

Going Local: Public Spending, Bureaucratic Efficiency and Decentralization

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*I SERVIZI PUBBLICI LOCALI TRA DISPARITÀ ECONOMICHE E
SFIDE DEMOGRAFICHE*



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Research questions in a nutshell

This study analyzes the impact of a major decentralization reform in Italy (L. Cost 3/2001) that affected all municipalities in ordinary status regions.

We aim to answer the following research questions

- Do municipal administrations matter to determine local economic development?
- What happens when municipal politicians and bureaucrats receive more powers and responsibilities?

Background on decentralization

- Decentralization implies the devolution of decision-making powers to sub-national governments. It is a complex phenomenon because it encompasses **political, administrative, and fiscal** dimensions that are implemented at varying extents on the vertical structure of governments also interacting with each other (*Martinez-Vazquez et al., 2017*).
- Many developed countries followed devolution policies with the aim of improving **public goods' provision** over the last decades. The process is still ongoing in several countries (hot topic in Italy).
- This follows the idea that devolution gets policy close to territories to provide quick and tailored answers to **specific local needs**.

Background on decentralization

Influential studies on the economic impact of decentralization:

1. First generation theories of federalism (*Tiebout, 1956; Olson, 1969; Oates, 1972*) view government as a benevolent agent and highlight the likely benefits of decentralization:

- Higher efficiency of mobilizing underused resources due to competition among subnational governments
- Stronger match with local preferences
- Political incentives and higher accountability of local authorities (Besley and Coate, 2003)

EXPECTATION: Decentralized countries and regions will produce better public policies, adapted to the requirements of heterogeneous areas.

Background on decentralization

Influential studies on the economic impact of decentralization:

2. **Second generation theories of federalism** depict a world where political and fiscal institutions work under imperfect information and political agents have their own objective functions which are distinct from that of the 'society' as a whole (*Seabright, 1996; Lockwood, 2002; Oates, 2005*) :
 - Race to the bottom
 - Rent-seeking behavior
 - (Horizontal and vertical) coordination issues
 - Scale diseconomies

EXPECTATION: The importance of fiscal incentives is key for determining whether decentralization will deliver efficiency gains or losses

Decentralization and local inequalities

Assuming a “pure” decentralization of fiscal federalism without a Regional Equalization Fund, richer regions with a larger tax-base will be able to raise more financial resources and finance local public goods at lower rates than poorer ones.

Moreover, all else being equal, the decentralization of taxes and expenditures is likely to lead to a concentration of growth in a few urban locations (Prud'homme 1995).

This would lead to an unequal provision of public goods and services and in rising territorial tensions -> “places that do not matter” (Rodríguez-Pose, 2018).

The role of bureaucratic quality and capacity

Huber and McCarty (2004) are the first to introduce **bureaucratic capacity** in their theoretical model of delegation to show the different effects of devolution strategies in contexts with high/low bureaucratic capacity.

- In polities with low bureaucratic capacity, political delegation reforms might be ineffective. By contrast, local institutions better endowed with bureaucratic capacity might have higher chances of delivering better local policies. In this perspective, the local institutional context might play a role in effectively exploiting devolved powers.
- Differences in government quality are bound to have far greater effects in countries with greater levels of government quality polarization (Rodríguez-Pose and Muštra, 2022)

The role of bureaucratic quality and capacity

- What if decentralization effects are **heterogeneous** in the institutional factors?
- Pre-existing differences in bureaucratic performance might amplify territorial disparities by granting greater power to local administrations.
- This is strongly relevant in countries with high variability of local institutional performance such as Italy.

Literature

Other theoretical and empirical studies on the degree of decentralization and the **regional** quality of government

- Devolution leads to quality of government improvement (*Lijphart, 1977; Watts and Rovinsky, 1999*)
- Tax decentralization leads to higher rates of economic growth when coupled with high administrative and political decentralization (*Filippetti and Sacchi, 2016*)
- Devolution leads to an increased variability of government quality (*Tanzi, 2001*), or has no effect on it (*Charron et al., 2014*)
- The gains of decentralization mainly accrue through indirect effects, as regions grow more if surrounded by other, more decentralized regions (*Rodríguez-Pose and Muštra, 2022*)
- Fiscal decentralization promotes regional convergence in high government quality settings, but it leads to wider regional disparities in countries with poor governance (*Kyriacou et al., 2015*).

Contribution to this strand of literature:

1. What happens at a more local level? → Municipalities
2. What if we go beyond the index of regional QoG (based on perception)?

Literature

Studies on the political economy of local governments and local bureaucracies:

- Consequences of populism on municipal economic performance and quality of bureaucracy (*Bellodi et al., 2023*)
- Effect of local politicians' skills and local government effectiveness on populist vote (*Boffa et al., 2023*)
- Association between more competent mayors and better policies in the case of low quality of informal institutions (*Carreri, 2021*)
- Unintended adverse consequences of place-based policies across space in Italy → in regions with many low-skilled workers, EU funds are significantly less likely to be invested in technological development (*D'Amico, 2021*)

Contribution to this strand of literature:

We do not look only at the political dimension → administrative dimension, non-politician workers of municipal offices

Institutional framework

Regions:

20 regions in Italy: 15 Ordinary Statute regions (*ROS*) and 5 Special Statute regions (*RSS*)

Reasons for the special status: linguistic minorities, insular features, separatist pressures right before the birth of the Republic

RSS “always” had greater margins of administrative and fiscal autonomy

Municipalities:

7,901 municipalities, of which 1,338 belonging to *RSS*

Duties: waste management, early childcare and schooling, local police, transportation and local roads, social services, environmental policies, culture, urban planning, and economic development

Decentralization in Italy

As in many other countries, the dynamics of decentralization in Italy have often followed a partisan logic.

Since the 1990s, this has been driven by the need for national parties to compete electorally or form governing coalitions with **the Northern League**, a powerful autonomist party that shifts between extremely radical proposals (e.g. secession) to bolster its core support, and more moderate proposals on state design (e.g. enhanced regional powers within a federal state).

An effect of this constant pressure has been **the 2001 constitutional reform** (L. Cost. 3/2001), which, for the first time since 1948 (the year the Italian Constitution was adopted), has reshaped the Italian regional state by changing the way powers are distributed among levels of government.

Decentralization in Italy

Constitution in 1948 – Title V: *“la Repubblica si riparte in Regioni, Province e Comuni”*

Constitution in 2001 – Title V: *“la Repubblica è costituita dai Comuni, dalle Province, dalle Città Metropolitane, dalle Regioni e dallo Stato”*

As for administrative functions, the reform has introduced **the principle of subsidiarity** (inspired by EU law) into the Italian Constitution. These functions must now be carried out by the institutions *“closest to the citizens”*, i.e., the municipalities, *“unless they are attributed to the provinces, metropolitan cities and regions, or to the State, pursuant to the principles of subsidiarity, differentiation, and proportionality, to ensure their uniform implementation.”*

The financial autonomy of the regions and of local authorities has also been strengthened.

Reform features

Constitutional reform took place in 2001 and established a new set-up for dividing legislative and administrative powers between the central state and the subnational levels of government (regions, provinces and municipalities)

- Clause 118: appointed municipalities with the primary scope of the administrative role
- Clause 119: calls for the municipal fiscal autonomy (granted to regions before the reform) → municipalities finance their duties and public goods provision with their **own resources** (chance to impose extra taxes as self-financing)

Special statute regions kept the responsibility for the administrative role in public services (verdict n.314 Const. Court)

Reform implementation

Clause 118 only concerned municipalities in Ordinary statute regions (ROS)

Administrative functions

After the reform, municipalities in ROS could eventually set and allocate funding for policies over the following matters:

Regulation, planning, realization and management of

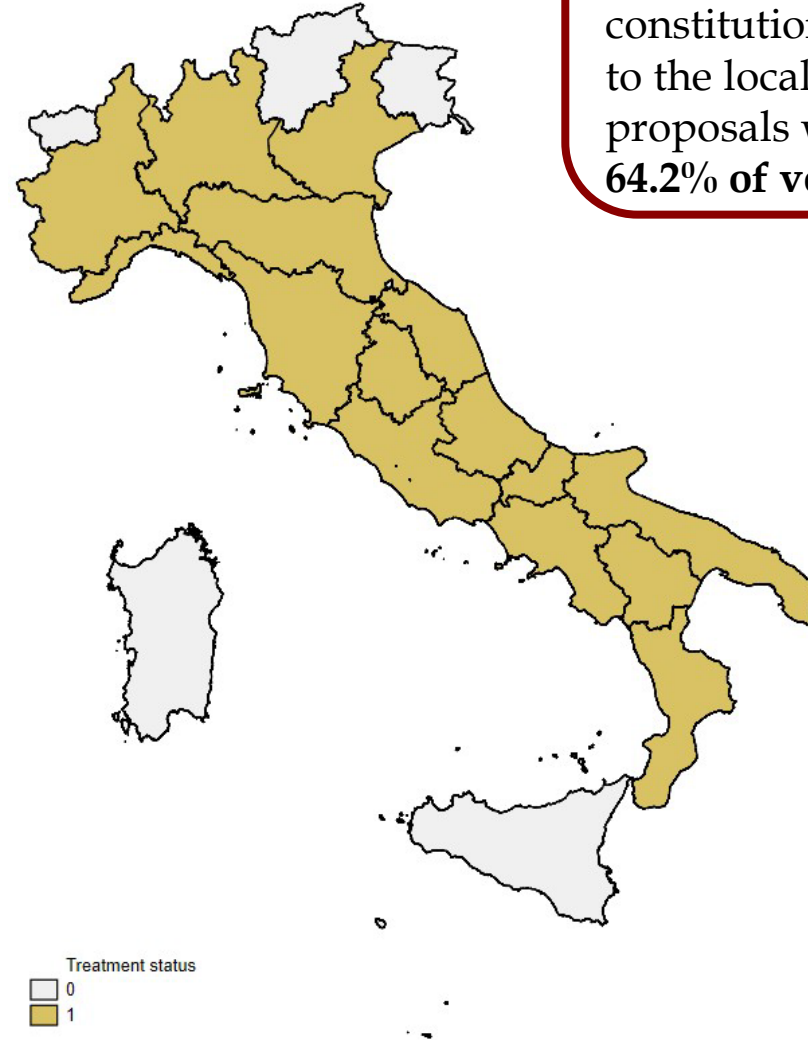
- public works and general constructions
- energy and renewable energy sector
- transportation
- school buildings
- economic activities / industrial sector

Direct planification and management of waste collection and nursery schools.

Wrapping up the reform

- The reform (clauses 118-119) applied in 2001 to municipalities belonging to ROS → **geographic discontinuity**
- We estimate the ATT through a non-parametric difference-in-differences estimator for panel data (*Imai et al., 2023*)
- We cover all municipalities in the RSS regions and those in the surrounding regions for the 1998-2007 period

A constitutional referendum was held in Italy on 07/10/2001. Voters were asked whether they approved of amending the constitution to give more powers to the local administrations. The proposals were approved by **64.2% of voters.**



Notes: Map of Italian regions, where yellow identifies the **treated** ROS, and gray identifies the **control** RSS

Data

The complete dataset covers (almost) all Italian municipalities from 1998 to 2007 and leverages information from five main sources:

- i) municipal balance sheets (e.g., *transfers, fiscal revenues, current and capital expenditure*)
- ii) mayoral and local politicians' characteristics (e.g., *level of education of local politicians*)
- iii) non-political municipal employees' characteristics from Conti Pubblici Territoriali (e.g., *level of education of bureaucrats*)
- iv) municipal administrative performance (e.g., *the number of applications processed as a fraction of the total applications received*)
- v) services (e.g., *total waste collection weight, number of street lamps*)
- vi) census and other economic data (e.g., *income per capita, urbanization rate*)

Evaluation strategy

We evaluate the effect of the constitutional reform that occurred in 2001, exploiting two sources of variation: the variation over time in the implementation of the reform and the geographical variation around the regional border.

We adopt the nonparametric generalization of the difference-in-differences estimator proposed by Imai et al. (2023) to estimate the ATT. It requires four steps:

- i) Select for each treated municipality in a ROS a set of control municipalities in a RSS that belong to the same geographical area and population category, have a similar pre-treatment bureaucratic quality and follow similar trends in the pre-treatment trends of key covariates.
- ii) Refine the matched set, $M_{i,t}$, by using the Mahalanobis distance measure with 3 neighbors.
- iii) For each treated municipality, we estimate the counterfactual outcome using the average of the three control units.
- iv) Compute the difference-in-differences (DiD) estimate of the ATT

How to measure bureaucratic capacity/quality?

We create a composite index using the Mazziotta-Pareto Index based on two pillars

1. Bureaucrats:

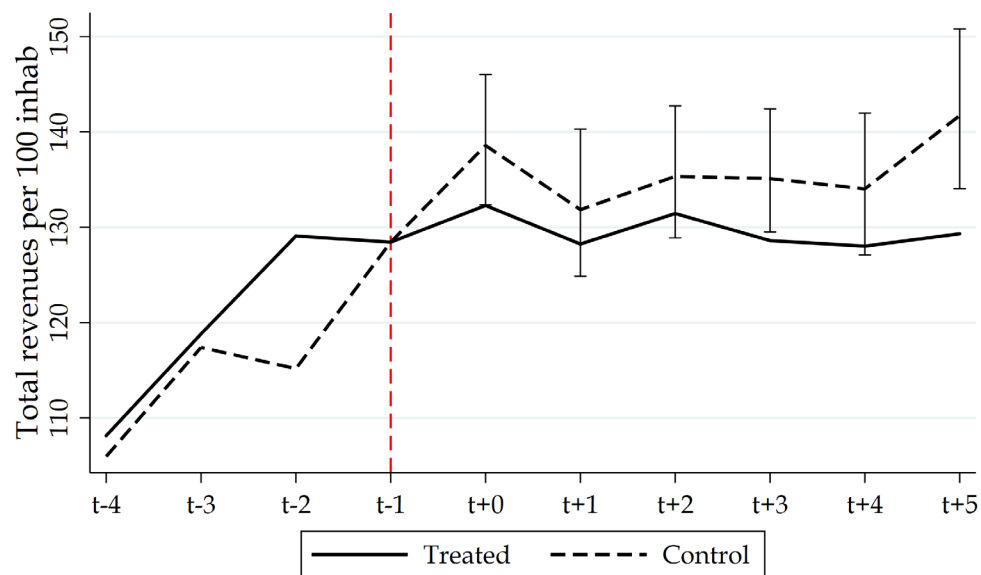
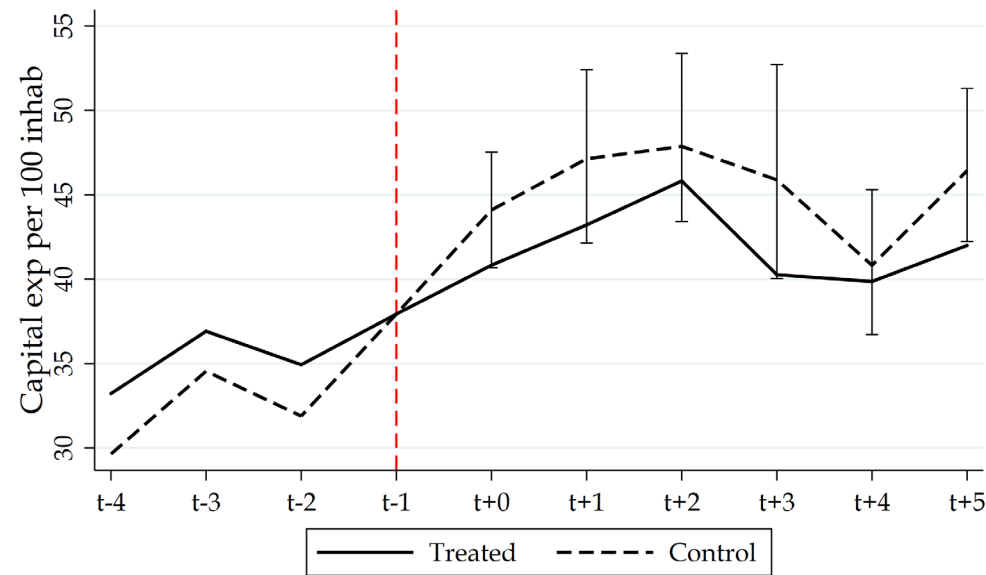
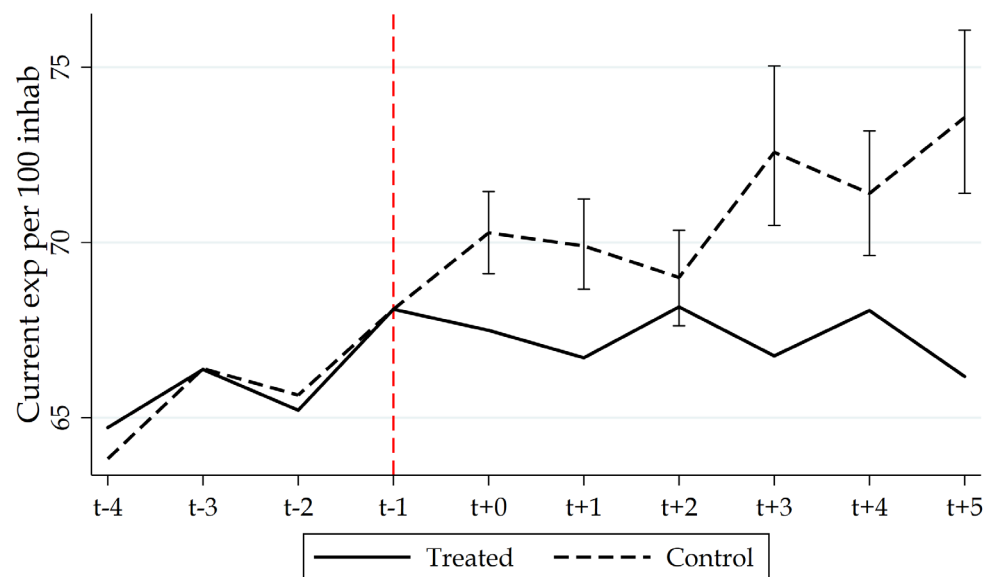
- a. Average years of education of bureaucrats (see Galasso Nannicini 2011, Bellodi et al., 2024). **Polarity: +**
- b. Number of bureaucrats per 1,000 inhabitants (to measure insufficient staffing, see Burden et al., 2012). **Polarity: +**
- c. Average number of days off. **Polarity: -**
- d. Turnover rate (high turnover lowers performance, see Carley, 1992; Heavey et al., 2013). **Polarity: -**
- e. Gender balance index (as gender imbalance leads to democratic deficit and reduced quality, see Baltrunaite et al., 2014; Weeks and Baldez 2015; Besley et al., 2017). **Polarity: -**
- f. Technical office's efficiency (based on the number of applications processed by the municipal technical office). **Polarity: +**

2. Politicians (Mayor, deputy mayor, members of executive committee, president of the local council)

- a. Average years of education. **Polarity: +**
- b. Gender balance index (as gender imbalance leads to democratic deficit and reduced quality, see Baltrunaite et al., 2014; Weeks and Baldez 2015; Besley et al., 2017). **Polarity: -**
- c. Proportion of white-collar workers (Gagliarducci and Nannicini, 2013). **Polarity: +**

Link to the companion academic paper: <https://papers.ssrn.com/abstract=5021887>

Average impact of the reform - balance-sheet variables



Impact of the reform by territory – balance-sheet variables

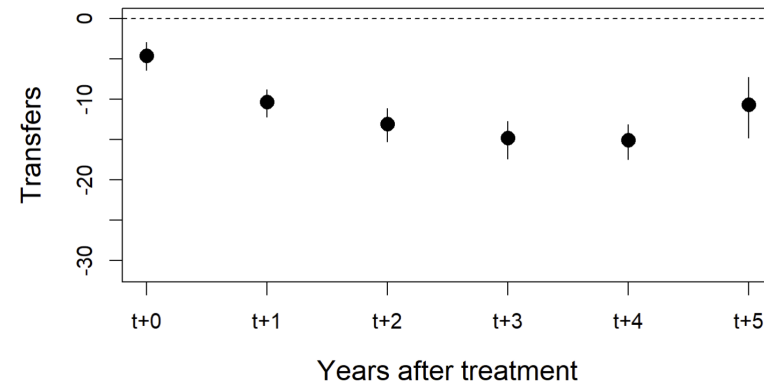
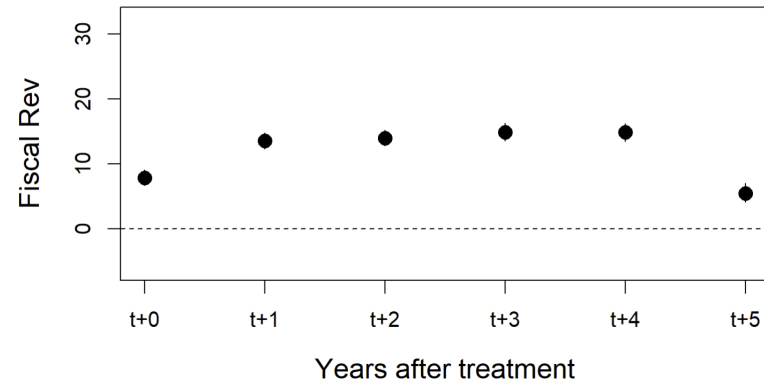
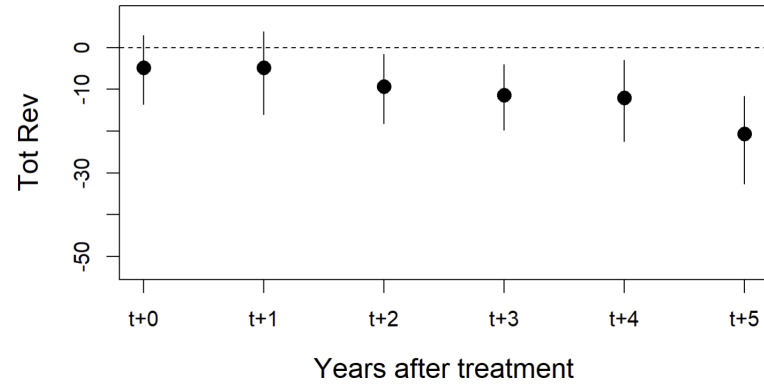
Dep. Var.: Current Expenditure	2002	2003	2004	2005	2006	2007
Overall	-2.79***	-3.20***	-0.85	-5.81***	-3.34***	-7.40***
North	-3.44***	-4.36***	-3.31***	-9.97***	-6.31***	-13.27***
South	-0.97	0.04	5.96***	5.66***	4.86***	8.81***

Dep. Var.: Capital Expenditure	2002	2003	2004	2005	2006	2007
Overall	-3.27**	-3.93	-2.06	-5.63	-0.96	-4.44*
North	-1.68	-3.04	-3.65	-10.25**	-3.67	-5.00
South	-7.65***	-6.34	2.34	7.13**	6.52**	-2.86

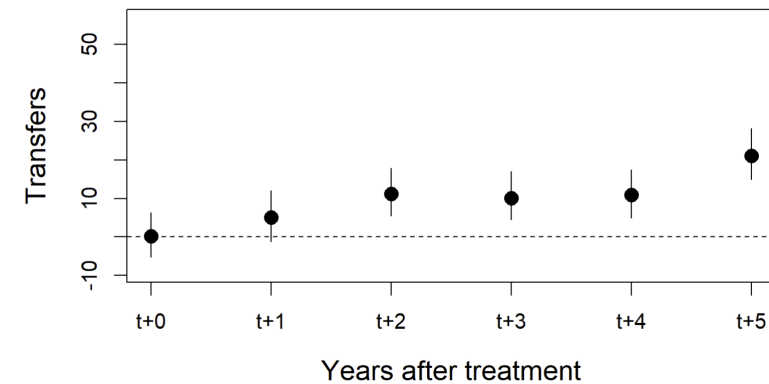
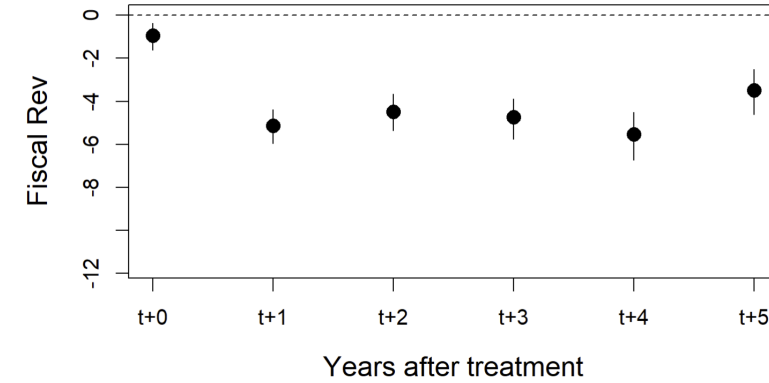
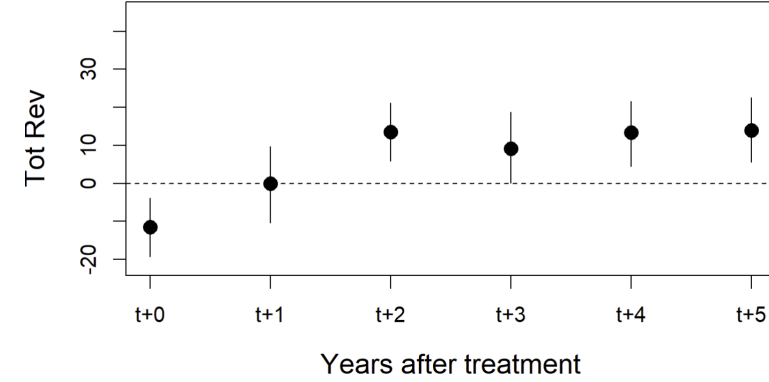
Dep. Var.: Total Revenues	2002	2003	2004	2005	2006	2007
Overall	-6.38*	-3.66	-3.91	-6.52*	-6.01	-12.46***
North	-4.80	-4.78	-9.31**	-11.40**	-12.03**	-20.68***
South	-11.47***	-0.05	13.47***	9.19**	13.36**	13.99**

Impact of the reform – the composition of revenues by territory

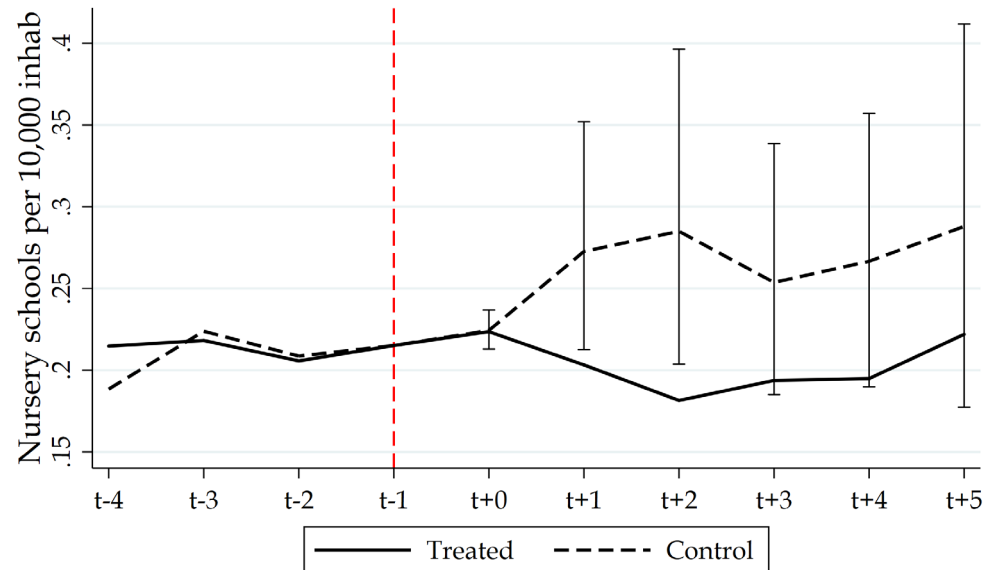
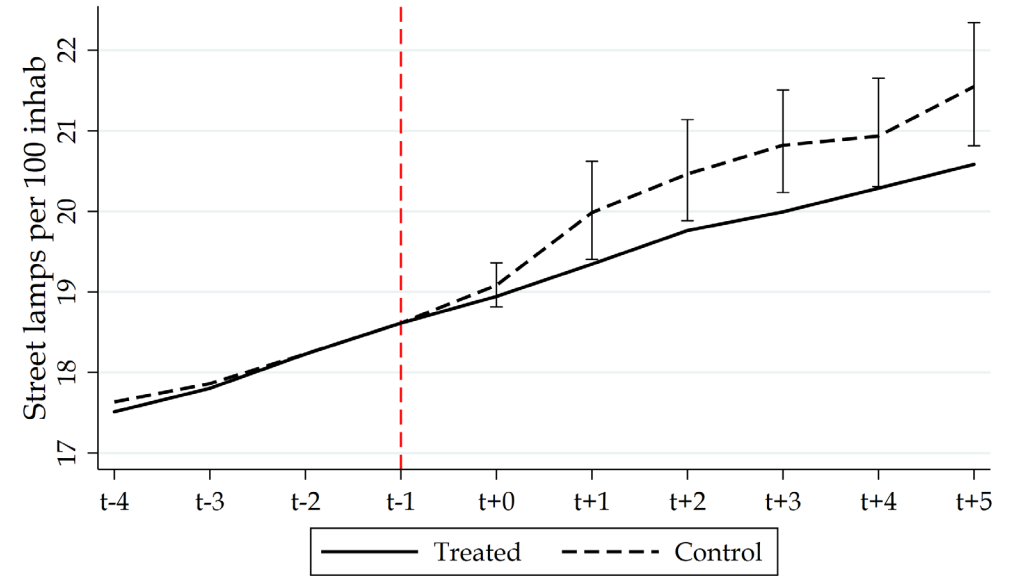
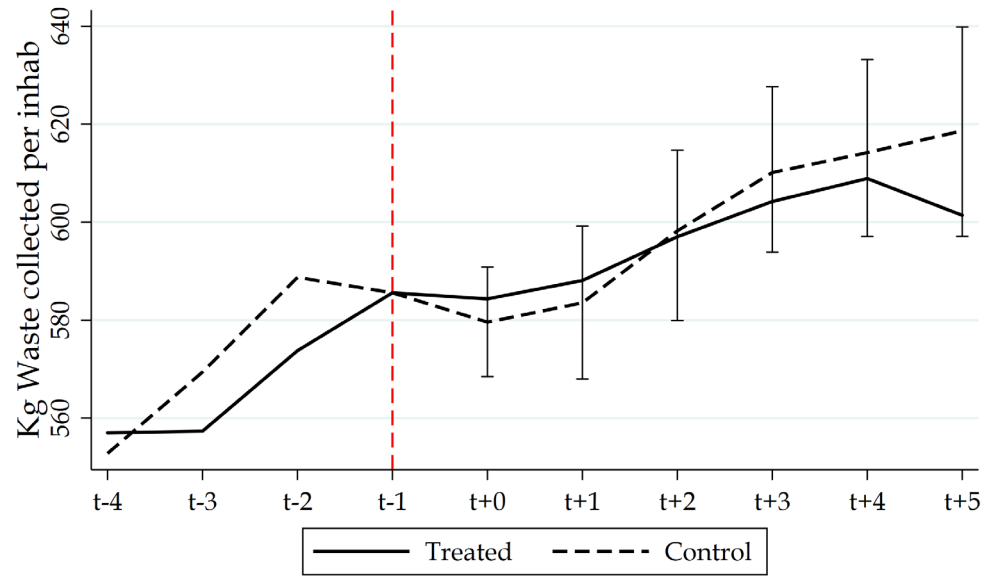
North



South



Average impact of the reform - services



Impact of the reform by territory – services

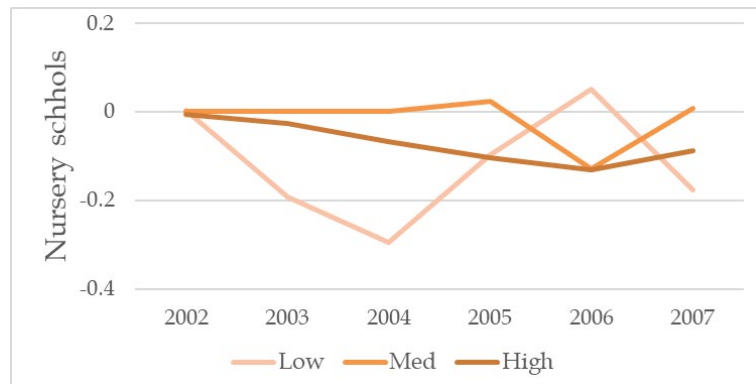
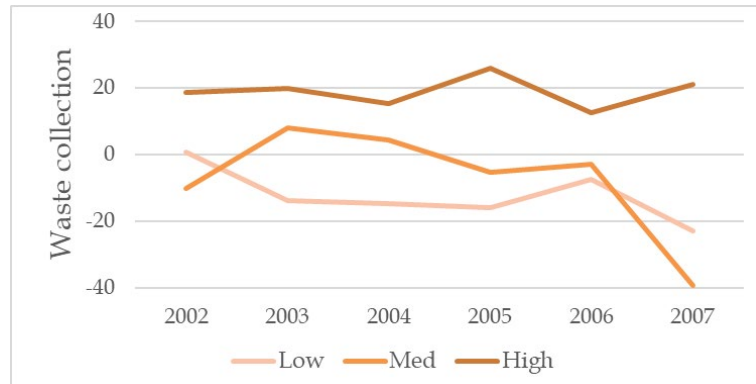
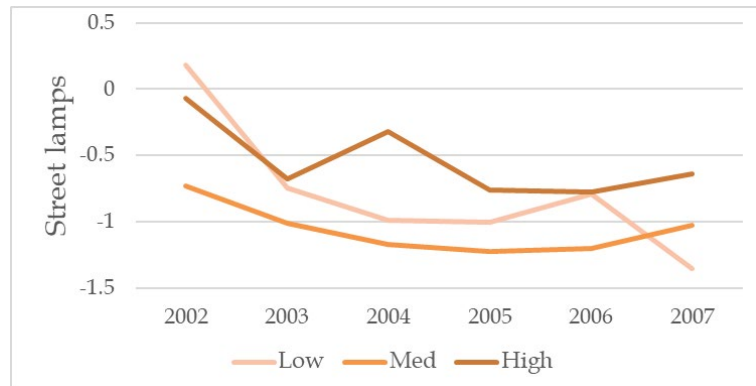
Dep. Var.: Waste collection	2002	2003	2004	2005	2006	2007
Overall	4.75	4.56	-1.2	-5.91	-5.29	-17.25
North	3.11	4.94	1.89	1.83	0.88	-13.51
South	9.53	3.47	-10.24	-28.45**	-23.25	-28.12**

Dep. Var.: Street lamps	2002	2003	2004	2005	2006	2007
Overall	-0.138	-0.640**	-0.702**	-0.827**	-0.647*	-0.965**
North	-0.212	-0.811**	-0.826**	-0.997**	-0.925**	-1.001**
South	0.066	-0.168	-0.361	-0.356	0.123	-0.865

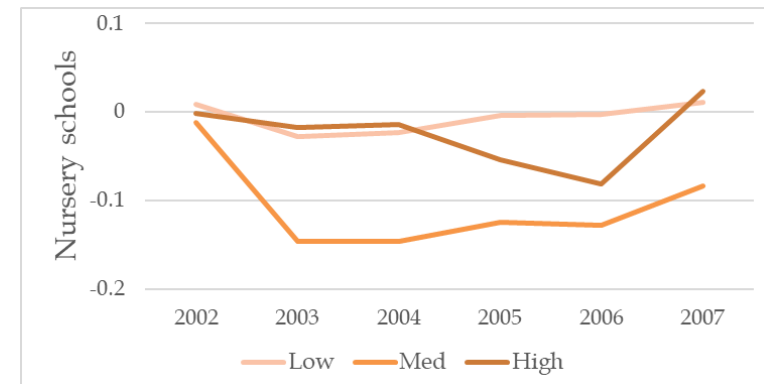
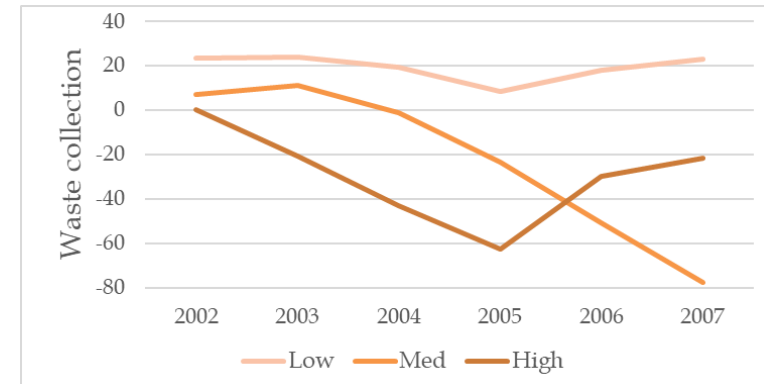
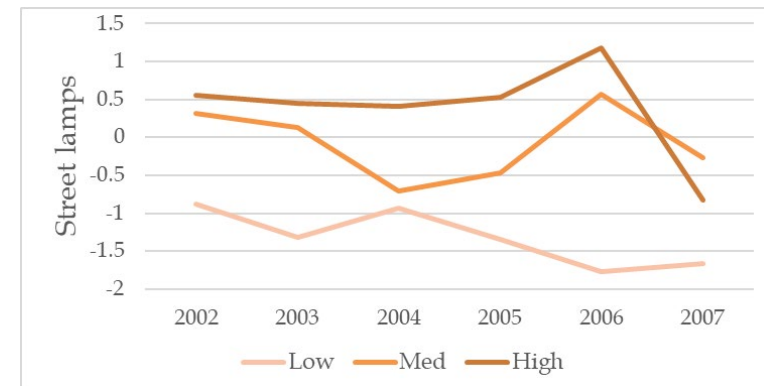
Dep. Var.: Nursery schools	2002	2003	2004	2005	2006	2007
Overall	-0.001	-0.069*	-0.104**	-0.060	-0.072*	-0.066
North	-0.001	-0.071	-0.118*	-0.058	-0.070	-0.084
South	-0.002	-0.066	-0.063	-0.065	-0.075	-0.017

Impact of the reform by bureaucratic quality – services

North



South



WHAT'S NEXT?

- **Data**

- Addition of other dependent variables, especially concerning services services

- **Robustness**

- Take better care of “noisy” data, especially concerning small municipalities
- Alternative specifications
- Alternative evaluation strategies
- Alternative definition of bureaucratic capacity/quality

- **A more comprehensive investigation of the potential mechanisms**