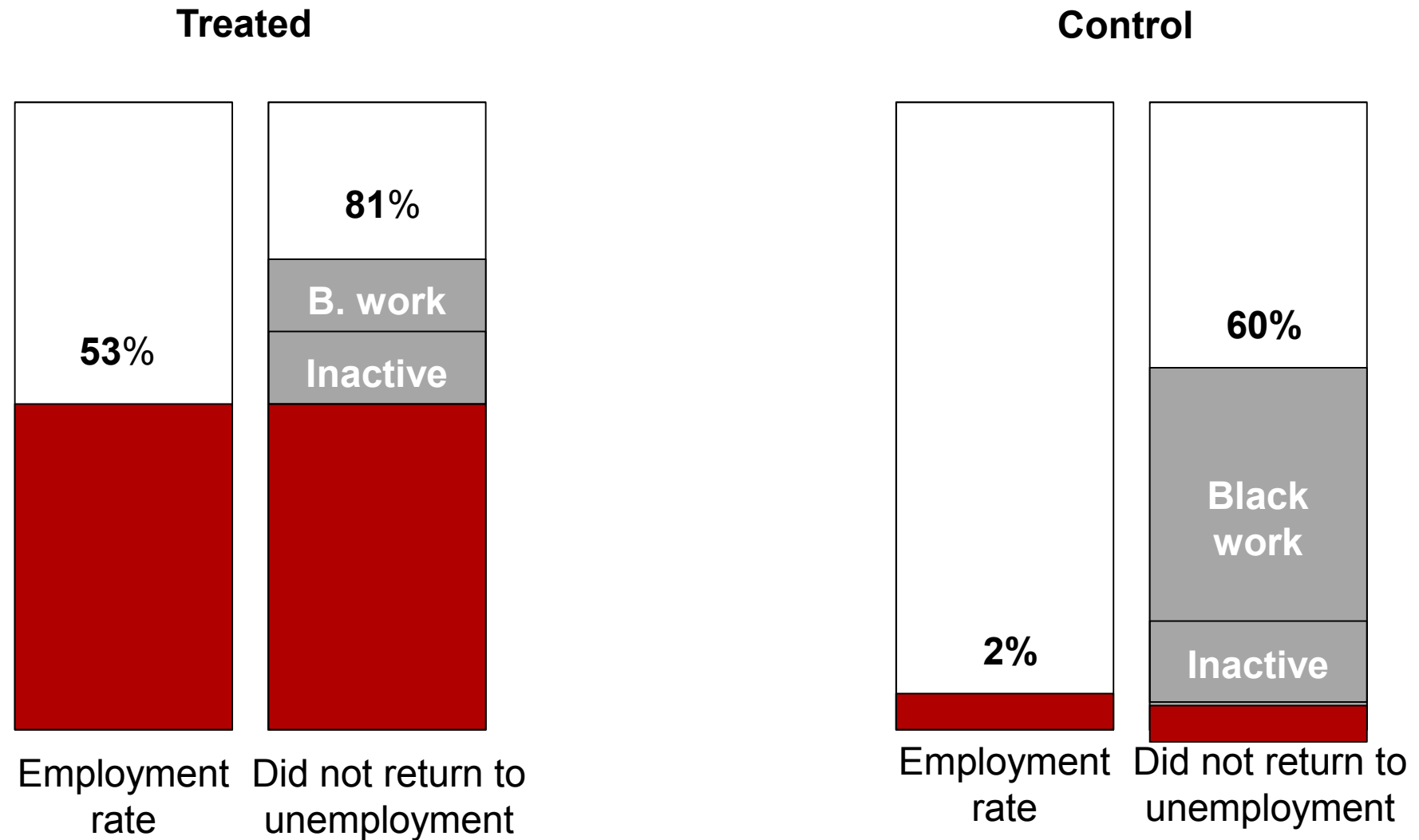
# Impact of SROP 1.1.1 – different impacts from different outcome variables



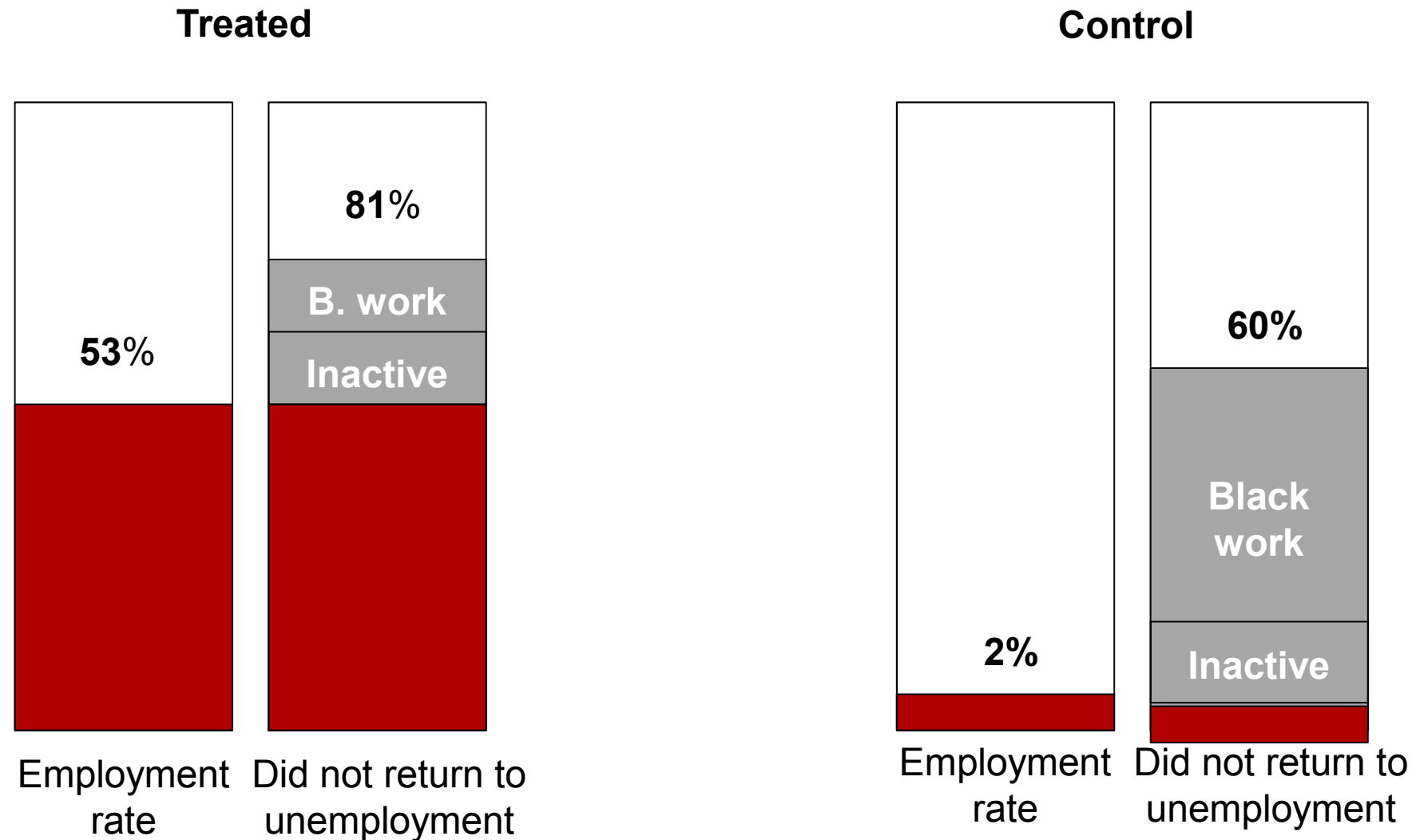
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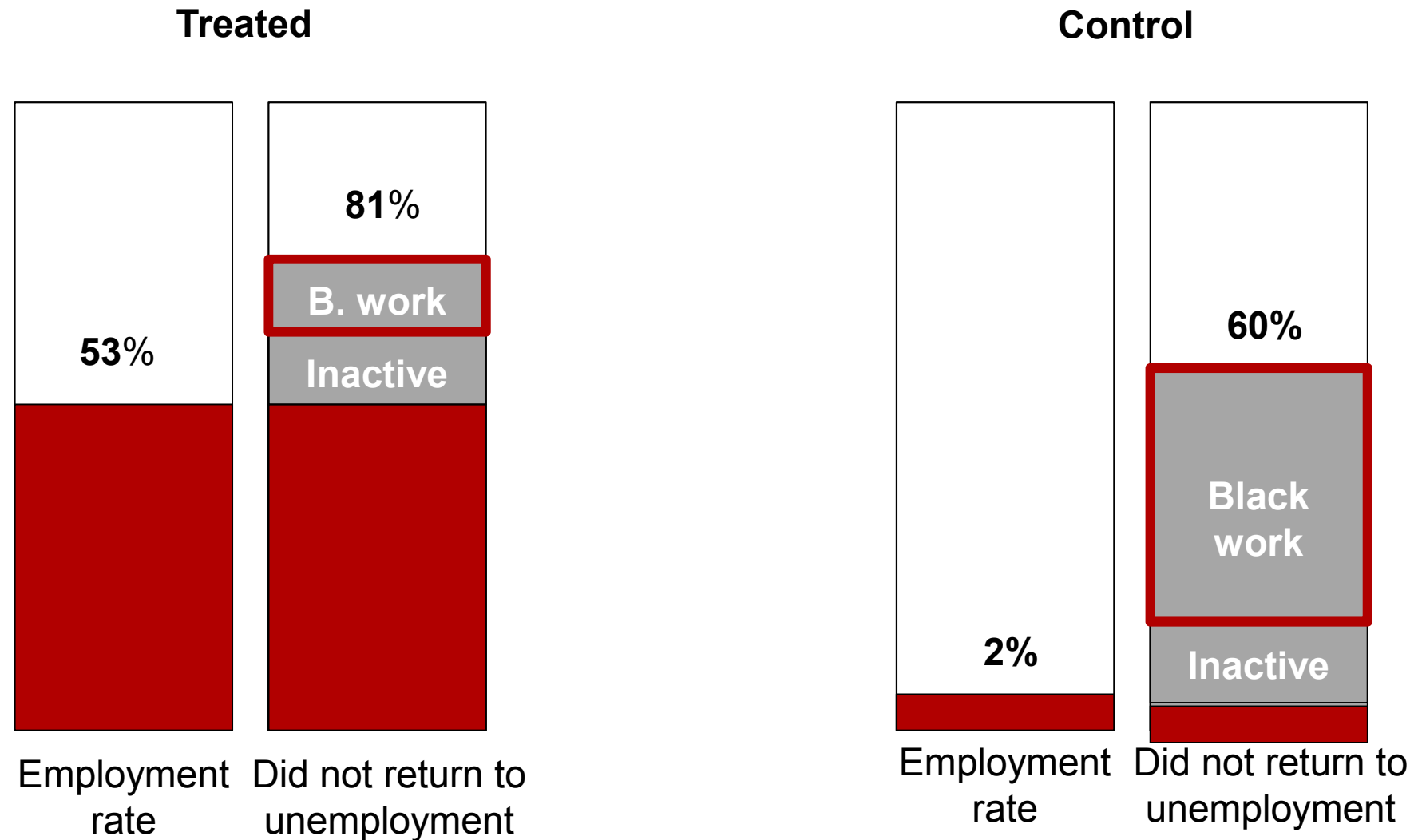
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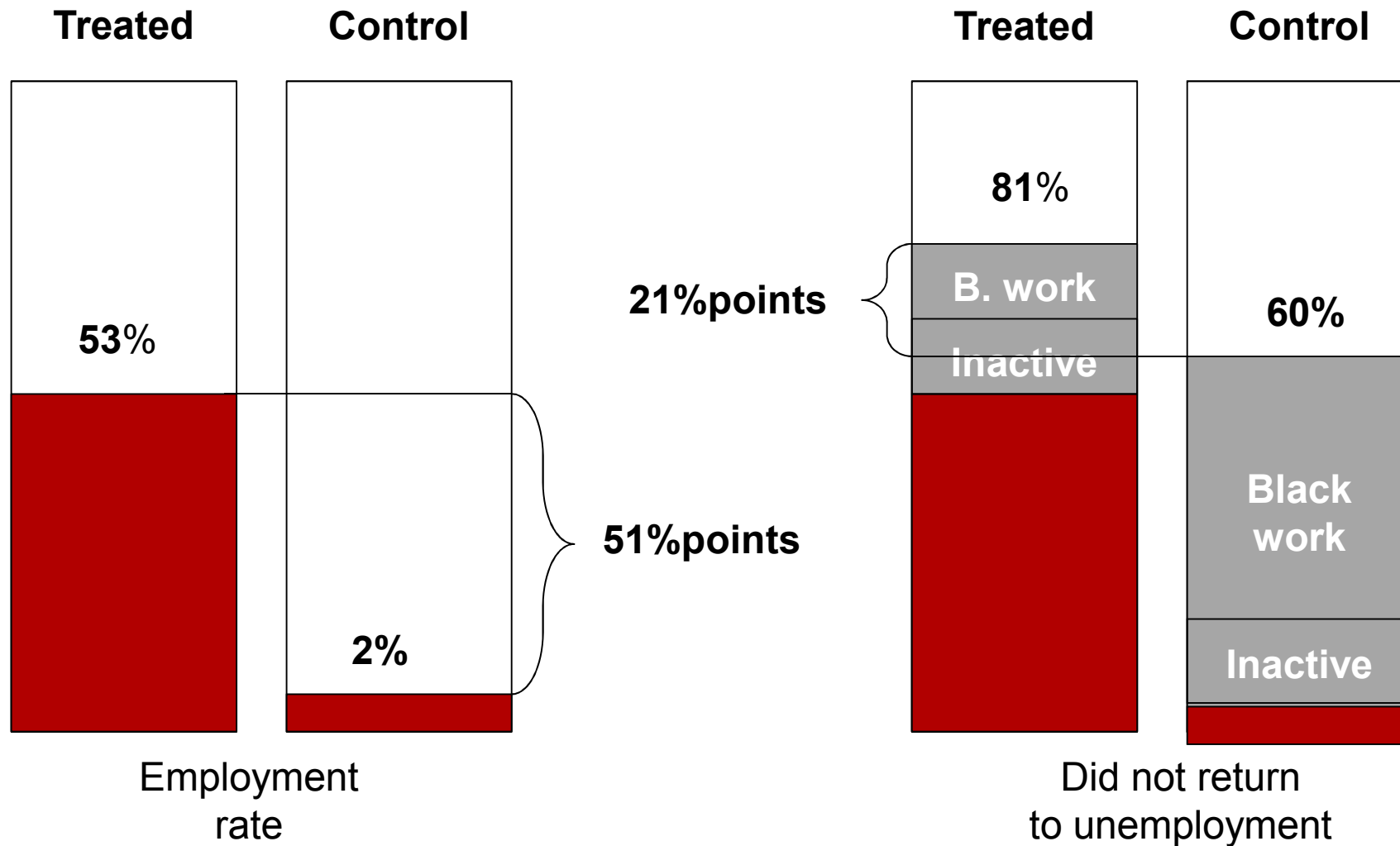
# Impact of SROP 1.1.1 – different impacts from different outcome variables



# Impact of SROP 1.1.1 – different impacts from different outcome variables



# Impact of SROP 1.1.1 – The lower and upper bounds of the estimated effects



## Robustness checks

- Several outcome variables
  - Both from employment and unemployment data
  - With/without public employment
- Resampling has no effect
  - Controls were chosen without replacement –  
may affect the impact
- Significance check in many specifications, robust SE clustered by zip code

## Conclusions and discussion

- Much larger than international evidence - upward bias
- Possible selection bias in unobserved characteristics (e.g. motivation, ethnicity), OVB
- Includes deadweight loss and substitution effects
- Training and mentoring improves reemployment even without wage subsidy
- Significant impact for long term unemployed as well



## Suggestions regarding evaluation of ALMPs

- NLO register suitable for ex-post impact evaluation if linked to tax/employment data
  - relatively cheap and available soon after
- Quality of analysis could be improved by:
  - recording all characteristics that determine eligibility
  - additional variables (e.g. level of disability, duration of employment spell)
  - qualitative surveys on selection process
  - recording costs at the level of the participant
  - randomisation



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**Thank you for your attention!**

## References

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