

# Evaluating the impact of high-quality infant-toddler centers and preschools

## The Reggio Children Approach

Reggio Team

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# Research Question

Does high quality preschool (age 0-6) improve later life outcomes?

- High Quality Reggio Children Approach (RCA):
  - ▶ Innovative pedagogical approach
  - ▶ Scalable
  - ▶ Publicly funded
- Outcomes:
  - ▶ Socio-emotional skills
  - ▶ Physical and mental health
  - ▶ Education and labor market
- Basic approach:
  - ▶ Compare outcomes of RCA educated individuals with **others**
  - ▶ **Others** includes those who didn't attend pre-schools and those who attended alternatives

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# Early Childhood Education in Italy

- 4 institutional types
  - ▶ Municipal
  - ▶ State
  - ▶ Religious
  - ▶ Private
- 2 age groups:
  - ▶ Age 0-3: 13% attendance rate (*asilo nido*)
  - ▶ Age 3-6: 94% attendance rate (*scuola materna*)

Reggio Children Approach: **municipal** infant-toddler centers and preschools (**age 0-6**) in **Reggio Emilia**

# The Reggio Children Approach (RCA)

- Educational philosophy started by **Loris Malaguzzi** after World War II.
- First preschool 1963; first infant-toddler center 1972
- Famous and replicated all over the world
- Salient features:
  - ▶ Child-centered philosophy: child guides the learning
  - ▶ Co-teaching
  - ▶ Atelieristas and cooks are also teachers
  - ▶ Family and Community are integrated in learning process
  - ▶ Longer daily hours
  - ▶ Children as a group direct the learning process
  - ▶ Teacher and staff continuously training

# Research Design - Data Structure

- **3 cities - Reggio, Parma and Padova**

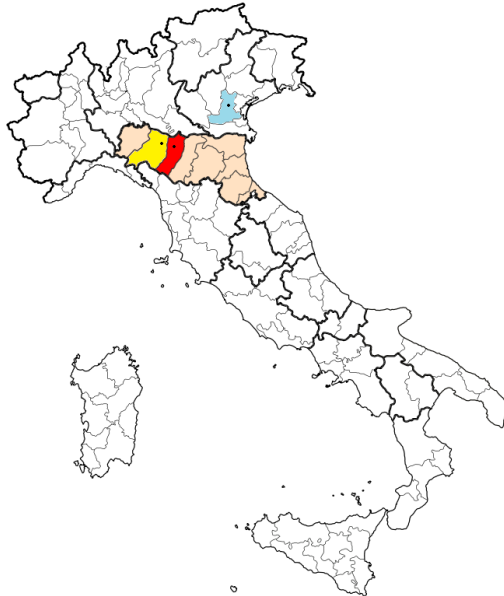
- ▶ Similar geographic location
- ▶ Parma more similar to Reggio in terms of culture and history

- **5 cohorts - Ages 6, 17, 30, 40 & 50**

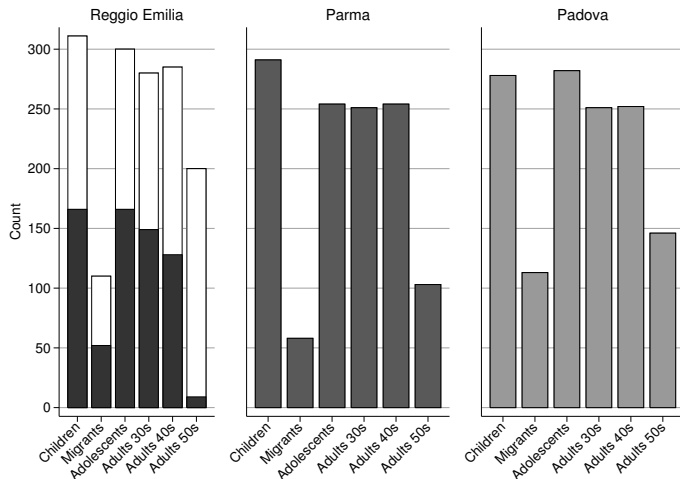
- ▶ Age 6: Children entering elementary school
- ▶ Age 17: Adolescents reaching maturity
- ▶ Age 31-32: Adults at first life milestone
- ▶ Age 40-41: Adults at second milestone. First to get access to ITC
- ▶ Age 53-58: Adults born before RCA was implemented



## Reggio Emilia, Parma, Padova

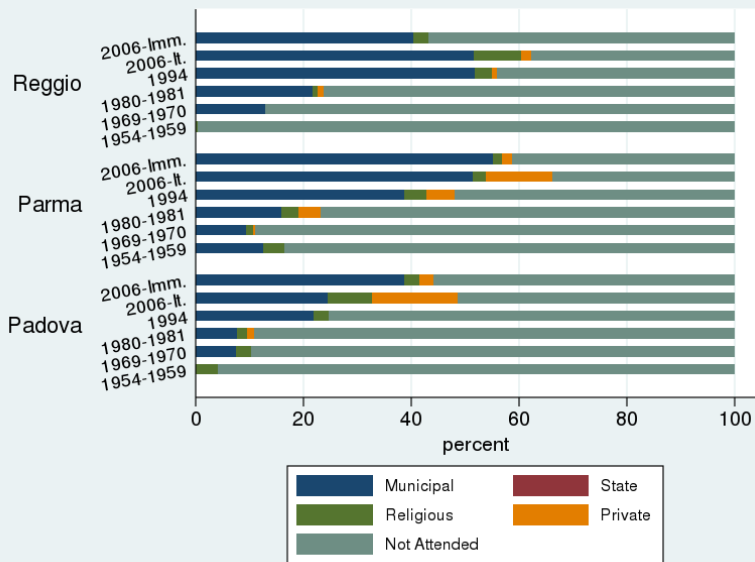


# Sample by City and Cohort

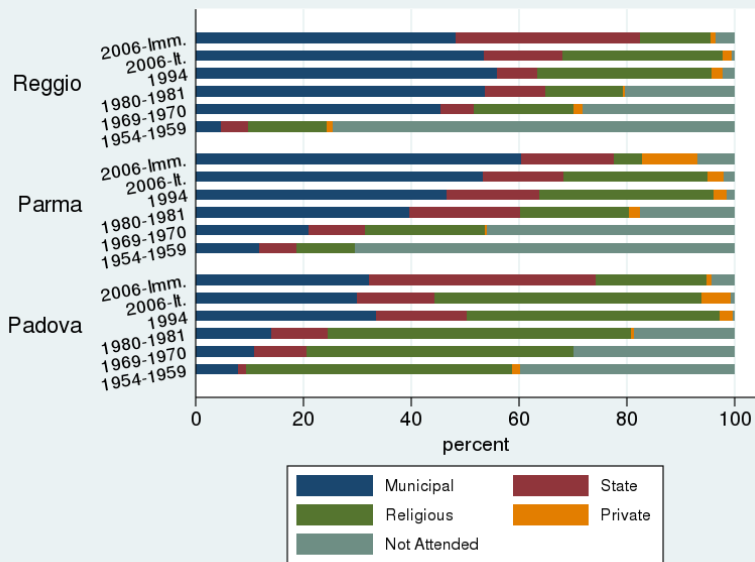


<sup>0</sup> Note: Number of individuals by cohort and city. In Reggio Emilia we differentiate between those who attended municipal preschool (black bars) and those who did not (white bars).

# Attendance Infant-toddler Centers (0-3)



# Attendance Preschools (3-6)



# Research Design -Treatment

## Definition of Treatment

- **Treated:** Those who attended Municipal schools in Reggio
- **Control:** Those who didn't attend Municipal schools in Reggio
  - ▶ Attended non-Municipal schools in Reggio
  - ▶ Attended any school in Parma or Padova
  - ▶ Attended no preschool in any city

## Potential Issues:

- Diffusion of Reggio Approach into control group
- Differential rates of diffusion over time, between schools, and across cities

↪ Recently conducted interviews to understand these differences





## Method 2: Difference-in-Difference

All cities have municipal schools but only in Reggio Emilia they follow the RCA approach:

- **Diff 1:** Reggio Municipal - Parma Municipal
- **Diff 2:** Reggio None - Parma None

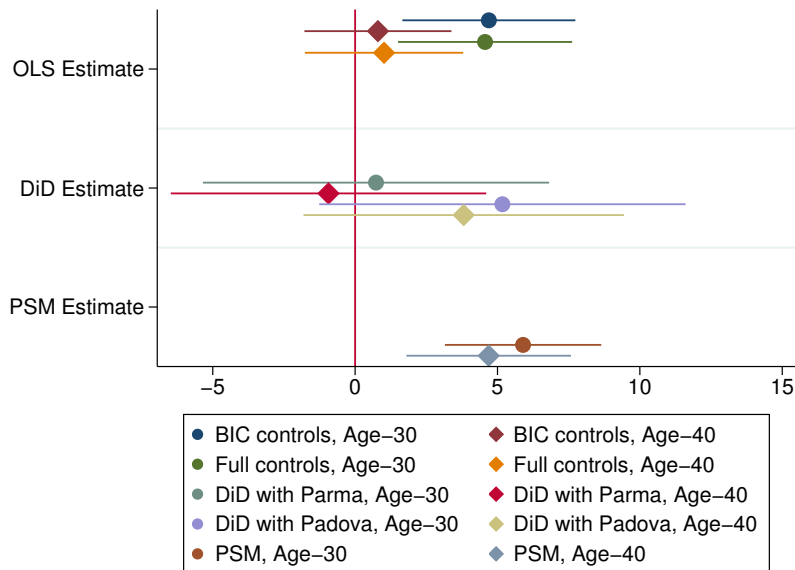
$$Y_i = \alpha_0 + \delta R_i + \alpha_{MC} MC_i + \alpha_{re} Reggio_i + \beta \mathbf{X} + \varepsilon_i$$

where  $Reggio_i = 1$  if the respondent is from Reggio Emilia,  $MC_i = 1$  if the respondent attended a *municipal* childcare center, and  $R_i = MC_i \times Reggio_i = 1$  if the respondent attended a municipal childcare center in Reggio Emilia, therefore following the Reggio Approach.

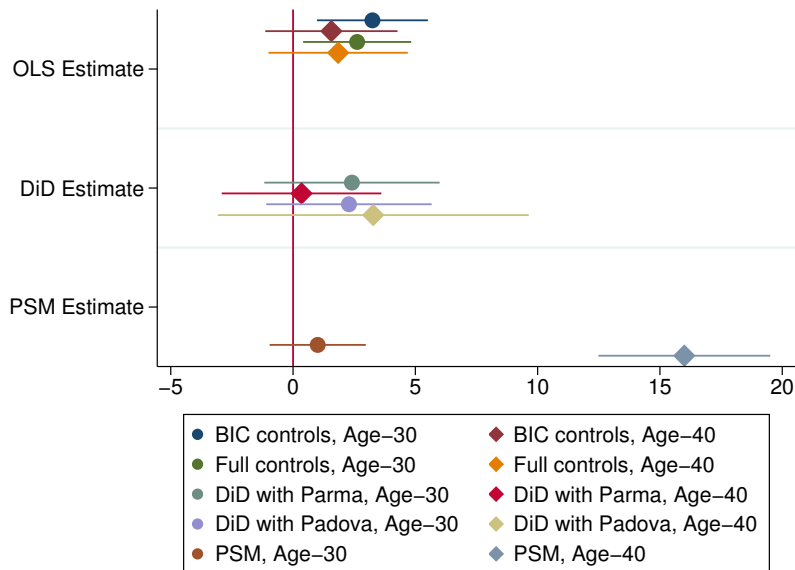


## Method 3: Propensity Score Matching

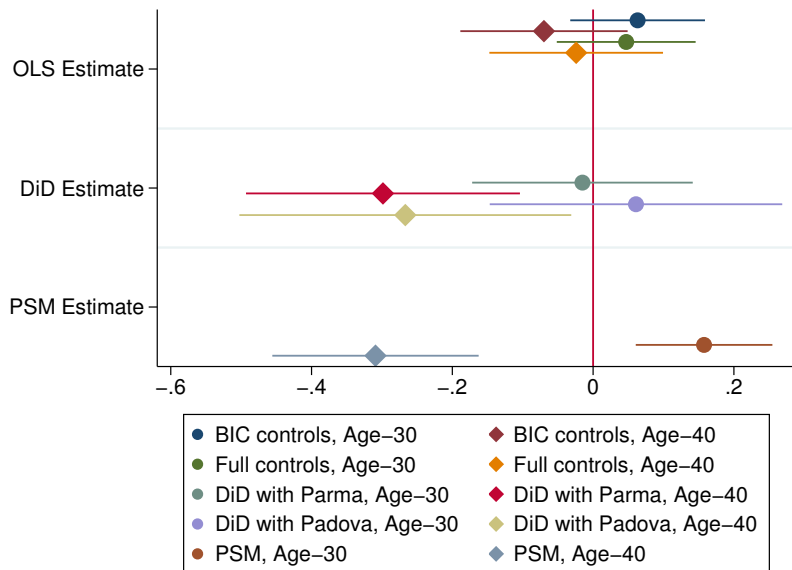
# Treatment Effects on High School Grade



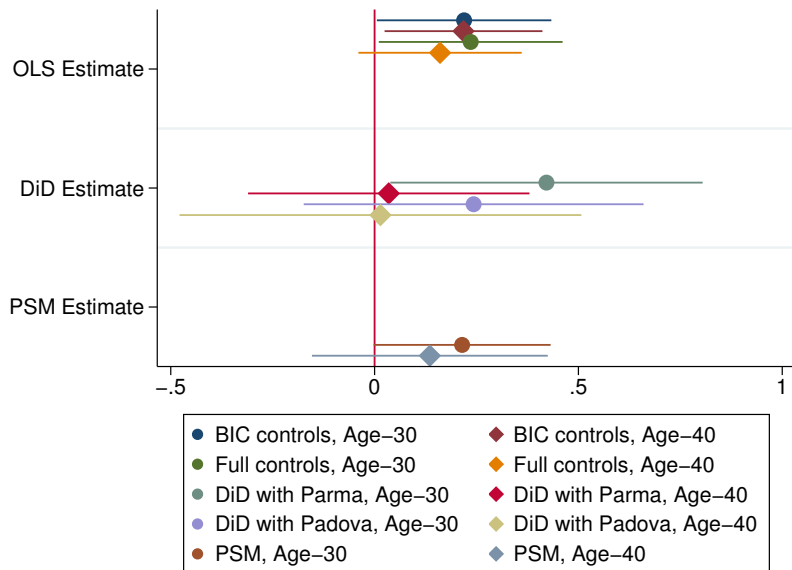
# Treatment Effects on Hours Worked Per Week



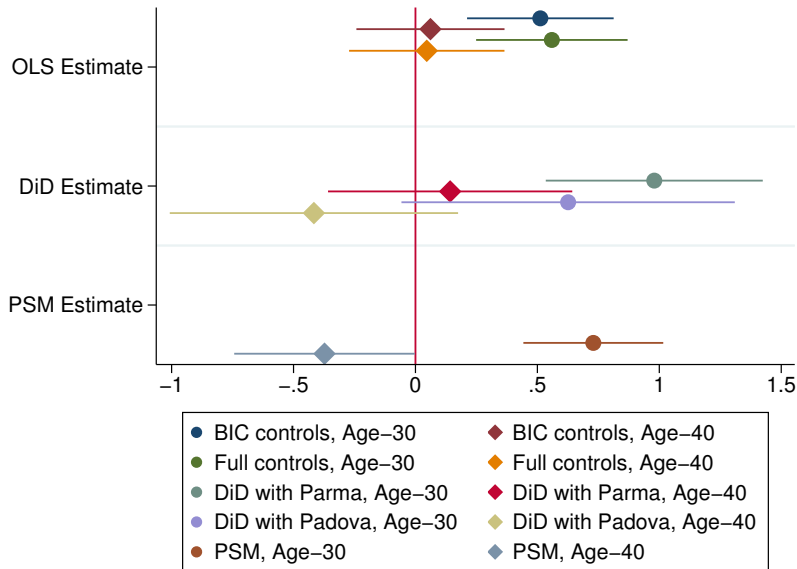
# Treatment Effects on Obesity



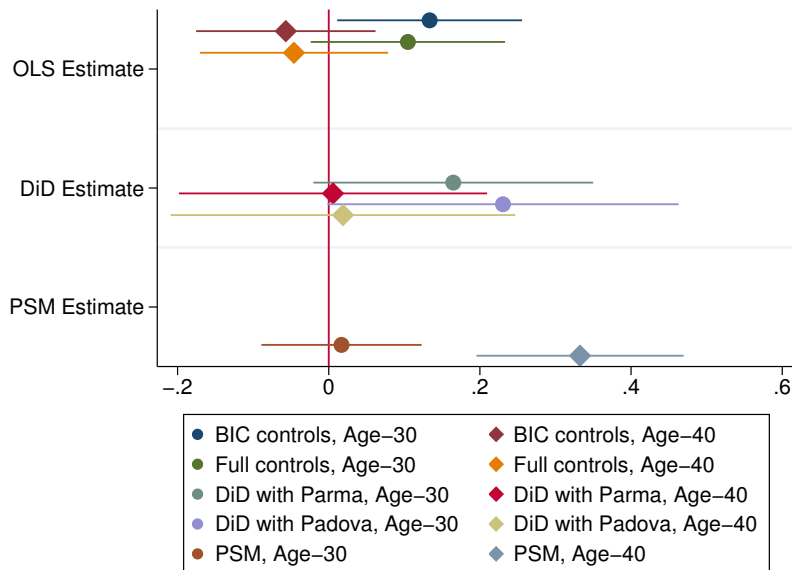
# Treatment Effects on Satisfied with Work



# Treatment Effects on Negative Reciprocity



# Treatment Effects on Has Migrant Friends



# Treatment Effects on Ever Voted for Regional

