



# Discussion of Papers on Spillover Effects

**Michael Lechner**

Swiss Institute for Empirical Economic Research (SEW)  
University of St. Gallen | Switzerland | Paris, February 2013

DO LABOR MARKET POLICIES HAVE DISPLACEMENT EFFECTS?  
EVIDENCE FROM A CLUSTERED RANDOMIZED EXPERIMENT \*

BRUNO CRÉPON  
ESTHER DUFLO  
MARC GURGAND  
ROLAND RATHELOT  
PHILIPPE ZAMORA†

**Evidence of Treatment Spillovers Within  
Markets**

Marc Ferracci \*   Grégory Jolivet †   Gerard J. van den Berg ‡



# 1 | Introduction



# Introduction | 1

Common theme ...

- How harmful is ALMP for non-participants?

Country ...

- France

Programmes

- Placement / job search assistance programme
- Training programme



# Introduction | 2

## Data

- Administrative plus survey data

## Methods

- Exploiting variation in programme size
- **Different:** Experiment vs. observational study

## Results

- Both studies increase doubt on effectiveness of ALMP



# Key assumption for both studies

No interaction between regions with different assignment probabilities

- Possible violation if there are firms that hire from regions with different assignment probabilities



# 1 | Introduction

# 2 | Bruno Crépon et al.



# Basic set-up | 1

Need two types of variation among unemployed

- Random allocation of job seekers to programme (standard)
- Random allocation of programme size unemployed are faced with (new)

This is **credibly** (and costly) generated by an experiment

Because it is an (costly) experiment, only one *special* programme is considered





# Results | 1

There seem to be externalities

- Although the heterogeneity is somewhat difficult to explain
- Unfortunately, they appear to be largest when programmes are thought to be needed most
  - in recessions
    - So far, we thought programmes worked best in those time (Lechner, Wunsch, JOLE, 2009)
  - in labour markets with higher unemployment rates



# Key advantages

VERY high internal validity of empirical findings

Theoretical model gives

- some insight on **how** the effects came about
- Provides testable implications that appear to be supported by the data



# Key concerns | 1

## Internal validity: Perfect randomisation?

- Analysis based on survey with non-random (?) non-response (approx. 50% individuals do not answer at least one survey)
- Results indicate that non-response does not vary much with assignment, but does it change the distribution of covariates?
  - Is it really true that employed and unemployed (outcome variable) have the same response rates?
  - Balancing tests conditional on response would be more interesting (compared to unconditional ones)



## Key concern | 2

### External validity

- Special programme
- Special target group
- Special (self-selected?) regions?
- Take-up only one third
  - characteristics of compliers?

### Econometric note

- All parameters of interest are nonparametrically identified
- Use of (non-saturated) parametric models may lead to bias due to potentially incorrect functional form assumptions



1 | Introduction

2 | Bruno Crépon et al.

3 | Marc Ferracci et al.



# Approach | 1

## Observational study

Assumption: Conditional on the information available

- The size of trainings programmes in a 'market' is random
- Participation in a programme given the (*predetermined*) programme size is random

If this is true, the internal validity of this observational study is as good as in an experiment



## Approach: Observational study | 2

To be plausible these two assumptions require knowledge about

- Individual assignment processes to programmes
- How programme size is determined (and distributed across markets)

And measurement of

- Factors jointly influencing those decisions and outcomes



# Approach | 2

## Current application

- Due to lack of time there was no thorough discussion of these assignment processes (but such a discussion is in the paper)

## Note

- There should also be no interaction between those decision, i.e. like effects of programmes determine overall size of programme ...





# Results

Crowding out for all!

This probably means that the current findings in the training literature are too large?



# Key advantage of observational study

Effects (ATEs) cover a larger population than the LATE's of an experiment with incomplete take-up

Less costly

- Larger samples possible
  - Higher precision of estimators
  - 'Deeper' heterogeneity analysis possible



# Key concerns

Are the two conditional independence assumptions valid?

- Set of control variables appears to be rather small compared to what is considered important in such evaluation studies (see Lechner, Wunsch, 2013, for a systematic investigation)
- Doubts remain

Econometric note

- Precision and robustness could probably be increased by using better matching estimators, at least at individual level (see Huber, Lechner, Wunsch, 2013)



1 | Introduction

2 | Bruno Crépon et al.

3 | Marc Ferracci et al.

4 | Final considerations



# Final considerations | 1

Spill over effects may be important!

Very, very useful papers that improve our knowledge about this important problem!



# Final considerations | 2

## Experiments vs. observational studies

### Advantages of experiments

- High internal validity (but survey data create a problem if selective non-response)
- Extrapolating outside existing policies: Use parameters outside current policies for randomisation

### Advantages of observational studies

- Comparable sample sizes are usually cheaper to obtain (but they must be highly informative)
- Higher external validity, in particular in case of selective take-up
  - but only existing policies can be nonparametrically analysed



## Final considerations | 3

Experiments are credible but expensive & may lack external validity

- Currently there is an emerging literature on how to increase the external validity of experiments

There **may** be situations where a non-experimental evaluation is credible & more cost effective (but only if internal validity is credible)



## Final considerations | 4

Next step: Open the black box to better understand **WHY**

- One possible mechanism is discussed in Crépon et al.
- Nature of spill-over effects appear to be different in both studies





## Final considerations | 5

Another indication that (at least non-training-) ALMP may not have much of an effect, if we account for

- **lock-in effects** (already known)
- **spill-over effects** (new)

**How many negative results do we need before we stop most ALMP programmes?**



# Thank you for your attention!

Michael Lechner  
University of St. Gallen | SEW  
[Michael.Lechner@unisg.ch](mailto:Michael.Lechner@unisg.ch)  
[www.michael-lechner.eu](http://www.michael-lechner.eu)

