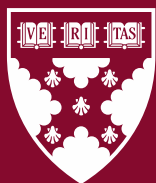


Working Paper 24-024

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**Harvard  
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Simone Cremaschi  
Bocconi University

Paula Rettl  
Harvard Business School

Marco Cappelluti  
University College London

Catherine E. De Vries  
Bocconi University

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# Geographies of Discontent\*

## Public Service Deprivation and the Rise of the Far Right in Italy

Simone Cremaschi<sup>†</sup>, Paula Rettl<sup>‡</sup>, Marco Cappelluti<sup>§</sup> and Catherine E. De Vries<sup>¶</sup>

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### Abstract

Electoral support for far-right parties is often linked to geographies of discontent. We argue that public service deprivation, defined as reduced access to public services at the local level, plays an important role in explaining these patterns. By exploiting an Italian reform that reduced access to local public services in municipalities with fewer than 5,000 residents we demonstrate that far-right support in national elections increased more after the reform in affected municipalities than in unaffected ones. We use geo-coded individual-level survey data and party rhetoric data to explore the mechanisms underlying this result. Our findings suggest that exposure to the reform increased concerns about immigration, and that far-right parties increasingly linked public services to immigration in their rhetoric after the reform. These demand and supply dynamics help us understand how public service deprivation shapes geographic patterns in far-right support.

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<sup>†</sup>Dondena Centre for Research on Social Dynamics and Public Policy, Bocconi University.

✉ [simone.cremaschi@unibocconi.it](mailto:simone.cremaschi@unibocconi.it)

<sup>‡</sup>Harvard Business School.

✉ [prettl@hbs.edu](mailto:prettl@hbs.edu)

<sup>§</sup>Department of Political Science, University College London.

✉ [marco.cappelluti.22@ucl.ac.uk](mailto:marco.cappelluti.22@ucl.ac.uk)

<sup>¶</sup>Department of Social and Political Sciences, Bocconi University.

✉ [catherine.devries@unibocconi.it](mailto:catherine.devries@unibocconi.it)

# 1 Introduction

Far-right parties and candidates have gained significant vote shares and representation in many countries in recent years.<sup>1</sup> Studies explaining the rise of the far right stress two sets of factors – (1) grievances stemming from exposure to globalization, trade shocks, or changing labor markets (Ahlquist, Copelovitch, and Walter 2020; Baccini and Sattler 2021; Bolet 2020; Colantone and Stanig 2018; Dehdari 2022; Gingrich 2019; S. Walter 2021) and (2) grievances related to migration shocks or demographic shifts (Dancygier and Laitin 2014; Dinas et al. 2019; Maxwell 2019, 2020; Schaub, Gereke, and Baldassarri 2021; Dancygier et al. 2022) – or the interaction between the two (Ballard-Rosa et al. 2021; Bolet 2021; Gidron and Hall 2020). Much less attention has been paid to people’s experiences with public service provision (for recent exceptions, see Nyholt 2023; Stroppe 2023).

This lack of scholarly attention is surprising. Prior research suggests that ordinary people believe access to public services is crucial to their lives (Grossman and Slough 2022; Vogler 2023). Public safety, infrastructure, education, and health care are some of the most fundamental services provided by the state, and have been shown to be important anchors of people’s electoral choices (for an overview see Golden and Min 2013). Since public services are financed through taxes and are accessible to virtually all residents, it is one of the most direct ways in which people interact with the state and learn about how it spends their taxes (Dowding and John 2012; Golden and Min 2013; Hern 2019; Grossman and Slough 2022; Hager and Hilbig 2021). Reductions in access likely generate grievances that the state is not providing adequately for the local community, which in turn might increase support for the far right (Bolet 2021; Patana 2021; Colombo and Dinas 2022; Ziblatt, Bischof, and Hilbig 2023).

Building on these important insights, we explore how public service deprivation, defined as reduced access to local public services (Barca 2009; Barca, McCann, and Rodriguez-Pose 2012; Rodriguez-Pose 2018), fuels support for the far right. We theoretically argue that

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<sup>1</sup>The term far-right is an umbrella concept that includes populist radical right and extreme right parties that combine anti-immigration, nationalist and anti-elite rhetoric (Pirro 2022). We use “far right” rather than “populist radical right” because factions within these parties often straddle the continuum of being critical of the state of democracy, to wanting major reform, to being anti-democratic (Mudde 2019).

far-right support is more pronounced in public-service-deprived municipalities. Public service deprivation prompts citizens to believe they are not receiving “their fair share of public resources” and that “political elites do not care about their communities” (Cramer 2016; Hochschild 2018; Patana 2021), which makes affected communities more susceptible to the messages of far-right parties. Public services are highly non-excludable, meaning that it is difficult for the public authorities providing these services to restrict residents’ access to them. We therefore argue that public service deprivation likely raises concerns about immigrants, who native populations generally perceive as “less deserving” of public resources (Dancygier 2010; Alesina, Murard, and Rapoport 2021; Cavaillé and Ferwerda 2023; Cavaillé and Van Der Straeten 2023). This makes public-service-deprived communities more susceptible to far-right parties’ welfare chauvinist rhetoric, which tends to be critical of immigration and often advocates the closing of borders (Schumacher and Van Kersbergen 2016; Cavaillé and Van Der Straeten 2023). At the same time, the policy solutions of pro-redistribution parties advocating greater universal access to public services might seem less attractive, especially because public spending pledges might be less credible in times of increased market liberalization and fiscal prudence (e.g., Hellwig 2014; Colantone and Stanig 2019).

We empirically examine our argument by presenting evidence from Italy – an ideal test case because far-right parties have enjoyed a substantial rise in electoral support and public service deprivation varies substantially within it. We exploit a recent policy reform to gain causal leverage on the electoral consequences of public service deprivation. Based on a 2010 national reform that reduced access to local public services in some Italian municipalities, we employ a difference-in-differences (DID) design to examine the relationship between public service deprivation and far-right support. In line with our argument, we establish that support for far-right parties increased more in municipalities affected by the reform than in unaffected ones. We explore the mechanisms underlying this relationship by examining geo-coded individual-level survey data and party rhetoric. Our findings suggest that exposure to public service deprivation increased the demand for the messages of the far-right: voters in municipalities affected by the reform became

more concerned about immigration than those in unaffected municipalities. Our evidence also indicates that supply plays an important role: after the reform, far-right parties' messaging increasingly linked public services to immigration. The increase in the demand for, and supply of, far-right messages helps explain how public service deprivation shapes geographic patterns in far-right support.

We rule out three alternative mechanisms and expectations. First, we address the possibility that the reform increased far-right support by fueling anti-incumbent and anti-establishment sentiments. The evidence suggests that public service deprivation is not consistently linked to a higher anti-incumbent vote share or a decrease in turnout; nor did it boost distrust in politicians. Second, we investigate whether the increase in far-right support is driven by concerns about reduced local policy autonomy in the historical strongholds of the regionalist far-right party Lega (Nord). We find no evidence that exposure to the reform generated more far-right support in the North of Italy. Finally, we examine the alternative expectation that public service deprivation increased support for public spending and find that if anything, deprivation *reduced* support for pro-redistribution parties. Nor do we find that public service deprivation made residents of affected municipalities more likely to classify themselves as economically left wing. In fact, our evidence suggests the opposite.

Our findings make three important contributions to the literature. First, they help us better understand the geographic concentration of far-right support. While such support is generally higher in rural areas, prior research has also identified substantial backing in urban areas (e.g., Rydgren and Ruth 2013; Harteveld et al. 2022). Our findings suggest that public service deprivation helps explain far-right support in both settings.

Second, our evidence advances research on the electoral consequences of local public service provision. Most prior work has focused on low- and middle-income countries and has found that a lack of public service provision may not necessarily translate into political dissatisfaction (Harding and Stasavage 2014; Brinkerhoff, Wetterberg, and Wibbels 2018; Hern 2019; Bland et al. 2023). Our evidence from a high-income country with traditionally high levels of access to local public services establishes that public service deprivation has

important electoral consequences.

Finally, our results inform the literature on why pro-redistribution parties may not necessarily gain from a reduction in access to public services (e.g., Giger and Nelson 2011; Alesina, Carloni, and Lecce 2012). While supply-side explanations highlight that parties raise concerns about non-economic issues and cultural values – such as religiosity, ethnicity, or nationalism – to distract voters from hardship or unpopular policy measures (Shayo 2009; Huber and Stanig 2011; Tavits and Potter 2015; Hacker and Pierson 2020), our findings suggest that experiences with public service deprivation may themselves heighten concerns about immigration, increasing voter demand for far-right policies.

## 2 Theory

An abundance of research has demonstrated that in virtually all countries, public service provision is indispensable for maintaining contemporary living standards (e.g., Anand and Ravallion 1993; Baum and Lake 2003; Pepinsky, Pierskalla, and Sacks 2017; Vogler 2019; Ansell and Lindvall 2020), and that ordinary people view access to such services as crucial to their quality of life (Grossman and Slough 2022; Vogler 2023). Public safety, infrastructure, education, and health care are some of the most fundamental services provided by the state. Given their importance, the political determinants and consequences of public services – defined as goods and services that are (1) supplied by the state and (2) both formally and factually accessible to virtually all people living in that state<sup>2</sup> – are some of the most studied topics in the social sciences (for comprehensive overviews, see Golden and Min 2013 and Grossman and Slough 2022).

An important strand of research has focused on the electoral rewards that incumbents receive from providing public services; work in this area has generated conflicting evidence almost exclusively from developing countries (Harding and Stasavage 2014; Harding 2015; De Kadt and Lieberman 2020; Imai, King, and Velasco Rivera 2020; Adiguzel, Cansunar,

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<sup>2</sup>Public service provision is focused on the delivery of public goods – that is, goods that are both non-rival and non-excludable (e.g., clean air, garbage collection, public safety, access to roads). In its purest form, this means the state cannot stop individuals from using these goods and anyone can consume them without hindering others’ ability to consume them. Yet, in her seminal work on the topic, Ostrom (1990) advocates conceptualizing excludability on a scale from fully excludable to fully non-excludable.

and Corekcioglu 2023). With the exception of a small number of studies on geographic inequalities in public service provision (Nyholt 2023; Stroppe 2023), surprisingly little attention has been paid to whether (and how) access to local public services affects citizens' programmatic vote choices, especially where access has historically been high. While the electoral consequences of reduced access or congestion of particular types of social benefits, such as public housing or social security transfers, have been widely considered (Dancygier 2010; Giger and Nelson 2011; Fetzer 2019; Baccini and Sattler 2021; Cavaillé and Ferwerda 2023), the consequences of reducing access to basic public services that are formally and factually accessible to all residents are not clear. Our study seeks to help close this gap in the literature by exploring the electoral consequences of public service deprivation – defined as reduced access to local public service provision.

Based on previous findings, we assume that citizens prefer high levels of access to public service provision because they view this as crucial for maintaining their quality of life (Grossman and Slough 2022; Vogler 2023). Indeed, local public service delivery is one of the most important points of contact between citizens and the state (Dowding and John 2012; Golden and Min 2013; Hern 2019; Grossman and Slough 2022), and access to local public services ratchets up people's expectations that the state will be responsive to their needs (De Kadt and Lieberman 2020; Vogler 2023). Citizens also evaluate how their tax money is being spent and how invested the state is in their communities based on local service provision (Hacker et al. 2002; Mettler and Soss 2004). Even less politically sophisticated voters should be able to link access to local public services to choices at the ballot box (Dowding and John 2012; Hern 2019). While prior research suggests that it might not always be straightforward to correctly attribute responsibility for access to local public services (Harding and Stasavage 2014; Harding 2015),<sup>3</sup> experiencing public service deprivation should make at least some voters inclined to support certain policy solutions offered by parties.

We argue that reduced access to local public service provision generates grievances in

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<sup>3</sup>For example, citizens might know there are too few police officers to main public order, but be unable to discern whether this is due to a lack of national public spending or a local implementation failure (Harding and Stasavage 2014).



affected communities. Grievances signify “feelings of dissatisfaction with important aspects of life” (Klandermans, Roefs, and Olivier 2001: 42) – in our case about not receiving a “fair share of public resources” and “political elites not caring” about one’s community (Cramer 2016; Hochschild 2018; Patana 2021).<sup>4</sup> The grievances that exposure to public service deprivation generates lead affected communities to demand policy solutions to solve them at the ballot box (Cramer 2016; Bonikowski 2017). We argue that exposure to public service deprivation makes affected communities more likely to support far-right policies.

Why would public service deprivation generate more support for far-right parties but not for pro-redistribution parties? We suggest this is due to a combination of *push factors* that make left-wing parties’ pro-redistribution messages less attractive and *pull factors* that increase the appeal of far-right parties’ welfare chauvinist messages in affected communities. We identify two push factors. First, pro-redistribution party platforms generally feature public spending pledges to be financed through higher taxes, increased public borrowing, or a combination of both. These policy solutions are unlikely to appeal to voters due to their reluctance to pay higher taxes (Ballard-Rosa, Martin, and Scheve 2017; Barnes, Blumenau, and Lauderdale 2022); nor are they likely to appear credible in times of increased market liberalization and fiscal tightening (e.g., Hellwig 2014; Colantone and Stanig 2019). Second, experience with public service deprivation, especially where access to such services has historically been high, will likely increase people’s uncertainty about what the state will be able to provide for their communities, lowering expectations about the degree to which “their own communities” will benefit from increased public spending (Holland 2018).

Two pull factors increase the attractiveness of far-right parties’ messaging. First, such parties increasingly take welfare chauvinistic positions (Schumacher and Van Kersbergen 2016) linking left-wing economic positions on redistribution to right-wing cultural views on deservingness (Alesina and Glaeser 2004; Crepaz and Damron 2009; Van der Waal

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<sup>4</sup>While classical economic theory would expect dissatisfied individuals to move in response to reduced access to public services (Tiebout 1956), political science research suggests that many individuals stay, either due to a lack of resources or because they have strong connections to the area (Patana 2021).

et al. 2010; Emmenegger and Klemmensen 2013; Van Oorschot 2006). In doing so, they criticize mainstream parties for cutting public spending at the expense of the “deserving natives” for the benefit of “undeserving immigrants” (Schumacher and Van Kersbergen 2016; Cavaillé and Van Der Straeten 2023). Because the policy solutions of pro-redistribution parties are more universalist and require increased public spending, the best way for affected communities to restore their access to public services might be to reallocate public spending away from others toward themselves.

Second, and closely related, far-right parties bolster their welfare chauvinistic positions by calling to close the borders to reduce the “fiscal burden of immigration” (Cavaillé and Van Der Straeten 2023). Public services are characterized by a low degree of excludability, making them virtually universally accessible. As a result, reduced access to public services may generate hostility toward people who are perceived to be able to easily access such services (Dancygier 2010; Alesina, Murard, and Rapoport 2021; Cavaillé and Ferwerda 2023; Cavaillé and Van Der Straeten 2023). Prior research has routinely demonstrated that people tend to favor members of their own group over out-groups when allocating resources (Tajfel 1982; Brewer and Kramer 1985; Hogg and Abrams 1993; Brewer and Caporael 2006), and that immigrants are generally perceived as the least deserving recipients of public spending (Van Oorschot 2006; Magni 2021), especially when resources are scarce (Skitka and Tetlock 1992). Given what we know from qualitative research (e.g., Cramer 2016; Gest 2016; Hochschild 2018; Lamont 2001) and quantitative research (e.g., Gidron and Hall 2017; Colantone and Stanig 2018; Bolet 2021; Baccini and Weymouth 2021; Cavaillé and Ferwerda 2023) about the lived experience of far-right supporters, it is therefore plausible that grievances about public service deprivation increase the resonance of far-right messages that link grievances to concerns about immigration.

Against this backdrop, when studying a reform that reduced access to local public services in Italy, *we expect affected municipalities to display more support for far-right parties at the expense of pro-redistribution parties, and voters in affected municipalities to have higher concerns about immigration.*

## 3 Research Design

### 3.1 The 2010 Reform of Municipal Public Service Provision

Examining the relationship between public service deprivation and far-right support is far from straightforward. While access to public services likely affects people’s electoral choices, elected politicians also shape access to public services, which creates issues of reverse causality. Furthermore, the demographic composition of municipalities influences tax revenues and, in turn, public service provision; but demographic composition also correlates with voting choices, which generates omitted variable bias concerns. We aim to overcome these difficulties by exploiting a reform in Italy from 2010 that reduced access to local public services in municipalities with fewer than 5,000 residents. Our approach follows recent work that exploits changes in the municipal structure to investigate contextual effects on political behavior (see, for example, Lassen and Serritzlew [2011](#); Koch and Roachat [2017](#); Harjunen, Saarimaa, and Tukiainen [2021](#)). These reforms were part of a general effort by national governments across Europe in the last decade to reduce municipal fragmentation and the burden of administrative costs on state budgets (for overviews of the Italian and European setting, see Swianiewicz et al. [2022](#); Bolgherini, Casula, and Marotta [2018b](#)).

Municipalities (*comuni*) constitute the lowest tier of Italian local government. Municipal governments manage around 10% of public expenditures and are responsible for a plethora of public services, such as local urban planning; roads and transport; local historical and environmental resources; the collection and disposal of waste; the collection and distribution of water and energy sources; services for economic development and commercial distribution; social, educational, vocational training, and other urban services; and administrative police (Carreri [2021](#)). Before the 2010 reform, Italy had 8,101 municipalities with an average population of 7,455 (median = 2,514).<sup>5</sup>

During the 1990s and 2000s, the Italian government introduced multiple legislative initiatives designed to reduce municipal fragmentation through mergers and other forms

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<sup>5</sup>Italy has historically averaged around 8,000 municipalities. There were 7,720 at the country’s unification in 1861 and they peaked at 8,201 in 2001.

of intermunicipal governance (such as the “unions” we discuss below). The 2008 financial crisis and the rise of austerity-related cuts to administrative budgets brought a new impetus to the process of municipal integration (Bolgherini, Casula, and Marotta 2018b). In 2010, a right-wing government led by Prime Minister Silvio Berlusconi introduced the compulsory joint management (*gestione associata obbligatoria*) of basic public services (Law no. 78/2010). The law required municipalities with fewer than 5,000 inhabitants (or “mountain municipalities” with fewer than 3,000 residents)<sup>6</sup> to jointly manage at least three public services (“fundamental functions”) by January 1, 2013, at least three other services by September 30, 2014, and all remaining services by December 31, 2014. These public services include: (a) local administration, financial management, and accounting; (b) general interest public services, including municipal public transport services; (c) real estate registry; (d) urban planning and municipal construction; (e) civil protection and first aid; (f) the collection and disposal of waste and the collection of related taxes; (g) social services; (h) school construction and management; (i) municipal police and local administrative police; and (j) electoral, registry, and statistical services, including the maintenance of civil status and population registers.

Municipalities could choose to comply with the law by merging (uniting their municipal institutions in a single administrative entity), forming a union (creating an intermunicipal government tasked with organizing shared public service provision), or stipulating a convention (a contract regulating the joint provision of public services for at least 3 years subject to efficacy audits). The reform affected 65% of Italian municipalities. Between 2010 and 2018, 200 (2.51%) of the affected municipalities in our dataset merged, 1,562 (19.61%) formed a new union, and the rest adopted a convention.<sup>7</sup> Regardless of which governance institution municipalities adopted, the reform’s objectives in terms of jointly delivering the provision of services were the same. Although the 2010 reform was designed to enhance the efficiency of public service provision, it was controversial for three

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<sup>6</sup>Mountain municipalities are those that law defines as part of “mountain communities,” intermunicipal institutions taking care of local governance in mountain areas. Municipalities with territories that extended across one or more islands were exempt from the reform.

<sup>7</sup>Municipal mergers and unions were already possible before the reform but were rare. Between 1968 and 2009, 29 municipalities had merged. Between their introduction in 1990 and 2009, 1,349 municipalities had formed a union. Systematic data is not available for conventions.



Figure 1: Municipalities Affected by the Reform of Local Public Service Provision (in Black)

reasons (Bolgherini, Casula, and Marotta (2018a, 2018b) and Bolgherini and Lippi (2016)). First, its uniform application across regions with different administrative traditions and governance practices was perceived as unreasonable. Second, the population threshold often hindered collaborative efforts by failing to account for the geographical proximity of smaller municipalities to larger unaffected counterparts. Lastly, the consolidation of ten basic services under joint management was viewed as economically and organizationally dysfunctional. The National Association of Italian Municipalities advocated a more pragmatic approach – the simultaneous management of at least three fundamental functions (Bolgherini, Casula, and Marotta 2018a). These multifaceted challenges associated with the reform’s implementation highlight the importance of scrutinizing its impact on local public service provision.<sup>8</sup> In Section 4.3, we empirically demonstrate that exposure to the

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<sup>8</sup>This assessment aligns with our extensive conversations with Bolgherini on her qualitative research, which further confirms that the reform generated discontent and diminished service accessibility in affected municipalities. Rather than redirecting budgets to other services, the reform primarily influenced how services were *administered*, thereby substantiating the relevance and salience of its effects on public service provision. For a comprehensive discussion of the ramifications of the reform’s implementation, see Bolgherini, Casula, and Marotta (2018a).

reform reduced access to local public services in affected municipalities.

### 3.2 Data

We construct a rich dataset that allows us to study the effects of the 2010 reform on (1) municipal-level electoral returns between 2000–2020 using data from the Ministry of the Interior’s Historical Electoral Archive, (2) municipal-level access to local public services based on official monitoring of the Ministry for the Economy and Finance released through the Open Civitas dataset (2010 and 2013), and (3) individual-level political attitudes by linking municipality identifiers to individual-level data representative of the Italian population from two panel surveys conducted before (2001 to 2006) and after the reform (2011 to 2013) by the Italian National Election Studies (ITANES). In a last step (4) we examine changes in party rhetoric between 2000–2020 using data from the Manifesto Project Database (MPD) (Lehmann et al. 2023; Volkens et al. 2013).

Our key dependent variable is municipal-level vote shares for far-right parties, but we also report the results for vote shares for pro-redistribution parties, incumbent parties, and turnout. For example, Lega (Nord) and Fratelli d’Italia are classified as far-right parties, Partito Democratico and Movimento 5 Stelle (M5S)<sup>9</sup> as pro-distribution parties, and Forza Italia as the incumbent party that introduced the reform.<sup>10</sup> Appendix B provides detailed information on the classification of different political parties across election years and uses Chapel Hill Expert Survey (Bakker et al. 2015; Jolly et al. 2022) data to validate our coding.

We merged our data on municipal-level electoral returns, municipal-level access to local public services, and individual-level political attitudes with information about municipality characteristics. We draw information on municipality mergers and unions from 1968 to 2018 from the Interior Ministry’s Unified Territorial System. We collect data on mountain municipalities from lists provided by regional governments.<sup>11</sup> We rely on data from the

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<sup>9</sup>While it is very hard to classify M5S ideologically, it has advocated a signature pro-redistribution policy – universal basic income – since its inception. The party originated from a context of increasing discontent with austerity policies implemented in Italy in the aftermath of the Great Recession.

<sup>10</sup>From 2009 onwards Berlusconi’s party was named Popolo della Libertà, which combined the former Forza Italia and Alleanza Nazionale.

<sup>11</sup>Where absent, we integrate information about mountain communities’ founding dates from newspapers

Italian National Institute of Statistics to capture the municipalities' social, economic, and demographic characteristics before the reform. Appendix Tables A.1, I.1, and J.1 list all the variables we use in our regression analyses and display their descriptive statistics.

To build a time-consistent panel, we maintain the municipal structure associated with the last election before the reform (2008). Since electoral records are collected at the municipal level, vote shares for municipalities that fused after 2008 (112 treated and 100 control units) take the value of the municipal aggregation. Appendix A provides further details on how we calculate vote shares and other municipal characteristics for merging municipalities. We exclude from the sample 119 municipalities for which we are unable to assign a population threshold of reference due to a lack of information on population size or mountain community membership before the reform and 12 island municipalities that were exempt from the reform. We also drop two municipalities for which we do not have a complete voting result time series and two that resulted from a municipal separation during the study period. The final sample includes 7,964 municipalities.

### 3.3 Empirical Strategy

We employ a DID strategy to study the effects of the 2010 reform. We compare the results of national elections held before and after the reform in municipalities affected by it (below the population threshold) and those that were not affected (above the threshold). We thus construct a counterfactual change in electoral outcomes in elections held before and after the reform for affected municipalities using the change in electoral outcomes in unaffected municipalities.

Our main model examines how the reform affected the share of valid votes for different political blocs and turnout in national elections for the lower chamber (*Camera dei Deputati*). We estimate the following two-way fixed effect (TWFE) equation:

$$Y_{i,t} = \beta X_{i,t} + \mu_i + \lambda_t + \varepsilon_{i,t}, \quad (1)$$

where

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and other publicly available sources.

- $Y_{i,t}$  measures one of the abovementioned electoral outcomes for municipality  $i \in \mathcal{I}$  in election year  $t \in \mathcal{T} := \{2001, 2006, 2008, 2013, 2018\}$ ;
- $X_{i,t} := \mathbb{1}_{\mathcal{I}_{ref} \times \mathcal{T}_{post}}(i, t)$ , with (i)  $\mathcal{I}_{ref} \subset \mathcal{I}$  denoting the subset of municipalities affected by the reform and (ii)  $\mathcal{T}_{post} := \{2013, 2018\}$ , i.e.,  $\mathcal{T}_{post}$  denoting the subset of post-reform election years;
- $\mu_i$  and  $\lambda_t$  are municipality- and year-specific intercepts, and respectively;
- $\varepsilon_{i,t}$  is an error term, which we allow to be correlated within individual municipalities across years.

A key assumption for the validity of the DID strategy is that if the affected municipalities had not been forced to share services, they would have experienced the same trajectory in electoral outcomes as unaffected municipalities. In Section 4.2, we test the plausibility of this assumption by inspecting pre-treatment trends in affected and unaffected municipalities using an event-study variant of Equation 1. Results reported in Figure 2 illustrate that, among treated and untreated mountain municipalities (i.e., below and above the 3,000-inhabitant threshold for this municipality group, respectively), pre-trends in vote shares for far-right parties were statistically indistinguishable, which lends credibility to the parallel-trends assumption. However, treated non-mountain municipalities (i.e., those with fewer than 5,000 inhabitants) voted relatively *less* for far-right parties before the reform compared to untreated non-mountain municipalities (i.e., more than 5,000 inhabitants). We therefore employ two additional strategies to obtain an alternative counterfactual.

First, we estimate Equation 1 using matching to obtain a set of control units that is balanced relative to the treatment group on observable pre-treatment characteristics (population size, average income, share of college graduates, share of the population over 65, share of the population under 15, share of foreigners, share of females, maximum altitude). We measure the similarity between municipalities using Mahalanobis distance and employ a nearest-neighbor procedure to find a matching control municipality for each treated municipality. In Appendix C, we provide additional details on this procedure



and demonstrate that it successfully reduces covariate unbalance between treated and untreated municipalities. In Appendix E, we show that this matched-TWFE (MTWFE) specification significantly reduces the divergence in trends of far-right vote shares between control and treated municipalities, which adds credibility to the parallel-trends assumption. In Appendix F, we discuss an alternative strategy based on a combination of DID and regression discontinuity design (Grembi, Nannicini, and Troiano 2016). Second, we estimate the reform’s effect on electoral outcomes using a synthetic DID (SDID) estimator (Arkhangelsky et al. 2021). This strategy limits our ability to explore the dynamic and heterogeneous effects of the reform, but adds credibility to our main estimates by using pre-treatment electoral outcomes to construct a plausible counterfactual.

Next, we test whether the reform increased public service deprivation in affected municipalities.<sup>12</sup> We estimate variants of Equation 1 using several indicators related to key local public services (local police, garbage collection, and public registries) that were affected by the reform as the dependent variable. The variables we are interested in were collected in the year of the reform’s introduction (2010) and the first deadline year for its implementation (2013), which allows us to confirm that the reform reduced access to local public service provision.<sup>13</sup> Appendix I provides further details of these measures.

Finally, we consider the assumption that no other relevant treatment selectively affected municipalities exposed to the 2010 reform during the study period. In Appendix D, we discuss the Domestic Stability Pact (DSP) reform, which, between 2013 and 2015, extended budgetary constraints to municipalities with 1,000–5,000 residents. Additional analyses (Appendix Table D.1) establish that the DSP reform cannot explain our results.

After examining the effect of the 2010 reform, we explore the mechanisms underlying the established impact of public service deprivation on far-right support. We expect that affected municipalities will display more concerns about immigration, and that far-right parties will play up public services in their messaging and link this issue to immigration more than other parties do. To examine these theoretical conjectures, we present evidence

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<sup>12</sup>Because the treatment status is based on formal eligibility rather than actual compliance, our estimates should be understood as an intention to treat.

<sup>13</sup>A change in the variable definition prevents us from extending our analysis to a longer period.

from two analyses. First, we rely on questions from two waves (2001 and 2011) of the ITANES panel surveys that probe individuals’ immigration concerns. Since the questions were asked in two different panel surveys, we cannot estimate changes *within* individuals, but we can approximate the effect of exposure to the reform holding individual and municipal characteristics constant. Appendix J presents the specification we use. In a second analysis, we quantitatively and qualitatively examine party rhetoric on public service, and show that far-right parties not only stressed local public service provision more in their rhetoric, but also consistently related it to anti-immigrant sentiment after the reform. We provide details on the quantitative dictionary analyses when we present the results below and in Appendix L.

## 4 Results

### 4.1 Effects on Election Outcomes

Table 1 summarizes the main results of the electoral DID analysis, reporting average treatment effect on the treated (ATT) estimates of Equation 1 for relevant political blocs and turnout. The estimate in Column 1 indicates that exposure to the reform generated a 1.5-percentage-point increase in votes cast for far-right parties, which is statistically significant. Given that electoral victory margins are usually not large in Italy (or in other Western European countries), the size of this effect is substantively important. Furthermore, Column 2 indicates that the reform *decreased* support for pro-redistribution parties by 2.2 percentage points. These results are in line with our theoretical conjectures that public service deprivation increases support for far-right but not pro-redistribution parties.

In Column 3, we consider the reform’s effects on incumbent vote shares. The reform was decided and implemented by a right-wing coalition led by Prime Minister Silvio Berlusconi. In line with retrospective voting models which suggest that voters tend to punish the prime minister’s party for policy outcomes (Anderson 2000; Lewis-Beck 1997), Berlusconi’s party is classified as the incumbent party. While prior research on how public

Table 1: TWFE Estimates of the Effect of Reforming Municipal Public Service Provision on Election Outcomes, 2001–18.

	(1)	(2)	(3)	(4)
	Far -right	Pro-redist.	Incumbent	Turnout
Estimate	0.015*** (0.001)	-0.022*** (0.002)	0.011*** (0.001)	0.002 (0.002)
Estimator	TWFE	TWFE	TWFE	TWFE
Observations	39,820	39,820	39,820	39,816
Municipalities	7,964	7,964	7,964	7,960
Treated Units	5,174	5,174	5,174	5,174

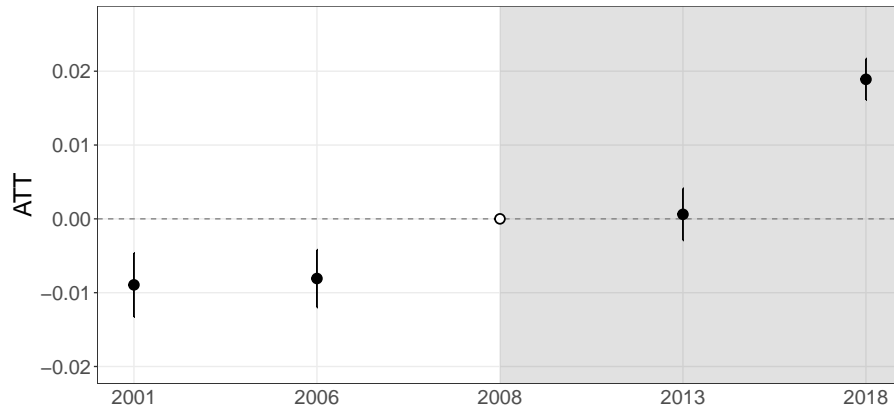
Notes: Turnout estimates discard four control municipalities due to missing values. Standard errors (in parentheses) are clustered at the municipality level. \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$ .

service provision influences incumbent vote shares has yielded conflicting results (null or negative, but never positive), our TWFE estimates indicate a positive effect. However, this result is close to zero using the MTWFE specification (Table 2). Table 1 provides evidence of a null effect on turnout (Column 4). In Section 5, we further discuss these complementary results.

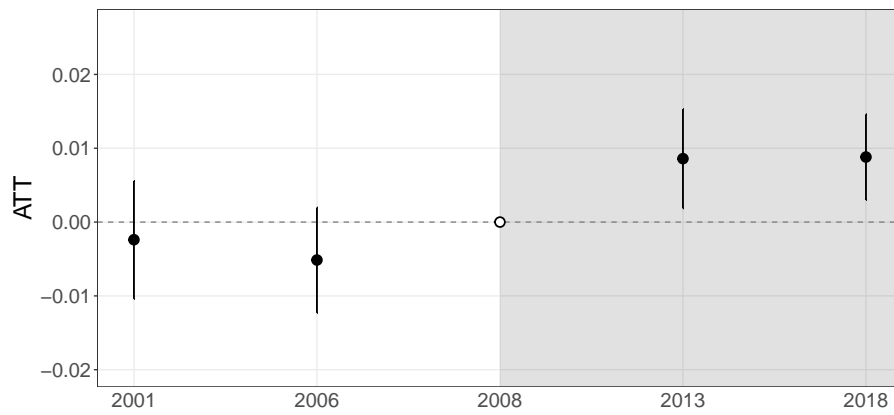
## 4.2 Dynamic Effects and Parallel Trends

In Appendix E we further assess the dynamic effects of exposure to the 2010 reform estimating the TWFE event-study specification described above. The model estimates the impact of being a treated municipality in each election before and after 2010, taking 2008 as the reference. We first consider all municipalities jointly. Then, we estimate separate models for mountain municipalities (3,000-inhabitant threshold) and non-mountain municipalities (5,000-inhabitant threshold). Following standard practice, we test for parallel trends between the control and treatment groups during the pre-treatment period by verifying that the pre-treatment coefficients are not statistically different from 0 adopting the 0.05 p-value threshold. Figure 2 reports the results.

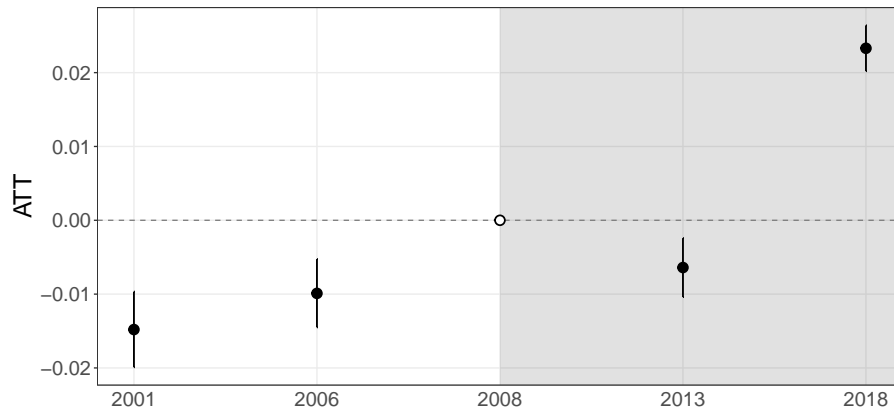
The estimates reported in Figure 2 help us assess the plausibility of the parallel-trends assumption behind the TWFE estimates reported in Table 1. They highlight how this assumption is met only in the group of mountain municipalities (subject to the



(a) All Municipalities



(b) Mountain Municipalities (3,000-inhabitant threshold)



(c) Non-mountain Municipalities (5,000-inhabitant threshold)

Figure 2: TWFE Event Study of Far-right Vote Share, 2001–18

3,000-inhabitant threshold). In this group (Figure 2b), far-right vote shares in treated municipalities were not significantly different from those in control municipalities before the 2010 reform. In the two subsequent elections, treated municipalities in this group display a 0.9-percentage-point increase in vote share, which is statistically significant.

The results are less robust when we consider all municipalities (Figure 2a) or only non-mountain ones (Figure 2c). In both cases, the estimates indicate an excess far-right vote share ( $ATT = 1.9$  and  $2.3$ , respectively) in the 2018 election – the second election after the reform (gray area). However, treated municipalities appear to display less support for far-right parties compared to control municipalities during the pre-treatment periods, and the effect is negative in the 2013 (post-treatment) election for the 5,000-inhabitant group. Mountain municipalities most likely follow closer parallel trends before the reform compared to other municipalities because they are more homogeneous in terms of population and altitude (see Appendix Tables C.2 and C.3).

The reform’s implementation was gradual: municipalities were required to jointly manage at least three services by 2013, and the remaining services several years later. Smaller and isolated municipalities, such as mountain ones, likely felt the reduction in access to a small number of services (in this case three) immediately in 2013, while in larger and less isolated municipalities the consequences of the reform might have become clear only after access to all planned services was reduced. We interpret these results as indicating that exposure to the reform increases far-right support, but a strict causal interpretation may not be warranted given that the pre-trends of the control and treatment groups are different. To address these concerns, we provide alternative estimates based on the MTWFE and SDID approaches introduced in Section 3.3.

Table 2: MTWFE and SDID Estimates of the Effect of Reforming Municipal Public Service Provision on Election Outcomes, 2001–18

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Far Right		Pro-redistribution		National Incumbent		Turnout	
Estimate	0.004*	0.014***	-0.004	-0.021***	-0.003	0.011***	-0.002	-0.005***
	(0.002)	(0.001)	(0.003)	(0.002)	(0.003)	(0.001)	(0.002)	(0.001)
Estimator	MTWFE	SDID	MTWFE	SDID	MTWFE	SDID	MTWFE	SDID
Observations	33,105	39,820	33,105	39,820	33,105	39,820	33,105	39,800
Municipalities	6,621	7,964	6,621	7,964	6,621	7,964	6,621	7,960
Treated Units	5,174	5,174	5,174	5,174	5,174	5,174	5,174	5,174

Notes: SDID turnout estimates discard four control municipalities due to missing values. MTWFE estimates apply matching weights. Standard errors (in parentheses) are clustered at the municipality level. SDID standard errors apply the jackknife procedure proposed by Arkhangelsky et al. (2021). \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$ .

Table 2 reports estimates of the overall effect of the 2010 reform using these complementary estimation strategies. The MTWFE approach consistently reduces the gap in far-right support between treated and control municipalities returning single-year estimates that are not statistically different from zero (see event-study results in Appendix Table E.1 and the discussion in Appendix E). Estimates of the overall effect on the far-right vote share based on this approach (Column 1 of Table 2) specify a statistically significant excess vote share of 0.4 percentage points. Estimates for far-right parties using the SDID strategy (Column 2), which relax the parallel-trends assumption by construction (Arkhangelsky et al. 2021), amount to an excess vote share of 1.4 percentage points, significant at the 0.001 p-value threshold. Overall, these results indicate that the reform produced an excess of far-right vote shares in treated municipalities.

The results for the other political blocs using these alternative strategies are less consistent, which helps us examine the empirical applicability of alternative mechanisms and expectations. Columns 3–4 confirm that the 2010 reform did not increase (or decrease) support for pro-redistribution parties. MTWFE estimates of the change in vote share for pro-redistribution parties as a consequence of exposure to the reform are negatively signed but not statistically significant at the standard 0.05 threshold. The statistically significant SDID estimate points to an electoral loss of 2.1 percentage points for pro-redistribution parties. The results for the incumbent reported in Columns 5–6 are also inconsistent as we find that the reform had either no (MTWFE estimates) or a positive (SDID) effect on the incumbent’s vote share. Finally, Columns 7–8 report no (MTWFE) or a negative (SDID) effect on turnout.

### 4.3 Effects on Local Public Service Provision

We provide evidence that the 2010 reform reduced access to local public services in affected municipalities by examining its effects on several indicators of local access to such services. We rely on the official indicators collected by the Italian government agency that monitored the restructuring of municipal public service provision. Our baseline indicator (*Delivery Against Standard Demand*) captures the percentage deviation in the level of

services offered in the reference year in a municipality compared to municipalities with a similar population size.<sup>14</sup> Appendix I provides additional information on the calculation of the measure. The measure is designed to capture the extent to which the municipality was able to satisfy citizens’ demand for a service, accounting for the average access to the service provided in municipalities with similar characteristics.<sup>15</sup> We inspect the three key services affected by the reform that are also covered by the Open Civitas dataset – local police, public registries, and garbage collection.<sup>16</sup>

We examine the reform’s effects on local public service provision using our baseline TWFE specification and the complementary MTWFE strategy. In the MTWFE model, we apply the same weights used in the electoral estimates. Measures of local public service provision are available for the year of the reform’s introduction (2010) and the first deadline year for its implementation (2013). We therefore cannot rely on the complementary SDID estimator, which requires a longer pre-treatment period. Our estimates are based on a smaller sample than the one used in the main analysis due to missing values on the measures of local public service provision, which range from 26% to 42% of the sample.<sup>17</sup>

The estimated coefficients reported in Table 3 consistently indicate that the reform decreased public service provision in affected municipalities; the difference is statistically significant. In Appendix Table I.2, we replicate the analysis using a complementary indicator available in the Open Civitas dataset (*Service Capacity Index*), a linear repositioning of the differential of the first measure (assessed on a 1–10 scale), and obtain robust results.

These findings support the idea that the 2010 reform reduced access to local public service provision in affected municipalities. It is important to add one caveat here. Due to data limitations, we focus on the degree of access to local public services, not necessarily

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<sup>14</sup>The indicator divides Italian municipalities into 11 population segments (e.g., < 500, 500–1,000, etc.).

<sup>15</sup>The data released through Open Civitas are official measures used by the Ministry of Economy and Finance for decision-making. The ministry provides access to these composite indicators but withholds the underlying raw data used to calculate them. While we acknowledge the inherent limitations associated with this data, the metrics we use represent the most comprehensive and pertinent source to evaluate the 2010 reform’s effects on access to local public services across Italian municipalities.

<sup>16</sup>The available indicators are based on the amount of various sanctions for local police, certificates issued by public registry offices, and waste sorting for garbage collection. We deal with outliers on the garbage collection measure by winsorizing the variable at the 97.5 percentile.

<sup>17</sup>In Appendix Table I.3, we test whether the reform affected a municipality’s capacity to report public service indicators. The results suggest possible distortions on the public registry measure but do not provide evidence of any reporting bias in the local police or garbage collection measures.

Table 3: Estimates of the Effect of Reforming Municipal Public Service Provision on Public Service Access, 2010–13

	(1)	(2)	(3)	(4)	(5)	(6)
	Police		Registry		Garbage	
Estimate	-20.211*** (2.326)	-13.641*** (3.303)	-4.695*** (1.049)	-4.934* (2.511)	-3.081*** (0.926)	-3.744* (1.791)
Estimator	TWFE	MTWFE	TWFE	MTWFE	TWFE	MTWFE
Observation	9,282	7,238	11,132	8,998	11,794	9,686
Municipalities	4,641	3,619	5,566	4,499	5,897	4,843
Treated Units	2,547	2,547	3,354	3,354	3,719	3,719

Notes: MTWFE estimates apply matching weights. Standard errors (in parentheses) are clustered at the municipality level. \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$ .

the *quality* of those services. Moreover, there might be concerns that those who were affected by the reform turned to alternative private service providers (Dowding and John 2008; Hern 2019). However, private alternatives are not common or readily accessible in Italy;<sup>18</sup> even if we cannot entirely rule out this possibility, it would make it more difficult to find electoral consequences of public service deprivation.

#### 4.4 Mechanisms

We investigate the mechanisms underlying the relationship between public service deprivation and support for far-right parties. If such parties made electoral gains in communities affected by the 2010 reform because of their welfare chauvinistic messages stressing anti-immigration sentiments, we ought to find that voters in affected municipalities became more concerned about immigration than those in unaffected ones (we coin this the *demand mechanism*). In addition, we explore our intuition that party messages matter by quantitatively and qualitatively comparing far-right parties' rhetoric to that of other parties as they relate to public services and links to immigration (what we call the *supply mechanism*).

<sup>18</sup>For example, Dorigatti, Mori, and Neri (2020) examine the trajectories of externalization in three key welfare services – elderly care, early childhood services, and kindergartens – and show that political and social factors affect choices about service externalization. Voters and trade unions strongly oppose market solutions in the provision of these services (Dorigatti, Mori, and Neri 2018).



## The Demand Mechanism: Concerns about Immigration

To determine whether exposure to public service deprivation increases concerns about immigration, we rely on two ITANES survey questions that asked respondents how much they agree that immigration is a danger to national identity and culture, and national employment, respectively (answers ranged from 1 (strongly disagree) to 4 (strongly agree)).<sup>19</sup> We combine answers to both questions into an additive Immigration Concern Scale that we use as our main outcome of interest. We estimate an ordinary least squares regression model that includes a binary variable indicating whether the respondent lives in a municipality affected by the reform (*Treated*), a binary variable indicating if the survey response was collected after the 2010 reform (*Post*), and an interaction term between the two (*Treated*  $\times$  *Post*). We add individual-level control variables (respondent's age, gender, education, and profession); municipal-level control variables as in our matching procedure; and region fixed effects.<sup>20</sup> Table 4 reports the results.

Table 4: DID Estimates of the Effect of Reforming Municipal Public Service Provision on Anti-Immigration Attitudes, 2001–11

	(1)	(2)	(3)	(4)	(5)	(6)
	Immigration Concern Scale		Culture & Identity		Employment	
Treated	-0.114 (0.095)	-0.185 <sup>+</sup> (0.108)	-0.064 (0.053)	-0.104 <sup>+</sup> (0.061)	-0.064 (0.055)	-0.091 (0.062)
Post	-0.265*** (0.062)	-0.301*** (0.062)	-0.124*** (0.034)	-0.142*** (0.034)	-0.146*** (0.034)	-0.161*** (0.034)
Treated $\times$ Post	0.316* (0.156)	0.320* (0.157)	0.179* (0.087)	0.190* (0.087)	0.166 <sup>+</sup> (0.088)	0.157 <sup>+</sup> (0.088)
Individual Controls	✓	✓	✓	✓	✓	✓
Municipal Controls		✓		✓		✓
Region FE	✓	✓	✓	✓	✓	✓
Observations	4,979	4,979	5,033	5,033	5,073	5,073

Notes: Individual controls include age, gender, education, occupation. Municipal controls include altitude, share of population over 65, share of foreigners, share of females, share of college graduates, population, and average income. Robust standard errors are reported in parentheses. \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; <sup>+</sup> $p < 0.1$ .

The results for the Immigration Concern Scale reported in Columns 1 and 2 of Table 4

<sup>19</sup>Appendix J contains the phrasing of each question.

<sup>20</sup>Appendix Table J.1 presents descriptive statistics for all the individual-level variables.

suggest that being exposed to public service deprivation caused by the 2010 reform created excess concerns about immigration in affected vs. unaffected municipalities. The single survey items in Columns 3–6 indicate that immigration concerns relate more to culture and identity than to labor market competition (Hainmueller and Hopkins 2014). These results support our intuition that public service deprivation boosted far-right support by increasing immigration concerns. In a next step, we examine *how* far-right parties link public service deprivation to immigration concerns.

### **The Supply Mechanism: Parties’ Rhetoric on Public Services**

To explore the role of political supply, we first use data from MPD, which contains collected and annotated election manifestos. We quantify how frequently political parties from different blocs referred to public services in their manifestos in the elections around the 2010 reform using an original dictionary that captures keywords related to public services.<sup>21</sup> Appendix L provides additional details on this procedure.

Figure 3 summarizes the main result of our dictionary analysis; it displays the proportion of public service-related words used in each election by far-right parties and pro-redistribution parties. The results reveal that while pro-redistribution parties used more public service-related words in their manifestos in elections before the reform, far-right parties used more after the reform. The overall proportion of service-related words spiked in 2013. While our analysis cannot adjudicate the causal role played by the 2010 reform in raising the salience of public service-related topics in 2013, the increase in the use of such words highlights how topics connected to public service provision became a highly relevant political issue by the time of the 2013 election.

In a second step, we conduct a qualitative analysis of party manifestos in the MPD corpus to test the plausibility of our argument that far-right parties link public service deprivation to immigration. Appendix Table L.1 reports manifesto excerpts from Lega,

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<sup>21</sup>Alternative computational approaches based on topic modeling are more “exploratory,” as they do not rely on pre-defined sets of words, but identify patterns of word co-occurrence and group words that tend to co-occur together into an arbitrary number of topics. When the research question is focused on specific concepts, as it is in this case, the dictionary approach can be tailored to capture them. Dictionary approaches are less time consuming than manual coding, as they do not require a human coder to annotate each manifesto manually using a pre-defined set of criteria.

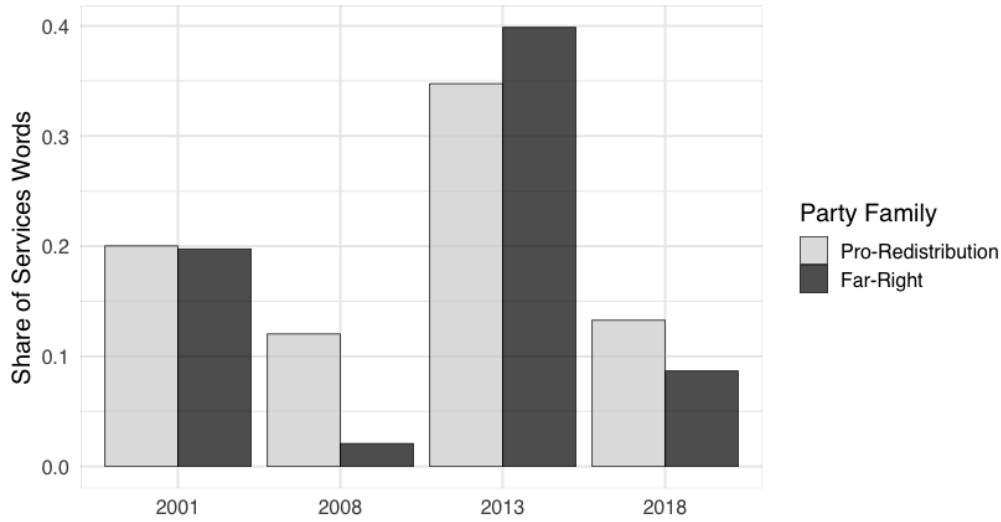


Figure 3: Proportion of Service-Related Words by Elections and Political Blocs

the main party in the far-right bloc during the reform years, that support this intuition. Examples of such excerpts include, “To say that services constitute a universal right could dangerously shortens a safety blanket – namely, that of the welfare state – which already today is not even guaranteed those who have paid for it for an entire lifetime,” or slogans like, “Italians first in access to public services and social housing.”

In an effort to consider both more and less “scripted sources of political rhetoric” (Neiman et al. 2016), Appendix L complements sample sentences from party manifestos with a selection of tweets by official party (and party leaders’) accounts.<sup>22</sup> Our sample of tweets confirms the pattern found in manifestos: far-right leaders frame Italians as “[homeless people] living in campers while immigrants are hosted [by the Italian government] in hotels” or as “the real refugees” (Figure L.1), highlighting the perception that non-natives put a strain on public service provision. Our quantitative and qualitative analyses of party rhetoric suggest that after the reform, far-right parties paid more attention to public services and linked this issue to immigration concerns.

<sup>22</sup>Party leaders are responsible for creating manifestos (A. Walter 2020), which are often the result of a content and linguistic compromise (Bos and Minihold 2022); distinctive policy positions may be played down to appeal to the median voter (Lipsitz 2018). Tweets allow for a more immediate and continuous display of distinctive positions (Frimer 2020) and exchanges with voters (Enli and Skogerbø 2013).

## 5 Alternative Mechanisms and Expectations

We conduct three additional analyses to account for possible alternative mechanisms and expectations related to the results presented in Table 1 and discussed thus far. First, we explore the possibility that the increase in far-right support due to exposure to the 2010 reform is not necessarily due to the mechanism we propose, but is simply the result of heightened anti-establishment or anti-incumbent sentiment. While we presented and discussed incumbent support and turnout in Tables 1 and 2, here we go one step further using the ITANES survey data. We consider a measure of trust in parties and parliament as well as a measure of perceived political efficacy, and run DID models that are analogous to the one above. The results, presented in Appendix Table K.1, provide no evidence that exposure to the reform lowered trust in political institutions or perceived political efficacy, both of which can be associated with anti-establishment sentiment.

Second, one could argue that the increase in far-right vote shares due to exposure to the 2010 reform might be driven by municipalities in the North of the country. In addition to anti-immigration and welfare chauvinist positions, the far-right party Lega has long advocated greater local policy autonomy. If increased support for the far right due to exposure to the reform were driven by concerns about reduced local policy autonomy, we would expect the effect to be more pronounced in historical strongholds of Lega (the northern regions). Examining heterogeneous effects by area is also important, because the North and South have different political histories and legacies that could affect our results (Eckaus 1961; Bigoni et al. 2016; Putnam, Leonardi, and Nanetti 1992). The findings presented in Appendix Table H.1 show limited evidence of heterogeneous effects between the North and South. In fact, the effect of exposure to the reform might be slightly less pronounced in northern regions. The estimates consistently indicate that exposure to the reform increased far-right support across the country.

Third, we consider the alternative expectation that exposure to public service deprivation might have increased support for greater public spending. In a first step, we use vote shares for pro-redistribution parties to proxy for public spending support. Table 1 suggests that public service deprivation might reduce the vote shares of pro-redistribution

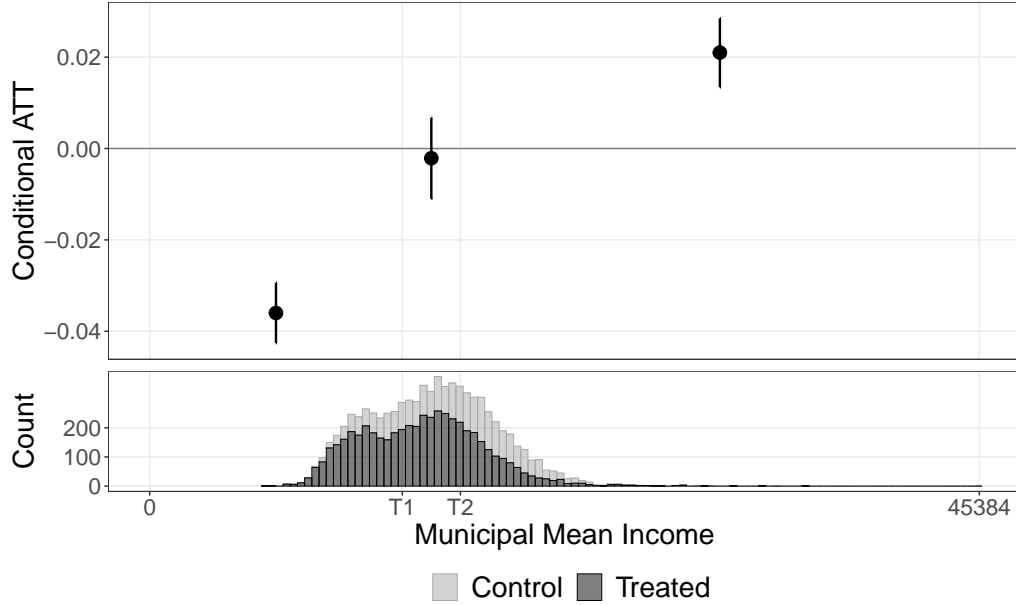


Figure 4: Effect of Reforming Municipal Public Service Provision Conditional on Pro-Redistribution Support, across Terciles of Mean Municipal Income (TWFE)

parties. Next, we use people’s self-identification on the economic left–right scale based on ITANES survey data as a proxy for public spending support. We run additional regression models using a DID specification close to the one used in Table 4 with economic left–right self-identification as the dependent variable. The results in Appendix Table K.1 indicate no increase in economic left-wing self-positioning. On the contrary, they demonstrate a small increase in right-wing economic self-identification (estimate = 0.024; p-value = 0.025). Finally, we explore a heterogeneous effect of exposure to the reform based on municipalities’ average pre-tax household income. If public service deprivation sparks more support for public spending (i.e., more support for pro-redistribution parties), we would expect this effect to be especially pronounced in contexts where resources are already scarce (Meltzer and Richard 1981). We estimate a fully interacted TWFE model, interacting the DID estimator with a measure of the average pre-tax household income before the reform in each municipality as specified in Appendix G.

Figure 4 plots the conditional average treatment effect (CATT) of exposure to the 2010 reform on pro-redistribution vote shares across different levels of average income. It reveals substantial variation in the effects of the shock. Contrary to baseline expectations, the reform’s negative effect on support for pro-redistribution parties is concentrated in

municipalities in the first tercile of municipal income – those with the scarcest economic resources ( $CATT = -3.6$ ). The effect on pro-redistribution does not differ from 0 in the central tercile and is positive and significant in the third ( $CATT = 2.1$ ). In Appendix Figure G.1, we replicate this result including matching weights. While we consistently obtain a negative result in the first income tercile, the results for the other two are less robust and oscillate between positive and null. Overall, this additional analysis suggests potentially interesting avenues for future research on the scope conditions of the effects of public service deprivation.

## 6 Conclusion

This study has examined the relationship between public service deprivation – reduced access to local public services – and support for far-right parties. Local public service provision is one of the most direct ways in which politics affects citizens’ lives, and provides a tangible basis for evaluating how taxes are being spent and how willing the state is to invest in their communities. We demonstrate that public service deprivation sparks concerns about immigration, which increases the programmatic appeal of far-right parties. We present evidence from Italy, where far-right parties have been successful for quite some time and access to state-provided public services has historically been high. We exploit a 2010 national reform that reduced access to local public services in some municipalities to demonstrate the causal relationship between public service deprivation and far-right support. In line with our argument, we find that exposure to the reform increased support for far-right parties. We explore the mechanisms underlying the relationship between public service deprivation and far-right support by examining the demand for (and supply of) far-right messages. Our results establish that residents of municipalities affected by the reform became more concerned about immigration, and that far-right parties linked public services more to immigration after the reform. Finally, we account for possible alternative mechanisms and explanations as well as threats to inference, and demonstrate that our findings are robust to different specifications.

While we theoretically argue and empirically substantiate that public service deprivation helps us understand geographic patterns in far-right support, we do not suggest that such deprivation is the sole or root cause of far-right parties' electoral success. Previous research in this area has made important strides in showing how large-scale economic developments (e.g., Emmenegger et al. 2012; Rodrik 2016; Autor, Dorn, and Hanson 2016; Colantone and Stanig 2018, 2019; Margalit 2011; Kurer and Gallego 2019; Im et al. 2019; Gingrich 2019) and distinct patterns in individual mobility (e.g., Maxwell 2019, 2020; Dinas et al. 2019; Bratsberg et al. 2021; Riaz, Bischof, and Wagner 2023; Dustmann, Vasiljeva, and Piil Damm 2019; Campo, Giunti, and Mendola 2021; Schaub, Gereke, and Baldassarri 2021; Dancygier et al. 2022) – or both (Patana 2020) – fuel support for far-right parties. We argue that distinct geographic concentrations in public service deprivation help us better understand the geographic clustering of far-right support. In advanced industrial democracies like Italy, people are accustomed to having access to local public services and expect the state to be responsive to their needs. If these expectations are not met, people become disgruntled and may turn to far-right policy solutions, as we show here.

Overall, our findings support the notion that citizens' concerns about public services and immigration might be linked (see also Cavaillé and Ferwerda 2023; Gennaro 2022; Hooijer 2021; Magni 2021). Public service deprivation may cause native-born residents to feel they are not getting their fair share of state resources. Far-right parties' rhetoric finds fertile ground in these contexts, but our results suggest that pro-redistribution parties do not necessarily gain from the retrenchment of public services (see also Giger and Nelson 2011; Alesina, Carloni, and Lecce 2012). While prior work on elite behavior and rhetoric suggests that this might be because political elites distract voters from hardship and performance with cultural concerns – such as immigration or ethnicity – (Shayo 2009; Huber and Stanig 2011; Tavits and Potter 2015; Hacker and Pierson 2020; De Vries and Hobolt 2020) our findings suggest that changes in demand might also be crucial in that people's experiences of public service deprivation likely trigger concerns about immigration. Since Italian politics has in many ways been at the forefront of the wave

of far-right electoral success in the advanced industrial world, it is an important, and perhaps even crucial, case to study. Future research should explore the extent to which our results apply beyond Italy.

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# ONLINE APPENDIX

## Geographies of Discontent

### Public Service Deprivation and the Rise of the Far Right in Italy

Simone Cremaschi, Paula Rettl, Marco Cappelluti and Catherine E. De Vries

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## A Structure of Municipal-Level Data

The structure of territorial administrative units in Italy changes over the years. Municipalities change names, merge and separate, creating new administrative units. In order to obtain a time consistent panel, we adopt the following coding decisions.

**Municipal structure.** We set the municipal boundaries to their configuration in 2008. Taking the last election year before the reform allows us to assign each municipality to a treatment condition without erroneously assigning municipalities that were treated but merged with untreated municipalities to the control group and vice versa. For all the municipalities that fuse between 2001 and 2008, we include only one unit as per 2008. For all the municipalities that fuse between 2008 and 2018, we maintain as many units as in 2008. We drop the only 4 municipalities originating from 2 municipal separations during the study period. We map all the municipalities that change name to their names in 2008.

**Vote shares.** We obtain data on election results from Historical Electoral Archive of the Ministry of the Interior. Given that electoral records are collected at the municipal level, vote results for municipalities that fused after 2008 (112 treated and 100 control units) are available only at the level of the municipal aggregation. We thus use the aggregated vote share for these fused municipalities. Replicating the analysis excluding these fused municipalities returns equivalent results.

**Municipal covariates.** The data we use for our covariates present the municipality structure of the moment in which each dataset was published, which does not always correspond to 2008. Where we do not indicate a different source, all covariate data are provided by Istat. We adopt the following coding procedures:

- We obtain data on the number of graduates in the municipality from the 2001 Census. For all the municipalities that fuse between 2001 and 2008 we calculated the aggregate share of graduates starting from the total number of graduates and the total population of the new municipal aggregation.
- We obtain data on the 2008 average pre-tax household income from municipal tax records released by the Ministry for the Economy and Finance. Data are released with the municipal structure at the end of 2008. We impute the value of 10 municipalities present in the 2008 electoral database to the value of the three municipal mergers that happened between the 2008 election and the release of the tax data.
- Data on municipality's maximum altitude are based on the 2011 structure. We imputed the altitude value of municipalities that merged between 2008 and 2011 to the aggregate value of the resulting merged municipality.
- We calculated different characteristics of municipal population such as the share of people older than 65, the share of foreign born, and the share of females using the 2008 intercensus population. Istat releases this data updating the municipal structure to the most current one. For this reason, we are unable to reconstruct the exact value of population shares for 119 municipalities. We could impute the values using the value of the municipal mergers for these municipalities. However, the population variable, which we also access through Istat's intercensus population

in 2008, poses a greater challenge for us. The population variable is what defines assignment to treatment and cannot be reconstructed or reasonably approximated if it is not included any longer in Istat municipal structure. For this reason, we exclude the 119 municipalities from the sample that do not feature as separate entities in Istat’s intercensus population data any longer.

In Table A.1, we provide descriptive statistics for the all the above mentioned variables.

Table A.1: Summary Statistics of Municipal-Level Covariates

	Mean	SD	Min	Max
Population (2008)	7398.94	39975.37	30	2604557
Foreigners (% , 2008)	0.05	0.04	0.00	0.26
Females (% , 2008)	0.51	0.02	0.38	0.64
Over 65 (% , 2008)	0.22	0.06	0.04	0.61
Average Income (2008)	15452.73	3444.62	6362.95	45383.59
University Graduates (% , 2001)	0.05	0.02	0.00	0.37
Maximum Altitude	871.56	804.26	2.00	4810.00

## B Party Classification

We analyze the vote shares of the two main political blocs across different election years: far-right and pro-redistribution parties. In Table B.1, we provide a list of each party included in the two political blocs in each year we consider. In Figure B.1, we use the scores from the Chapel Hill Expert Survey (CHES) to show how belonging to far-right or pro-distribution type of parties coincides with opposite views on immigration policy and economic redistribution. (Note that one party, Movimento Cinque Stelle (M5S), is very hard to pin down ideologically, but its signature pro-redistribution policy, universal basic income, characterised the party from its inception.)

Table B.1: Adopted coding of Italian national parties into families by election year, 2001-22.

Election year	Political bloc	Parties
2001	Far right	Alleanza Nazionale, Fiamma Tricolore, Forza Nuova, Fronte Nazionale, Lega Nord
	Pro Redistribution	Comunisti Italiani, Rifondazione Comunista, Democratici di Sinistra, Il Girasole
2006	Far right	Alleanza Nazionale, Alternativa Sociale Mussolini, Destra Nazionale, Fiamma Tricolore, Lega Nord
	Pro Redistribution	Comunisti Italiani, Rifondazione Comunista, L'Ulivo
2008	Far right	Azione Sociale Mussolini, Forza Nuova, La Destra - Fiamma Tricolore, Lega Nord
	Pro Redistribution	Partito di Alternativa Comunista, Partito Democratico, Partito Socialista, Sinistra Critica
2013	Far right	Casapound Italia, Fiamma Tricolore, Forza Nuova, Fratelli d'Italia, Futuro e Libertà, La Destra, Lega Nord, Rifondazione Missina Italiana
	Pro Redistribution	Movimento 5 Stelle, Partito di Alternativa Comunista, Partito Democratico, Rivoluzione Civile, Sinistra Ecologia Libertà
2018	Far right	Casapound Italia, Fratelli d'Italia, Italia agli Italiani, Lega
	Pro Redistribution	Liberi e Uguali, Movimento 5 Stelle, Partito Comunista, Partito Democratico, Per una Sinistra Rivoluzionaria, Potere al Popolo!

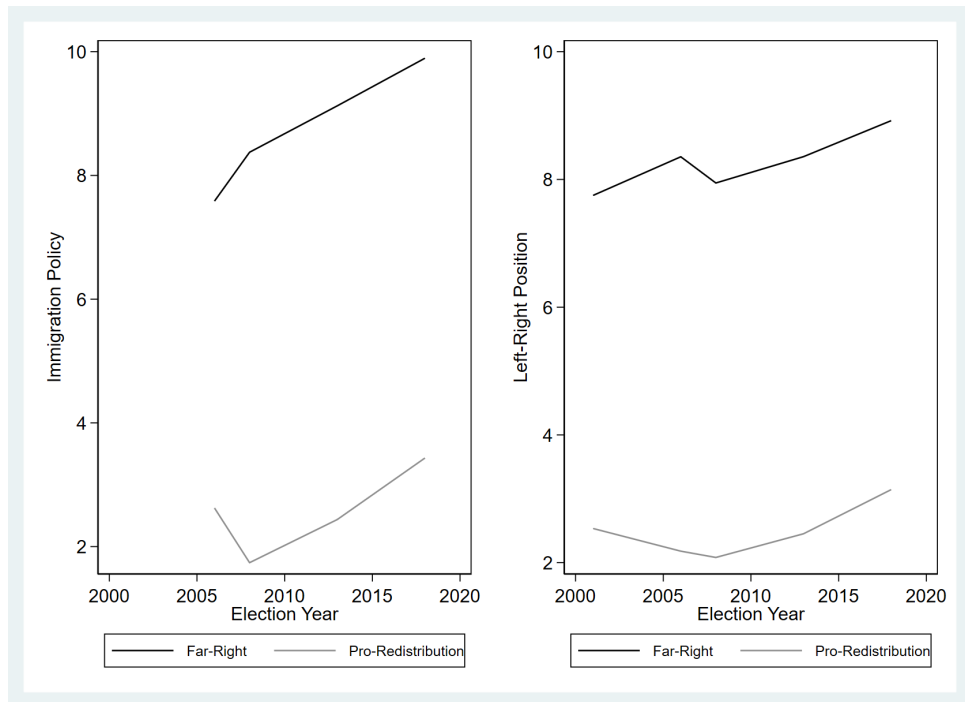


Figure B.1: CHES Party Scores on Immigration Policy and Economic Left-Right.



## C Sample Balance and Matching

We use nearest neighbor matching to reduce the unbalance on observable municipality characteristics. We match municipalities based on Mahalanobis distance without discarding any treated observations, which allows us to maintain the ATT as our estimand. Our objective is to select a matching method and covariate set that allows us to obtain parallel trends. We verify this objective in Table E.1. In Table C.1, we show the performance of our matching procedure with respect to reducing the unbalance on considered characteristics. The table reports mean values and standard deviations for the two groups and the results of tests of differences in means through univariate OLS regressions. The table shows that, although differences remain between the two groups, the matching procedure considerably reduces the unbalance. In Table C.2 and Table C.3, we report the same statistics separately for municipalities that are part of a mountain community and municipalities that are not.

Table C.1: Difference in Means of Municipality Covariates Before and After Matching.

Variable	Control		Treated		Unmatched Sample			Matched sample		
	Mean	SD	Mean	SD	$\beta$	t-stat	p-value	$\beta$	t-stat	p-value
Population	17,955.9	6,6247.86	1,706.26	1,201.78	-16,249.64	-17.64	0.00	-4,552.49	-36.25	0.00
Foreigners	0.05	0.03	0.05	0.04	0.00	-3.12	0.00	0.00	-0.61	0.54
Females	0.51	0.01	0.51	0.02	0.00	-12.38	0.00	0.00	-2.04	0.04
Over 65	0.19	0.04	0.24	0.06	0.04	32.61	0.00	0.01	3.63	0.00
Average Income	16,559.26	3,404.36	14,856.05	3,316.88	-1,703.21	-21.66	0.00	-404	-2.73	0.01
Uni. Graduates	0.05	0.02	0.04	0.02	-0.01	-25.02	0.00	0.00	-2.3	0.02
Max. Altitude	871.56	804.3	988.08	842.84	332.6	17.96	0.00	27.89	0.76	0.45

Table C.2: Difference in Means of Municipality Covariates Before and After Matching, Mountain Communities.

Variable	Control		Treated		Unmatched Sample			Matched sample		
	Mean	SD	Mean	SD	$\beta$	t-stat	p-value	$\beta$	t-stat	p-value
Population (2008)	7787.49	7902	1236.39	760.93	-6551.1	-36.34	0.00	-2448.82	-50.79	0.00
Foreigners (% , 2008)	0.05	0.03	0.04	0.04	-0.01	-3.53	0	0	-0.46	.64
Females (% , 2008)	.51	0.01	.51	0.02	0	-4.46	0	0	-1.39	.16
Over 65 (% , 2008)	.21	0.04	.25	0.07	0.05	17.56	0	0.02	3.75	0.00
Average Income (2008)	15473.19	3018.57	13892.9	3014.67	-1580.29	-12.5	0	-561	-2.58	0.01
University Graduates (% , 2001)	0.05	0.02	0.04	0.02	-0.01	-12.04	0	0	-2.04	0.04
Maximum Altitude	1443.42	743.96	1499.45	758.46	193.42	6.24	0	20.48	.39	.7

Table C.3: Difference in Means of Municipality Covariates Before and After Matching, Other Municipalities.

Variable	Control		Treated		Unmatched Sample			Matched sample		
	Mean	SD	Mean	SD	$\beta$	t-stat	p-value	$\beta$	t-stat	p-value
Population (2008)	22050.88	77932.86	1993.75	1325.23	-20057.12	-14.58	0	-6346.38	-39.31	0.00
Foreigners (% , 2008)	0.05	0.04	0.05	0.04	0	-0.48	.63	0	-0.66	.51
Females (% , 2008)	.51	0.01	.51	0.02	-0.01	-12.26	0	0	-3.48	0.00
Over 65 (% , 2008)	.19	0.04	.23	0.06	0.04	26.67	0	0.01	4.93	0.00
Average Income (2008)	16996.64	3453.4	15445.34	3355.67	-1551.3	-16.02	0	-434.85	-2.62	0.01
University Graduates (% , 2001)	0.06	0.03	0.04	0.02	-0.01	-21.18	0	0	-3.6	0.00
Maximum Altitude	567.43	655.92	675.2	731.63	281.71	15.39	0	95.63	1.82	0.07

## D The Domestic Stability Pact

After the European Union adopted the Stability and Growth Pact in 1997, Italy implemented new fiscal regulations to ensure accountability among local governments, known as the Domestic Stability Pact (DSP). The DSP comprised a set of budgetary policies applied from 1999 to 2015, with the primary objective of overseeing expenditure by regions, provinces, and municipalities. Initially, from 2001 to 2013, the DSP only applied to municipalities with populations exceeding 5,000 residents. However, starting in 2013 and continuing until 2015, the DSP was extended to municipalities with populations ranging from 1,000 to 5,000 inhabitants. It is worth noting that the DSP is unlikely to have influenced our findings since it came into effect after the 2013 election and expired already in 2015, three years before the 2018 election. Our result that demonstrates a positive effect on far-right voting in 2013 among municipalities affected by the 3,000 population threshold reinforces our intuition that the public service reform had an effect independently of any possible effect of the DSP. What is more, other studies on the consequences of DSP for public policy find no effect of it on the provision of local welfare by municipalities (Daniele and Giommoni 2022). To further test the hypothesis that the DSP played no role in our findings, we conduct an additional DID study. We estimate TWFE and TWFE event-study, Synthetic DID models analogous to those employed in our primary analysis. The treated group consists of municipalities with populations ranging from 1,000 to 5,000, and the post-reform period is 2018. The results presented in Table D.1 indeed indicate no effect of the DSP on far-right party vote shares in affected municipalities.

Table D.1: Effect of DSP extension on far-right vote share (TWFE and TWFE event study models), 2001–2018.

	(1) TWFE	(2) TWFE-ES	(3) SDID
Estimate 2018	0.002 (0.002)	-0.000 (0.002)	0.001 (0.001)
Estimate 2013	Ref.	Ref.	Ref.
Estimate 2008		-0.001 (0.002)	
Estimate 2006		-0.003* (0.001)	
Estimate 2001		-0.004** (0.001)	
Observations	39,820	39,820	39,820

Notes: \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$ .

## E Analysis of Pre-Treatment Parallel Trends

Next to the pre-post TWFE model of electoral outcomes, we estimate the following TWFE event-study equation:

$$Y_{i,t} = \sum_{t' \in \mathcal{T}} \beta_{t'} X_{i,t}^{t'} + \mu_i + \varepsilon_{i,t}, \quad (1)$$

where, for each  $t' \in \mathcal{T}$ ,  $X_{i,t}^{t'} := \mathbb{1}_{\mathcal{I}_{ref} \times \{t'\}}(i, t)$ , while everything else is as in the TWFE equation reported in the main text. This model allows us to check for the pre-treatment parallel trend assumption, which underlies the validity of the DID strategy, by verifying that each coefficient in the set  $\{\beta_{t'} : t' \in \mathcal{T}_{post}^c\}$  is statistically indistinguishable from 0 considering a standard 0.05 p-value threshold. In practice, we only look at  $\{\beta_{t'} : t' \in \mathcal{T} \cap [2001, 2008]\}$ , as we use 2008 as a baseline omitted period. Moreover, the coefficients  $\beta_{2013}$  and  $\beta_{2018}$  describe the dynamic effect of the 2010 reform on the outcome in question. We focus on far-right vote shares as our key outcome of interest.

Table E.1: DID Event-Study Estimates of the Effect of Reforming Municipal Public Service Provision on Far Right Vote Shares, 2001–18.

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample			Matched Sample		
	All	3,000 thr.	5,000 thr.	All	3,000 thr.	5,000 thr.
Estimate 2018	0.019*** (0.001)	0.009** (0.003)	0.023*** (0.002)	0.005 (0.003)	0.006 (0.006)	0.004 (0.004)
Estimate 2013	0.001 (0.002)	0.009* (0.003)	-0.006** (0.002)	0.001 (0.003)	0.017** (0.006)	-0.003 (0.004)
Estimate 2008	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Estimate 2006	-0.008*** (0.002)	-0.005 (0.004)	-0.010*** (0.002)	-0.001 (0.004)	0.009 (0.007)	-0.008+ (0.004)
Estimate 2001	-0.009*** (0.002)	-0.002 (0.004)	-0.015*** (0.003)	-0.002 (0.004)	0.015+ (0.008)	-0.007+ (0.004)
Observations	39,820	13,825	25,995	33,105	11,640	20,915

Notes: The table report estimates on three different samples: All indicates estimates on the full municipality sample; 3,000 indicates sample restricted to municipalities part of mountain communities, that is, exposed to the 3,000 population threshold; 5,000 indicates sample restricted to other municipalities exposed to the 5,000 population threshold. Standard errors (in parentheses) are clustered at the municipality level. \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$ .

Table E.1 reports estimates of Appendix Equation 1 using the full unweighted municipality sample (Columns 1–3) and the balanced sample obtained after Mahalanobis matching (Columns 4–6). We estimate Appendix Equation 1 including all municipalities (Column 1 and 4), only those part of mountain communities exposed to the 3,000 population threshold (Column 2 and 5), and all remaining municipalities exposed to the 5,000 threshold. Considering the full sample, the table shows an overall positive effect on the

far-right. However, pre-treatment parallel trends hold only for the group of municipalities exposed to the 3,000 population threshold. Applying matching weights allows to obtain pre-treatment parallel trends across all samples. Notice that applying matching weights leads to single-year coefficients that are not statistically significant from zero also in the post-treatment period when considering all municipalities together. However, the aggregate difference between pre- and post-treatment years is statistically significant at the 0.05 p-value threshold. Synthetic DID estimates reported in the main text further allows us to verify the reform effect relaxing the parallel trend assumption.

## F Difference in Discontinuity

An alternative approach to causally identify the effect of the 2010 reform on electoral behavior would be recurring to a combination of DID and regression discontinuity design (RDD) known as Difference-in-Discontinuity, or Diff-in-Disc (Grembi, Nannicini, and Troiano 2016). In our case, this approach consists of taking the difference in average vote shares in the pre- and post-reform years and estimating a regression discontinuity regression on this outcome variable using municipal population as a running variable and the reform thresholds as the target discontinuity. The approach aims at estimating the local average treatment effect (LATE) of the reform where the main identification assumption lies on the pseudo-random assignment to treatment and control groups among municipalities close to the population threshold.

We experiment with the continuity-based approach to RDD, which uses nonparametric local polynomial methods for estimation and inference. We apply weights determined by a triangular kernel function based on the distance of municipality  $i$  from the population threshold and the mean-squared error minimizing bandwidth  $h$ . The closer the units are to the cutoff, the larger the weight. Units outside the optimal bandwidth receive a weight equal to 0 restricting the estimation sample to units within the bandwidth. We experiment with the optimal bandwidth proposed by Calonico, Cattaneo, and Titiunik (2014)’s automatic bandwidth selector ( $h = 1,493$  for the full sample;  $h = 1,180$  for mountain communities exposed to the 3,000 population threshold; and  $h = 1,553$  for other municipalities exposed to the 5,000) but report also results for a larger range of bandwidths. We include our running variable as a polynomial of degree 2.

Table F.1 reports estimates for the full municipality sample (using the normalized running variable) and separately for municipalities affected by the 3,000 and 5,000 population thresholds. Using this approach, we only find evidence of an effect of the 2010 reform on far-right vote shares in affected municipalities using a tight bandwidth of 100 in the mountain community municipality group. Here the positive effect of 6.9 percentage points is precisely estimated at the 0.001 p-value threshold.

We are more confident about the evidence from our TWFE, matched-TWFE and SDID effect estimations compared to the evidence from this Diff-in-Disc models for three key reasons. First, matching allows us to estimate the average reform’s effect on all the treated municipalities rather than estimating the local average treatment effect on municipalities around the population threshold. Using all municipalities, allows us to have higher statistical power, which is especially important in contexts like ours, where many units (i.e., municipalities) are likely to be non-compliant. Second, the Diff-in-Disc estimator places more weight on units close to the population threshold. The unavailability of the official population data on which reform thresholds were calculated, creates some risk of

Table F.1: Difference in Discontinuity Estimates f the Effect of Reforming Municipal Public Service Provision on Far Right Vote Shares, 2001–18.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Population Bandwidth						
	100	250	500	1000	1500	2000	2500
<b>All Municipalities</b>							
Estimate	0.026 (0.022)	0.003 (0.014)	-0.007 (0.010)	0.001 (0.007)	0.003 (0.006)	0.005 (0.005)	0.007 (0.004)
Observations	122	287	621	1,231	1,920	2,727	3,689
<b>3,000 Threshold</b>							
Estimate	0.069*** (0.015)	0.022 (0.016)	0.003 (0.013)	0.006 (0.010)	0.004 (0.008)	0.003 (0.007)	0.005 (0.006)
Observations	71	148	306	611	980	1,435	2,017
<b>5,000 Threshold</b>							
Estimate	-0.060 (0.042)	-0.031 (0.021)	-0.023 (0.014)	-0.004 (0.009)	0.004 (0.008)	0.008 (0.007)	0.010 (0.006)
Observations	51	139	315	620	940	1,292	1,672

misclassification bias that is amplified in proximity of the population threshold. Finally, the results from the TWFE, matched-TWFE and SDID point to the same directions. All things considered, we think that matched-TWFE constitutes a more robust strategy in our context.

## G HTE on Economic Resources

We explore the heterogeneous treatment effects of the reform with respect to the average economic resources available in the municipality. We run the following heterogeneous treatment effect (HTE) specification for pro-redistribution parties vote shares:

$$Y_{i,t} = \sum_{h=1}^3 \beta_{M,h} X_{i,t} \mathbb{1}_{T_{M,h}}(i) + \mu_i + \sum_{h=1}^3 \lambda_{M,t,h}(i) + \varepsilon_{i,t}, \quad (2)$$

where, given a moderator  $m$  of interest, (i)  $T_{M,h}$  denotes the set of municipalities belonging to tercile  $h$  ( $h = 1, 2, 3$ ) of the distribution of  $M$ , (ii)  $\lambda_{M,t,h}(i)$  is a year-tercile intercept, and (iii) every other term is as specified in the main body of our paper. In other words, we run a fully-saturated interaction model (after binning our moderator into terciles), and the estimated conditional ATT coefficients  $\beta_{M,1}$ ,  $\beta_{M,2}$ , and  $\beta_{M,3}$  are reported in the main text. In the analysis reported in the main text,  $M$  corresponds to the pre-reform average pre-tax household income.

In the main text, we report results based on equation 2 without any weighting. In Figure G.1, we replicate the baseline results reported in the main text by introducing the Mahalanobis matching weights introduced in Appendix Section C.

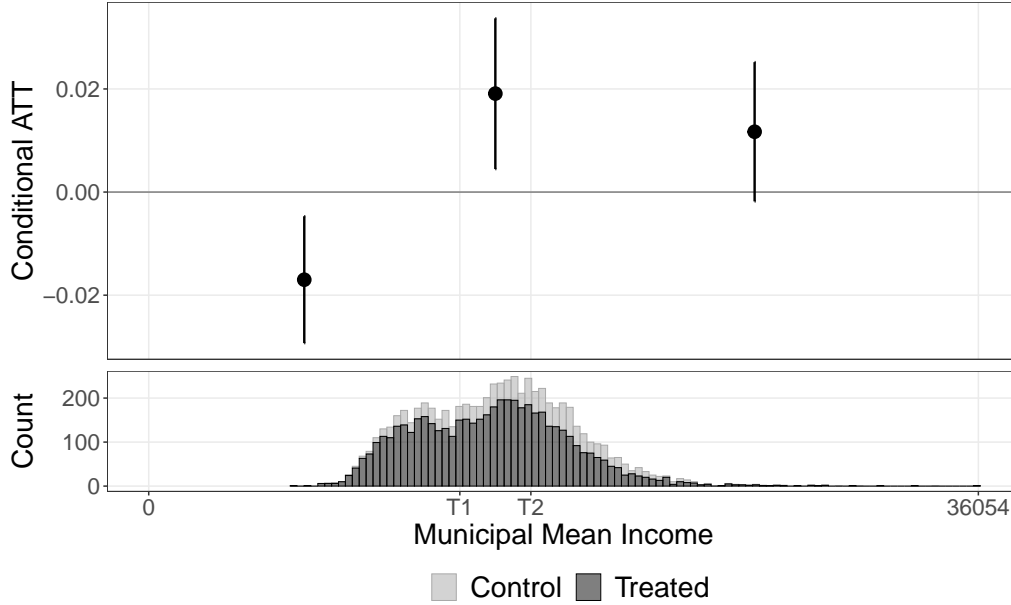


Figure G.1: Effect of Reforming Municipal Public Service Provision Conditional on Pro-Redistribution Support, across Terciles of Mean Municipal Income (Matched-TWFE).

## H HTE by Geographic Area

We explore if the 2010 reform had any differential effect in the northern and southern regions of Italy. We run a fully interacted TWFE model analogous to the one of Appendix Equation 2 where we substitute  $T_{M,h}$  with a binary variable taking value one if the municipality belongs to a northern region. In a first specification, we include all regions and consider the following as northern: Piemonte, Valle d'Aosta, Lombardia, Trentino-Alto Adige, Veneto, Friuli-Venezia Giulia, Liguria, Emilia-Romagna, Marche, Toscana, Umbria. In a second specification, we exclude the central regions of Emilia-Romagna, Marche, Toscana, Umbria and the island of Sardegna. We estimate both TWFE and matched-TWFE specifications.

Table H.1: Conditional Effect of Reforming Municipal Public Service Provision on Far-Right Support Geographic Area (North vs. South).

	All Regions		No Central Regions	
Treated	0.017*** (0.002)	0.006* (0.003)	0.017*** (0.002)	0.003 (0.003)
Treated $\times$ North	-0.005** (0.002)	-0.002 (0.003)	-0.002 (0.002)	0.004 (0.004)
Estimator	TWFE	MTWFE	TWFE	MTWFE
Observations	39,820	33,105	33,215	28,075

Notes: MTWFE estimates apply matching weights. Standard errors (in parentheses) are clustered at the municipality level. \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$ .

Table H.1 shows the results. In column 1, we find some evidence that the reform had a less pronounced effect in northern regions. However, this result does not hold once we

introduce matching weights or change the definition of northern regions.

## I Measures of Local Public Service Provision

The Ministry of Economy and Finance (MEF) indicators Delivery Against Standard Demand and Service Capacity Index measure the quantity of services offered by each municipality compared to the population band average as our main dependent variable relative to public service provision. This measure indicates the percentage deviation of the overall level of services offered compared to municipalities of similar size. This is computed according to the following formula:

$$\frac{\text{Service Output}_{syi} - \text{Average Service Output}_{syg(i)}}{\text{Average Service Output}_{syg(i)}} \times 100$$

where Service Output<sub>syi</sub> indicates the overall level of service *s* delivered in year *y* by municipality *i*, and Average Service Output<sub>syg(i)</sub> indicates the average service output delivered in the same year by municipalities in the same population segment *g(i)*. The adopted population segments are the following: < 500); [500 – 1,000); [1,000 – 2,000) ; [2,000 – 3,000); [3,000 – 4,000); [4,000 – 5,000); [5,000 – 10,000); [10,000 – 20,000) ; [20,000 – 60,000); [60,000 – 100,000); [100,000+.

For each service *s*, MEF weights and aggregates several sub-indicators. Here, we report the main micro-indicators used for the three services we examine in the main text:

- Local Police includes indicators related to services delivered by municipal police and administrative police. Micro indicators include high penalties for violations of the Highway Code, high penalties for financial, commercial, and other administrative activities, administrative stops and seizures, vehicle removals, information and investigations for municipal or other entities' activities, appeals in opposition to Judicial Authorities, clearance for granting permits for public land occupation. These micro-indicators are collected by MEF through the SOSE instrument, a questionnaire compiled by municipality representatives to monitor key performance indicators.
- Public Registry micro-indicators are mostly related to the number of certificates issued by the municipal public registry office and are collected as well through the SOSE instrument.
- Garbage Collection micro-indicators are derived from data collected by the Higher Institute for Environmental Protection and Research (ISPRA) and capture the percentage of differentiated waste collection out of the total urban waste.

The Service Capacity Index represents the linear repositioning of the differential of the first measure on a 1–10 scale. Table I.1 reports descriptive statistics for both measures for the three services that we consider in the analysis.

We replicate the estimates reported in the main text, based on the measure Service Against Standard Demand, using Service Capacity Index as the dependent variable. Results reported in Table I.2 are consistent with the ones reported in the main text.

We explore if the 2010 reform may have had an impact on municipality's capacity to collect the measures used by MEF to monitor their public service provision performance.



Table I.1: Summary Statistics of Local Public Service Provision Indicators

	Mean	SD	Min	Max
Services against St. Demand				
Police	-9.87	69.73	-99.80	2962.24
Registry	1.54	31.47	-99.96	534.73
Garbage	-1.15	51.48	-99.97	392.38
Service Capacity				
Police	5.10	1.74	1	10
Registry	5.27	2.02	1	10
Garbage	6.02	2.10	1	10

Table I.2: TWFE Estimates of the Effect of Reforming Municipal Public Service Provision on Public Service Access (Service Capacity Index), 2009–13.

	(1)	(2)	(3)	(4)	(5)	(6)
	Police		Registry		Garbage	
Estimate	-0.178** (0.054)	0.012 (0.105)	-0.595*** (0.061)	-0.568** (0.177)	-0.158*** (0.039)	-0.159* (0.074)
Estimator	TWFE	MTWFE	TWFE	MTWFE	TWFE	MTWFE
Observations	9,282	7,238	11,132	8,998	11,794	9,686

Notes: MTWFE estimates apply matching weights. Standard errors (in parentheses) are clustered at the municipality level. \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$ .

We estimate a TWFE model analogous to the one used as our main model in the electoral data analysis, where we use a binary variable indicating if the value for the considered service was missing for the municipality and year as an outcome. Table I.3, reports the results. We find no evidence of any reporting bias due to the 2010 reform for police and garbage related indicators. We find a decrease in probability of missing value after the reform in the public registry measure. These findings reassure us about the fact that police and garbage indicators are not affected by reporting bias, but do suggest some additional caution in interpreting results on public registry performance.

Table I.3: TWFE Estimates of the Effect of Reforming Municipal Public Service Provision on Reporting Bias in Public Service Indicators, 2009, 2013.

	(1)	(2)	(3)
	Police	Registry	Garbage
Estimate	0.025 (0.016)	-0.058*** (0.014)	-0.012 (0.014)
Observations	13,242	13,242	13,242

Notes: Estimates apply matching weights. Standard errors (in parentheses) are clustered at the municipality level. \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$ .



## J Analysis of Anti-Immigration Attitudes

We examine change in political attitudes in reform affected municipalities using the following DID specification:

$$Y_{i,t} = \beta X_{m(i),t} + Z'_{i,t}\zeta + P'_{m(i)}\psi + \rho_{m(i)} + \lambda_t + \varepsilon_i, \quad (3)$$

where

- $Y_{i,t}$  measures the relevant political attitude measure for individual  $i$  in the each survey year  $t$ ;
- $X_{m(i),t} := \mathbb{1}_{\mathcal{I}_{ref} \times \mathcal{T}_{post}}(i, t)$ , with (i)  $\mathcal{I}_{ref} \subset \mathcal{I}$  denoting the subset of municipalities affected by the reform, while  $i \mapsto m(i)$  maps individual  $i$  into the municipality to which  $i$  belongs; and (ii)  $\mathcal{T}_{post} := \{t \in \mathcal{T} : t > 2010\}$ , i.e.,  $\mathcal{T}_{post}$  denoting the subset of post-reform election years;
- $Z_{i,t}$  is a vector of individual and survey-wave specific covariates;
- $P_{m(i)}$  is a vector of pre-treatment municipal-level covariates;
- $\rho_{m(i)}$  and  $\lambda_t$  are region- and year-specific intercepts, respectively;
- And  $\varepsilon_i$  is an individual-level error term.

In the analysis reported in the main text,  $Y_{i,t}$  is one of the three measures of anti-immigration attitudes and  $t \in \mathcal{T} := \{2001, 2011\}$ . Municipal and individual-level controls are the ones listed in the main text. We measure anti-immigration attitudes drawing on the following two four-point scale survey items:

- *Le leggerò ora alcune affermazioni su politica ed economia che vengono fatte correntemente. Mi dica per ognuna se lei è per niente, poco, abbastanza o molto d'accordo: Gli immigrati sono un pericolo per la nostra cultura.* I will now read some common statements on politics and the economy. Tell me, for each of them, if you agree, partially agree, partially disagree or disagree: Immigrants are dangerous for our national culture.
- *Le leggerò ora alcune affermazioni su politica ed economia che vengono fatte correntemente. Mi dica per ognuna se lei è per niente, poco, abbastanza o molto d'accordo: Gli immigrati sono un pericolo per l'occupazione (si intende l'occupazione degli italiani).* I will now read some common statements on politics and the economy. Tell me, for each of them, if you agree, partially agree, partially disagree or disagree: Immigrants are dangerous for Italians' employment.

We obtain the control variable Occupation by combining the two survey variables Profession – 17-point discrete variable indicating the respondent's job type – and Activity – an 8-point indicator of the general activity of the respondent inside or outside the labor market. In Table J.1 we report the coding of all the other control variables and descriptive statistics for all the survey variables that we use.

Table J.1: Summary Statistics of Individual-Level Variables

	Mean	SD	Min	Max	N
Anti-Immigration					
Immigration Scale	4.49	1.95	2	8	4,987
Identity & Culture	2.19	1.06	1	4	5,041
Employment	2.31	1.09	1	4	5,082
Female	0.52	0.50	0	1	7,150
Age					
18–24	0.11	0.31	0	1	7,150
25–34	0.15	0.36	0	1	7,150
35–44	0.14	0.35	0	1	7,150
45–54	0.18	0.38	0	1	7,150
55–64	0.19	0.39	0	1	7,150
> 64	0.23	0.42	0	1	7,150
Education					
No Qualification	0.03	0.17	0	1	7,150
Primary	0.16	0.37	0	1	7,150
Lower Secondary	0.35	0.48	0	1	7,150
Professional	0.07	0.26	0	1	7,150
Upper Secondary	0.29	0.45	0	1	7,150
Tertiary	0.10	0.29	0	1	7,150
Profession					
Manager	0.02	0.14	0	1	7,150
Teacher	0.03	0.17	0	1	7,150
Employee	0.13	0.34	0	1	7,150
Construction Worker	0.13	0.34	0	1	7,150
Entrepreneur	0.01	0.12	0	1	7,150
Self-employed	0.05	0.22	0	1	7,150
Cooperative Member	0.01	0.08	0	1	7,150
Other Contract	0.02	0.14	0	1	7,150
Employed - Mis. Prof.	0.02	0.13	0	1	7,150
On Welfare	0.21	0.41	0	1	7,150
Retired	0.28	0.45	0	1	7,150
Student	0.08	0.28	0	1	7,150

## K Additional Survey Results

We run additional variants of Appendix Equation 3 substituting  $Y_{i,t}$  with alternative measures of political attitudes. We consider (i) self-identification on the left-right economic dimension, (ii) trust in parties and (iii) parliament, (iv) perceived political efficacy. These variables are available for a larger number of survey waves (left-right: 8, trust in parties: 7, trust in parliament: 6, political efficacy 6). Due to scale changes over time, we standardize the trust and the left-right variables to a 0–1 scale, where 1 corresponds to higher trust and more right respectively, and re-code the political efficacy variable so that higher values consistently indicate less perceived political efficacy. Questions use the following phrasing:

Left-Right Scale: *Pensando alle Sue opinioni politiche, Lei in quale casella si collocherebbe su una scala da 1 a 10 dove 1 significa la sinistra e 10 la destra?* Moving to your political

Table K.1: DID Estimates of the Effect of Reforming Municipal Public Service Provision on Political Attitudes, 2001–11.

	Left–Right		Trust Parties		Trust Parliament		Political Efficacy	
Treated	-0.004 (0.012)	-0.008 (0.012)	0.009 (0.010)	0.010 (0.011)	-0.008 (0.017)	-0.023 (0.018)	-0.100** (0.036)	-0.122** (0.040)
Post	-0.008 (0.006)	-0.056*** (0.010)	-0.022*** (0.005)	0.012 (0.009)	-0.046*** (0.007)	0.018+ (0.010)	-0.137*** (0.022)	-0.273*** (0.036)
Treated × Post	0.024+ (0.014)	0.025+ (0.014)	-0.013 (0.013)	-0.012 (0.013)	0.013 (0.019)	0.014 (0.019)	0.060 (0.055)	0.046 (0.055)
Individual Controls	✓	✓	✓	✓	✓	✓	✓	✓
Municipal Controls		✓		✓		✓		✓
Region FE	✓	✓	✓	✓	✓	✓	✓	✓
Wave FE	✓	✓	✓	✓	✓	✓	✓	✓
Observations	14,207	14,207	13,117	13,117	10,060	10,060	10,855	10,855

Notes: Robust standard errors are reported in parentheses. \*\*\* $p < 0.001$ ; \*\* $p < 0.01$ ; \* $p < 0.05$ ; + $p < 0.1$ .

opinions, where would you place yourself on a scale from 1 to 10 where 1 is left and 10 is right?

Trust Scale: *Ora le leggo un elenco di istituzioni [partiti, parlamento] e mi dica, per ciascuna di esse, quanta fiducia ha (cioè molta fiducia, abbastanza fiducia, poca fiducia, nessuna fiducia).* Now I will read a list of institutions [parties, parliament]. Please tell me how much do you trust each of them (very much, trust, little trust, no trust).

Political Efficacy: *La gente come me non ha alcuna influenza su quello che fa il governo (Per niente d'accordo, Poco d'accordo, Abbastanza d'accordo, Molto d'accordo).* People like me have no influence what the government does (Not at all agree, Slightly agree, Somewhat agree, Very much agree).

Results reported in Table K.1 indicate a positive effect of the 2010 reform on self-positioning towards the economic right, but this is only significant at the 0.10 p-value threshold. We find no effect on other political attitudes.

## L Analysis of Party Rhetoric

We access party manifesto data using the Manifesto API and the R package *ManifestoR*. We subset the data to Italy for every national election after 2000<sup>1</sup>, and we further restrict the analysis to the most electorally significant parties in each political bloc for that time span, namely Lega (League), Fratelli d'Italia (Brothers of Italy) – which are both far-right parties – Partito Democratico (Democratic Party), Italia dei Valori (Italy of Values), and Movimento 5 Stelle (Five Star Movement) – which represent pro-redistribution parties. Partito Democratico is the main representative of the pro-redistribution bloc, and has long been considered part of the political establishment, having often been part of governing coalitions since its foundation in 2007, Lega and Fratelli d'Italia are the main

<sup>1</sup>This means 2001, 2008, 2013 and 2018. There is no data for 2006.

far-right parties of the country in the considered time span, and Movimento 5 Stelle is an anti-establishment political entrepreneur (De Vries and Hobolt 2020).

The MPD corpus is composed of thousands of documents, since every quasi-sentence in the corpus is considered a document. We thus transform the corpus into a data frame and call the corpus function. We set relevant parameters to auto-generate names based on manifesto IDs and a within-document running number. Then, we obtain a document feature matrix ( $d\mathbf{f}\mathbf{m}$ ), where we apply “standard” feature selection decisions, such as lower casing, removing punctuation and numbers as well as stemmed words from a corpus. As the automatic stopwords removal command was not as effective in Italian as it is in English, manual selection was needed to integrate it.

Table L.1: Electoral Manifesto Statements on Public Services and Immigration by Lega.

Party	Year	Statement
Lega	2008	<i>“To say that these services constitute a universal right, dangerously shortens a blanket, that of welfare, which already today does not even guarantee those who have paid for it for an entire lifetime.”</i>
Lega	2013	<i>“Restoration of the opportunity to access public services on an individual demand basis for Italian citizens”</i>
Lega	2018	<i>“Italians first in access to social services and social housing.”</i>
Lega	2018	<i>“Providing for the prohibition of the possibility of obtaining access to social benefits (request for social housing, tax breaks, etc.) for non-EU immigrants through simple self-declarations and unifying the legislation with that in force for Italian citizens.”</i>
Lega	2018	<i>“Elimination of absolute poverty with a large Support Plan for Italian citizens in a state of extreme indigence, with the aim of restoring their economic dignity”</i>
Lega	2018	<i>“It will also not be possible to establish higher contributions for the reception of foreigners than those aimed at policies to support poor Italians, which, according to Istat, are about 8 million, of which 1 million and 600,000 families in absolute poverty (corresponding to four and a half million citizens).”</i>
Lega	2018	<i>“The contribution will be reserved for Italian citizens with at least 20 years of residence in the Italian territory and will cover until the eighteenth birthday of the child.”</i>

Then, in order to perform the analysis, we create a specific dictionary with the entry “services” and carefully select related context-specific words. Indeed, this embeds the trade-off between external validity, which is sacrificed here because of the highly contextual character of this dictionary, and internal validity, which is enhanced thanks to the qualitative judgement underlying the dictionary. The key entry “services” includes,

along with common words indicating public services, terms pertaining three main areas, namely public schooling, healthcare and transportation. More specifically, the entry “services” includes 13 terms, namely “services”, “public services”, “social services”, “social assistance”, “healthcare”, “public healthcare”, “education”, “public transport”, “public work”, “subsidies”, “income support”, “welfare”, and “public schooling”. The choice of words related public transports, healthcare and schooling reflects recent attempts to identify the public services that best capture people’s daily interaction with the state and can shape political sentiments (e.g., Barca 2009; Barca, McCann, and Rodriguez-Pose 2012; Stroppe 2023). After defining the dictionary and applying it to the dfm grouped by party bloc-year, we compute the proportion of words associated with public services reported in the main text.

Besides the quantitative dictionary analysis, we qualitatively examine both manifesto statements by Italian political parties, and tweets by parties and party leaders. These accounts are shown in Table L.1 and Figure L.1, respectively. Manifesto statements were selected out of the manifesto corpus from Lega, the main far-right party in that time span. Tweet examples for the far right (top row), on the other hand, were selected out of official accounts of Matteo Salvini – leader of Lega – Giorgia Meloni – leader of Fratelli d’Italia and current Prime Minister – Casapound Italia – a neo-fascist party. To counterbalance these examples, further tweets by pro-redistribution parties – namely Partito Democratico, Movimento 5 Stelle and Liberi e Uguali (Free and Equal) – are included in the bottom row.

This is the tweets’ transcription:

- Matteo Salvini (Far-right) - 18/08/2014: Immigrant guests at our expense in 3-star hotels protest over the food. RETURN TO YOUR COUNTRY, together with whoever made you arrive!
- CasaPound Italia (Far-right) - 25/07/2018: Some Italian deputies are embarking on NGO ships to protect immigrants. In all these years only #CasaPound has been physically alongside the Italians in difficulty, from earthquake victims to the elderly under eviction.
- Giorgia Meloni (Far-right) - 18/10/2016: The data released by Caritas confirm that in Southern Italy, the number of Italians in difficulty who have asked for help from Caritas is higher than that of foreigners. Now the real refugees are the Italians at home, forgotten by the Renzi-Alfano government and ignored by the spotlights of the major media, which are always focused on talking about immigration. Unfortunately, fueling poverty and despair is precisely what big capital wants to reduce wages and workers’ rights, and thanks to the Renzi government they are doing it very well.
- Partito Democratico (Pro-redistribution) - 27/08/2017: 600 thousand families, 500 thousand children. With #redditoinclusione 2 billion euros in services and aid for those in need
- Liberi e Uguali (Pro-redistribution) - 09/02/2018: The flexibility of the work did not produce certainties. Providing safety at work and guaranteeing adequate welfare services (e.g. increasing the supply of nursery schools) is also a policy for families @PietroGrasso a @radioanchio

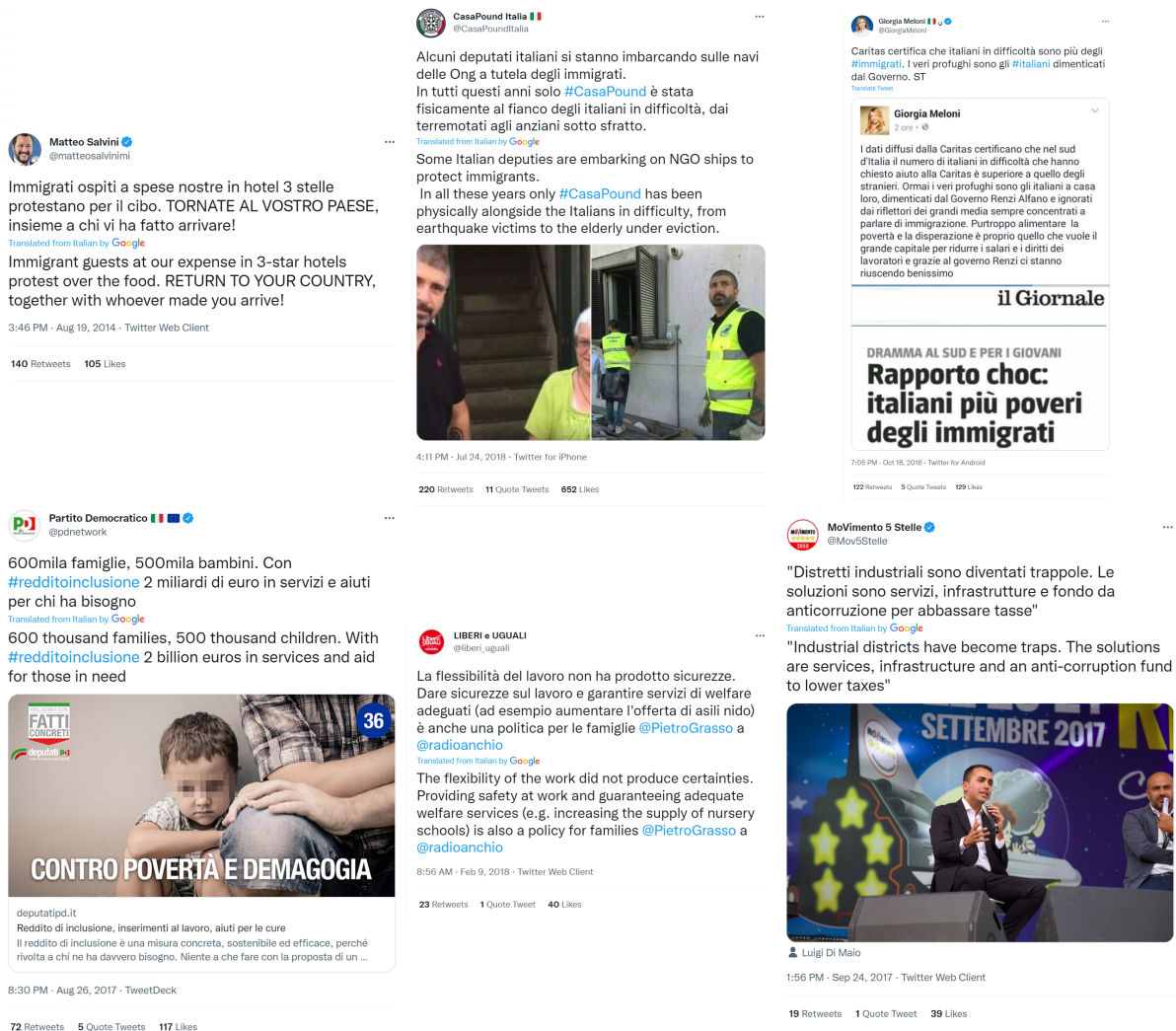


Figure L.1: Political Tweets on Public Services and Immigration

- Movimento 5 Stelle (Pro-redistribution) - 24/09/2017: Industrial districts have become traps. The solutions are services, infrastructure and an anti-corruption fund to lower taxes

## Appendix References

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