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RDD example

Paolo Paruolo
Centre for Research on Impact Evaluation

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Caught in the trap? Welfare's disincentive and the labor supply of single men☆

Olivier Bargain⁎, Karina Doorley

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Quasi-experimental methods: Regression Discontinuity Design, Example
Policy type

- Policy type: “French guaranteed minimum income” (Revenu minimum d’insertion (RMI)) introduced in 12/1988
  - Income support equivalent to a “last resort” benefit

- Intended effect: reducing poverty rates in France

- Possible side-effects of the policy
  - Underemployment with effects on welfare dependency

Quasi-experimental methods: Regression Discontinuity Design, Example
Objectives of the CIE

▶ Questions addressed
  ▶ Measuring the effect of the policy on labor supply of childless men
    ▶ Why single men? Because their labor decisions are less affected by early fertility and marriage decisions
    ▶ Testing the heterogeneity across educational levels in the labor supply response to the policy change
  ▶ Important to design optimal redistributive interventions
    ▶ The effect of the policy may be stronger for those with the lowest potential earnings

Quasi-experimental methods: Regression Discontinuity Design, Example
Design of the intervention

Eligibility

- Adults aged 25 and over, not in education or adults with underage dependants, not in education
- French residence
- Resources over the last 3 months below a threshold $T$

Income support

- Paid at household level
- Threshold $T$: function of the household size
  - Example: childless single: $T=483$ Euro in 2011
- Amount of income support: difference between household resources (including all other benefits) and $T$
Data employed for the analysis

Data sources

- 1999 French Census data for the main analysis
- 1982 French census data used for some robustness checks
- Information on age, employment status, type of contract, work duration, marital status, household type

Sample

- Single men, childless, aged 20-35
Estimation method: sharp RDD

Estimated equation

\[ Y_i = \alpha + \rho D_i + f(S_i) + u_i \]

- **Dependent variable** \( Y_i \): dummy variable equal to 1 if the single man \( i \) is employed, 0 otherwise (unemployed job seeker or inactive)
- **Treatment variable** \( D_i \): dummy variable equal to 1 if the single man is aged 25 or above, 0 otherwise
- **Forcing variable** \( S_i \): age, one variable in \( X_i \)
- \( f(S_i) \): relationship between the forcing variable and the outcome variable

Quasi-experimental methods: Regression Discontinuity Design, Example
After the Intervention

Jump of $Y_i$ at age 25

Quasi-experimental methods: Regression Discontinuity Design, Example CIE Training
After the Intervention

No obvious jump of $Y_i$ at age 25
Estimation results

RMI effect: the employment rate dropped by 6.7%

Mean of the dependent variable

<table>
<thead>
<tr>
<th>Polynimiial specification for age:</th>
<th>age in: years</th>
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</thead>
<tbody>
<tr>
<td>Linear</td>
<td>-0.027</td>
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<td></td>
<td>(0.018)</td>
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<td>-0.067 ***</td>
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Robustness checks: different $f(S_i)$

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<td>Linear spline</td>
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<td>(0.017)</td>
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Mean of the dependent variable

<table>
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<th>Emp. Rate</th>
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<td>0.68</td>
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Robustness checks: falsification test

- Year 1982 - no RMI: no discontinuity in the employment rate at age 25 for single men, HS dropouts
- Single mother - RMI eligibility not based on age: no discontinuity observed at age 25 in the employment rate
Additional robustness checks

- Other policies responsible for the discontinuity in employment patterns at age 25?
- Manipulation affects?
  - Change in the proportion of men living with a partner at age 25?
  - Variation in fertility patterns below age 25?
- Authors’ findings
  - No other policy and manipulation effects can explain the discontinuity at age 25
- Implications
  - The drop in the employment rate observed for uneducated single men is caused by the RMI
Conclusion

- Feature of this impact evaluation: sharp RDD
  - Eligibility criteria based on continuous variable (age)
  - All relevant conditions are satisfied

- Findings
  - The RMI reduces the employment rate of uneducated single men at age 25
  - The RMI has no effect on the employment rate of educated single men at age 25

- Policy implications
  - Participation elasticity of single men is basically zero, except for the lowest educated group
  - Inactivity trap limited in scope
  - Youth hit very hard by the crisis
    - Should we consider an extension of this intervention to the age group 20-24?
References

Stay in touch

Paolo Paruolo
European Commission, Joint Research Centre
Centre for Research on Impact Evaluation
EC.JRC.CRIE

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