Do Labor Market Policies Have Displacement Effects? Evidence From A Clustered Randomized Experiment (2013)

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Outline

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1. **Are "Active Labor Market Policies" helpful to create new employment or is a game of "Musical Chairs"?**
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   - *Need to create a model that takes into account the externalities.*
2. **Are this externalities worst in weak labor markets?**
   - *During the crisis or cities with high unemployment rates.*

Motivation

- Popular in Europe to have "Active Labor Market Policies".
  - Evidence that they help the treated.
  - Little literature about externalities created to the control group.
    - Treatment Effect biased upwards. (Employment rate of the control group would be lower than absent the program).
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- Previous models: $\uparrow$ Search effort $\rightarrow$ Employment creation.
  - Total pool of jobs increases enough to absorb the extra labor supply.

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The model

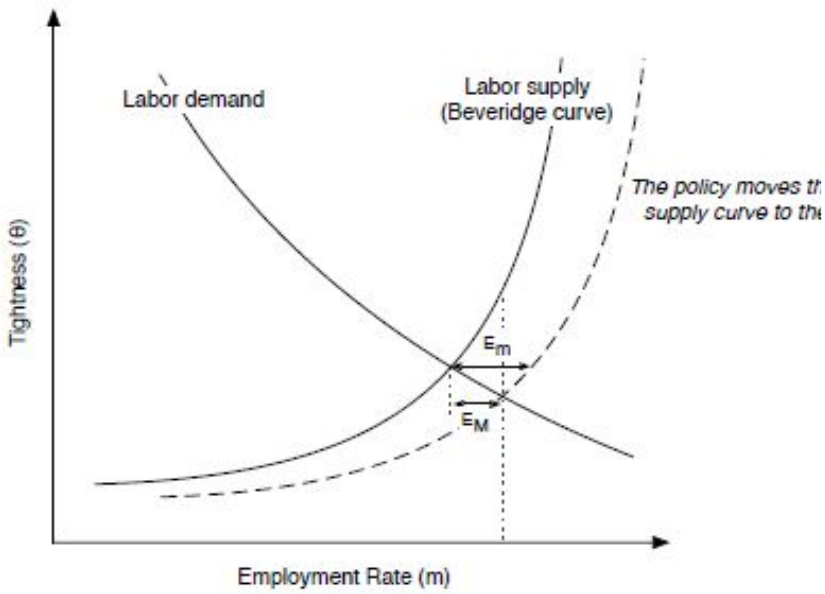
Tightness of the labor market:

$$\theta = \frac{\nu}{u_e} \tag{1}$$

ν : n° opened vacancies.
u_e: Total search effort $= eu_1 + u_0$

- Treatment $\rightarrow e > 1$
- In previous models (Pissarides 2000) θ constant for any value of n.

The model



Initial situation: π=0 e=1
A fraction π recieve treatment.
Decrease in $(\frac{\pi}{e} + 1 - \pi)$
Equilibrium: $\uparrow n, \downarrow \theta$

Labor supply curve:

$$n = \frac{f(\theta)}{s(\frac{\pi}{e} + 1 - \pi) + f(\theta)} \quad (2)$$

$f(\theta)$: Prob. to find a job with e=1.
(increasing with θ)

Labor Demand Equation:

$$\alpha a n^{\alpha-1} - w_0 - c\frac{r+s}{q(\theta)} = 0 \quad (3)$$

$q(\theta)$: Prob. filled vacancy.
(decreasing with θ)

Channels through which interventions influence the model

- **Why are displacement effects produced?**
  - $f(\theta)$: Prob. to find a job being untreated (e=1) is increasing with θ .
    - Introducing the policy, in equilibrium: $\downarrow \theta \Rightarrow \downarrow f(\theta)$
  - Hence, as long as the demand is not flat, there will be displacement effects (Extreme if vertical).
  - Externality size depends on π:
    - Fraction of people searching for a job in a particular market.
    - Proportion of them assigned to the program.
- **Where should we expect higher externalities?**
  - Where more workers are assigned to treatment (σ) and where educated workers form a larger part of the relevant labor market (κ).
  - When labor demand is low (e.g., Crisis).

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The sample

- Selection criteria:
  - Young :$<$ 30
  - Educated : At least a two-year college degree.
  - Unemployed: Having spend at least the last six months continuously unemployed or 12 out of 18 of the previous months.
  - Program take-up was just 35%

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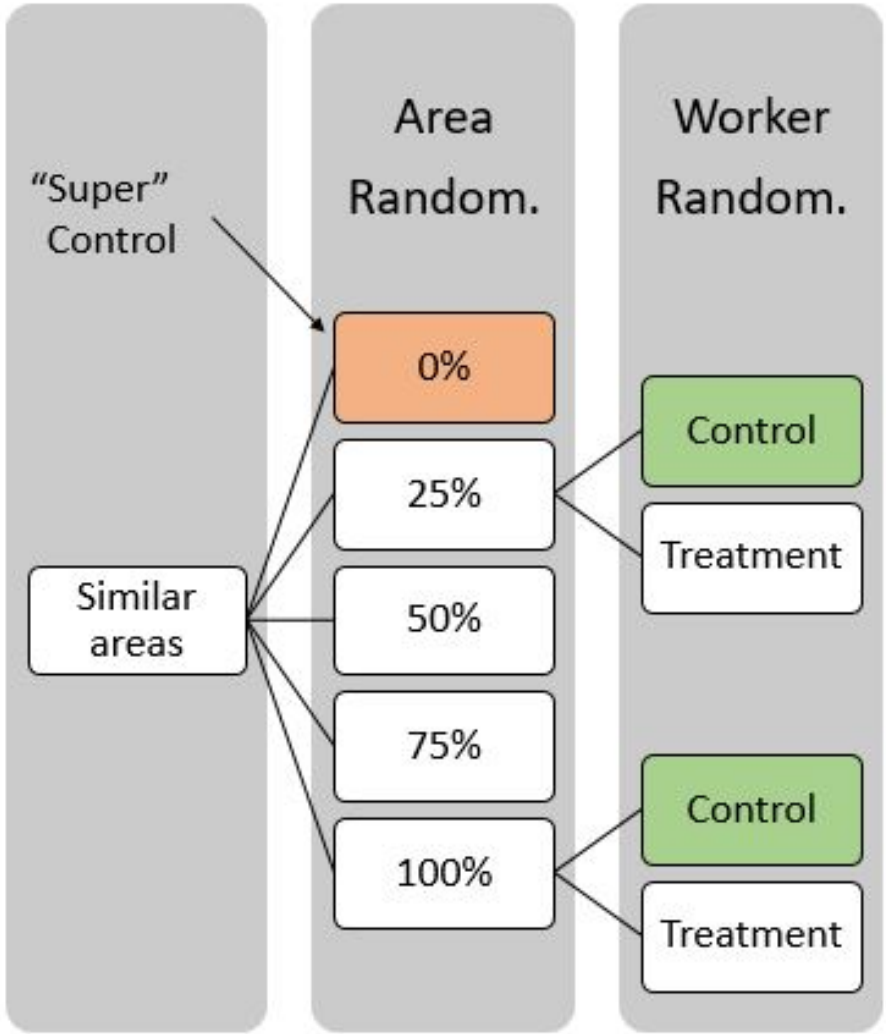
- Data Collection:
  - Public files (ANPE)
  - Private counseling firm files. (Take-up rate)
  - Surveys 8, 12,16 and 20 months after program assignment.

Double Randomization



Empirical Estimation

Specification:

$$\begin{aligned} y_{ic} &= \beta_{25} Z_{ic} P_{25c} + \beta_{50} Z_{ic} P_{50c} + \beta_{75} Z_{ic} P_{75c} + \beta_{100} Z_{ic} P_{100_c} \\ &+ \delta_{25} P_{25c} + \delta_{50} P_{50c} + \delta_{75} P_{75c} \\ &+ X_{ic} \gamma_4 + u_{ic} \end{aligned}$$

- β_x: Effect of treatment assignment on having a Long Term Contract in an area where x% is assigned to treatment compared to unassigned to an area of the same type.
- δ_x: Effect of being control in an area where x% of the population was assigned, compared to the super control-group.

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Program Impacts

	Labor market outcome: Long term fixed contract			
		Not employed		
	All workers	All	Men	Women
	(1)	(2)	(3)	(4)
Assigned to treatment in 25% areas	0.016	0.021	0.037	0.015
	(0.012)	(0.014)	(0.027)	(0.016)
Assigned to treatment in 50% areas	0.009	0.013	0.021	0.008
	(0.012)	(0.013)	(0.021)	(0.020)
Assigned to treatment in 75% areas	-0.015	0.007	0.061**	-0.016
	(0.016)	(0.019)	(0.030)	(0.021)
Assigned to treatment in 100% areas	0.010	0.025**	0.021	0.028**
	(0.009)	(0.010)	(0.014)	(0.014)
25% areas	-0.002	-0.015	-0.041**	-0.001
	(0.010)	(0.011)	(0.019)	(0.013)
50% areas	-0.002	-0.014	-0.026	-0.005
	(0.010)	(0.013)	(0.018)	(0.017)
75% areas	0.016	-0.006	-0.055**	0.014
	(0.016)	(0.020)	(0.027)	(0.024)
Control Mean	0.199	0.167	0.150	0.178
F-test for equality of all assigned to treatment coefficients to zero	0.34	0.05	0.07	0.22
F-test for equality of all areas coefficients to zero	0.72	0.48	0.04	0.92
F-test for equality of all areas coefficients	0.52	0.90	0.59	0.77
Number of observations	21431	11806	4387	7419

- Evidence of externalities in men only.
- No evidence that externalities decrease as x% increases.

Program Impacts II: Not Considering x%

Table 5: Reduced form: Impact of the program, accounting for externalities

	By job type: share of job seekers who are eligible for program					
	Not employed			Not employed, above third quartile		
	All	Men	Women	All	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Long term fixed contract						
Assigned to program (β)	0.023***	0.043***	0.013	0.040**	0.072**	0.021
	(0.008)	(0.013)	(0.010)	(0.016)	(0.029)	(0.022)
In a Program area (δ)	-0.013	-0.036***	-0.001	-0.040*	-0.086**	-0.013
	(0.009)	(0.013)	(0.012)	(0.021)	(0.035)	(0.027)
Net effect	0.010	0.007	0.012	0.000	-0.014	0.008
of program assignment (β+δ)	(0.008)	(0.011)	(0.011)	(0.019)	(0.031)	(0.024)
Control Mean	0.16	0.131	0.177	0.19	0.161	0.204
Panel B: Long term employment						
Assigned to program (β)	0.025**	0.037**	0.019	0.019	0.059	0.000
	(0.012)	(0.018)	(0.014)	(0.021)	(0.039)	(0.028)
In a Program area (δ)	-0.021*	-0.043**	-0.010	-0.005	-0.081*	0.033
	(0.013)	(0.020)	(0.018)	(0.023)	(0.047)	(0.032)
Net effect	0.003	-0.006	0.009	0.014	-0.022	0.033
of program assignment (β+δ)	(0.011)	(0.018)	(0.016)	(0.019)	(0.037)	(0.026)
Control Mean	0.365	0.372	0.36	0.403	0.408	0.401
Observations	11,806	4,387	7,419	3,066	1,016	2,050

- Assigned to treatment are 2.3% more likely to have LTFC than controls in related Labor Markets. 4% in professions with high competitivity.
- Net effect insignificant in all.
- Controls in treated labor markets 1.3% less likely than super-controls.

Program Impacts III: Weak Labor markets

Table 7: Heterogeneity of program effect by area and cohort

	LT FC	LT Empl.	LT FC	LT Empl.	LT FC	LT Empl.
	All		Men		Women	
	(1)	(2)	(3)	(4)	(5)	(6)
			Panel A			
Assigned to program (β)	0.055***	0.066***	0.082***	0.110***	0.036	0.036
bad area, bad cohort	(0.018)	(0.023)	(0.030)	(0.036)	(0.025)	(0.029)
Assigned to program (β)	0.015*	0.015	0.033**	0.019	0.007	0.014
good area or good cohort	(0.008)	(0.013)	(0.015)	(0.021)	(0.011)	(0.015)
In a program area (δ_1)	-0.042*	-0.077**	-0.043	-0.144***	-0.041	-0.035
bad area, bad cohort	(0.024)	(0.030)	(0.032)	(0.044)	(0.031)	(0.041)
In a program area (δ_2)	-0.009	-0.009	-0.036**	-0.017	0.007	-0.006
good area or good cohort	(0.010)	(0.014)	(0.015)	(0.024)	(0.014)	(0.020)
test ($\delta_1 = \delta_2$)	0.202	0.05	0.867	0.017	0.178	0.533

- Significant externalities in weak labor markets.
- We can reject externalities are the same in weak vs strong markets.

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- Results suggest main effect of the program was to find a job faster.
- Surprising little evidence of externalities on women.
- Impact of externalities is sufficiently large to make the net treatment effect insignificant.
- As expected in the model higher externalities are found when labor demand is low and in labor markets with high concentration of relevant workers.
- Results don't find evidence of increasing externalities as the proportion of treated increase.

Going back to the start... Main Questions

1. **Are "Active Labor Market Policies" helpful to create new employment or is a game of "Musical Chairs"?**
   - *Results suggest is more the second option.*
   - *Short term effects vanish over time.*

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   - *Results suggest is more the second option.*
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2. **Are this externalities worst in weak labor markets?**
   - *Supporting evidence in bad cohorts (i.e., crisis period) and areas with higher unemployment.*