

# Deregulating Job Placement in Europe: A Microeconometric Evaluation of an Innovative Voucher Scheme in Germany

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# Outline

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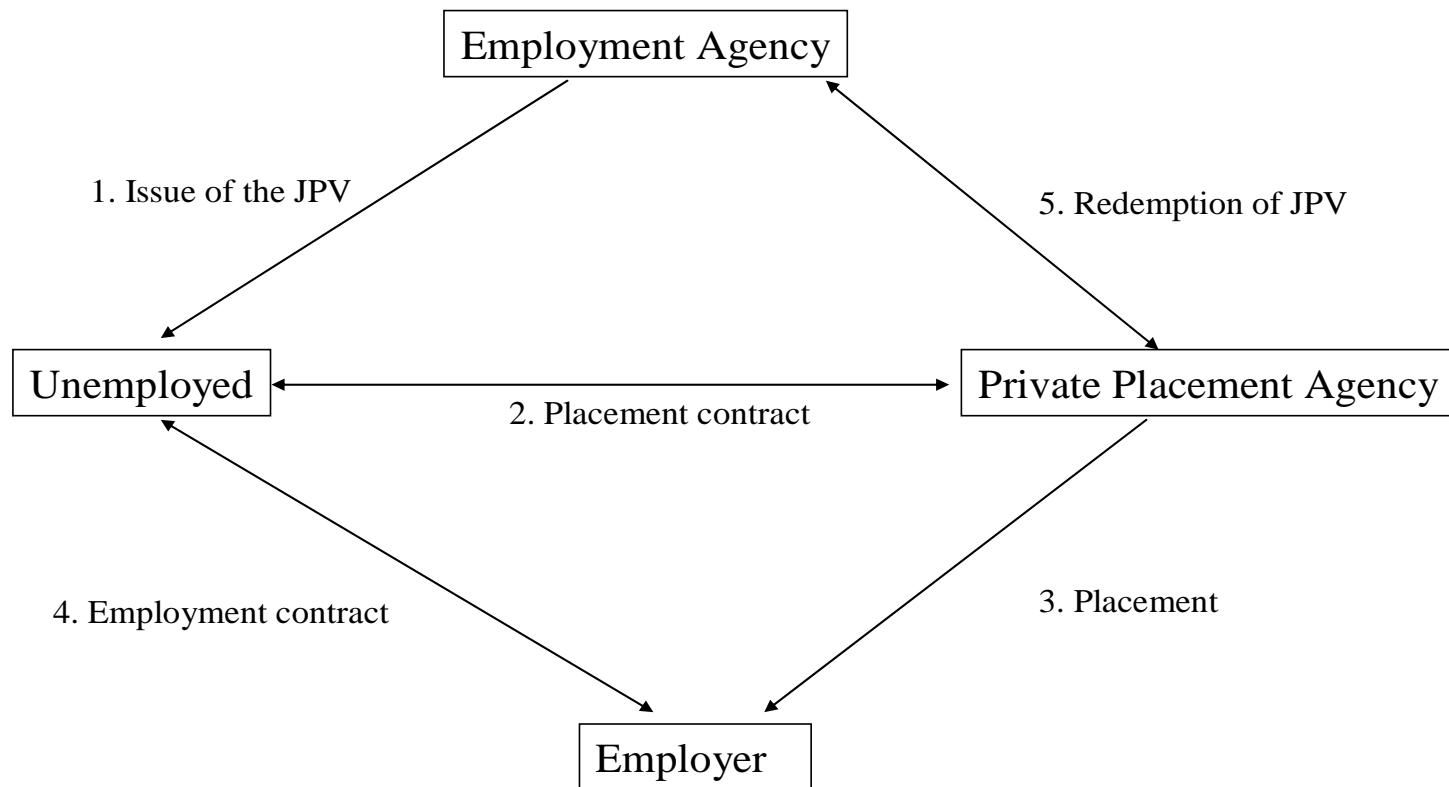
## 1. Introduction

# The market of job placement in Germany

- Possible market failure: information asymmetries, externalities
- Up to 1994: public monopoly (Federal Employment Office, FEO)
- Effectiveness of the FEO is more and more questioned
- Since 1994: progressive liberalization
- Private Placement Agencies focus on highly qualified
- Since April 2002: job placement vouchers (JPV)

## 2. Institutional setting

# Institutional setting of the job placement voucher



→ eligibility rules

### 3. Data and sample selection

## Data base

### Administrative data of the Federal Employment Office

- data on issue and redemption of the vouchers
- job seeker's data base (BewA): spell data for all the unemployed registered with a PEO, socio-economic characteristics, qualification, recent labor market history and regional context
- integrated employment biographies (IEB): BewA + data on regular employment (BeH), on unemployment benefits (LeH) and on participation in labor market programs

### 3. Data and sample selection

## Sample selection

- Driven by data availability:
  - BewA available from Mai 2003 onwards
  - outcome variable (employment) available until Dec. 2003
  - a time span of 6 months after issue of voucher seems necessary
- vouchers issued in Mai and June 2003 are evaluated
- only unemployed who are entitled

	East Germany		West Germany	
Participants	29.785	3,78 %	32.600	2,26 %
Non-participants	757.598	96,22 %	1.407.754	97,74 %
Total	787.383	100,00 %	1.440.354	100,00 %

## 4. Identification and estimation methods

### Evaluation problem

- We want to know the treatment effect  $\Delta = Y_1 - Y_0$
- Problem: can never observe  $Y_1, Y_0$  for same person at same time
- $Y_1$  from participants ( $D=1$ ),  $Y_0$  from non-participants?
  - problem: selection is not random, caseworkers choose to offer voucher, unemployed choose to ask for it / accept it; if criteria decisions are based on are correlated with outcome, we have selection bias
- CIA:  $Y_0 \perp D \mid X$ 
  - counterfactual can be estimated consistently from non-participants by matching (if common support is given)

## 4. Identification and estimation methods

# Discussion of CIA

- Insight from implementation analysis:
    - self selection: unemployed who are better informed
    - administrative selection: better risks to reduce workload
  - Information in the X's
    - socio-economic: gender, age, marital status, number of children, health status etc.
    - qualification: school, professional, assessment of case worker
    - labor market history: five years, daily information, E - UE - ALMP
    - type of employment searched for: industry, working time
    - regional context: UE rate, vacancy rate, short time work rate etc.
- We argue the CIA holds.



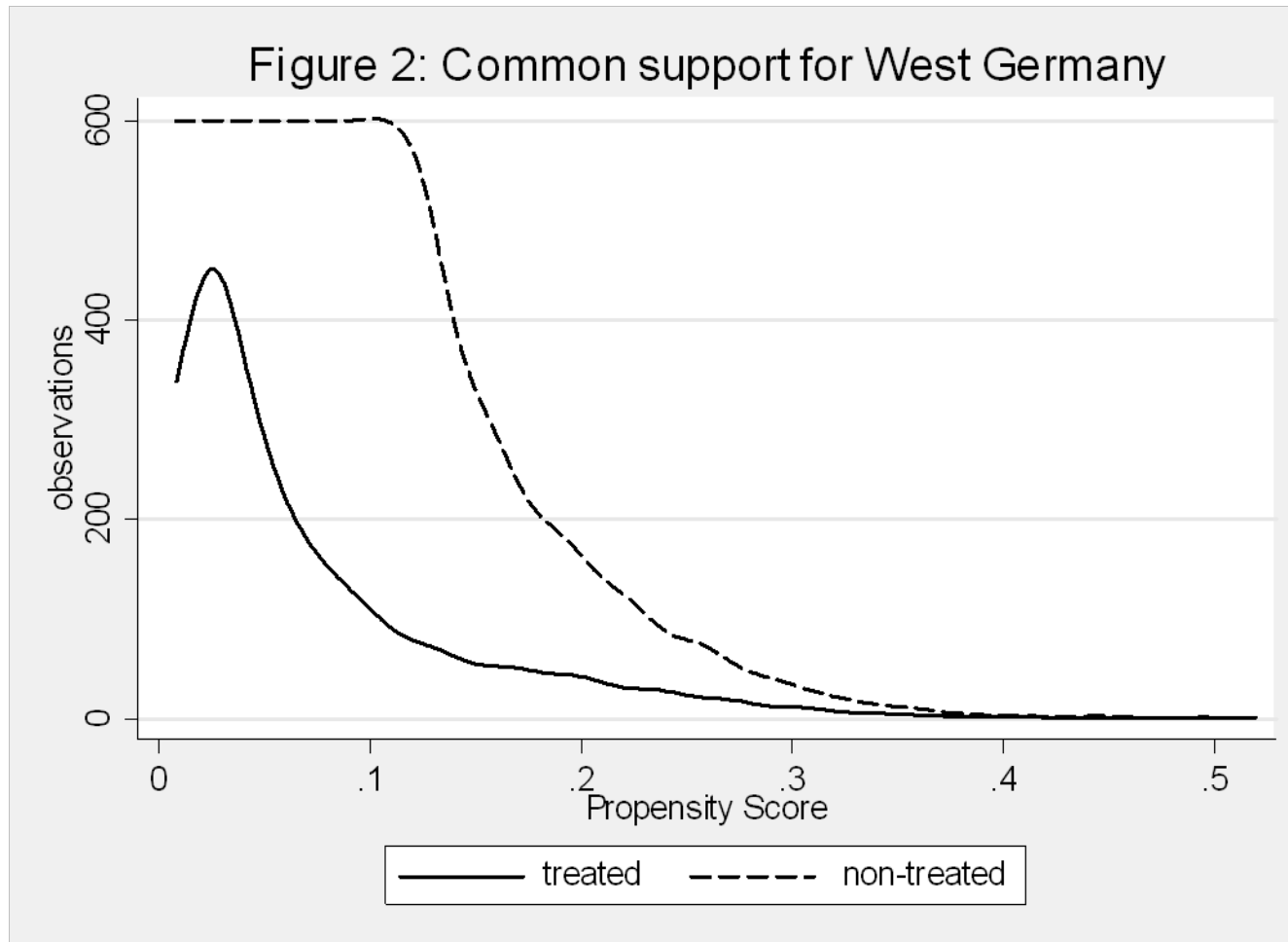
## 4. Identification and estimation methods

### Outcome and time-varying characteristics

- Outcome: employment in six months after issue of voucher
- Problem: what is the reference date for non-participants?
- Method of Lechner (1999):
  - draw starting dates for non-participants at random from the distribution of starting dates of participants
  - if hypothetical starting date does not fit with the institutional frame (individual has to be entitled to get a voucher), the spell is deleted

## 5. Empirical results

# Common Support



## 5. Empirical results

# Quality of Matching: Balancing Tests

- Standardized differences are smaller than 2 for each covariate after matching
- Two-sample-T-test on differences in means is insignificant for each covariate

	Standardized difference		Two-sample-T-test (P-value)	
	before matching	after matching	before matching	after matching
Propensity Score	73,66	0,00	0,00	1,00
duration of unemployment up to (hypothetical) starting date	37,40	0,61	0,00	0,36
age	28,78	0,54	0,00	0,51
foreign	2,10	0,34	0,00	0,66
female	21,74	1,16	0,00	0,15

## 5. Empirical results

# Average Effect of Treatment on the treated (East)

Estimated Average Treatment Effect on the treated in **East Germany** (regular employment after treatment); for participants: share of issued vouchers which is redeemed

months after issue of voucher	<i>Share in regular employment</i>				<i>for participants: share of issued vouchers which is redeemed</i>
	participants	matched control group	difference	std. error	
1	8,09%	4,76%	3,33%	0,21%	6,33%
2	12,50%	8,14%	4,36%	0,26%	9,07%
3	15,06%	10,23%	4,83%	0,29%	10,61%
4	16,68%	11,75%	4,93%	0,31%	11,26%
5	17,38%	12,52%	4,86%	0,31%	11,86%
6	17,17%	12,37%	4,80%	0,31%	12,24%

## 5. Empirical results

# Average Effect of Treatment on the treated (West)

Estimated Average Treatment Effect on the treated in **West Germany** (regular employment after treatment); for participants: share of issued vouchers which is redeemed

months after issue of voucher	<i>Share in regular employment</i>				<i>for participants: share of issued vouchers which is redeemed</i>
	participants	matched control group	difference	std. error	
1	6,52%	4,78%	1,74%	0,19%	3,37%
2	11,18%	8,19%	2,99%	0,25%	4,85%
3	14,28%	10,72%	3,56%	0,28%	5,77%
4	16,10%	12,50%	3,60%	0,29%	6,20%
5	17,17%	13,58%	3,59%	0,30%	6,51%
6	17,66%	13,94%	3,72%	0,30%	6,75%

## 5. Empirical results

### Average Effect of Treatment on the treated by type of voucher (East)

	Share in regular employment				for participants: share of issued vouchers which is redeemed
voucher of 1.500 € (9.416)					
months after issue of voucher	participants	matched control group	difference	std. error	
4	26,13%	19,03%	7,09%	0,65%	14,76%
5	27,20%	20,40%	6,80%	0,66%	15,57%
6	26,85%	20,33%	6,52%	0,66%	16,00%
voucher of 2.000 € (5.460)					
months after issue of voucher	participants	matched control group	difference	std. error	
4	19,65%	14,43%	5,22%	0,83%	13,39%
5	20,44%	14,80%	5,64%	0,84%	13,96%
6	19,36%	14,08%	5,27%	0,83%	14,30%
voucher of 2.500 € (14.909)					
months after issue of voucher	participants	matched control group	difference	std. error	
4	9,63%	5,92%	3,71%	0,32%	8,26%
5	10,05%	6,53%	3,53%	0,33%	8,74%
6	10,26%	6,65%	3,61%	0,34%	9,11%

## 5. Conclusions

# Conclusions

- estimated average treatment effects:

East: 4,8 percentage points

West: 3,7 percentage points

- effects are higher for vouchers with lower values

→ Higher cost for the placement of a person with longer unemployment is more important than the higher bonus

- market-oriented instrument seems to be better suited for short-term unemployed, critical for long-term unemployed