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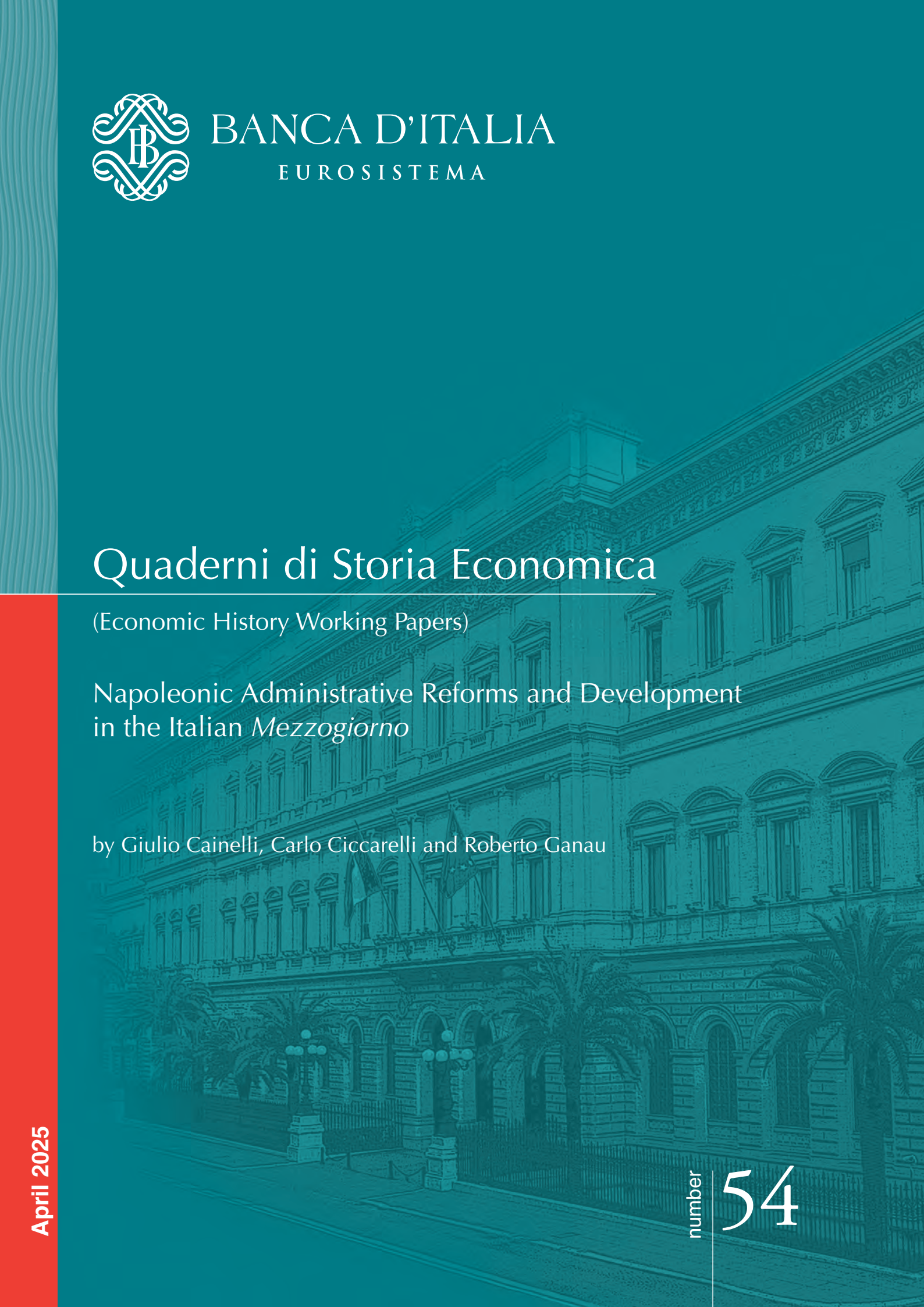

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Napoleonic Administrative Reforms and Development in the Italian *Mezzogiorno*

Giulio Cainelli[*] **Carlo Ciccarelli**[**] **Roberto Ganau**[***]

Abstract

We study how changes in the administrative hierarchy of a country affect development at the city level. We use the 1806 Napoleonic administrative reform implemented in the Kingdom of Naples as a historical experiment to assess whether district capitals with supra-municipal administrative functions enjoyed an urban development premium compared with non-capital cities. We find that district capitals recorded a population growth premium throughout the 19th century (1828–1911) and experienced higher industrialization than non-capital cities, both before and after the Italian unification. We explain our findings through mechanisms relating to public goods provision and transport network accessibility.

JEL Classification: H11, N13, O11, R11
Keywords: Napoleonic reforms; local administrative hierarchy; development

Contents

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1. Introduction[1]

A few recent studies have analyzed the effects of administrative reforms on state-building capacity, economic development, and urbanization (Becker, Heblich, and Sturm 2021; Bai and Jia 2023; Chambru, Henry, and Marx 2024). In this paper, we exploit one of the most ambitious state-building and reform processes that occurred in Europe in the first half of the nineteenth century (Croce 1925; Davis 2006), that is, the administrative reform implemented in 1806 by the Napoleonic authorities in the Kingdom of Naples, as a historical experiment to analyze the effects of a radical reform on long-run development.[2] The Napoleonic reform established, for the first time, the division of the 12 "historical" provinces of the Kingdom of Naples into 40 districts—that is, intermediate geographical-administrative units between the province and the municipalities—within which a city was selected on the basis of its "spatial centrality" as the district capital. The identification of the districts and the selection of their capitals by the Napoleonic authorities was one of the major innovations of the 1806 reform.

We exploit the exogeneity in the selection of the district capitals to assess whether municipalities that experienced such a status change, having being selected as the seat of the Sub-Intendancy, gained a population growth premium due to acquiring supra-municipal administrative functions by law, thereby becoming "centers of power" at the local level. The introduction of such functions, coupled with population growth resulting from the initial influx of bureaucrats, soldiers, police officers, and their families, and subsequent immigration inflows from the rest of the Kingdom of Naples, had a positive impact on the urban and industrial development of these cities.

Two underlying mechanisms can reasonably be hypothesized to explain the relationship between administrative reforms, population growth, and urban and industrial development: the provision of public goods, and transport network accessibility. First, population growth may have increased the demand for local public goods, thereby positively influencing urban

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[2] A basic dimension of state capacity is bureaucratic and administrative capacity (Besley and Persson 2011; Savoia and Sen 2015; Acemoglu and Robinson 2019)—that is, the ability of an administrative system to design and implement policies for delivering benefits (Acemoglu et al. 2011) and services to households and firms (Besley and Persson 2009, 2011; Acemoglu and Robinson 2019). While this dimension of state capacity has been widely investigated in terms of skills, competences, and abilities of an administrative system to achieve its objectives (Evans and Rauch 1999; Rauch and Evans 2000), the literature has only recently focused on the effects that radical changes in this dimension can have on economic development (Bo 2020; Becker, Heblich, and Sturm 2021; Bo and Cheng 2021; Jia, Liang, and Ma 2021; Bai and Jia 2023; Chambru, Henry, and Marx 2024).

and industrial development. Additionally, as district capitals assumed new supra-municipal administrative functions, they likely played a central role in connecting provincial and central government authorities with peripheral municipalities within district boundaries. Consequently, transport network accessibility was essential not only for the efficient transmission of information, laws, and regulations but also helped promote urban development and industrialization.

We assemble a large and original dataset combining historical data at the municipality level from 1648 to 1911, and analyze development at the city level in terms of both population dynamics and industrialization up to the year 1911.[3] We investigate the exogeneity of the criterion used by the French authorities for selecting district capitals in 1806 that is, spatial centrality by relying on both historical evidence and quantitative analysis. On the one hand, we detect a strong positive correlation between the centrality of districts' centroid and the spatial centrality of district capitals. On the other hand, we exclude any role that local lobbies (i.e., feudal lords, supporters of the French regime, and senior officials such as State Councilors and Ministers) or pre-existing economic and infrastructural characteristics at the municipality level could have played in the selection process. Moreover, we assemble a comprehensive collection of petitions obtained from the Naples State Archive (NSA) forwarded by local authorities to the central institutions of the Kingdom of Naples to request a revision of the administrative geography established in August 1806, and demonstrate that none of them were sent before January 1807. In other words, all the available empirical and historical evidence points to the same directions, namely that district capitals were selected based on their spatial centrality within a district, without the exerted influences of local lobbies or other economic and infrastructural characteristics.

We find that district capitals gained a long-lasting population growth premium compared with non-capital municipalities and experienced higher industrial development both before and after the Italian unification occurred in 1861. We do not find evidence of anticipatory and spillover effects, and rule out potential confounding effects related to geography. We corroborate our results through a number of robustness tests among which kernel matching and synthetic control estimation approaches and placebo exercises based on randomized treatment assignments. We also test the proposed underlying mechanisms and find that district capitals tended to provide more public goods (e.g., hospitals, kindergartens, secondary schools) to the local population both before and after the Italian unification and were more connected to the railway network. Finally, we carry out a long-run analysis and provide evidence with respect to a battery of current outcomes concerning population growth, agglomeration economies, human capital endowment, wealth, and economic performance.

Our paper is related to different streams of the literature. The first concerns the effects of Napoleonic reforms. At the beginning of the nineteenth century, the French Revolutionary armies introduced radical innovations—such as *Code Civil*, the commercial and criminal law codes, and the abolition of guilds and feudalism—in numerous countries, such as Germany, Italy, and Spain (Davis 2006). Only recently, a few studies have recognized the importance of these past reforms on current economic, social, and cultural outcomes (Buggle 2016).

[3] The administrative unit of the district was abolished by the Fascist regime with Royal Decree No. 1 of January 1927 in line with a more centralist political-administrative management of the state (Melis 2018). However, we selected 1911 as the last year of analysis due to data availability constraints and to avoid our analysis being influenced by effects related to the entry of the Kingdom of Italy into World War I in May 1915.

Napoleon's armies also brought a new model of state administration, that was "imposed" on certain European regions (Ongaro 2008; Dincecco and Federico 2022).[4] The reform of the administrative systems, based on the "French model," not only originated in the so-called Napoleonic administrative tradition (Ongaro 2008; Peters 2008) but also affected the process of state-building and economic development of certain European countries. To the best of our knowledge, no study has analyzed the economic effects of the Napoleonic administrative reform in a country other than France. Only Chambru, Henry, and Marx (2024) study these effects in terms of state-building and economic development, referring to France immediately after the 1789 Revolution.

The second stream of literature concerns the "administrative unit proliferation" hypothesis (Grossman and Lewis 2014) and the "administrative urbanization" theory (Liu, Yin, and Ma 2012). Since the mid-1990s, both developing economies (e.g., Sub-Saharan African countries) and more advanced countries (e.g., China, Brazil, Hungary, Indonesia, and Vietnam) have significantly increased the number of sub-national administrative units and, accordingly, the number of administrative centers. The main aim of these policies was not only to increase the level and quality of public goods provision for citizens and firms (Grossman, Pierskalla, and Dean 2017) but also to stimulate the overall economic growth at the sub-national and country levels (Bai and Jia 2023).

Finally, our paper is related to the literature on the origins of the Italian regional divide see, among others, Federico, Nuvolari, and Vasta (2019), Chilosi and Ciccarelli (2022), and the literature therein. This literature mostly follows a dualistic approach and contrasts the economic development of northern Italy with that of southern Italy. In short, around the year 1000, the North increasingly fragmented into numerous dynamic city-states, each with its own government, laws, and culture: an economic and political dynamism that ultimately led to the Italian Renaissance and European leadership. Instead, beginning with the Norman conquests of the eleventh century, the Italian South consolidated into a cohesive and homogenous kingdom, apart from the capitals of Naples and Palermo (Galasso 2014). In summary, the literature suggests how the North-South divide: had its roots in the Middle Ages; was characterized by different urban systems, consisting of "a polycentric urban system in the North and two parasitical urban centers (Naples and Palermo) in the South" (Accetturo and Mocetti 2019, p. 206); did not change considerably for centuries; and, finally, changed substantially only after the political unification of the country in 1861.[5] This narrative is instructive but at the same time limited. First, the most recent literature suggests that the North-South divide, while existing since at least the fifteenth century, evolved in the centuries before the unification of the country. In particular, the southern economy experienced some structural transformation and economic growth in the period 1400–1600. However, convergence with

[4] The French administrative model was based on three principles (Stevens 2003): the homogenization and standardization of the system on the basis of the revolutionary principles of equality and abolition of all local privileges; the centralization of powers; and the development of a bureaucracy—that is, a body of officials and civil servants in salaried posts.

[5] In fact, partly because of the greater availability of data, the historical literature has so far focused mainly on the post-unification (i.e., post-1861) factors that contributed to the widening of the North-South divide. Scholars have attempted to identify the historical roots of the North-South divide in terms of social capital (Putnam, Leonardi, and Nanetti 1993), distance to foreign markets (Cafagna 1989; Missiaia 2016), quality of institutions (Di Martino, Felice, and Vasta 2020), literacy rates (Cappelli and Vasta 2020; A'Hearn and Ciccarelli 2021), and the presence of criminal organizations (Lupo 2004; La Spina 2005).

north-central Italy stopped with the crisis of the seventeenth century (Epstein 1995, 2000; Sakellariou 2012; Chilosi and Ciccarelli 2022, 2025). Second, the urban structure of the continental South was more articulated than sometimes argued in the literature (Galasso 1982; Aymard 1985; Giannetti 1985; Borghi and Masciandaro 2023). Furthermore, as we argue in this paper, the Italian continental South experienced crucial reforms in the early nineteenth century. These reforms reshaped considerably the existing urban hierarchy. We depart from the dualistic approach and, to contribute filling a gap in the literature, consider growth differentials within the Italian *Mezzogiorno*, with a focus on local developments induced by the administrative reforms of the early nineteenth century, when, for the first time, "the introduction of districts marked the appearance of the State in the countryside" (Spagnoletti 1990, p. 84, our translation).[6]

Our contribution to the literature is threefold. First, by exploiting the 1806 Napoleonic reform as a historical experiment, we show how an administrative reform "imposed from outside" produced long-lasting effects in terms of population growth, industrial development, and economic geography by reshaping the administrative hierarchy of a country at the spatial level. The purpose of this reform was to establish the administrative system of these territories in accordance with an "external model" based on the principles of the Napoleonic administrative tradition (Peters 2008, 2021). The reform was not aimed at fostering urbanization and economic development in the Italian *Mezzogiorno*; these aspects were a byproduct of the reform. Its main goal was to implement a different "model" of state and administration (Davis 2006)—that is, a different "view" on what a state, its administrative institutions, and its bureaucracy should do and how they should be organized. In this sense, our analysis may be of interest not only for historical reasons but also for the debate on the long-term economic consequences of administrative reforms (Acemoglu et al. 2011) and, more generally, of state-building processes (Dincecco 2015; Acemoglu and Robinson 2019). Second, we show how the effects of the Napoleonic administrative system were further accentuated in the aftermath of Italian unification after the approval of the so-called Lanza Law in 1865, which assigned new and increased administrative functions to district capitals, thereby intensifying an already existing duality between capital and non-capital cities. Finally, we identify mechanisms related to the provision of public goods and accessibility of transport networks to explain the divergence between capital and non-capital cities in terms of development. In this respect, we contribute to a better understanding of how historical institutional and administrative choices besides traditional factors identified in urban economics, such as natural advantages (Rosenthal and Strange 2004) can shape the development and evolution of the concentration of manufacturing and services activities and the spatial agglomeration of households, workers, and firms (Smith and Kulka 2024).

[6] See Postigliola and Rota (2021) for a historical evaluation of the impact of the "Napoleonic decade" (1806–1815) on the North-South divide in terms of literacy, Bozzano, Cappelli, and Vasta (2024) for an analysis of the different nature of the educational systems implemented in northern and southern Italy before unification, and Barone et al. (2024) for an analysis of the effects of the Italian unification on the North-South divide in terms of various indicators of development.

2. Historical Background

2.1. The Napoleonic Administrative Reform of 1806

The entry of the French Revolutionary army into Naples on 15 February 1806 marked the beginning of a radically new vision of society (Palmarocchi 1914; Villani 1986) and the design, in terms of organization and functioning, of a proper modern state (Davis 2006; La Manna 2019). Indeed, Joseph Bonaparte, brother of Napoleon and King of Naples between March 1806 and July 1808, undertook a profound process of institutional transformation in the Kingdom of Naples—a state extending over the Italian *Mezzogiorno*, whose birth goes back to the late thirteenth century (Davis 2006; Galasso 2007).[7]

The Franco-Napoleonic reforms of August 1806 marked the transition from a sovereignty based on feudalism and its privileges (Palmarocchi 1914; Villani 1986) to one based on the homogenization and standardization of administrative norms, practices, and structures (Peters 2008) as well as the establishment of an administrative system structured on different geographical layers (Spagnoletti 1990). Two laws played a crucial role in this process: Law No. 130 of 2 August 1806, which abolished feudalism, and Law No. 132 of 8 August 1806, which introduced a new administrative system.[8] With the implementation of these laws, the Italian *Mezzogiorno* became the scene of one of the most ambitious and radical reform processes that occurred in early nineteenth-century Napoleonic Europe (Croce 1925; Davis 2006; La Manna 2019).[9]

Before the 1806 Napoleonic administrative reform, the Kingdom of Naples was divided into 12 "historical" provinces, a territorial division established centuries ago (Galasso 2007). During the Bourbon rule that began with King Charles in 1734, the presence of the state in these provinces was concentrated in the capital cities where the judicial courts were located (Giustiniani 1797, Volume I).[10] Except for the judicial function exercised in provincial capitals, administrative powers at the local level were distributed among a plurality of actors, such as feudal lords, religious orders, and aristocratic families (Spagnoletti 1990).

This picture radically changed in August 1806. Based on Law No. 132, the Kingdom of Naples was divided into 13 provinces, each with its capital city. The new province of Naples

[7] Napoleon took control of only continental South as the two islands of Sardinia and Sicily were protected by the British fleet.

[8] In addition to the aforementioned reforms, the Franco-Napoleonic authorities implemented several other significant changes (Davis 2006). First, they enacted a financial reform which included the confiscation of ecclesiastical assets (known as *manomorta*) and the liquidation of the public debt. This reform also established the Council for the Liquidation of the Public Debt, tasked with selling all the state assets and creating the Great Public Debt Book. Second, they introduced a penal reform extending the application of the *Code Napoléon* to the Kingdom of Naples from 1 January 1809. Under Murat's directive, the *Code* was translated and its provisions adapted to suit the needs of the Kingdom of Naples. Lastly, in 1808, a reform of the civic administration of Naples was completed, following the model of the French capital. It is worth noting that none of these reforms specifically affected the administrative geography of the Kingdom of Naples or the functions of the district capitals.

[9] This was confirmed by Pietro Colletta, an officer and administrator of Murat's bureaucracy, who stated how "never has a society witnessed greater upheaval or greater transformation in so short a space of time than the Kingdom of Naples at the beginning of the nineteenth century" (Colletta 1848, p. 214, translation in Davis 2006, p. 161).

[10] Provincial courts were called *Udienze Provinciali* and were presided over by a chief called *Preside*.

was established by detachment from the province of *Terra di Lavoro*; the province of *Abruzzo Ulteriore* was split into the two provinces of *Prima d'Abruzzo Ulteriore* and *Seconda d'Abruzzo Ulteriore*; while the province of *Contado del Molise* was united with the province of *Capitanata*.[11] With only these exceptions, the Napoleonic reform incorporated provinces that largely coincided with those previously governed by the Bourbon dynasty, thereby maintaining a significant degree of geographical homogeneity with the borders of the "old" provinces inherited from the *Ancient Regime* (Spagnoletti 1990).[12]

However, the radical innovation of the 1806 reform primarily concerned the division of the 13 provinces into 40 districts, with each district having a designed municipality as its capital city.[13] The primary challenge for the Napoleonic authorities was delineating the geographical boundaries of the districts and choosing their capitals. In line with the French model (Peters 2008, 2021), the district was conceived as an intermediate geographical-administrative unit between the province and the municipality, and the selection of district capitals was guided by the "spatial centrality" of a municipality within a district. We will discuss the criteria adopted by the French authorities in delineating districts and selecting district capital in a subsequent section of the paper.[14]

The administrative geography of the Kingdom of Naples underwent a few changes during the Napoleonic period. First, Law No. 189 of 27 September 1806 provided that the province of *Contado del Molise* would become formally independent from the province of *Capitanata* and gain administrative autonomy. Even after Joseph Bonaparte was replaced by Joachim Murat—brother-in-law of Napoleon and King of Naples between August 1808 and May 1815—this process continued. In fact, Decree No. 922 of 4 May 1811 marked the completion of the process of defining the 14 provinces of the Kingdom and provincial capitals; it also provided for changes in the number of districts into which provinces were divided as well as their capital cities. The upper panel of Table A1 (Appendix A) summarizes the evolution of provinces and provincial capitals in the pre-Napoleonic and Napoleonic periods, while Table A2 (Appendix A) summarizes the evolution, within provinces, of districts and district capitals in the Napoleonic period of 1806–1815. In this period, the number of districts and district capitals increased from 40 to 49: certain municipalities became district capitals, as certain districts were created *ex novo* through a process of territorial reorganization, while other municipalities within existing districts simply underwent a change in status.[15]

This process of reforming the administrative geography of the Kingdom of Naples was accompanied by the assignment of supra-municipal administrative functions to provinces and districts, thereby shaping the new administrative hierarchy of the state at the spatial level. Civil and financial administration, including tax collection, as well as police and public security functions were managed at the provincial level by the Intendant, equivalent to the French

[11] The province of *Contado del Molise* was formally independent of but administratively dependent on the province of *Capitanata* in the pre-Napoleonic period.

[12] Many of these provinces derive their origin from the Norman *Giustizierati* established by Frederick II in the thirteenth century (Galasso 2007; Bonini 2009).

[13] The municipalities of the Kingdom of Naples were historically called *universitates*. Feudal *universitates* were governed by a feudal lord, while state-owned *universitates* were governed directly by the King (Galasso 2007).

[14] The Napoleonic authorities introduced another sub-national unit in the Kingdom of Naples known as the *governo*. This unit generally included only few municipalities, often just one, and was assigned exclusively judicial functions: according to Article 1 of Law No. 14 of 19 January 1807, the *governo* was the seat of a local judge.

[15] It is worth clarifying that a provincial capital city was also the seat of its own district.

Prefect, who was directly appointed by the King.[16] At the district level, the primary official was the Sub-Intendant, also appointed directly by the King, with her seat located in the capital city of the district. Similar to the French Law of 28 *Pluviôse*, year VIII, Law No. 132 of the Kingdom of Naples established that the Sub-Intendant was "charged with executing and enforcing the orders she shall receive from the Intendant and giving her opinion on grievances and petitions" (Title III, Article 2, our translation) originating from the municipalities of the district. Despite the Sub-Intendant's subordinate role and dependence on the decisions of the Intendant overseeing the respective province, these officials brought for the first time in the history of the Italian *Mezzogiorno* the presence of the state at the local level, notably into the district capitals (Spagnoletti 1990). Indeed, in conjunction with the establishment of the Sub-Intendancy, officials, civil servants, soldiers, and policemen were dispatched to the district capitals to assist the activities of the Sub-Intendants. This marked a significant state presence that had never been witnessed in the Kingdom of Naples before the Napoleonic administrative reform (Davis 2006).

In this sense, the 1806 Napoleonic reform, by introducing a new administrative hierarchy at the spatial level, reshaped completely the administrative system of the Kingdom of Naples. In particular, the selection of certain cities as district capitals changed the prevailing urban hierarchy in a substantial way. Being chosen as the district capital was a great opportunity for a municipality. Therefore, the reform not only impacted the administrative geography of the Kingdom of Naples but also played a pivotal role in shaping economic geography within the Italian *Mezzogiorno* (Colletta 1848; Spagnoletti 1990; Davis 2006).

2.2. Administrative Reformism in the Kingdom of the Two Sicilies: 1816–1860

On 9 June 1815, the Congress of Vienna officially endorsed the reinstatement of the Bourbons in the Kingdom of Naples. In December 1816, Ferdinand I ascended to the throne as King of the Two Sicilies, a kingdom representing the union of the continental *Mezzogiorno* and the Kingdom of Sicily.

The French administrative tradition was upheld during the Restoration period from 1816 to 1860. The only notable change was the expansion of the number of provinces of the continental South to 15.[17] The decision of the Bourbons to retain the administrative geography established during the so-called "Napoleonic decade" (1806–1815) was affirmed by King Ferdinand I through Law No. 570 of 12 December 1816. This law organized the Kingdom into 22 provinces, with the 15 in the continental *Mezzogiorno* further subdivided into 53 districts.[18] The first five columns in the bottom panel of Table A1 (Appendix A) summarize the evolution of provinces and provincial capitals in the Bourbonic period of 1816–1860, while Table A3

[16] According to Law No. 132, the functions assigned to the Intendant in civil administration encompassed all those attributed to the Ministry of Internal Affairs by Decree No. 56 of 31 March 1806. These functions included a broad spectrum of activities, such as: overseeing prisons, hospitals, and charitable institutions; maintaining roads, bridges, and ports; regulating economic activities (agriculture, industry, and trade); managing education (schools and universities); and gathering statistical data on economic activities and population. The Intendant depended on the Ministry of Internal Affairs for the execution of these functions. Regarding police and public security matters, Intendants had Gendarmerie and Provincial Guards at their command.

[17] Royal Decree No. 360 of 1 May 1816—which was enforced on 1 January 1817—introduced only a few minor changes to the Napoleonic Decree No. 922 of 4 May 1811. It mandated the division of the province of *Calabria Ulteriore* into two provinces: *Calabria Ulteriore I* and *Calabria Ulteriore II*.

[18] The Napoleonic *governo* was simply renamed *circondario* by the Bourbons in the Kingdom of the Two Sicilies and, as earlier, was assigned exclusively judicial functions.

(Appendix A) summarizes the evolution of districts and district capitals in the same period. Even though the number of districts—and, thus, district capitals—remained unchanged during the Bourbonic period after Law No. 570, a few municipalities experienced a change in status within existing districts.

As established by the Napoleonic reform, each province was governed by an Intendant directly appointed by the King. The Intendant was entrusted with a wide range of administrative functions, namely: maintaining public security using the police, including the Gendarmerie; promulgating and enforcing laws, decrees, regulations, and ministerial orders; overseeing and supervising the activities of municipalities; and distributing the tax burden among the municipalities under her jurisdiction (Spagnoletti 1997).

The role and the administrative functions assigned to the Sub-Intendant were also confirmed by the Bourbons.[19] Each district was under the governance of a Sub-Intendant, who was directly appointed by the King and was dependent on the Intendant ruling the respective province. Despite the significant authority held by the Intendant, serving as the seat of the Sub-Intendency—that is, as the district capital—conferred no doubt distinct advantages upon a municipality. Supra-municipal administrative functions remained concentrated in the district capitals, where civil servants, officials, soldiers, and policemen supporting the activities of the Sub-Intendant resided and operated (Spagnoletti 1997).

2.3. Administrative Reformism in the Aftermath of Italian Unification

Italy—akin to other European countries like Germany—underwent a nation-building process in the mid-nineteenth century (Candeloro 1968; Gunlicks 1984). The unification process was accompanied by administrative reforms that laid the foundation of the public administration system of the new Kingdom of Italy (Pavone 1964). This process took place in two phases during the period 1859–1865.

In the first phase, the "Municipal and Provincial Law" No. 3702 of 23 October 1859—commonly referred to as the Rattazzi Law—was initially ratified and implemented in the Kingdom of Sardinia. Subsequently, it was extended to the territories annexed by the Savoy House between 1859 and 1861. This law integrated the administrative geography of the Napoleonic tradition, which was founded on four distinct sub-national units: the province, the district, the *mandamento*, and the municipality.[20] While the provinces and provincial capitals that existed in the Kingdom of the Two Sicilies were confirmed after unification, the number of provinces in continental *Mezzogiorno* was augmented from 15 to 16 with the creation of the new province of *Benevento*. This province encompassed territories that were formerly enclaves of the Papal States.[21] The last two columns in the bottom panel of Table A1 (Appendix A) list the provinces and provincial capitals in the Kingdom of Italy, while Table A4 (Appendix A) lists the districts and district capitals. The number of districts—and, thus,

[19] Article 43 of Law No. 570 of 12 December 1816 confirmed Article 2 of Title III of Law No. 132 of 8 August 1806.

[20] The *mandamento* established by the Rattazzi Law was rather similar to the *circondario* of the Kingdom of the Two Sicilies and, thus, the *governo* of the Napoleonic reform.

[21] The province of *Benevento* was established on 25 October 1860 by the pro-dictator Giorgio Pallavicino, and its establishing decree (*Decreto Istitutivo della provincia di Benevento*) was subsequently confirmed by Prince Eugene of Savoy Carignano, the Lieutenant General of the King, on 17 February 1861. The city of *Benevento* and its surrounding municipalities had been an enclave of the Papal States within the Kingdom of Naples and, then, the Kingdom of the Two Sicilies since Charles I of Anjou granted the territory to Pope Clement IV.

district capitals—increased after unification due to the creation of the province of *Benevento*, which was subdivided into the districts of *Benevento*, *Cerreto Sannita*, and *San Bartolomeo in Galdo*, while no municipality experienced a status change within already existing districts.[22]

The Rattazzi Law assigned specific administrative functions to provinces and municipalities, yet it did not allocate any administrative functions to the district and the *mandamento*.[23] In this regard, the Rattazzi Law standardized the administrative functions attributed to provinces and municipalities across the newly formed Kingdom of Italy, despite the absence of supra-municipal administrative functions assigned to the district and the *mandamento*. During the period 1859–1865, the implementation of the Rattazzi Law exhibited significant heterogeneity (Pavone 1964).[24] In continental *Mezzogiorno*, this law had not yet been enforced in 1861 as it faced staunch opposition from the local political elites.[25] Furthermore, during the initial years of the unification process (1861–1871), a civil war erupted in the Italian *Mezzogiorno* between the army of the Kingdom of Italy and factions composed of Bourbon officers and brigands. This civil war resulted in not only thousands of causalities but also a significant impediment to the process of administrative unification in the former territories of the Kingdom of the Two Sicilies (Pinto 2019).

The second phase of this process occurred when the Italian Parliament approved Law No. 2248 of 20 March 1865 concerning the administrative unification of the Kingdom of Italy—commonly referred to as the Lanza Law. Indeed, the administrative unification of the Kingdom of Italy was effectively achieved through this reform (Candeloro 1968).[26]

In line with the Napoleonic administrative tradition (Peters 2008, 2021), the Lanza Law assigned a variety of supra-municipal administrative functions to district capitals. These

[22] Despite the fact Rattazzi Law adopted the administrative geography based on four distinct geographical levels and did not bring substantial variations in the structure of the existing provinces and districts, it provided for the reallocation of a few municipalities across districts and provinces, particularly due to the creation *ex novo* of the province of *Benevento* and its districts.

[23] Title II of the Rattazzi Law defined for each municipality its administrative and governing bodies (the Council and the Mayor), their composition, the rules for their election, and the principles of municipal administration and accounting. It also attributed certain political-administrative functions by assigning compulsory and discretionary expenses to municipalities. Similarly, Title III of the law defined the governing and administrative bodies for each province (the Council, the Provincial Deputation, and the Prefect), their composition, and the rules for their election. It also assigned to provinces a few political-administrative functions, such as the management of properties and assets—particularly, roads and infrastructures.

[24] Full enforcement was achieved only in the Kingdom of Sardinia and, after the Peace of Villafranca on 11 July 1859, in the annexed territories of the Kingdom of Lombardy–Venetia. Partial enforcement took place in the annexed territories of central Italy, even if with a few changes: after the plebiscites for the annexation to the Kingdom of Italy, the Rattazzi Law was introduced in the Marches and in *Umbria* (both previously under the Papal States), albeit with few articles concerning provinces suspended. This included Article 241, which mandated that all provincial expenses had to be financed by the central government. A modified version of the Rattazzi Law was implemented in Sicily in August 1860, where again certain articles related to provinces, including Article 241, were excluded. The complete non-application of the Rattazzi Law occurred solely in the territories of the Grand Duchy of Tuscany, which retained their administrative autonomy (i.e., the pre-unification administrative setup) until 1865 (Pavone 1964). Figure A1 (Appendix A) maps the Italian pre-unification states.

[25] Cavour, the first Prime Minister of the Kingdom of Italy, advised Luigi Carlo Farini—who was sent to Naples as Lieutenant with dictatorial powers—to "maintain as much of the prior administration as possible" (Pavone 1964, p. 74, our translation).

[26] The Lanza Law comprised a package of six distinct laws addressing various aspects of governance: municipal and provincial administration (Appendix A); public and internal security (Appendix B); public health (Appendix C); the Council of State (Appendix D); administrative litigation (Appendix E); and public works (Appendix F).

responsibilities encompassed areas such as public security, the issuance of permits, licenses, and authorizations as well as the management of public health matters.[27] The capital city of the district served as the residence of the Sub-Prefect—corresponding to the role of the Sub-Intendant of the Napoleonic and, subsequently, Bourbonic eras. The Sub-Prefect carried out her duties and responsibilities with the assistance of a team comprising bureaucrats, doctors, officials, and policemen, and operated under the supervision of the Prefect of the respective province.

The presence of the Sub-Prefecture in the district capital city had two fundamental roles. First, it functioned as a "center of powers" within the province, exercising specific functions such as overseeing public security and justice, managing public health matters, and issuing permits and licenses. Second, especially so in the pre-railway era, it served as a pivotal "node" at the local level for receiving and transmitting information, managing administrative procedures, and implementing political acts, regulations, and laws originating from the Prefect and the central government. Moreover, district capitals played a central role in coordinating various administrative activities at the local level, and establishing connections between peripheral municipalities within the district boundaries and the authorities at the provincial and central government levels.[28]

In summary, the district capitals of the Italian *Mezzogiorno* underwent an evolution from their establishment by the Napoleonic authorities in 1806 until the administrative reform implemented by the Kingdom of Italy in 1865. This evolution primarily pertained to the allocation of supra-municipal administrative functions, initially attributed to the Sub-Intendant during the Napoleonic and Bourbonic periods, and subsequently to the Sub-Prefect in the Kingdom of Italy. An in-depth analysis of the administrative laws indicates a notable increase in the number of functions assigned, especially following the approval of the Lanza Law in 1865. We expect that this concentration of functions in district capitals had a positive impact on their development, consequently influencing the economic geography of the Italian *Mezzogiorno*.

3. The Selection of District Capitals in 1806

In this section, we first present the geography of the Kingdom of Naples at the time of the Napoleonic reforms; second, we discuss the criteria adopted by the French authorities in 1806 to delineate districts and, especially, select their capital cities; finally, we also assess the role that local lobbies, as well as pre-existing economic and infrastructural characteristics at the municipality level, could have played in this process. We draw on both historical evidence and quantitative analyses to support the identification strategy employed in our econometric analysis.

[27] According to Law No. 2626 of 6 December 1865 on the regulation of the judicial system in the Kingdom of Italy, the capital city of a district could also serve as the seat of a court.

[28] It is interesting to note that the district served not only as an administrative unit but also as a "space of sociality" distinguished by a strong social, cultural, and political identity. Indeed, many districts boasted their own daily and weekly newspapers, which played a significant role in fostering a sense of belonging to the district (Mori 2019).

3.1. The Kingdom of Naples in 1806

Our study region includes the territories in continental southern Italy that were part of the Kingdom of Naples (Figure 1).[29] According to Giustiniani (1797–1805, Volumes I–X), there were 4,265 populated settlements in 1797, 46%–47% of which were identified as *universitates* (Piccioni 2003; Da Molin and Carbone 2011; Salvemini 2014).

To study whether the municipalities selected as district capitals in 1806 gained a population growth premium over those that were not assigned supra-municipal administrative functions, we rely primarily on a new set of population data ranging from the seventeenth century to 1911. We thus mapped the historical settlements of the Kingdom of Naples listed by Giustiniani (1797–1805, Volumes I–X) in the municipalities recorded in the 1911 Italian population census provided by the Italian National Institute of Statistics (Istituto Nazionale di Statistica – ISTAT). In other words, we consider municipalities in their 1911 configuration as the reference to reconstruct municipal observations starting from the pre-Napoleonic period.[30] This procedure allowed us to identify 1,808 municipalities existing in 1911 and located within the 1806 boundaries of the Kingdom of Naples. However, five municipalities were enclaves of the Papal State in 1806, and another 35 municipalities existing in 1911 were established after 1806 and we were unable to identify corresponding historical human settlements. Therefore, we consider a starting sample of 1,768 municipalities (i.e., 97.79% of the municipalities recorded in the 1911 census) that belonged to the Kingdom of Naples at the time of the Napoleonic reforms and still existed as municipal administrative units in 1911.[31]

3.2. The Creation of Districts

An early, though unsuccessful, attempt by French authorities to reform the administrative geography of the Kingdom of Naples occurred during the Neapolitan Revolution of 1799, which saw the occupation of vast areas of the Kingdom of Naples by Napoleon's troops and the proclamation of the Neapolitan Republic, which lasted from 23 January to 22 June 1799 (Rao 2021). Indeed, with the law of 9 February 1799 (21 *Pluviôse*, year VII), the Provisional Government of the Neapolitan Republic attempted to divide the territory into 11 departments and 150 cantons.[32] This subdivision, described as "inexecutable and ridiculous" (Cuoco 1913, p. 142, our translation) and subject to "fierce criticism and sharp judgments" (Spagnoletti 1997, p. 92, our translation), was a consequence of the French authorities' lack of knowledge about the geography of the territory.[33] Cuoco (1913, p. 142,

[29] The Kingdom of Naples was established in 1282 by Charles I of Anjou following the War of the Sicilian Vespers (1282–1302), which led to the division of the continental territories of the "old" Kingdom of Sicily and the island of Sicily—henceforth known as the Kingdom of Sicily.

[30] We base this reconstruction on the 1911 population census because it provides information at the hamlet level, which allows us to trace towns, villages, and small populated settlements that existed in the pre-Napoleonic period with respect to the reference municipalities, while also taking into account human settlements that were integrated by the municipalities and became neighborhoods during the period under consideration.

[31] See Table B1 (Appendix B).

[32] This law was inspired by the French law of 26 February 1790, which established the departments in France (Ozouf-Marignier 1984).

[33] Indeed, Jean Bassal, the Minister of Finance, was the principal architect of this attempt to reform the administrative geography of the Kingdom of Naples.

our translation) refers to the French authorities as "a traveler who, from the top of a mountain, draws by night the valleys below, which he has never seen, *[and]* cannot do a more inept work."[34] Finally, this attempted reform focused exclusively on delineating the geographical boundaries of the departments and cantons, while omitting the specification of their capital cities (Spagnoletti 1990).[35] The difficulties encountered in implementing this reform led to its withdrawal with the approval of the law of 25 April 1799 (Spagnoletti 2002), thereby resulting in a return to the 12 "historical" provinces of the *Ancient Regime*. The "abstract and rambling" attempted departmentalization of 1799 was promptly abandoned as it failed to address the elimination of feudalism (Bonini 2009).[36] The weakness of local institutions in the Bourbon era was directly correlated with the power wielded by the feudal lords in the provinces. Indeed, the departmentalization of the Kingdom of Naples was intrinsically linked to the eradication of feudalism, a decision enacted by the French authorities during the subsequent reform of 1806 (Spagnoletti 2002).

It was not until the implementation of the Napoleonic reforms of August 1806 that the administrative geography and organization of the Kingdom of Naples proper of the *Ancient Regime* were redrawn. As in the failed reform of 1799, the creation of the 40 districts was regarded as a "very hasty" territorial engineering operation (Russo 2007, p. 118). During this process, the French authorities "had to invent" districts and district capitals (Bonini 2009, p. 293, our translation). In fact, they knew very little about the territory of the continental *Mezzogiorno*, so much so that in February 1806 Napoleon sent his brother Joseph Bonaparte "*un mémoire sur Naples, qui est au moins une note géographique*" (Ciccolella 2000, p. 114). The primary, if not the only, information sources available to them were the geographical dictionaries written by Galanti (1786–1794), Sacco (1795–1796), and Giustiniani (1797–1805) and published in Naples in the previous years. These dictionaries reported in detail a great deal of information on geography (mountains, forests, rivers, lakes), infrastructures, and population (Ciccolella 2000). Based on the information provided by these sources and with the assistance of some local geographers (Ciccolella 2000), the French authorities designed and created *ex novo* 40 districts. It is not surprising that the French authorities had significant "freedom of action" in delineating the districts, considering that this geographical unit was completely new for this state (Spagnoletti 1990, p. 84, our translation).

3.3. The Selection of District Capitals

Having subdivided the Kingdom of Naples into 40 districts, a key feature of the 1806 Napoleonic reform concerned the criterion adopted for the selection of district capitals. This criterion was not guided by the presence of pre-existing urban or administrative functions (Di Ciommo 1987); rather, by the "spatial centrality" of a municipality within a district. Indeed,

[34] Similarly, Colletta (1848, Volume III, p. 25, our translation) points out how, in the proposed new administrative division of the Kingdom of Naples, "rivers, mountains, forests, and natural features were haphazardly placed within departments and their cantons, and sometimes even within communities ... In short, there were so many errors that people stuck with the old ways, and the only outcome of the law was the discredit of the legislators."

[35] French authorities did not identify cantons' capital cities, except from the cantons of the Department of Pescara as outlined in Article 2 of the law.

[36] On the contrary, between 1796 and 1798, the French authorities undertook measures to transform the administrative geography of the Cisalpine Republic, the Ligurian Republic, and the Roman Republic in the northern and central areas of the Italian peninsula. These measures were aimed at eliminating all forms of particularistic exercise of power (Spagnoletti 2002).

the problem of the French authorities was to "invent the new capitals" (Spagnoletti 1990, p. 95, our translation).[37] In this sense, "the centrality of the site was thus the quality most sought after and used by the Franco-Napoleonic authorities" (Spagnoletti 1990, p. 90, our translation) for the identification of district capitals.[38]

The limitations and weaknesses of the road network and related infrastructures in the Kingdom of Naples (Ostuni 1987; Ciccolella 2000), as well as the presence of natural obstacles such as rivers, streams, and mountains, justified this selection criterion (Spagnoletti 1997; Sarno 2011), which was "rationalized" by the Napoleonic authorities with the idea that a capital city should generate "the greatest convenience or least inconvenience to the population ... of the district" (Spagnoletti 1990, p. 96, our translation). In 1809, the Royal Prosecutor of *Monteleone* — the ancient name of *Vibo Valentia* — forwarded a project for the territorial revision of the province of *Calabria Ulteriore* to the Ministry of Justice, asserting that, in 1806, King Joseph's government had designated district capitals based on "their central locations and convenient access" (NSA, fs. 385, our translation). He also emphasized how, in 1806, it was "the public interest and not the displeasure of a municipality" that presided over the administrative reform. Not surprisingly, a similar solution was adopted in France during the French Revolution, where the creation of administrative units — such as departments and districts — and the selection of their capital cities was based on the same principles, that is, "the centralization of administrative functions and easy access of all citizens to the local administration" (Chambru, Henry, and Marx 2024, p. 3584).

Our identification strategy leverages the exogeneity of the criterion used by the French authorities for selecting district capitals: that is, spatial centrality. The centroid of a district, which serves as the measure of the spatial centrality within a district, is independent of the spatial distribution of population or economic activities within a district: it is solely determined by the geographical shape of the district (Campante and Do 2014). In this sense, the centroid of a district is an arbitrary location that should not affect any outcomes at the district level. This is true at least once the geographical boundaries of each district are set. Therefore, we should expect a positive correlation between the location of the centroid of a district and the location of its capital city if the French authorities had in fact selected the 40 district capitals based on their spatial centrality within districts. As shown in Figure 2, we detect a strong positive correlation between the average distance (of municipalities, within a district) to the centroid of the district and the average distance (of municipalities, within a district) to the district capital — that is, between the centrality of districts' centroid and the spatial centrality of district capitals.[39] In other words, this evidence corroborates that Napoleonic authorities primarily selected district capitals in 1806 based on their geographical centrality within districts.

[37] Before the Napoleonic reform, with the exception of provincial capitals exercising judicial functions, there were no capital cities at the local level endowed with supra-municipal administrative functions. As highlighted by Di Ciommo (1987, p. 365, our translation), "the municipalities of the *Mezzogiorno*, unlike those of central and northern Italy, did not exercise any real form of government over the surrounding territory."

[38] According to mathematician and economist Giuseppe Donati, the requisites of a district capital include (Russo 2007): being a convenient distance from all the municipalities under its jurisdiction; being equipped with all the amenities necessary for daily life; and being easily accessible from the provincial capital.

[39] We corroborate this evidence by also controlling for districts' land surface, average altitude, and average terrain ruggedness in a regression framework — see Table B2 (Appendix B).

3.4. The Role of Local Lobbies

It could legitimately be argued, against our identification strategy, that the selection of district capitals might not have been solely driven by the geographical centrality of a municipality within a district. Rather, it may also have been influenced by a lobbying process involving local elites, such as feudal lords or supporters of the French regime. We thus undertake further analyses to investigate this possibility.

We begin our analysis by examining the historical evidence. The 1806 administrative reform, implemented in a "climate of strong social aversion" (Villani 1978, p. 123, our translation), was accompanied by two other fundamental reforms aimed at eliminating the influence of feudal lords, namely the law abolishing feudalism and the law establishing the land tax (Villani 1986). Law No. 130 of 2 August 1806 abolished feudalism in the Kingdom of Naples without any compensation for feudal jurisdictions, tax privileges, or immunities (Sarno 2011). Additionally, Law No. 134 of 8 August 1806 provided for the implementation of a new fiscal system based on a progressive land tax (Davis 2006).[40] These reforms aimed to "put an end to the particularism that had characterized, until the entire 18th century, the political and social dynamics of the provincial classes" (Spagnoletti 1990, p. 83, our translation). As in France, the abolishment of feudalism served as "the juridical premise for everything that followed" and it allowed the establishment of "the absolute sovereignty of the state" (Davis 2006, p. 164). Consequently, these reforms allowed and led to the implementation of the French system of local administration in the Kingdom of Naples.[41] In other words, the introduction of the new administrative system would not have been feasible without the elimination of feudalism and its privileges.

This historical evidence suggests that feudal lords could play no role in influencing the decisions taken by the Napoleonic authorities in selecting district capitals. We test this empirically by relying on information on whether a municipality was under a feudal lord in 1797 drawn from Giustiniani (1797–1805, Volumes I–X). The econometric analysis corroborates the historical evidence, as we do not find a statistically significant correlation between a municipality's feudal status in 1797 and the probability of being selected as district capital in 1806 see column (1) of Table B3 (Appendix B).

Another potential local lobby could have been represented by the first-instance supporters of the French regime, namely those who took part in the Neapolitan Revolution of 1799 (Rao 2021). These individuals could have claimed "rights" and, therefore, could have influenced the choice of district capitals in 1806: indeed, French authorities and the senior officials of the new government established in Naples may have been influenced by these local elites through political or masonic connections (Davis 2006). We thus investigate the role played by the "republican patriots" who participated in the Neapolitan Revolution under the rationale that the selection of district capitals may have been influenced by the local elites comprised of patriots born in municipalities that exhibited greater adherence to the "republican

[40] In July 1806, Roederer explained to the Council of State that the "new proportional land tax would be the most tangible symbol that all those who owned property are equal" (Davis 2006, p. 175).

[41] Moreover, the law of 15 March 1807 abolished *fideicommissum*, and the law of 24 January 1807 provided that the lands in the ownership of pious orders became subjected to the census, also proceeding to the suppression of the Society of Jesus and other religious orders with the avocation of their respective properties to the state (Church lands). Between 1806 and 1811, approximately 1,300 monasteries, convents, and religious orders were closed and their lands were sold by auction (Villani 1964).

values" of the Revolution, potentially serving as a form of recognition for their support to the French army in 1799 (Rao and Pavone 2002). Thus, a significant presence of patriots born in a municipality, motivated to promote their hometown and leverage their ties with French authorities, could potentially explain the choice of that municipality as a district capital in 1806.[42]

We capture the potential role played by the "republican patriots" connected with the French authorities (Rao and Pavone 2002; Davis 2006) by exploiting three different types of data. First, we have digitalized the list of 119 members of the Neapolitan Republic who were sentenced to death by the Bourbon tribunals between 1799 and 1800, including information on their municipality of birth (Cuoco 1913, pp. 369–375). We consider the share of executed patriots born in a municipality over the total number of executed patriots as a proxy for the relative importance a municipality could have had during the Neapolitan Revolution in supporting the French armies and, thus, to capture the potential recognition for its participation in the Revolution. Second, we have digitalized the list of 875 patriots sentenced to exile by the *Suprema Giunta di Stato* in 1800, including information on their municipality of birth. We consider the number of exiled patriots born in a municipality weighted by the distance between their municipality of birth and Naples under the rationale that, once back in the Kingdom of Naples, such patriots could have potentially weighted in the selection of district capitals based on their relative proximity to the French authorities and the new government headquartered in the city of Naples.[43] As shown in columns (2) and (3) of Table B3 (Appendix B), we do not find a statistically significant correlation between a municipality's "patriotic" nature in 1799 and the probability of being selected as district capital in 1806. By contrast, as shown in column (4), we find a negative and statistically significant association between a municipality's distance to its district's centroid and the probability of being selected as district capital in 1806. Moreover, the results on feudalism, patriotism, and spatial centrality are fully corroborated when we include all the variables simultaneously in the regression model see column (5).

Finally, we have digitalized information drawn from cartographic representations provided by Rao and Pavone (2002) regarding 190 municipalities that, during the Neapolitan Revolution of 1799, were temporarily "republican," having been under French rule for periods ranging from 15 days to six months. This information is available only for five provinces of the Kingdom of Naples namely, *Abruzzo Citeriore*, *Abruzzo Ulteriore*, *Calabria Citeriore*, *Calabria Ulteriore*, and *Principato Citeriore* , but allows us to identify also those municipalities namely, 44 municipalities that proclaimed themselves "republican" voluntarily, that is, before receiving orders from the central authority or the entry of French

[42] The role that the "republican patriots" of 1799 may have had in these processes was significant, especially considering that many of them were Freemasons, sharing common revolutionary ideals and principles such as liberty, equality, and fraternity (Rao 2021). Indeed, patriots and Freemasons were two closely interconnected and overlapping groups that may have influenced decisions related to the selection of district capitals (Davis 2006). It is noteworthy that all the members of the local *Patriotic Society* founded in 1788 in Chieti were Freemasons (Davis 2006, p. 171).

[43] The list of patriots sentenced to exile is drawn from the paper-based source *Filiazioni de' rei di stato condannati dalla Suprema Giunta di Stato, e da' Visitatori Generali, in vita, e a tempo ad essere asportati da' Reali Dominj* printed in Naples at the *Stamperia Reale* in 1800.

troops (Rao and Pavone 2002).[44] As shown in Table B4 (Appendix B), we find no evidence that self-proclaimed municipalities were more likely to be selected as district capitals by the French authorities in 1806 in recognition of the support shown during the Revolution. By contrast, we still estimate a negative and statistically significant association between a municipality's distance to its district's centroid and the probability of being selected as district capital in 1806.

We conclude our analysis by discussing also the potential lobbying role that those who directly engaged in the institutions of the new regime could have played by influencing the decisions taken by the French authorities in 1806. Indeed, it is reasonable to speculate that senior officials, such as State Councilors and Ministers, leveraged their position in the new government to influence the choice of district capitals during the process of outlining administrative reform: for example, pushing for their hometown to be chosen as the district capital over another municipality. We assess qualitatively whether this is the case through information collected from the various decrees promulgated by the French authorities between February and July 1806 (i.e., between the conquest of the Kingdom of Naples and the approval of Law No. 132 of 8 August 1806 identifying district capitals) regarding the composition of the State Council (i.e., the main government body of the French-ruled Kingdom of Naples) and the appointment of Ministers. We have identified 26 senior officials and manually collected information on their birthplace: 15% of them were born in France; 8% were born in the (pre-Napoleonic) territories of the Papal States and the Grand Duchy of Tuscany; and 77% were born in the Kingdom of Naples, with 45% of these officials born in the city of Naples that is, 35% of State Councilors and Ministers were born in Naples. Two main insights emerge from this evidence. First, we corroborate historians' narrative suggesting that a pivotal role in the reform process may have been played by the so-called "Corsican connection," that is, the network of patronage, preferment, and recruitment linked to Minister Antoine Christophe Saliceti.[45] This network, which had a key role in identifying senior state officials (Davis 2006), predominantly selected an elite of French origin, often with limited familiarity with the geography of the Kingdom of Naples. It is not a case that Galanti's (1786–1794) *Descrizione Geografica e Politica delle Sicilie* was "*visiblement le livre de chevet des nouveau governants*" (Rambaud 1911, p. 470). Second, we can reasonably rule out lobbying pressures at the local level from within the government since most of its senior officials were born outside the Kingdom of Naples or in the city of Naples. In this sense, there does not appear to be a clear link between the birthplace of these senior officials and the municipalities selected as district capitals in 1806. Therefore, this analysis also rules out the possibility that senior officials exerted political influence to favor their hometown municipalities as district capitals.

3.5. The Role of Economic and Infrastructural Characteristics

In the previous analysis, we ruled out the potential influence of local elites in the selection of district capitals in 1806. However, it remains possible that the choice of certain cities was influenced by pre-existing economic and infrastructural factors. Indeed, some cities

[44] These municipalities were created "before the instructions issued by the provisional government and the democratizing commissioners charged with carrying them out arrived from Naples, or the provisions of the feudal lords, lay and ecclesiastical, who in many cases gave orders to their agents to proceed with the establishment of the new local government bodies" (Rao and Pavone 2002, p. 66, our translation).

[45] In 1806, Saliceti was appointed as the Minister of Police of the Kingdom of Naples and, after three months, he assumed the role of the highest adviser to the Ministry of War.

might have been selected because they were experiencing the early stages of a proto-industrialization process or were better integrated into the Kingdom's road network, that is, the most important transport infrastructure of that time.

We test for the potential role played by these pre-existing conditions through two exercises. As a first exercise, we estimate the probability that a municipality would be selected as the district capital as a function of economic and infrastructural characteristics, namely, population density in 1797, proto-industrialization in 1797, distance to the closest ancient Roman road, and distance to the closest postal road in 1804. We use 1797 population figures drawn from Giustiniani (1797–1805, Volumes I–X), which are available for 1,704 out of the 1,768 municipalities that belonged to the Kingdom of Naples at the time of the Napoleonic reforms and still existed as municipal administrative units in 1911. We also rely on Giustiniani (1797–1805, Volumes I–X) to identify the proto-industrial nature of a municipality in 1797, and construct a dummy variable taking a value of one for municipalities that were characterized by first-form of manufacturing activity in 1797, and a value of zero otherwise. We capture the infrastructural dimension through two proxies: first, we rely on McCormick et al. (2013) and consider the distance between a municipality and the closest ancient Roman road; second, we have digitalized the network of postal roads existing in 1804 as depicted in the map *Carta delle stazioni militari in Italia* realized by the Ministry of War of the Napoleonic Republic of Italy, and consider the distance between a municipality and the closest postal road. As shown in Table B5 (Appendix B), we do not find a statistically significant correlation between economic and infrastructural characteristics and the probability of being selected as district capital in 1806. By contrast, we find a negative and statistically significant association between a municipality's distance to its district's centroid and the probability of being selected as the district capital in 1806.

As a second exercise, we focus on the *Strada Regia delle Calabrie* as a case study. In the second half of the eighteenth century, the road system in the Kingdom of Naples was in a state of significant disrepair, both in terms of long-distance routes and local connections between small towns, particularly in inland areas. In most cases, the road network consisted of paths unsuitable for wheeled transport. Furthermore, the region's challenging orography, the minimal investments made in road maintenance over previous centuries, and the pervasive phenomenon of brigandage—making any infrastructural projects in the Kingdom both complex and costly—hindered the development of a modern road system in southern Italy. Many geographical areas and towns in the Kingdom remained completely isolated, especially during the winter months.

As a result, in 1778, King Ferdinand IV of Bourbon initiated the construction of the *Strada Regia delle Calabrie*, that is, a 280-mile rolling road designed to connect Naples with *Reggio Calabria*, the southernmost city in the Kingdom of Naples, via the provinces of *Basilicata*, *Calabria Citeriore*, and *Calabria Ulteriore* (Esposito 2021).[46] By 1791, the section from *Casalbuono* to *Lagonegro* had been completed, including the construction of around fifty bridges of varying sizes.[47] This road, designed according to the most modern construction

[46] In the late eighteenth and early nineteenth centuries, the *Strada Regia delle Calabrie* was frequented by distinguished travelers who left behind detailed descriptions of the landscapes they encountered during their journeys. Notable examples include the British writer Henry Swinburne's tour in 1777–1778 and the Neapolitan economist, historian, and politician Giuseppe Maria Galanti's 1792 journey, documented in his volume *Giornale di viaggio in Calabria*.

[47] Most of these bridges were made of wood to make the route passable in the shortest possible time.

techniques of that time, and allowing the transit of wheeled vehicles such as carriages or wagons for transporting goods, was certainly the most important infrastructure investment made during the Bourbon rule. This followed centuries during which resources allocated to the construction, improvement, or maintenance of the road system in southern Italy were very limited.[48]

This vital infrastructure, which crossed a large portion of the Kingdom of Naples from north to south, may have influenced the selection of district capitals. Cities located closer to the *Strada Regia delle Calabrie* likely benefited from better integration into the Kingdom's road network, resulting in greater accessibility. To investigate this, we empirically examine whether proximity to this major transport infrastructure influenced the selection of district capitals by Napoleonic authorities in 1806. We do this by comparing municipalities located within one-day's travel from the *Strada Regia delle Calabrie* to those situated between one- and two-days' travel away. We rely on digital cartographic data provided by Esposito (2021), who reconstructed the itinerary of the postal road by geo-referencing the information contained in the *Atlante Geografico del Regno di Napoli* produced between the late eighteenth and early nineteenth centuries by the Paduan cartographer Giovanni Antonio Rizzi Zannoni. We construct a dummy variable taking a value of one for municipalities located within one travel day — defined as the distance a horse was able to travel in one day, that is, 18.5185 km (Esposito, 2021) — from the closest point on the *Strada Regia delle Calabrie*, and a value of zero for municipalities located between one and two travel days.

First, as shown in Table B6 (Appendix B), we do not find statistically significant differences between these two types of municipalities with respect to geographical, economic, and infrastructural characteristics. Second, as shown in Table B7 (Appendix B), we find no evidence that a greater proximity to the *Strada Regia delle Calabrie* has influenced a municipality's probability of being selected as district capital in 1806. Third, we also corroborate the previous findings as we find a negative and statistically significant association between a municipality's distance to its district's centroid and the probability of being selected as the district capital in 1806. In other words, we demonstrate that spatial centrality, rather than road network accessibility, was the primary selection criterion adopted by Napoleonic authorities in 1806.

Historical evidence supporting the primacy of spatial centrality over accessibility in the selection of district capitals in 1806 is also evident in the numerous petitions submitted by Intendants and Sub-Intendants to the central institutions of the Kingdom of Naples between 1807 and 1818.[49] The main objective of these petitions was to request a revision of the administrative geography established in 1806, advocating for less reliance on "crude geographical data" and instead considering the actual accessibility of district capitals (Spagnoletti 1990, p. 86, our translation). Indeed, the arrival of Intendants and Sub-Intendants in their designed provinces and districts facilitated the gathering of new information about the geographical characteristics and internal road networks of the territories under their governance (Spagnoletti 1990). For example, in January 1807 the Intendant of the province of *Terra di Lavoro* proposed relocating the district capital from *Sora* to *San Germano* — known

[48] In these centuries, sea transport was preferred, despite the increased risks posed by pirates.

[49] The primary objective of these petitions forwarded by Intendants and Sub-Intendants to the central institutions of the Kingdom of Naples between 1807 and 1818 was to request a revision of the administrative geography established in 1806 due to "the excessive approximation with which Joseph Bonaparte had planned the territorial reorganization of the Kingdom" (Spagnoletti 1990, p. 94, our translation). We present and discuss these petitions in Appendix B.

today as *Cassino* due to accessibility issues caused by poor road conditions leading to *Sora*: indeed, couriers "had to traverse the extreme corner of the district before returning to Sora" (NSA, fs. 375, our translation). As it is evident from this and other petitions submitted after 1806, the issue of accessibility grew in importance over the subsequent years. However, a Draft Revision of the administrative geography of the Kingdom of Naples dated 18 April 1810, prepared by the Ministry of the Interior, reiterated the importance of "spatial centrality," emphasizing that the district capital and the other municipalities of the district should be "as close as possible" (NSA, fs. 374, our translation).

In conclusion, all the analyses carried out in this section consistently lead to the same result: neither local elites nor economic and infrastructural conditions appear to have influenced the selection of district capitals in 1806, based on the available historical narrative and data. This finding confirms that district capitals were chosen for their spatial centrality within districts, supporting the exogeneity of the selection criterion.

4. Empirical Framework

4.1. Population Data and Estimation Sample

We assess whether the municipalities selected as district capitals in 1806 by the Napoleonic authorities gained an urban development premium—due to acquiring supra-municipal administrative functions by law and, therefore, becoming "centers of power" at the local level—by relying primarily on population data collected from a variety of sources. First, we have digitalized population data for the pre-Napoleonic period drawing from Giustiniani (1797–1805, Volumes I–X), who provides information on the number of households (the so-called *fuochi*) for the years 1648 and 1669 and on the number of inhabitants for the year 1797.[50] Following the prevailing literature (e.g., Beloch 1959; Da Molin 1990; Fusco 2009, 2011; Sakellariou 2012), we have obtained population figures for the years 1648 and 1669 by multiplying the number of households by the factor five. Second, we have digitalized population figures provided by Marzolla (1832) for the year 1828, and drawn from the *Censimento degli Antichi Stati Sardi* published in 1864 by the Italian Ministry of Agriculture, Industry and Trade (Ministero dell'Agricoltura, Industria e Commercio – MAIC) for the year 1859.[51] Finally, we have collected population figures for the period 1861–1911 from the population censuses—carried out every 10 years starting in 1861—provided by ISTAT. Overall, we have been able to collect population data covering the pre-Napoleonic years 1648,

[50] Giustiniani's *Dizionario Geografico-Ragionato del Regno di Napoli* was published in 13 volumes between 1797 and 1816. The first 10 volumes provide information on individual populated settlements of continental southern Italy in alphabetical order; for each place, Giustiniani traces its historical profile within a standardized scheme, the legal-administrative status, and the main features of its territory, economy, and demography. The last three volumes provide information on natural features (e.g., rivers, mountains, and volcanos) of the Kingdom of Naples. Giustiniani's dictionary represents a standard source to study the population dynamics of southern Italy in the pre-unification period. Indeed, the population data reported in his dictionary have been included, among others, in the long-term statistical reconstructions of the Italian population by Beloch (1994) and those of the population of Italian cities and provinces for the period 1300–1800 by Malanima (1998); more recently, they have been used by Lecce, Ogliari, and Orlando (2022) to study Italy's state formation.

[51] The *Censimento degli Antichi Stati Sardi* provides municipality-level data for each pre-unification state.

1669, and 1797; the Bourbonic years 1828 and 1859; and the post-Italian unification years 1861, 1871, 1881, 1901, and 1911.[52]

We have identified the estimation sample in order to compare municipalities selected as district capitals in 1806 by the Napoleonic authorities (constituting our treatment group) with municipalities without supra-municipal administrative functions (constituting our control group). To this aim, we have considered the following criteria: first, we have excluded all municipalities that have been provincial capitals from the sixteenth century until 1911 even for a short period of time; second, we have excluded all municipalities that have been the seat of *governo* during the Napoleonic period, and/or *circondario* under the Bourbons, and/or *mandamento* in the Kingdom of Italy even for a short period of time; third, we have excluded all municipalities that have been district capitals only for a period of time between 1806 and 1911.[53] Therefore, we have identified as treated units only those municipalities that were selected as district capitals by Law No. 132 of 8 August 1806 and maintained their status uninterruptedly until 1911; by contrast, we have identified as control units those municipalities that have never been selected as capital cities at any geographical-administrative level and, thus, have never been endowed with supra-municipal administrative functions by law over the entire period considered. The rationale behind these criteria for selecting the estimation sample is to compare only those municipalities that became district capitals as a result of the 1806 reform and maintained this status uninterruptedly during the period 1806–1911 with those that never received supra-municipal administrative functions during the same period, provided that both groups of municipalities were not capital cities and did not have supra-municipal functions prior to the 1806 reform.[54] Finally, we have excluded all municipalities for which we have not been able to reconstruct population figures over the entire period 1648–1911.[55]

Considering the abovementioned criteria and population data availability, our estimation sample includes 15 treated and 959 control municipalities, which are mapped in Figure 3.[56]

[52] We do not have data available for the year 1891 because no census was carried out due to financial difficulties of the Kingdom of Italy (Ciccarelli and Fenoaltea 2013).

[53] We have identified the municipalities to be included in the estimation sample based on laws, decrees, and atlases (Giustiniani 1797–1805, Volumes I–X; Marzolla 1832; De Sanctis 1840) of the Napoleonic, Bourbonic, and Kingdom of Italy periods. We have also excluded from the estimation sample the municipalities that belonged to the Principality of *Pontecorvo* and the Principality of *Benevento*, two satellite states of the French Empire established in 1806 and located within the Kingdom of Naples, as they were enclaves of the Papal States before and after the Napoleonic occupation.

[54] These criteria allow us to exploit the selection of district capitals in 1806 as an exogenous shock, while eliminating any possible confounding effect arising from the fact that some municipalities: already had the status of provincial capital before the 1806 reform and/or became provincial capitals between 1806 and 1911; received (minimal) judicial functions between 1806 and 1911 by becoming capitals of *governo*, and/or *circondario*, and/or *mandamento*; underwent changes in administrative status between 1806 and 1911.

[55] Table C1 (Appendix C) summarizes the cleaning procedure we implemented starting from the sample of 1,768 municipalities identified in Table B1 (Appendix B). Table C2 (Appendix C) reports evidence on mean differences between the municipalities included in the estimation sample and those excluded due to missing population data with respect to some geographical characteristics.

[56] Table C3 (Appendix C) lists the 15 treated municipalities that were selected as district capitals in 1806 by the Napoleonic authorities, maintained their status unchanged until 1911, and for which population figures are available for the entire period 1648–1911. It lists also two municipalities—that is, *Sala* (corresponding to the modern *Sala Consilina*) and *Castellammare* (corresponding to the modern *Castellammare di Stabia*)—for which we have not been able to reconstruct pre-1806 population figures due to data unavailability. However, these two municipalities were eligible for inclusion in the estimation sample as they were selected as district capitals in 1806 and maintained their status unchanged until 1911.

4.2. Empirical Modeling

We evaluate whether district capitals gained an urban development premium compared with non-capital municipalities through the following difference-in-differences (DID) specification:

$$Population_{mdpt} = \alpha + \beta District\ Capital_{mdpt} + \gamma_m + \delta_t + \zeta Distance^{p}_{mdpt} + \theta \boldsymbol{X}_{mdp} \times \delta_t + \vartheta \boldsymbol{X}_{pt} + \mu_d + \nu_d + \varepsilon_{mdpt} \quad (1)$$

where $Population_{mdpt}$ denotes the population (in thousand inhabitants) of municipality m located in district d within province p in year t; $District\ Capital_{mdpt}$ denotes the treatment dummy variable which takes a value of zero for the control municipalities over the entire observation period 1648–1911 and for the treated municipalities in the pre-Napoleonic observation years 1648, 1669, and 1797, while a value of one for the treated municipalities over the observation period 1828–1911; γ_m and δ_t capture municipality and year fixed effects (FE), respectively; $Distance^{p}_{mdpt}$ denotes the yearly-specific distance between a municipality and the own provincial capital city to control for proximity to the seat of the reference Intendancy/Prefecture; $\boldsymbol{X}_{mdp}$ is a vector of geographical and historical municipality-level controls interacted with year FEs (δ_t); $\boldsymbol{X}_{pt}$ is a vector of province-level controls; μ_d denotes a time trend at the Bourbonic district level (defined as for districts in 1828); ν_d denotes a time trend at the Kingdom of Italy district level; and ε_{mdpt} is the error term.[57]

The vector $\boldsymbol{X}_{mdp}$ of time-invariant municipality-level controls includes both geographical and historical (pre-1806) variables that enter Equation (1) interacted with year dummies. The set of geographical controls includes: a within-district centrality measure defined as the average pairwise distance among the municipalities belonging to a district in the year 1806 to control for a municipality's geographical centrality within a district, being "spatial centrality" the criterion adopted by the Napoleonic authorities to select district capitals; a dummy variable for coastal municipalities; land surface; altitude; latitude; and an index of terrain ruggedness.[58] The set of historical controls includes: a dummy variable for state-owned (i.e., non-feudal) municipalities in 1797 to control for heterogeneity related to fiscal, commercial, and administrative prerogatives granted to such cities by the King (Borghi and Masciandaro 2023); two dummy variables for municipalities that were the seat of a bishop or an archbishop in 1797, respectively, to control for the presence of first forms of political and institutional organization and coordination (Guiso, Sapienza, and Zingales 2016); a dummy variable for princedom municipalities in 1797 to control for the strength of the aristocracy (Guiso, Sapienza, and Zingales 2016); a dummy variable for municipalities hit by the plague in 1658 to control for heterogeneity related to an exogenous shock that could have affected city size (Fusco 2007); a dummy variable capturing whether a municipality recorded a population of at least 5,000 inhabitants in the period 1300–1500 to control for the early

[57] The variable capturing the distance between a municipality and the own provincial capital varies by observation year because, as discussed previously and highlighted in Appendix A, some provinces experienced a reallocation of their provincial capital also due to the creation of new provinces during the observation period, such that each municipality's reference provincial capital could have changed over time.

[58] We have calculated the within-district centrality measure by considering all the municipalities belonging to a district even if excluded from the estimation sample. In other words, we have calculated this variable considering also those municipalities that have been provincial capitals, district capitals for a short period of time, seat of *governo*, and/or *circondario*, and/or *mandamento*, and with unavailable population data.

presence of a large city (Bosker, Buringh, and van Zanden 2013); a variable capturing the distance between a municipality and the closest ancient Roman road to control for proximity to ancient commercial routes that could have favored the growth of a city as a main trading, political, and administrative center (Oto-Peralías and Romero-Ávila 2017); and a variable capturing municipalities' exposure to earthquakes in the period 1005–1805 to control for systematic environmental risks that could not only have caused exogenous variations in city size but also increased the power and political strength of religious orders (Belloc, Drago, and Galbiati 2016).[59] The vector $\boldsymbol{X}_{pt}$ of province-level controls includes two time-varying variables: the share of a province's population to the total population of the Kingdom of Naples to control for the relative size of provinces; and the density of the provincial railway network to control for the development of transport and communication infrastructures.[60]

Although the inclusion of municipality FEs captures any time-invariant characteristic, such as geographical and pre-treatment (historical) features, controlling for their potential time-varying effects helps us relaxing potential biases related to unobserved heterogeneity and omitted variables (Li, Lu, and Wang 2016; Bo 2020). Moreover, the inclusion of Bourbonic and Kingdom of Italy district-specific time trends allows us controlling for development paths that were specific to the district to which the municipalities belong and that could have influenced their population dynamics. In addition, accounting for district-specific time trends helps us reducing any potential correlation existing between omitted variables and the expansion or rearrangement of borders that some of the districts included in the analysis have experienced over the observation period (Campante and Do 2014).

4.3. Identification Strategy

Despite Equation (1) includes a large number of FEs and controls, our estimates could still be biased by unobservable factors that are not accounted for and that can be correlated simultaneously with the timing and the outcome of the 1806 Napoleonic reform—for example, a higher population growth potential characterizing district capitals compared with non-capital cities before 1806. Indeed, the reliability of our estimates relies on a standard parallel trend assumption, which requires the treated and control units experiencing the same pattern in the outcome variable, conditional on observables, in the absence of the shocking event. In our case, the identification assumption requires that municipalities in the treatment and control groups would have experienced the same population dynamics if the Napoleonic authorities had not instituted the districts and selected—and, thus, attributed supra-municipal functions to—district capitals in 1806.

We test whether differential trends existed before the implementation of the 1806 reform by relying on a more flexible specification of Equation (1) that accounts for a set of yearly treatment effects (Angrist and Pischke 2008). This allows us to test for the direction of causality by checking for anticipatory effects in the period before the implementation of the Napoleonic reform. Moreover, such a flexible specification allows us to assess the time-

[59] The variable capturing exposure to earthquakes is computed as the number of earthquakes weighted by their intensity—normalized in the interval [0, 1]—and scaled by the distance to the epicenter. As suggested by Belloc, Drago, and Galbiati (2016, p. 1875), "earthquakes … represented a shock to people's religious beliefs and … enhanced the ability of political-religious leaders to restore social order after a crisis."

[60] We provide a summary of these variables and report their definition, data source, descriptive statistics, and correlation matrices in Appendix D.

varying effect of the Napoleonic reform on urban development over the entire post-reform period. We modify Equation (1) according to an event study approach as follows:

$$Population_{mdpt} = \alpha + \sum_{h=1}^{H} \pi_{\omega-h} District\ Capital_{mdpt}^{\omega-h} + \sum_{l=1}^{L} \pi_{\omega+l} District\ Capital\ {}_{mdpt}^{\omega+l} + \gamma_m + \delta_t + + \zeta Distance_{mdpt}^{p} + \theta \boldsymbol{X}_{mdp} \times \delta_t + \vartheta \boldsymbol{X}_{pt} + \mu_d + \nu_d + \varepsilon_{mdpt} \quad (2)$$

which includes a set of lead dummy variables ($District\ Capital_{mdpt}^{\omega-h}$) referring to the available pre-1806 observation years $h = 1648, 1669, 1797$, with ω denoting the implementation year of the Napoleonic reform, and a set of lag dummy variables ($District\ Capital_{mdpt}^{\omega+l}$) referring to each post-1806 available observation year l starting from 1828. Therefore, we expect $\pi_{\omega-h} = 0$ for all h if the parallel trend assumption holds prior to the implementation of the Napoleonic reform in 1806. We estimate Equation (2) by specifying the lead dummy variable referring to the year 1797 as the reference category.

A second requirement of our identification strategy concerns the absence of spillover effects between the treated and control municipalities. Indeed, Equation (1) allows us to assess whether the Napoleonic reform has induced an urban development premium for district capitals compared with non-capital municipalities under the assumption that the reform had neutral effects on the latter type of municipality. However, such an urban development premium could be the result of a mere reallocation effect if the reform simply acted as a "pushing force" inducing a migration of people from neighboring non-capital cities towards the district capital. In other words, evidence of spatial spillovers between a treated municipality and the neighboring control municipalities would imply a reallocation effect rather than an urban development effect of the Napoleonic reform (Bo 2020). We test whether spatial spillovers are in place in two ways. First, we estimate Equation (1) by excluding either the three neighboring control municipalities closest to a district capital, or the neighboring municipalities located within distance ϕ from a district capital, with $\phi = 15, 25, 50$ km, from the estimation sample. Second, we modify Equation (1) as follows:

$$Population_{mdpt} = \alpha + \beta District\ Capital_{mdpt} + \rho Neighbors_{mdpt} + \gamma_m + \delta_t + \zeta Distance_{mdpt}^{p} + \theta \boldsymbol{X}_{mdp} \times \delta_t + \vartheta \boldsymbol{X}_{pt} + \mu_d + \nu_d + \varepsilon_{mdpt} \quad (3)$$

where $Neighbors_{mdpt}$ denotes a binary variable referring to either the three neighboring control municipalities closest to a district capital, or those located within distance ϕ from a district capital. This alternative specification also allows us assessing whether the 1806 reform had indeed neutral effects on district capitals' neighboring municipalities. The parameter ρ captures the spillover effect, such that we expect no spatial spillovers to be in place if $\rho = 0$.

5. Empirical Results on Urban Development

5.1. Baseline Results and Identification

Table 1 reports the results of the estimation of Equation (1) with FEs, district time trends, and control variables included in the empirical specification according to a stepwise procedure. Looking at column (6), we estimate an average urban development premium of approximately

2,000 inhabitants for district capitals compared with non-capital cities: this premium corresponds to a 92.43% population increase, given a sample average population of approximately 2,128 inhabitants.

Figure 4 reports the results of the estimation of Equation (2). On the one hand, the coefficients referring to the pre-Napoleonic reform period are not statistically significant, and the 1669 coefficient is virtually equal to zero.[61] This result suggests that the parallel trend assumption holds, such that we can construe the results reported in Table 1 consistently with a causal interpretation. On the other hand, we find evidence of a post-Napoleonic reform population dynamics that is coherent with the historical narrative previously presented. First, Figure 4 highlights a higher urban development premium for district capitals compared with non-capital cities after the approval of the Lanza Law by the Italian Parliament in 1865 with respect to the Bourbonic period. Indeed, while the Bourbonic ruler did not make any substantial change to the functions and powers assigned to the Sub-Intendant from the Napoleonic regulations, the Lanza Law assigned more functions and powers to the Sub-Prefect, thus increasing the relative importance of district capitals in the territorial administrative hierarchy of the Kingdom of Italy. Second, it is worth noting how the annexation of the Kingdom of the Two Sicilies to the Kingdom of Italy occurred in 1861 caused a slowdown in district capitals' urban development dynamics. This is possibly due to a climate of institutional uncertainty emerged during the unification process as well as the increased phenomenon of brigandage and armed opposition from Bourbon officials that occurred in the first decade after unification (Pinto 2019).[62]

We now present the results concerning our second identifying assumption—that is, the existence of spillover effects between the treated and control municipalities. As shown in Table 2, we do not find evidence of spillover effects and, in particular, the variables for neighboring control municipalities show negligible estimated coefficients. Moreover, the results confirm our main evidence of an average urban development premium of approximately 2,000 inhabitants for district capitals compared with non-capital cities. In other words, we find evidence that the 1806 Napoleonic reform had a growth effect for district

[61] Table E1 (Appendix E) reports the year-specific coefficients presented graphically in Figure 4.

[62] We further investigate the dynamics highlighted in Figure 4 by assessing the urban development premium of district capitals during the Bourbonic and the Kingdom of Italy periods separately. We consider two period-specific treatment dummy variables: one referring to the Bourbonic period (observation years 1828 and 1859) and the pre-Lanza Law Kingdom of Italy period (observation year 1861); the other one referring to the post-Lanza Law Kingdom of Italy period (observation years 1871–1911). The results of this exercise are reported in Table E2 (Appendix E): we find a relatively higher urban development premium for district capitals compared with non-capital cities during the post-Lanza Law period with respect to the Bourbonic and pre-Lanza Law period. In other words, the 1865 law that defined the administrative skeleton of the Kingdom of Italy, by attributing more functions and powers to the Sub-Prefects, further accentuated an already existing duality between district capitals and non-capital cities in the Italian *Mezzogiorno* that originated from the 1806 Napoleonic administrative reform.

capitals, rather than a mere reallocation effect between the treated and the neighboring control municipalities.[63]

5.2. Robustness and Placebo Analyses

We corroborate our results through a series of robustness and placebo exercises, as well as by providing more suggestive evidence to disentangle the population effects of being a district capital city from those (potentially) related to the geographical centrality of district capitals. We discuss in detail these exercises, and present the results, in Appendix E.[64]

6. Evidence on Industrial Development

We now move from the analysis of urban development captured by population dynamics over the period 1648–1911 to the analysis of industrial development in the late Bourbonic period and in the Kingdom of Italy period.

We provide evidence on industrial development in the Bourbonic period by looking at "industrial cities" in the 1850s. We use digitalized information drawn from Petrocchi (1955) and Mangone (1976) and consider as "industrialized" those municipalities identified by both authors as centers of production and manufacturing activity in the period 1850–1860.[65] We proxy for industrial development in the Kingdom of Italy period through employment in 1911 (relative to municipal population in 1911), with data on total, industrial, and services employment digitalized from the *Censimento degli Opifici e delle Imprese Industriali al 10 Giugno 1911* published by MAIC in 1913.[66] We rely on a cross-sectional regression framework, and estimate the following general-form equation:

$$Y_{mdpc} = \alpha + \beta District\ Capital_{mdpc} + \gamma \boldsymbol{X}_{mdpc} + \delta \boldsymbol{X}_{pc} + \zeta_c + \varepsilon_{mdpc} \quad (4)$$

where Y_{mdpc} denotes the dependent variable for industrial development in municipality *m* located in district *d* within province *p* and *compartimento c*—that is, a geographical macro-region instituted in 1861 and used mostly in official publications of the newborn state (e.g., population census) for statistical purposes; thus, the dependent variable can be either the dummy for "industrial city" in the period 1850–1860 or the number of (total, industrial, services) employees per inhabitant in 1911. The variable $District\ Capital_{mdpc}$ denotes the

[63] We complement the analysis presented in Table 2 by also relying on migration data referring to the post-Napoleonic reform year 1814. We discuss this exercise in Appendix E, and present the results in Table E3. We find evidence of an immigration rate premium for district capitals compared with non-capital cities, while we do not find differences in terms of emigration rate between capital and non-capital municipalities; we also do not find evidence of spillover effects. Overall, these evidences suggest that district capitals were attracting more new residents than non-capital cities but, at the same time, neighboring non-capital cities were not experiencing an out-migration process in favor of district capitals. This also corroborates our main results of an urban development premium gained by district capitals compared to non-capital cities after the implementation of the 1806 administrative reform.

[64] In particular, we discuss the choice of studying urban development through population growth in Appendix E, where we also present the results of a robustness exercise using population density as the dependent variable (Table E4).

[65] Petrocchi (1955) and Mangone (1976) describe the main production centers and industrial activities of the Kingdom of Naples in the period 1850–1860.

[66] The *Censimento degli Opifici e delle Imprese Industriali al 10 Giugno 1911* was the first industrial census carried out by the Kingdom of Italy.

treatment assignment, as before. The vector $\boldsymbol{X}_{mdpc}$ consists of municipality-level control variables and—depending on the output variable and, thus, period-specific data availability—includes: population density and population growth with respect to the pre-Napoleonic reform year 1797 to control for city size and growth dynamics; coastal feature; land surface; altitude; terrain ruggedness; latitude; and distance to the own provincial capital city to control for proximity to the seat of the Intendancy/Prefecture of reference. The vector $\boldsymbol{X}_{pc}$ consists of province-level control variables and—depending on the output variable and, thus, period-specific data availability—includes: the share of a province's population to the total population in the Kingdom of Naples' territory to control for the relative size of a province; the density of the railway network to control for the development of transportation and communication infrastructures; and the rate of literate adult population to control for human capital development. The term ζ_c denotes a set of *compartimento* dummies defined for the year 1871 and included only in the regression models for industrial development in 1911.[67] Finally, ε_{mdpc} is the error term.[68]

We estimate Equation (4), depending on the nature of the dependent variable, via Probit, Linear Probability Model (LPM), and OLS. The results, reported in Table 3, suggest an industrial development premium of district capitals over non-capital cities both before and after the Italian unification. Looking at the Bourbonic period, we estimate that district capitals were approximately 24% more likely to be industrial cities than non-capital cities see columns (3) and (4). This suggests that the 1806 Napoleonic reform induced a (long-lasting) process of economic divergence between district capitals and non-capital cities, thus facilitating heterogeneity in the industrial development path of the Italian *Mezzogiorno*. We confirm this evidence when looking at the post-1865 Lanza Law period and proxying industrial development with total, industrial, and services employment in 1911. As shown in columns (5) to (7), we find that district capitals had approximately 30 employees per 1,000 inhabitants more than non-capital cities, and that this result is driven by industrial rather than services employment.[69]

Overall, this analysis confirms the previous results on urban development: district capitals, by becoming "centers of power" and seats of administrative functions at the local level, experienced a higher development path—still observable about a century after the 1806 Napoleonic reform—relative to non-capital municipalities.[70]

[67] Despite the *compartimento* was instituted in 1861, the original configuration had only one macro-region—called *Provincie Napoletane*—for the territories of the former Kingdom of Naples. This unique *compartimento* was divided into five regions—*Abruzzi e Molise*, *Campania*, *Puglie*, *Basilicata*, and *Calabrie*—only in 1871 (ISTAT 2018).

[68] We provide a summary of these variables and report their definition, data source, and descriptive statistics in Appendix F.

[69] The sample mean values for total, industrial, and services employment per inhabitant are equal to 0.0198, 0.0196, and 0.0002, respectively.

[70] We confirm the evidence presented in Table 3 when relying on an instrumental variable (IV) approach to deal with potential selection and omitted variable biases as well as when clustering standard errors at the district level—see Appendix G.

7. Underlying Mechanisms

We now discuss and test empirically two potential mechanisms that may help explaining the relationship between administrative hierarchy and development, namely public goods provision and transport network accessibility.

The first mechanism explaining the development premium enjoyed by district capitals concerns the provision of public goods (Campante and Do 2014; Becker, Heblich, and Sturm 2021; Chambru, Henry, and Marx 2024). District capitals experienced the arrival of civil servants, officials, policemen, and soldiers and this may have reasonably induced an increase in the demand for local public goods (e.g., schools, infrastructures) with positive externalities benefitting the local population and translating into greater industrial development.

The second mechanism concerns transport network accessibility. As previously highlighted, the geographical-administrative organization envisaged by the Napoleonic reform was based on a multi-level transmission system of legal information, administrative procedures, political acts, regulations, and laws in which district capitals acted as key "nodes" of connection between the provincial capital of reference and the peripheral municipalities. Therefore, it was essential for district capitals to be connected to the transport network. We can reasonably hypothesize that greater accessibility has contributed to urban development in general, and to the development of production activities in particular, thus facilitating the industrialization process in district capitals.

We capture public goods provision during the Bourbonic period through two different variables: first, the establishment of a hospital in the period 1832–1845, with data drawn from the *Annali Civili del Regno delle Due Sicilie* published in 1857 by the Ministry of the Interior of the Kingdom of Naples; second, the presence of a secondary school in 1839, with data drawn from Serristori (1839).[71]

We capture public goods provision in the post-unification period through two main sets of variables concerning kindergartens in 1869 and municipal expenses in 1884. The rationale for this relies on the distinction between compulsory and discretionary expenses provided by Title II of the 1859 Rattazzi Law that was later implemented in the annexed territories of the Italian *Mezzogiorno* with the approval of the 1865 Lanza Law, which slightly increased the

[71] As highlighted by Lupo, Gargano, and Marra (2014), the presence of a secondary school which, quite often, was an agricultural school was the expression of a municipality's will. Municipal authorities were free to establish a secondary school according to municipal needs; they also had to finance it, and include such expenses in the municipal budget.

number of municipal compulsory expenses (Articles 115 to 117).[72] We consider discretionary expenses as a proxy for a municipality's attention to local community needs and, thus, for public goods provision.

Interestingly, while primary education was made compulsory in the Kingdom of Italy with Royal Decree No. 347 of 28 November 1861—that extended the Casati Law of 13 November 1859 to the annexed territories—and, therefore, was listed among municipalities' compulsory expenses, public education at lower (e.g., kindergartens) and higher (e.g., industry schools, commercial schools, classical and technical secondary education) levels was not mandatory and, therefore, was listed among municipalities' discretionary expenses. We thus capture public goods provision by, first, relying on information on the presence of a kindergarten in 1869 and the number of pupils enrolled (relative to municipal population in 1861), with data digitalized from the *Statistica del Regno d'Italia: Gli Asili Infantili nel 1869* published by the Italian Directorate General of Statistics in 1870.

Second, we test for public goods provision by relying on municipality-level balance sheet data digitalized from the *Bilanci Comunali per l'Anno 1884* published by MAIC in 1887. This source provides information on total revenues, while more disaggregated information on the expenditure side, namely compulsory and discretionary expenses aggregated with respect to three main categories: public education; public infrastructures; and other expenses. We construct different dependent variables based on balance sheet data: total (compulsory plus discretionary) expenses per inhabitant; discretionary expenses per inhabitant; share of discretionary expenses to total expenses; share of discretionary expenses to total expenses in public education; and share of discretionary expenses to total expenses in public infrastructures.[73]

Concerning the second mechanism, we proxy for transport network accessibility through train station endowment in 1873. We have digitalized information on active train stations existing in 1873 drawn from the third edition of the *Dizionario dei Comuni del Regno d'Italia* published by the Italian Ministry of the Interior in 1874. We thus consider a binary dependent

[72] As for Title II of the Rattazzi Law, compulsory expenses assigned to municipalities by law included the payment of salaries to municipal employees; primary education; the maintenance of municipal roads and public squares; the collection of municipal taxes; the preservation of municipal properties; and the management of cemeteries. Discretionary expenses were grouped into a series of expenditure categories, namely: public administration (the payment of an allowance to the mayor, the payment of subsidies to civil servants, their widows and their orphans); local police and hygiene (public healthcare, public lighting, expenses for the slaughterhouse and dog catching); public security and justice (payment and accommodation for firefighters); public infrastructures (beautification of streets and squares, maintenance of gardens, construction of canals and aqueducts, construction of harbors on lakes and rivers, construction of slaughterhouses, construction and maintenance of markets); public education (kindergartens, evening and festive schools for adults, schools for blind and deaf-mute people, industrial schools, commercial schools, vocational schools, elementary schools beyond the number prescribed by law, expenditure on museums and libraries, expenditure on classical and technical secondary education); worship; charity (orphanages, nursing homes, funeral transport and coffins for the poor); and other miscellaneous expenses (the purchase of instruments for the town band, theatre endowments).

[73] Per capita variables are based on 1881 population census figures.

variable taking a value of one whether a municipality was endowed with a train station in 1873, and a value of zero otherwise.[74]

We test for public goods provision and transport network accessibility in a cross-sectional regression framework similar to that of Equation (4) and rely on Probit, LPM, and OLS estimation approaches.[75]

We start presenting the results concerning public goods provision. First, the LPM estimates on the establishment of a hospital in the period 1832–1845 suggest, as shown in column (2) in Table 4, that district capitals were approximately 26% more likely to be endowed with a hospital than non-capital cities. Second, as shown in column (4), we find that district capitals were approximately 28% more likely to be endowed with a secondary school than non-capital cities. Third, the LPM results on kindergartens in 1869 suggest that district capitals were approximately 55% more likely to provide the local population with a kindergarten. Moreover, district capitals had approximately 3 pupils enrolled in kindergartens per 1,000 inhabitants more than municipalities in the control group. Fourth, the results on 1884 municipal expenses suggest that district capitals tended to spend more in discretionary expenses compared with non-capital cities. We do not find evidence of statistically significant differences in total expenses per inhabitant, while we estimate a premium for district capitals when considering discretionary expenses per inhabitant. This last result is confirmed when proxying public goods provision through the share of discretionary expenses relative to total expenses as well as when disentangling public education and public infrastructure expenses.

Columns (13) and (14) in Table 4 reports the results concerning transport network accessibility. Looking at column (14), we estimate that district capitals, at a time when the process of construction of the railway network was still underway, were approximately 20% more likely to be endowed with a train station.[76]

Overall, these results suggest that district capitals tended to provide more public goods to the local population and enjoy greater connectivity compared with non-capital cities, thus making them suitable for higher urban and industrial development.

8. Long-Run Analysis

We conclude our analysis by providing more suggestive evidence on the long-term effect of the Napoleonic administrative reform on the development and economic geography of the Italian *Mezzogiorno*. Specifically, we analyze whether there is still a gap between (former) district capitals and non-capital municipalities approximately 90 years after the

[74] In the second half of the nineteenth century, the railway network was the most important and efficient transport infrastructure. In 1873, the construction of the national railway network was still in progress and started to become widespread in the Italian *Mezzogiorno* only from the 1880s as a result of the approval of the Baccarini Law in 1879, which established the opening of dozens of minor internal lines gradually filling the gaps in the early skeleton of the national network. Indeed, the Italian railway network increased from about 2,500 km in 1861 to about 18,000 km in 1911. Figure H1 (Appendix H) maps the evolution of the railway network in Italy in the period 1851–1911.

[75] We consider the same sets of municipal and provincial controls as for Equation (4). We control also for the provincial endowment of public primary schools in 1862 relative to the Kingdom of Naples' territory in the regression models for kindergartens in 1869. We control also for total expenses over total revenues in 1884 in the regression models for municipalities' expenses in 1884. We provide a summary of the variables considered and report their definition, data source, and descriptive statistics in Appendix H.

[76] We confirm the evidence presented in Table 4 when relying on an IV approach as well as when clustering standard errors at the district level—see Appendix I.

abolition of the administrative unit of the district, which occurred in 1927 under the Fascist regime.[77]

We estimate the following general-form cross-sectional equation:

$$Y_{mr} = \alpha + \beta District\ Capital_{mr} + \gamma \boldsymbol{X}_{mr} + \zeta_r + \varepsilon_{mr} \quad (5)$$

and consider a battery of current dependent variables (Y_{mr}) for municipality m located in region r, namely: the yearly average growth of population in the period 1797–2011; population density in 2011; agglomeration defined as employment per square km in 2011; employment per inhabitants in 2011; the share of tertiary-educated population in 2011; the share of illiterate population in 2011; income (in thousand Euros) per taxpayer in 2010; and firms' labor productivity defined as value added (in thousand Euros) per worker in 2015.[78] The variable $District\ Capital_{mr}$ denotes the treatment assignment. The vector $\boldsymbol{X}_{mr}$ of municipality-level controls includes: coastal feature; land surface; altitude; terrain ruggedness; latitude; and distance to the own regional capital city. We also control for population in 1797 when analyzing population growth in the period 1797–2011. The term ζ_r denotes a set of region dummies.[79] Finally, ε_{mr} denotes the error term.[80]

We estimate Equation (5) via OLS and present the results in Table 5: in the upper panel, we report evidence on the whole estimation sample (i.e., 974 municipalities); in the bottom panel, we report evidence based on a reduced sample which excludes four municipalities that became provincial capital after 1911, namely *Taranto* (since 1923), *Pescara* (since 1927), *Isernia* (since 1970), and *Barletta* (since 2009). The results suggest that former district capitals still show a premium in terms of urban development as well as human capital endowment, wealth, and economic performance compared with non-capital municipalities, even decades after the abolition of the district administrative unit and, therefore, after losing their status.[81]

These results suggest clearly that the Napoleonic reform represented a structural change for the urban and economic geography of southern Italy. Indeed, the municipalities that were selected as district capitals in 1806 embarked on an enduring development process that shows long-term effects. In other words, the administrative reform process experienced by continental southern Italy in the early nineteenth century contributed to a process of long-run

[77] Recent studies (e.g., Shertzer, Twinam, and Walsh 2018; Dell and Olken 2020; Chambru, Henry, and Marx 2024; Smith and Kulka 2024) have shown how historical institutional changes and reforms have time-persistent effects on urban and industrial development that may last for many years, even in the face of destructive shocks (such as World War II in Europe).

[78] Data on firms' labor productivity are available for 965 out of 974 municipalities included in the estimation sample.

[79] Regions are defined according to the *Nomenclature des Unités Territoriales Statistiques* (NUTS) adopted by the European Union. Regions, as new administrative units, were introduced in Italy in 1970, and over time they have acquired increasing autonomy and government powers at the sub-national level.

[80] We provide a summary of these variables and report their definition, data source, and descriptive statistics in Appendix J.

[81] We corroborate the results presented in Table 5 by also relying on an enlarged estimation sample including those municipalities we excluded from the analysis exclusively due to missing population data, namely: the municipalities of *Sala* (corresponding to the modern *Sala Consilina*) and *Castellammare* (corresponding to the modern *Castellammare di Stabia*) that were eligible treated units as they were selected as district capitals in 1806 and maintained their status unchanged until 1911; and 248 municipalities the were eligible control units. This exercise is presented in Appendix K.

territorial divergence resulting in heterogeneous development paths within the Italian *Mezzogiorno*.

9. Conclusions

We analyzed the 1806 Napoleonic administrative reform implemented in the Kingdom of Naples as a historical experiment to study how exogenous changes in the territorial administrative hierarchy of a country may have long-term consequences for urban and industrial development. In this respect, we contribute to the literature studying the state capacity building and its role in influencing development and economic geography by analyzing the long-run consequences of a radical reform "imposed from outside" by the Napoleonic authorities on the Kingdom of Naples in the first half of the nineteenth century (Croce 1925; Davis 2006). Specifically, we studied how the Napoleonic administrative reform shaped development in the Italian *Mezzogiorno* through a process of "districtualization" and the selection of certain cities in the role of district capitals. Our results reveal that municipalities that were selected as district capitals enjoyed higher and enduring urban and industrial development compared with municipalities that did not experience a status change in the country's geographical-administrative hierarchy and did not become "centers of power" at the local level. We also explained the relationship between territorial administrative hierarchy and development through two main mechanisms: public goods provision and transport network accessibility.

The evidence from the Napoleonic administrative reform process supports recent contributions that focus on how political and administrative hierarchy can shape the process of urban growth and local development (Bo 2020; Becker, Heblich, and Sturm 2021; Bai and Jia 2023; Chambru, Henry, and Marx 2024). In other words, we identified in these radical reforms a historical explanation for the processes of urbanization and local development that occurred in southern Italy and a source of growth differentials within the Italian *Mezzogiorno*.

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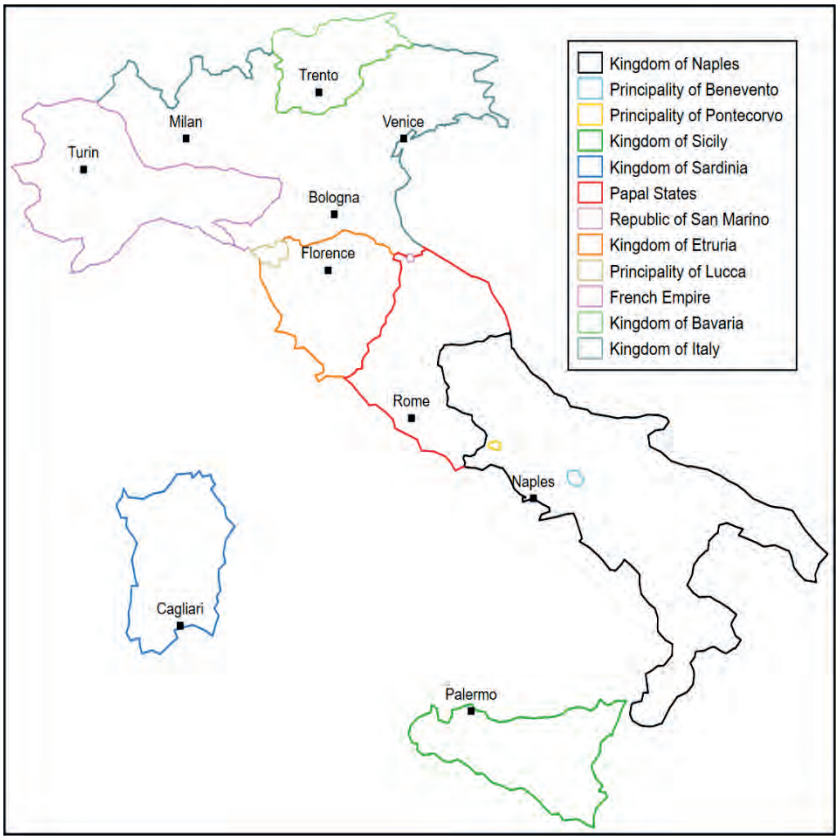
—————— (1986), "Il Decennio Francese", in Galasso, G., Romeo, R. and Mozzillo, A., *Storia del Mezzogiorno. Il Regno dagli Angioini ai Borboni*, vol. IV, no. II, Edizioni del Sole, Roma, pp. 575–639.

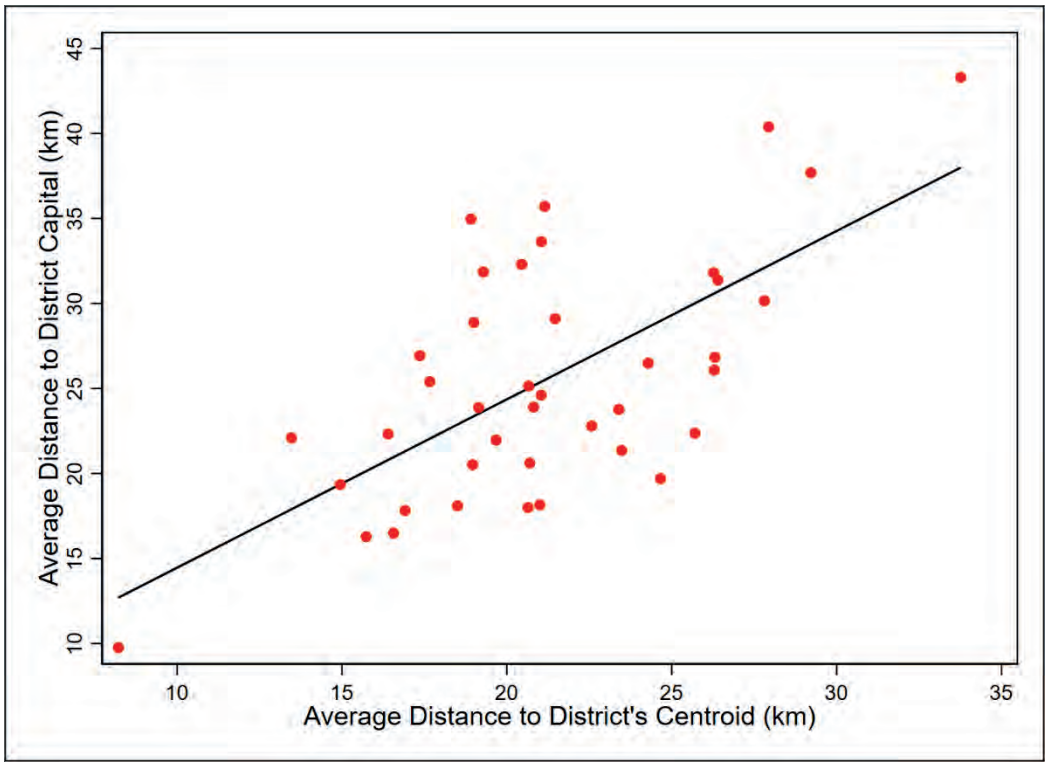
Figures and Tables

FIGURE 1: THE KINGDOM OF NAPLES AND THE OTHER ITALIAN PENINSULA'S STATES IN 1806



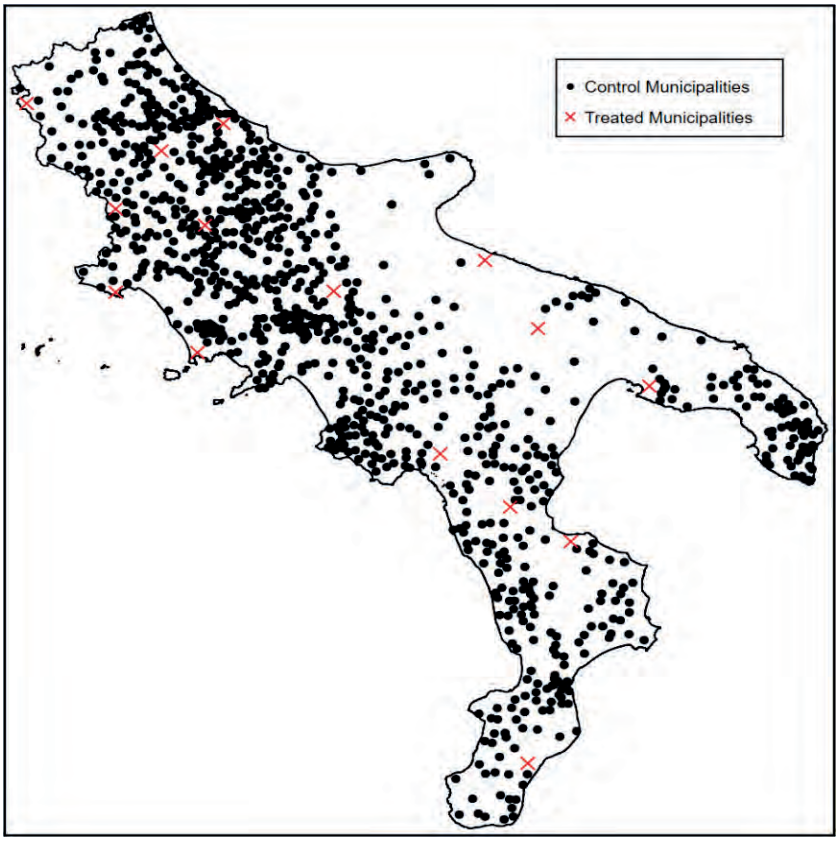
Notes: The map shows the Kingdom of Naples and the other states existing in 1806 within current Italian borders.
Sources: Authors' elaboration on digitalized cartography provided by Centennia Historical Atlas Research Edition.

FIGURE 2: DISTRICTS' CENTROID AND SPATIAL CENTRALITY OF DISTRICT CAPITALS



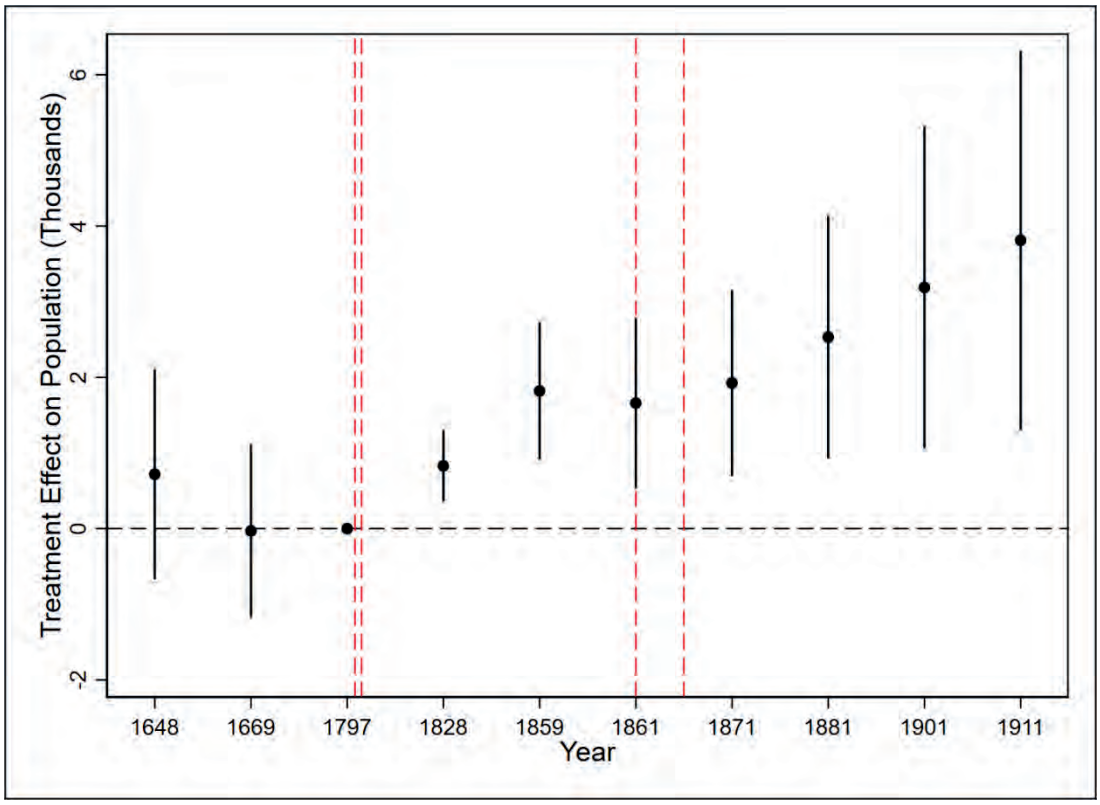
Notes: The plot shows the correlation between the average distance (of municipalities, within a district) to the centroid of the district and the average distance (of municipalities, within a district) to the district capital for the 40 districts and district capitals established by the French authorities with Law No. 132 of 8 August 1806.
Sources: Authors' elaboration on digitalized cartography provided by ISTAT.

FIGURE 3: MUNICIPALITIES INCLUDED IN THE ESTIMATION SAMPLE



Notes: The map shows the treated (cross) and control (circle) municipalities included in the estimation sample.
Sources: Authors' elaboration on digitalized cartography provided by GEO-LARHRA and ISTAT.

FIGURE 4: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: EVENT STUDY ANALYSIS



Notes: The dependent variable is population, defined in thousand inhabitants. The model includes FEs, time trends, and controls as for column (6) in Table 1. The pre-1806 Napoleonic administrative reform year 1797 is set as the reference period. Confidence intervals for lead and lag dummy variable coefficients are set at 90%. The red dashed lines refer to: the 1806 Napoleonic administrative reform; the 1816 restoration of the Bourbons; the 1861 Italian unification; and the 1865 Lanza Law.

TABLE 1: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS

Dependent Variable	Population					
Period Covered	1648–1911					
	(1)	(2)	(3)	(4)	(5)	(6)
District Capital	5.803****	4.681****	3.143***	2.784***	1.953**	1.967**
	(1.468)	(1.290)	(1.017)	(1.015)	(0.987)	(0.987)
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bourbonic District Time Trends	No	Yes	Yes	Yes	Yes	Yes
Kingdom of Italy District Time Trends	No	Yes	Yes	Yes	Yes	Yes
Municipality-Level Controls						
Distance to Own Provincial Capital City	No	No	Yes	Yes	Yes	Yes
Geographical Controls × Year FE	No	No	Yes	No	Yes	Yes
Historical Controls × Year FE	No	No	No	Yes	Yes	Yes
Province Controls	No	No	No	No	No	Yes
No. of Observations	9,740	9,740	9,740	9,740	9,740	9,740
No. of Municipalities	974	974	974	974	974	974
No. of Treated Municipalities	15	15	15	15	15	15
No. of Control Municipalities	959	959	959	959	959	959
No. of Years	10	10	10	10	10	10
R^2	0.83	0.85	0.88	0.88	0.89	0.89

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level.

TABLE 2: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: TESTING FOR SPILLOVER EFFECTS

Dependent Variable	Population							
Period Covered	1648–1911							
Estimation Sample	Excluded Control Municipalities				Whole Sample			
	Three Nearest Neighbors	Neighbors Within 15 km	Neighbors Within 25 km	Neighbors Within 50 km				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
District Capital	2.083**	2.284**	2.565***	2.907****	2.001**	2.004**	1.992**	2.060**
	(0.991)	(0.950)	(0.978)	(0.777)	(0.987)	(0.988)	(0.987)	(0.992)
Three Nearest Neighbors	…	…	…	…	0.260	…	…	…
					(0.266)			
Neighbors Within 15 km	…	…	…	…	…	0.208	…	…
						(0.133)		
Neighbors Within 25 km	…	…	…	…	…	…	0.067	…
							(0.091)	
Neighbors Within 50 km	…	…	…	…	…	…	…	0.099
								(0.094)
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bourbonic District Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Kingdom of Italy District Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality-Level Controls								
Distance to Own Provincial Capital City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographical Controls × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Historical Controls × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Observations	9,350	8,700	6,970	2,320	9,740	9,740	9,740	9,740
No. of Municipalities	935	870	697	232	974	974	974	974
No. of Treated Municipalities	15	15	15	15	15	15	15	15
No. of Control Municipalities	920	855	682	217	959	959	959	959
No. of Years	10	10	10	10	10	10	10	10
R^2	0.90	0.90	0.91	0.95	0.89	0.89	0.89	0.89

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level.

TABLE 3: INDUSTRIAL DEVELOPMENT

Dependent Variable	Industrial City in 1850–1860				Employment Per Inhabitant in 1911		
					Total	Industrial	Services
Estimation Method	Probit	Probit	LPM	LPM	OLS	OLS	OLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
District Capital	1.617****	1.541****	0.242**	0.236**	0.030**	0.027**	0.002**
	(0.408)	(0.418)	(0.110)	(0.111)	(0.012)	(0.012)	(0.001)
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1871 *Compartimento* FE	…	…	…	…	Yes	Yes	Yes
No. of Municipalities	974	974	974	974	974	974	974
No. of Treated Municipalities	15	15	15	15	15	15	15
No. of Control Municipalities	959	959	959	959	959	959	959
Pseudo-R^2	0.16	0.17	…	…	…	…	…
R^2	…	…	0.07	0.08	0.07	0.07	0.08

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the municipality level. Municipality-level controls in all specifications are coastal feature, land surface, altitude, terrain ruggedness, and latitude. Estimates on industrial development in 1850–1860: the set of municipality-level controls includes population density in 1828, population growth in 1797–1828, distance to the own provincial capital city in 1828; the set of province-level controls in columns (1) and (3) includes provincial-to-Kingdom of Naples population in 1828; the set of province-level controls in columns (2) and (4) includes provincial-to-Kingdom of Naples population in 1828, provincial railway density in 1859. Estimates on employment per inhabitant in 1911: the set of municipality-level controls includes population density in 1911, population growth in 1797–1911, distance to the own provincial capital city in 1911; the set of province-level controls includes provincial-to-Kingdom of Naples population in 1911, provincial railway density in 1911, provincial literacy rate in 1911.

TABLE 4: UNDERLYING MECHANISMS

Dependent Variable	Hospital Established in 1832–1845		Presence of a Secondary School in 1839		Kindergartens in 1869		
					Presence of a Kindergarten		Pupils Per Inhabitant
Estimation Method	Probit	LPM	Probit	LPM	Probit	LPM	OLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
District Capital	3.202****	0.263**	1.957****	0.284**	1.895****	0.447****	0.003**
	(0.736)	(0.115)	(0.567)	(0.116)	(0.460)	(0.131)	(0.001)
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
(Pseudo-)R^2	0.55	0.21	0.46	0.21	0.36	0.23	0.08

Dependent Variable	Municipal Expenses in 1884					Presence of an Active Train Station in 1873	
	Total Expenses Per Inhabitant	Discretionary Expenses Per Inhabitant	Share Discretionary Expenses	Share Discretionary Expenses in Public Education	Share Discretionary Expenses in Public Infrastructure		
Estimation Method	OLS	OLS	OLS	OLS	OLS	Probit	LPM
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
District Capital	0.499	2.291***	0.155****	0.308****	0.191**	1.252**	0.204*
	(1.393)	(0.786)	(0.038)	(0.068)	(0.078)	(0.580)	(0.122)
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1871 *Compartimento* FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
(Pseudo-)R^2	0.26	0.25	0.19	0.40	0.12	0.29	0.15

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Estimates are based on 974 (15 treated and 959 control) municipalities. Standard errors (in parentheses) are clustered at the municipality level. Municipality-level controls in all specifications are coastal feature, land surface, altitude, terrain ruggedness, and latitude. Estimates on hospitals established in the period 1832–1845 and secondary schools in 1839: the set of municipality-level controls includes population density in 1828, population growth in 1797–1828, distance to the own provincial capital city in 1828; the set of province-level controls includes provincial-to-Kingdom of Naples population in 1828. Estimates on kindergartens in 1869: the set of municipality-level controls includes population density in 1861, population growth in 1797–1861, distance to the own provincial capital city in 1861; the set of province-level controls includes provincial-to-Kingdom of Naples population in 1861, provincial railway density in 1861, provincial literacy rate in 1861, provincial-to-Kingdom of Naples public primary schools in 1862. Estimates on municipal expenses in 1884: the set of municipality-level controls includes population density in 1881, population growth in 1797–1881, distance to the own provincial capital city in 1881, total expenses to revenues in 1884; the set of province-level controls includes provincial-to-Kingdom of Naples population in 1881, provincial railway density in 1881, provincial literacy rate in 1881. Estimates on train stations in 1873: the set of municipality-level controls includes population density in 1871, population growth in 1797–1871, distance to the own provincial capital city in 1871; the set of province-level controls includes provincial-to-Kingdom of Naples population in 1871, provincial railway density in 1871, provincial literacy rate in 1871.

TABLE 5: LONG-RUN ANALYSIS

Estimation Method	OLS							
Dependent Variable	Yearly Average Population Growth (1797–2011)	Population Density (2011)	Agglomeration (2011)	Employment Per Inhabitant (2011)	Share Tertiary-Educated Population (2011)	Share Illiterate Population (2011)	Income Per Taxpayer (2010)	Labor Productivity (2015)
Sample	Whole Sample							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
District Capital	0.014	387.386	81.205	0.078	0.066	-0.013	3.693	6.982
	(0.005)***	(67.559)****	(15.219)****	(0.019)****	(0.013)****	(0.004)***	(0.586)****	(3.650)*
	[0.004]***	[107.283]***	[19.428]****	[0.022]***	[0.012]****	[0.007]*	[0.594]****	[3.857]*
	{0.005}***	{93.954}****	{18.540}****	{0.020}****	{0.012}****	{0.005}**	{0.605}****	{3.768}*
	⟨0.004⟩****	⟨101.202⟩****	⟨19.155⟩****	⟨0.020⟩****	⟨0.012⟩****	⟨0.006⟩**	⟨0.596⟩****	⟨3.912⟩*
	«0.003»****	«96.612»****	«17.171»****	«0.017»****	«0.009»****	«0.007»*	«0.446»****	«3.186»**
No. of Municipalities	974	974	974	974	974	974	974	965
No. of Treated Municipalities	15	15	15	15	15	15	15	15
No. of Control Municipalities	959	959	959	959	959	959	959	950
R^2	0.31	0.23	0.22	0.08	0.12	0.38	0.28	0.07
Sample	Excluding Municipalities with Upgraded Administrative Status After 1911							
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
District Capital	0.015	399.236	80.225	0.079	0.064	-0.014	3.508	7.948
	(0.005)***	(75.296)****	(16.909)****	(0.022)****	(0.012)****	(0.005)***	(0.541)****	(4.244)*
	[0.004]***	[111.901]***	[20.690]****	[0.024]***	[0.011]****	[0.007]*	[0.477]****	[4.459]*
	{0.005}***	{99.622}****	{19.888}****	{0.023}****	{0.011}****	{0.006}**	{0.533}****	{4.360}*
	⟨0.004⟩****	⟨105.913⟩****	⟨20.043⟩****	⟨0.023⟩****	⟨0.011⟩****	⟨0.007⟩**	⟨0.524⟩****	⟨4.484⟩*
	«0.004»****	«95.279»****	«17.057»****	«0.020»****	«0.010»****	«0.008»*	«0.462»****	«3.646»**
No. of Municipalities	970	970	970	970	970	970	970	961
No. of Treated Municipalities	12	12	12	12	12	12	12	12
No. of Control Municipalities	958	958	958	958	958	958	958	949
R^2	0.31	0.23	0.23	0.08	0.11	0.38	0.28	0.07

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors: clustered at the municipality level in parentheses; clustered at the 2015 province level in brackets; corrected for spatial dependence with 50 km distance cut-off in braces; corrected for spatial dependence with 100 km distance cut-off in angle brackets; corrected for spatial dependence with 200 km distance cut-off in guillemets. All specifications include municipality-level controls and NUTS-2 region FEs. The set of municipality-level controls includes coastal dummy, land surface, altitude, terrain ruggedness, latitude, distance to the own NUTS-2 region's capital city. The specifications reported in columns (1) and (9) controls also for population in 1797. Firms' labor productivity is defined as value added per employee. Figures for personal income and firms' value added are defined in thousand Euros. The municipalities that upgraded their administrative status after 1911 are *Taranto* (provincial capital from 1923), *Pescara* (provincial capital from 1927), *Isernia* (provincial capital form 1970), and *Barletta* (provincial capital from 2009).

Appendices

Table of Content

APPENDIX A—Evolution of provincial and district capital cities

This Appendix presents the evolution of provinces and provincial capitals from the pre-Napoleonic period until the establishment of the Kingdom of Italy occurred in 1861 (Table A1). It also presents the evolution of districts and district capitals in the Napoleonic period (Table A2), Bourbonic period (Table A3), and post-Italian unification period (Table A4). Finally, it maps the states of the Italian peninsula at the time of the Italian Unification process occurred in the period 1859–1861 (Figure A1).

TABLE A1: EVOLUTION OF PROVINCIAL CAPITAL CITIES

Pre-Napoleonic Period		Napoleonic Period		
Province	Capital City	Province	Capital City	
		1806–1815	1806–1811	1811–1815
Abruzzo Citeriore	Chieti	Abruzzo Citeriore	Chieti	Chieti
Abruzzo Ulteriore	Aquila	Seconda d'Abruzzo Ulteriore	Aquila	Aquila
		Prima d'Abruzzo Ulteriore	Teramo	Teramo
Basilicata	Matera	Basilicata	Potenza	Potenza
Calabria Citeriore	Cosenza	Calabria Citeriore	Cosenza	Cosenza
Calabria Ulteriore	Catanzaro	Calabria Ulteriore	Monteleone	Monteleone
Capitanata	Lucera	Capitanata	Foggia	Foggia
Principato Citeriore	Salerno	Principato Citeriore	Salerno	Salerno
Principato Ulteriore	Montefusco	Principato Ulteriore	Avellino	Avellino
Terra d'Otranto	Lecce	Terra d'Otranto	Lecce	Lecce
Terra di Lavoro	Napoli	Terra di Lavoro	Santa Maria Maggiore	Capua
Terra di Bari	Trani	Terra di Bari	Bari	Bari
Contado del Molise	Administratively dependent on Capitanata	Molise	Campobasso	Campobasso
		Napoli	Napoli	Napoli

Bourbonic Period					Kingdom of Italy	
Province	Capital City	Province	Capital City	Capital City	Province	Capital City
1816	1816	1817–1860	1817	1818–1860	1861–1911	1861–1911
Abruzzo Citeriore	Chieti	Abruzzo Citeriore	Chieti	Chieti	Abruzzo Citeriore	Chieti
Seconda d'Abruzzo Ulteriore	Aquila	Seconda d'Abruzzo Ulteriore	Aquila	Aquila	Seconda d'Abruzzo Ulteriore	Aquila
Prima d'Abruzzo Ulteriore	Teramo	Prima d'Abruzzo Ulteriore	Teramo	Teramo	Prima d'Abruzzo Ulteriore	Teramo
Basilicata	Potenza	Basilicata	Potenza	Potenza	Basilicata	Potenza
Calabria Citeriore	Cosenza	Calabria Citeriore	Cosenza	Cosenza	Calabria Citeriore	Cosenza
Calabria Ulteriore	Monteleone	Calabria Ulteriore II	Catanzaro	Catanzaro	Calabria Ulteriore II	Catanzaro
		Calabria Ulteriore I	Reggio	Reggio	Calabria Ulteriore I	Reggio
Capitanata	Foggia	Capitanata	Foggia	Foggia	Capitanata	Foggia
Principato Citeriore	Salerno	Principato Citeriore	Salerno	Salerno	Principato Citeriore	Salerno
Principato Ulteriore	Avellino	Principato Ulteriore	Avellino	Avellino	Principato Ulteriore	Avellino
Terra d'Otranto	Lecce	Terra d'Otranto	Lecce	Lecce	Terra d'Otranto	Lecce
Terra di Lavoro	Capua	Terra di Lavoro	Capua	Caserta	Terra del Lavoro	Caserta
Terra di Bari	Bari	Terra di Bari	Bari	Bari	Terra di Bari	Bari
Molise	Campobasso	Molise	Campobasso	Campobasso	Molise	Campobasso
Napoli	Napoli	Napoli	Napoli	Napoli	Napoli	Napoli
					Benevento	Benevento

Notes: See Giustiniani (1797–1805) for the pre-Napoleonic period. Napoleonic period: (i) provinces are defined as for Law No. 132 of 8 August 1806 and Law No. 189 of 27 September 1806; (ii) provincial capital cities in the period 1806–1811 are defined as for Law No. 132 of 8 August 1806 and Law No. 189 of 27 September 1806; (iii) provincial capital cities in the period 1811–1815 are defined as for Decree No. 922 of 4 May 1811. Bourbonic period: (i) provinces and provincial capital cities in 1816 are defined as for the Napoleonic period 1811–1815; (ii) provinces in the period 1817–1860 are defined as for Royal Decree No. 360 of 1 May 1816, which entered into force on 1 January 1817; (iii) provincial capital cities in 1817 are defined as for Royal Decree No. 360 of 1 May 1816, which entered into forced on 1 January 1817; (iv) provincial capital cities in the period 1818–1860 are defined as for Decree No. 1416 of 15 December 1818. See MAIC (1865) for the Kingdom of Italy period. MAIC stands for Ministero dell'Agricoltura, Industria e Commercio.

TABLE A2: EVOLUTION OF DISTRICT CAPITAL CITIES IN THE NAPOLEONIC PERIOD (1806–1815)

Province	Napoleonic Period (1806–1815)			
	District Capital City			
	Law 132, 8 August 1806	Law 189, 27 September 1806	Law 272, 8 December 1806	Decree 922, 4 May 1811
Abruzzo Citeriore	*Chieti* Lanciano	*Chieti* Lanciano	*Chieti* Lanciano	*Chieti* Lanciano Vasto
Prima d'Abruzzo Ulteriore	*Teramo* Civita di Penne	*Teramo* Civita di Penne	*Teramo* Civita di Penne	*Teramo* Civita di Penne
Seconda d'Abruzzo Ulteriore	*Aquila* Civita Ducale Sulmona	*Aquila* Civita Ducale Sulmona	*Aquila* Civita Ducale Sulmona	*Aquila* Civita Ducale Sulmona Avezzano
Basilicata	*Potenza* Matera Lagonegro	*Potenza* Matera Lagonegro	*Potenza* Matera Lagonegro	*Potenza* Matera Lagonegro Melfi
Calabria Citeriore	*Cosenza* Rossano Castrovillari Amantea	*Cosenza* Rossano Castrovillari Amantea	*Cosenza* Rossano Castrovillari Amantea	*Cosenza* Rossano Castrovillari Paola
Calabria Ulteriore	*Monteleone* Reggio Gerace Catanzaro	*Monteleone* Reggio Gerace Catanzaro	*Monteleone* Reggio Gerace Catanzaro	*Monteleone* Reggio Gerace Catanzaro
Capitanata and Molise	*Foggia* Manfredonia Campobasso Isernia			
Capitanata		*Foggia* Manfredonia	*Foggia* Manfredonia Larino	*Foggia* San Severo Bovino
Molise		*Campobasso* Isernia	*Campobasso* Isernia	*Campobasso* Isernia Larino
Principato Citeriore	*Salerno* Bonati Sala	*Salerno* Bonati Sala	*Salerno* Bonati Sala	*Salerno* Sala Campagna Vallo
Principato Ulteriore	*Avellino* Ariano Montefusco	*Avellino* Ariano Montefusco	*Avellino* Ariano Montefusco	*Avellino* Ariano Sant'Angelo de' Lombardi
Terra d'Otranto	*Lecce* Taranto Mesagne	*Lecce* Taranto Mesagne	*Lecce* Taranto Mesagne	*Lecce* Taranto Mesagne
Terra di Lavoro	*Santa Maria Maggiore* Gaeta Sora	*Santa Maria Maggiore* Gaeta Sora	*Santa Maria Maggiore* Gaeta Sora	 *Capua* Gaeta Sora Piedimonte d'Alife Nola
Terra di Bari	*Bari* Barletta Altamura	*Bari* Barletta Altamura	*Bari* Barletta Altamura	*Bari* Barletta Altamura
Napoli	*Napoli* Pozzuoli Castellammare	*Napoli* Pozzuoli Castellammare	*Napoli* Pozzuoli Castellammare	*Napoli* Pozzuoli Castellammare Casoria

Notes: Municipalities that were capital city at both district and province level are denoted in italics.

TABLE A3: EVOLUTION OF DISTRICT CAPITAL CITIES IN THE BOURBONIC PERIOD (1816–1860)

Province	Bourbonic Period (1816–1860)			
	District Capital City			
	Law 570, 12 December 1816	Marzolla (1832) for 1828	De Sanctis (1840)	MAIC (1864) for 1859
Abruzzo Citeriore	*Chieti* Lanciano Vasto	*Chieti* Lanciano Vasto	*Chieti* Lanciano Vasto	*Chieti* Lanciano Vasto
Prima d'Abruzzo Ulteriore	*Teramo* Civita di Penne	*Teramo* Civita di Penne	*Teramo* Città Sant'Angelo	*Teramo* Civita di Penne
Seconda d'Abruzzo Ulteriore	*Aquila* Civita Ducale Sulmona Avezzano	*Aquila* Civita Ducale Sulmona Avezzano	*Aquila* Civita Ducale Sulmona Avezzano	*Aquila* Civita Ducale Sulmona Avezzano
Basilicata	*Potenza* Matera Lagonegro Melfi	*Potenza* Matera Lagonegro Melfi	*Potenza* Matera Lagonegro Melfi	*Potenza* Matera Lagonegro Melfi
Calabria Citeriore	*Cosenza* Rossano Castrovillari Paola	*Cosenza* Rossano Castrovillari Paola	*Cosenza* Rossano Castrovillari Paola	*Cosenza* Rossano Castrovillari Paola
Calabria Ulteriore I	*Reggio* Gerace Palmi	*Reggio* Gerace Palmi	*Reggio* Gerace Palmi	*Reggio* Gerace Palmi
Calabria Ulteriore II	*Catanzaro* Monteleone Nicastro Cotrone	*Catanzaro* Monteleone Nicastro Cotrone	*Catanzaro* Monteleone Nicastro Cotrone	*Catanzaro* Monteleone Nicastro Cotrone
Capitanata	*Foggia* San Severo Bovino	*Foggia* San Severo Bovino	*Foggia* San Severo Bovino	*Foggia* San Severo Bovino
Principato Citeriore	*Salerno* Sala Campagna Vallo	*Salerno* Sala Campagna Vallo	*Salerno* Sala Campagna Vallo	*Salerno* Sala Campagna Vallo
Principato Ulteriore	*Avellino* Ariano Sant'Angelo de' Lombardi	*Avellino* Ariano Sant'Angelo de' Lombardi	*Avellino* Ariano Sant'Angelo de' Lombardi	*Avellino* Ariano Sant'Angelo de' Lombardi
Terra d'Otranto	*Lecce* Taranto Brindisi Gallipoli	*Lecce* Taranto Brindisi Gallipoli	*Lecce* Taranto Brindisi Gallipoli	*Lecce* Taranto Brindisi Gallipoli
Terra di Lavoro	*Capua* Gaeta Sora Piedimonte d'Alife Nola	*Caserta* Gaeta Sora Piedimonte d'Alife Nola	*Caserta* Gaeta Sora Piedimonte d'Alife Nola	*Caserta* Gaeta Sora Piedimonte d'Alife Nola
Terra di Bari	*Bari* Barletta Altamura	*Bari* Barletta Altamura	*Bari* Barletta Altamura	*Bari* Barletta Altamura
Molise	*Campobasso* Isernia Larino	*Campobasso* Isernia Larino	*Campobasso* Isernia Larino	*Campobasso* Isernia Larino
Napoli	*Napoli* Pozzuoli Castellammare Casoria	*Napoli* Pozzuoli Castellammare Casoria	*Napoli* Pozzuoli Castellammare Casoria	*Napoli* Pozzuoli Castellammare Casoria

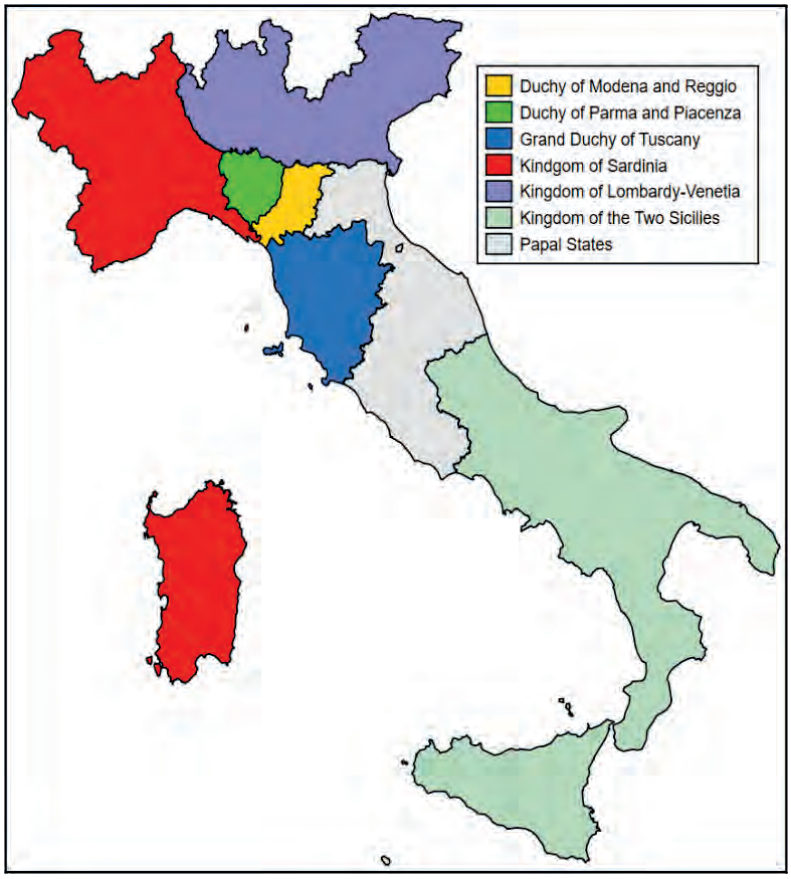
Notes: Municipalities that were capital city at both district and province level are denoted in italics. MAIC stands for Ministero dell'Agricoltura, Industria e Commercio.

TABLE A4: DISTRICT CAPITAL CITIES IN THE KINGDOM OF ITALY (1861–1911)

Kingdom of Italy (1861–1911)	
Province	District Capital City
	MAIC (1865) for 1861
Abruzzo Citeriore	*Chieti* Lanciano Vasto
Prima d'Abruzzo Ulteriore	*Teramo* Civita di Penne
Seconda d'Abruzzo Ulteriore	*Aquila* Civita Ducale Sulmona Avezzano
Basilicata	*Potenza* Matera Lagonegro Melfi
Calabria Citeriore	*Cosenza* Rossano Castrovillari Paola
Calabria Ulteriore I	*Reggio* Gerace Palmi
Calabria Ulteriore II	*Catanzaro* Monteleone Nicastro Cotrone
Capitanata	*Foggia* San Severo Bovino
Principato Citeriore	*Salerno* Sala Campagna Vallo
Principato Ulteriore	*Avellino* Ariano Sant'Angelo de' Lombardi
Terra d'Otranto	*Lecce* Taranto Brindisi Gallipoli
Terra del Lavoro	*Caserta* Gaeta Sora Piedimonte d'Alife Nola
Terra di Bari	*Bari* Barletta Altamura
Molise	*Campobasso* Isernia Larino
Napoli	*Napoli* Pozzuoli Castellammare Casoria
Benevento	*Benevento* Cerreto Sannita San Bartolomeo in Galdo

Notes: Municipalities that were capital city at both district and province level are denoted in italics. MAIC stands for Ministero dell'Agricoltura, Industria e Commercio.

FIGURE A1: THE ITALIAN PRE-UNIFICATION STATES IN 1859–1861



Notes: The map shows the states of the Italian peninsula at the time of the Italian Unification process. Authors' elaboration on Shepherd (1926, p. 161) and digitalized cartography provided by GEO-LARHRA.

APPENDIX B—The selection of district capital cities

In this Appendix, we present additional material concerning the identification of the municipalities existing in the Kingdom of Naples in 1806, the exogeneity of the criterion adopted by the Napoleonic authorities in 1806 to select district capitals, and the petitions forwarded by Intendants and Sub-Intendants to the central authorities of the Kingdom of Naples in the years following the 1806 Napoleonic reform to request a reassessment of the administrative geography of the Kingdom.

Municipalities in the Kingdom of Naples in 1806

Table B1 provides a summary of the procedure we followed to identify the population of municipalities existing in the Kingdom of Naples in 1806.

Exogeneity of the Selection of District Capitals

Table B2 presents the Ordinary Least Squares (OLS) results on the correlation between the average distance (of municipalities, within a district) to the centroid of the district and the average distance (of municipalities, within a district) to the district capital obtained by also controlling for districts' land surface, average altitude, and average terrain ruggedness.

Table B3 reports the Probit results on the role of local lobbies namely, feudalism in 1797 and the "republican patriots" who participated in the Neapolitan Revolution of 1799 and municipalities' distance to the own district's centroid in influencing the likelihood that a municipality was selected as district capital by the Napoleonic authority in 1806.

Table B4 reports the Probit results on the correlation between the self-proclaimed "republican" nature of a municipality during the Neapolitan Revolution of 1799 and the likelihood that a municipality was selected as district capital by the Napoleonic authority in 1806.

Table B5 reports the Probit results on the role of economic and infrastructural characteristics proxied by population density in 1797, proto-industrialization in 1797, distance to the closest ancient Roman road, and distance to the closest postal road in 1804 and municipalities' distance to the own district's centroid in influencing the likelihood that a municipality was selected as district capital by Napoleonic authorities in 1806.

Tables B6 and B7 report the results concerning the exercise on the *Strada Regia delle Calabrie*. Table B6 reports the OLS and Linear Probability Model (LPM) estimates of the mean-difference in geographical, economic, and infrastructural characteristics between the municipalities located within one travel day from the *Strada Regia delle Calabrie* and those located between one and two travel days from it. Table B7 reports the Probit results on the probability that a municipality was selected as district capital by Napoleonic authorities in 1806.

Petitions and Revision of the Administrative Geography After the 1806 Reform

Numerous petitions were submitted initially between 1807 and 1811, and then, with greater intensity, between 1815 and 1818 with the onset of the Bourbon Restoration by Intendants and Sub-Intendants to the central institutions of the Kingdom of Naples to request a revision of the administrative geography established by the Napoleonic authorities with Law No. 132 of 8 August 1806. This reassessment stemmed from "the excessive approximation with which Joseph Bonaparte had planned the territorial reorganization of the Kingdom" (Spagnoletti

1990, p. 94, our translation). The objective was to reduce reliance on "crude geographical data" and, instead, consider the actual accessibility of district capitals (Spagnoletti 1990, p. 86, our translation). In other words, these initiatives, undertaken by the French authorities, aimed at conducting a more precise operation by leveraging additional information unavailable in 1806. As noted by officials of the Ministry of the Interior in a document dated 1810, this initiative was partly motivated by the recognition that "the maps of the Kingdom are not always reliable" (NSA, fs. 374, our translation).[82] Consequently, the arrival of Intendants and Sub-Intendants in their designed provinces and districts facilitated this effort (Spagnoletti 1990). Their presence enabled the gathering of new information regarding the geographical characteristics and internal communication systems of the territories under their governance. Hence, their role in this process proved to be crucial.

Indeed, the revision process of the administrative geography of the Kingdom of Naples sparked significant competition among municipalities vying for the coveted status of district capital. To gain deeper insights into this process, we assembled a comprehensive collection of petitions obtained from the NSA primarily submitted by Intendants and Sub-Intendants to the Ministry of the Interior of the Kingdom of Naples. Some examples can be useful to understand the motivations behind them. The first petition was sent in January 1807 by the Intendant of the province of *Terra di Lavoro*, who proposed relocating the district capital from *Sora* to *San Germano* known today as *Cassino* due to accessibility issues caused by poor road conditions leading to *Sora*: indeed, couriers "had to traverse the extreme corner of the district before returning to Sora" (NSA, fs. 375, our translation). In the same period, the municipality of *Agnone* in the province of *Abruzzo Citeriore* petitioned, competing with the municipalities of *Atessa* and *Vasto*, to be designated as the district capital instead of *Lanciano*. Despite *Agnone*'s strong political merit, evidenced by its citizens' persecution under past governance (including death sentences, imprisonments, and exile), the request was denied. The rejection cited challenges such as "difficult communications, snow, high mountains, rivers, and lack of roads" (NSA, fs. 385, our translation). This example illustrates how political merit seemed to offer little advantage, even after the implementation of the 1806 reform. In February 1807, the Intendant of the province of *Calabria Ulteriore* forwarded a topographical map of the province to the central authorities, proposing to replace *Amantea* with *Paola* as the district capital. The inhabitants of *Amantea* advocated for their city, emphasizing the importance of its centrality (NSA, fs. 386).[83] An intriguing dispute unfolded between *Civita di Penne* known today as *Penne* and *Atri* in the province of *Prima d'Abruzzo Ulteriore*. The inhabitants of *Atri* contested the suitability of *Civita di Penne* as the district capital, citing it as a "hotbed of seditious, factious spirits, ready for crime" (NSA, fs. 376, our translation). However, it is noteworthy that *Atri* itself was situated at the far end of the district, raising questions about the practicality of its claim. The decision to relocate the district (and *Terra di Lavoro*'s province) capital from *Santa Maria Maggiore* to *Capua* in 1808 was similarly based on a thorough assessment of its location, particularly the state of the road network and accessibility.[84] A memorandum from the municipality of *Vasto* dated 1808, aimed at obtaining a Sub-Intendancy in one of the districts of the province of *Abruzzo Citeriore*, underscored that the primary objective of establishing Intendancies and Sub-Intendancies in the provinces of the Kingdom was to facilitate prompt access to administrative functions for all citizens in times

[82] NSA stands for Naples State Archives.
[83] *Amantea* would eventually be replaced by *Paola* as district capital with Decree No. 922 of 4 May 1811.
[84] The relocation occurred based on Law No. 182 of 26 September 1808.

of need, mitigating the inconvenience of resorting to distant or inaccessible locations. This perspective sheds light on the underlying principles guiding the 1806 reform (NSA, fs. 378). In 1811, the Intendant of *Principato Citeriore* petitioned the Ministry of the Interior to relocate the district capital from *Vallo* to *Novi*, citing the availability of more suitable buildings and healthier air in *Novi* compared to *Vallo* (NSA, fs. 383). In an 1811 denied request to replace *Melfi* with *Rionero* as district capital in the province of *Basilicata*, it was argued that *Melfi*'s "central location, larger population, and the advantage of being crossed by the rolling road" made it a more suitable choice (NSA, fs. 40, our translation). In 1813, the Ministry of the Interior deliberated on the possibility of transferring the district capital from *Mesagne* to *Brindisi* in the province of *Terra d'Otranto*. Although *Mesagne* was deemed more central and thus initially favored, experience over seven years and further reflection demonstrated that centrality alone did not suffice to establish a district capital: the singular advantage of centrality was nullified as inhabitants were accustomed to frequenting *Brindisi*, attracted by its trade relations and amenities (NSA, fs. 381).[85] In October 1815, the Provincial Council of *Principato Citeriore* proposed that the new capital of one of the four districts of this province should be *Eboli*; the citizens of *Campagna* protested strongly, indicating that *Eboli* had a worse climate and insalubrious waters, and *Campagna* remained the district capital. In 1815 and later in 1818, *Venafro* asked to replace *Piedimonte d'Alife* known today as *Piedimonte Matese* as the district capital in the province of *Terra di Lavoro*. The request was rejected due to *Venafro*'s position as the last municipality in the district, making it difficult to access other municipalities, administrative employees, and citizens (NSA, fs. 373). Additionally, *Piedimonte d'Alife* offered more resources for the authorities and administrative personnel, and hosted manufacturing activities necessitating the presence of a government agent.[86]

Based on our in-depth analysis of the petitions, we can identify four key factors driving these requests: first, the necessity to improve the location of district capitals due to the region's rugged terrain and inadequate internal communications; second, the prevalence of brigandage, particularly in mountainous areas, necessitating state intervention; third, the presence of specific environmental and health-related amenities in the municipalities; and, finally, the recognition of economic advantages associated with attaining district capital status.[87] Indeed, the concentration of officials, civil servants, soldiers, and policemen in district capitals could enhance public safety and security, thereby facilitating the process of industrialization in these cities.

Nevertheless, despite these motivations of economic or public order nature, "centrality was almost always claimed as a sovereign criterion" (Spagnoletti 1990, p. 92, our translation). It is noteworthy that a Draft Revision of the administrative geography of the Kingdom of Naples dated 18 April 1810, prepared by the Ministry of the Interior, reiterated the importance of "centrality," emphasizing that the district capital and the other municipalities of the district should be "as close as possible" (NSA, fs. 374, our translation).

[85] Indeed, *Brindisi* became district capital in 1814, thus replacing *Mesagne*.

[86] It is worth noting that, as already shown in Table B5 (Appendix B), we do not find a statistically significant correlation between the proto-industrial nature of a municipality in 1797 and its probability of being selected as district capital in 1806.

[87] Brigandage was a widespread phenomenon in many of these cities (Spagnoletti 1990).

TABLE B1: HISTORICAL SETTLEMENTS MAPPED IN 1911 POPULATION CENSUS MUNICIPALITIES

Municipality Type	Municipalities	
	No.	%
Territories of the Kingdom of Naples as for the 1911 Italian population census	1,808	100.00
Enclave of the Papal States in 1806	5	0.28
Established after 1806 and not identifiable	35	1.94
Identified mapped municipalities	1,768	97.79

Notes: Percentage values are defined with respect to the population of 1,808 municipalities recorded in the 1911 Population Census.

TABLE B2: CORRELATION BETWEEN DISTRICTS' CENTROID AND SPATIAL CENTRALITY OF DISTRICT CAPITALS

Dependent Variable	Average Distance to District Capital City (km)	
Estimation Method	OLS	
	(1)	(2)
Average Distance to District's Centroid (km)	0.990	0.796
	(0.182)****	(0.232)***
	[0.154]****	[0.230]***
	{0.136}****	{0.201}***
Geographical Controls	No	Yes
No. of Districts	40	40
R^2	0.44	0.47

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors: homoscedastic in parentheses; robust in brackets; clustered at the 1806 province level in braces. The set of geographical controls includes districts' land surface, average altitude, and average terrain ruggedness.

TABLE B3: THE ROLE OF LOCAL LOBBIES: FEUDALISM AND PATRIOTS

Dependent Variable	District Capital City Status in 1806				
Estimation Method	Probit				
	(1)	(2)	(3)	(4)	(5)
	Coefficients				
Feudal Municipality in 1797	-0.132	…	…	…	-0.100
	(0.214)				(0.217)
Share of Executed Republicans in 1799–1800	…	0.228	…	…	0.187
		(0.171)			(0.175)
Weighted Number of Exiled Republicans in 1800	…	…	4.649	…	4.065
			(2.899)		(3.009)
Distance to District's Centroid (km)	…	…	…	-0.027***	-0.027***
				(0.009)	(0.009)
	Marginal Effects				
Feudal Municipality in 1797	-0.005	…	…	…	-0.004
	(0.008)				(0.008)
Share of Executed Republicans in 1799–1800	…	0.008	…	…	0.007
		(0.007)			(0.006)
Weighted Number of Exiled Republicans in 1800	…	…	0.173	…	0.146
			(0.112)		(0.112)
Distance to District's Centroid (km)	…	…	…	-0.001***	-0.001***
				(0.000)	(0.000)
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes	Yes
No. of Municipalities	1,768	1,768	1,768	1,768	1,768
Pseudo-R^2	0.30	0.30	0.30	0.32	0.33

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the municipality level. The set of municipality-level controls includes coastal dummy, land surface, altitude, terrain ruggedness, latitude, province capital dummy in 1805. The dependent variable is a dummy capturing whether a municipality was selected as district capital by the Napoleonic authorities in 1806.

TABLE B4: THE ROLE OF LOCAL LOBBIES: REPUBLICAN MUNICIPALITIES

Dependent Variable	District Capital City Status in 1806		
Estimation Method	Probit		
	(1)	(2)	(3)
	Coefficients		
Self-Proclaimed Republican Municipality in 1799	0.426	…	0.483
	(0.308)		(0.325)
Distance to District's Centroid (km)	…	-0.066****	-0.068****
		(0.018)	(0.019)
	Marginal Effects		
Self-Proclaimed Republican Municipality in 1799	0.053	…	0.053
	(0.039)		(0.036)
Distance to District's Centroid (km)	…	-0.007****	-0.007****
		(0.002)	(0.002)
Municipality-Level Controls	Yes	Yes	Yes
No. of Municipalities	190	190	190
Pseudo-R^2	0.15	0.24	0.26

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the municipality level. The set of municipality-level controls includes coastal dummy, land surface, altitude, terrain ruggedness. The dependent variable is a dummy capturing whether a municipality was selected as district capital by the Napoleonic authorities in 1806.

TABLE B5: THE ROLE OF ECONOMIC AND INFRASTRUCTURAL CHARACTERISTICS

Dependent Variable	District Capital City Status in 1806										
Estimation Method	Probit										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Coefficients										
Population Density in 1797	0.000	0.000	…	…	…	…	…	…	…	…	0.000
	(0.000)	(0.000)									(0.000)
Proto-Industrial Municipality in 1797	…	…	0.161	0.200	…	…	…	…	…	…	0.167
			(0.272)	(0.274)							(0.275)
Distance to the Closest Ancient Roman Road (km)	…	…	…	…	-0.012	-0.010	…	…	-0.008	-0.007	-0.008
					(0.012)	(0.012)			(0.013)	(0.013)	(0.013)
Distance to the Closest Postal Road in 1804 (km)	…	…	…	…	…	…	-1.094	-0.962	-1.024	-0.914	-0.894
							(0.708)	(0.738)	(0.744)	(0.764)	(0.768)
Distance to District's Centroid (km)	…	-0.027***	…	-0.028***	…	-0.027***	…	-0.026***	…	-0.025***	-0.026***
		(0.009)		(0.009)		(0.009)		(0.008)		(0.008)	(0.008)
	Marginal Effects										
Population Density in 1797	0.000	0.000	…	…	…	…	…	…	…	…	0.000
	(0.000)	(0.000)									(0.000)
Proto-Industrial Municipality in 1797	…	…	0.006	0.007	…	…	…	…	…	…	0.006
			(0.010)	(0.010)							(0.010)
Distance to the Closest Ancient Roman Road (km)	…	…	…	…	-0.000	-0.000	…	…	-0.000	-0.000	-0.000
					(0.000)	(0.000)			(0.000)	(0.000)	(0.000)
Distance to the Closest Postal Road in 1804 (km)	…	…	…	…	…	…	-0.041	-0.035	-0.038	-0.033	-0.033
							(0.026)	(0.027)	(0.027)	(0.027)	(0.029)
Distance to District's Centroid (km)	…	-0.001***	…	-0.001***	…	-0.001***	…	-0.001***	…	-0.001***	-0.001***
		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)	(0.000)
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Municipalities	1,704	1,704	1,768	1,768	1,768	1,768	1,768	1,768	1,768	1,768	1,704
Pseudo-R^2	0.30	0.32	0.30	0.32	0.30	0.32	0.31	0.33	0.31	0.33	0.33

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the municipality level. The set of municipality-level controls includes coastal dummy, land surface, altitude, terrain ruggedness, latitude, province capital dummy in 1805. The dependent variable is a dummy capturing whether a municipality was selected as district capital by the Napoleonic authorities in 1806.

TABLE B6: THE CASE OF THE *STRADA REGIA DELLE CALABRIE*: MEAN-DIFFERENCE ANALYSIS

Dependent Variable	Land Surface	Altitude	Terrain Ruggedness Index	Coastal Municipality
Estimation Method	OLS	OLS	OLS	LPM
	(1)	(2)	(3)	(4)
Municipality Within One Travel Day	-0.199	-18.238	15.941	-0.018
	(2.382)	(18.833)	(9.829)	(0.027)
No. of Municipalities	725	725	725	725
No. of Municipalities Within One Travel Day	386	386	386	386
No. of Municipalities Between One and Two Travel Days	339	339	339	339
R^2	0.00	0.00	0.00	0.00
Dependent Variable	Proto-Industrial Municipality (1797)	Population Density (1797)	Distance to the Closest Ancient Roman Road (km)	Distance to District's Centroid (km)
Estimation Method	LPM	OLS	OLS	OLS
	(5)	(6)	(7)	(8)
Municipality Within One Travel Day	0.025	79.288	0.486	-1.804
	(0.025)	(50.250)	(0.547)	(1.638)
No. of Municipalities	725	687	725	725
No. of Municipalities Within One Travel Day	386	364	386	386
No. of Municipalities Between One and Two Travel Days	339	323	339	339
R^2	0.00	0.00	0.00	0.00

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the municipality level. One day of travel corresponds to a distance of 18.5185 km, that is, the distance a horse was able to travel in one day.

TABLE B7: THE CASE OF THE *STRADA REGIA DELLE CALABRIE*: SELECTION OF DISTRICT CAPITALS

Dependent Variable	District Capital City Status in 1806			
Estimation Method	Probit			
	(1)	(2)	(3)	(4)
	Coefficients			
Municipality Within One Travel Day	0.200	0.242	0.162	0.279
	(0.209)	(0.248)	(0.264)	(0.296)
Proto-Industrial Municipality in 1797	...	...	0.110	0.069
			(0.372)	(0.367)
Population Density in 1797	...	...	0.000	0.000
			(0.000)	(0.000)
Distance to the Closest Ancient Roman Road (km)	...	...	-0.006	-0.002
			(0.024)	(0.023)
Distance to District's Centroid (km)	...	...	-0.035**	-0.043***
			(0.014)	(0.013)
	Marginal Effects			
Municipality Within One Travel Day	0.011	0.011	0.007	0.012
	(0.012)	(0.011)	(0.012)	(0.013)
Proto-Industrial Municipality in 1797	...	...	0.005	0.003
			(0.016)	(0.016)
Population Density in 1797	...	...	0.000	0.000
			(0.000)	(0.000)
Distance to the Closest Ancient Roman Road (km)	...	...	-0.000	-0.000
			(0.001)	(0.001)
Distance to District's Centroid (km)	...	...	-0.002**	-0.002***
			(0.001)	(0.001)
Municipality-Level Controls	No	Yes	Yes	Yes
Province FE	No	No	No	Yes
No. of Municipalities	725	725	687	687
No. of Municipalities Within One Travel Day	386	386	364	364
No. of Municipalities Between One and Two Travel Days	339	339	323	323
Pseudo-R^2	0.01	0.22	0.27	0.29

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the municipality level. The set of municipality-level controls includes coastal dummy, land surface, altitude, terrain ruggedness, latitude. The dependent variable is a dummy capturing whether a municipality was selected as district capital by the Napoleonic authorities in 1806. One day of travel corresponds to a distance of 18.5185 km, that is, the distance a horse was able to travel in one day.

APPENDIX C—Estimation sample

This Appendix summarizes the cleaning procedure we implemented to identify the estimation sample (Table C1). It also reports evidence on mean differences between the municipalities included in the estimation sample and those excluded due to missing population data with respect to some geographical characteristics (Table C2). Finally, it presents the list of municipalities selected as district capitals by the Napoleonic authorities according to Law No. 132 of 8 August 1806, and that maintained their status unchanged until 1911 (Table C3).

TABLE C1: CLEANING PROCEDURE FROM IDENTIFIED MAPPED MUNICIPALITIES TO THE ESTIMATION SAMPLE

Municipality Type	Municipalities	
	No.	%
Identified mapped municipalities	1,768	100.00
Province capital in the period 1500–1911	20	1.13
Capital *governo* and/or *circondario* and/or *mandamento* in the period 1806–1911	498	28.17
District capital in the period 1806–1911	43	2.43
Status maintained uninterruptedly between 1806 and 1911	17	0.96
Population data available from pre-Napoleonic period to 1911	15	0.85
Missing pre-1806 population data	2	0.11
Status maintained only for a period of time between 1806 and 1911	26	1.47
Population data available from pre-Napoleonic period to 1911	23	1.30
Missing pre-1806 population data	3	0.17
Never endowed with supra-municipal administrative functions by law	1,207	68.27
Population data available from pre-Napoleonic period to 1911	959	54.24
Missing pre-1806 population data	242	13.69
Missing pre-1806 and 1828 population data	6	0.34

Notes: Percentage values are defined with respect to the starting sample of 1,768 identified mapped municipalities.

TABLE C2: MEAN DIFFERENCES BETWEEN SAMPLE VS. MISSING-VALUE MUNICIPALITIES

Estimation Method	OLS				
Dependent Variable	Distance to District's Centroid	Land Surface	Altitude	Terrain Ruggedness Index	Coastal Municipality
	(1)	(2)	(3)	(4)	(5)
Missing Value	2.752	-11.731	-76.640	8.182	0.012
	(2.160)	(1.355)****	(19.332)****	(9.919)	(0.023)
	[2.315]	[1.909]****	[33.991]**	[15.115]	[0.033]
	{2.407}	{2.388}****	{40.072}	{15.199}	{0.037}
	«1.792»	«2.343»****	«50.464»	«16.508»	«0.026»
No. of Municipalities	1,224	1,224	1,224	1,224	1,224
No. of Sample Municipalities	974	974	974	974	974
No. of Missing-Value Municipalities	250	250	250	250	250
R^2	0.00	0.03	0.01	0.00	0.00

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors: clustered at the municipality-level in parentheses; clustered at the 1806 district level in brackets; clustered at the 1806 province level in braces; corrected for spatial dependence a la Conley (1999) with 100 km cut-of value angle brackets.

TABLE C3: DISTRICT CAPITAL CITIES INCLUDED IN THE SAMPLE AND ELIGIBLE BUT EXCLUDED FROM THE SAMPLE DUE TO MISSING POPULATION DATA

Included in the Sample or Eligible but Excluded from the Sample	Napoleonic Period (1806–1815)			Bourbonic Period (1816–1860)			Kingdom of Italy (1861–1911)	
	Law 132, 8 August 1806	Law 272, 8 December 1806	Decree 922, 4 May 1811	Law 570, 12 December 1816	Marzolla (1832) for 1828	De Sanctis (1840)	MAIC (1864) for 1859	MAIC (1865) for 1861
Included	Lanciano	Lanciano	Lanciano	Lanciano	Lanciano	Lanciano	Lanciano	Lanciano
Included	Civita Ducale	Civita Ducale	Civita Ducale	Civita Ducale	Civita Ducale	Civita Ducale	Civita Ducale	Civita Ducale
Included	Sulmona	Sulmona	Sulmona	Sulmona	Sulmona	Sulmona	Sulmona	Sulmona
Included	Lagonegro	Lagonegro	Lagonegro	Lagonegro	Lagonegro	Lagonegro	Lagonegro	Lagonegro
Included	Rossano	Rossano	Rossano	Rossano	Rossano	Rossano	Rossano	Rossano
Included	Castrovillari	Castrovillari	Castrovillari	Castrovillari	Castrovillari	Castrovillari	Castrovillari	Castrovillari
Included	Gerace	Gerace	Gerace	Gerace	Gerace	Gerace	Gerace	Gerace
Excluded—Missing pre-1806 population data	Sala	Sala	Sala	Sala	Sala	Sala	Sala	Sala
Included	Ariano	Ariano	Ariano	Ariano	Ariano	Ariano	Ariano	Ariano
Included	Taranto	Taranto	Taranto	Taranto	Taranto	Taranto	Taranto	Taranto
Included	Gaeta	Gaeta	Gaeta	Gaeta	Gaeta	Gaeta	Gaeta	Gaeta
Included	Sora	Sora	Sora	Sora	Sora	Sora	Sora	Sora
Included	Barletta	Barletta	Barletta	Barletta	Barletta	Barletta	Barletta	Barletta
Included	Altamura	Altamura	Altamura	Altamura	Altamura	Altamura	Altamura	Altamura
Included	Isernia	Isernia	Isernia	Isernia	Isernia	Isernia	Isernia	Isernia
Included	Pozzuoli	Pozzuoli	Pozzuoli	Pozzuoli	Pozzuoli	Pozzuoli	Pozzuoli	Pozzuoli
Excluded—Missing pre-1806 population data	Castellammare	Castellammare	Castellammare	Castellammare	Castellammare	Castellammare	Castellammare	Castellammare

Notes: MAIC stands for Ministero dell'Agricoltura, Industria e Commercio.

APPENDIX D—Population analysis: data and descriptive statistics

This Appendix presents the data source and the definition of the variables used in the population analysis (Table D1); the descriptive statistics of the time-varying dependent and control variables (Table D2); the correlation matrix of the time-varying control variables (Table D3); the descriptive statistics of the time-invariant municipality-level control variables (Table D4); and the correlation matrix of the time-invariant municipality-level control variables (Table D5).

TABLE D1: DATA SOURCE AND VARIABLE DEFINITION

Variable	Definition	Source
Municipality-Level		
Population	Population in thousand inhabitants	Various sources (1)
District Capital	Dummy for district capital city municipalities	Various sources (2)
Distance to the Own Provincial Capital City	Distance between the municipality centroid and the centroid of its own provincial capital city (km)	ISTAT (3)
Coastal Municipality	Dummy for coastal municipalities	ISTAT (3)
Land Surface	Land surface (km^2)	ISTAT (3)
Altitude	Altitude (km)	ISTAT (3)
Terrain Ruggedness Index	Terrain Ruggedness Index	EEA (4)
Latitude	Latitude (degrees)	ISTAT (3)
Within-District Centrality in 1806	Average pairwise distance among municipalities within a district in 1806 (km)	Law 14, 19 January 1807; ISTAT (3)
State-Owned Status in 1797	Dummy for state-owned municipalities	Giustiniani (1797–1805)
Seat of a Bishop in 1797	Dummy for bishop seat municipalities	Giustiniani (1797–1805)
Seat of an Archbishop in 1797	Dummy for archbishop seat municipalities	Giustiniani (1797–1805)
Princedom in 1797	Dummy for princedom municipalities	Giustiniani (1797–1805)
Population Above 5,000 in 1300–1500	Dummy for municipalities that have recorded a population above 5,000 inhabitants in 1300–1500	Malanima (1998)
Spread of the Plague in 1658	Dummy for municipalities that have been hit by the plague in 1658	Fusco (2007) (5)
Distance to the Closest Ancient Roman Road	Distance between the centroid of a municipality and the closest ancient Roman road (km)	McCormick et al. (2013); ISTAT (3)
Exposure to Earthquakes in 1005–1805	No. of earthquakes weighted by intensity in [0, 1] and scaled by distance to the epicenter in 1005–1805	Rovida et al. (2020)
Province-Level		
Provincial-to-Kingdom of Naples Population	Share of provincial population to total population in the Kingdom of Naples' territory	Various sources (1)
Provincial Railway Density	Provincial density of the railway network (km^2)	Ciccarelli and Groote (2017)

Notes: (1) Giustiniani (1797–1805), Marzolla (1832), and MAIC (1864, 1865, 1874, 1882, 1901, 1912). (2) Law No. 132 of 8 August 1806, Law No. 272 of 8 December 1806, Decree No. 922 of 4 May 1811, Law No. 570 of 12 December 1816, Marzolla (1832), De Sanctis (1840), MAIC (1864, 1865). (3) Elaboration on digital cartography. (4) Elaboration on EEA's Global Digital Elevation Model (DEM) derived from GTOPO30 with 1 km-by-1 km resolution. (5) Black plague data have been provided by Idamaria Fusco confidentially and without the permission to disseminate them. MAIC stands for Ministero dell'Agricoltura, Industria e Commercio. ISTAT stands for Istituto Nazionale Italiano di Statistica. EEA stands for European Environment Agency.

TABLE D2: DESCRIPTIVE STATISTICS OF TIME-VARYING DEPENDENT AND CONTROL VARIABLES

Variable	Mean	Std. Dev.	Min.	Max.
Municipal Population	2.13	2.24	0.01	65.24
Municipality's Distance to the Own Provincial Capital City	39.87	22.88	1.97	126.56
Provincial-to-Kingdom of Naples Population	0.07	0.03	0.03	0.15
Provincial Railway Density	0.03	0.07	0.00	1.00

Notes: Descriptive statistics are based on 9,740 municipality-year observations.

TABLE D3: CORRELATION MATRIX OF TIME-VARYING CONTROL VARIABLES

Variable		[1]	[2]	[3]
Municipality's Distance to the Own Provincial Capital City	[1]	1		
Provincial-to-Kingdom of Naples Population	[2]	0.13	1	
Provincial Railway Density	[3]	-0.10	0.00	1

Notes: Correlation coefficients are based on 9,740 municipality-year observations.

TABLE D4: DESCRIPTIVE STATISTICS OF TIME-INVARIANT MUNICIPALITY-LEVEL CONTROL VARIABLES

Variable	Mean	Std. Dev.	Min.	Max.
District Capital	0.02	0.12	0	1
Coastal Nature	0.11	0.31	0	1
Land Surface	32.29	28.78	0.12	431.38
Altitude	455.74	284.76	2.00	1,433.00
Terrain Ruggedness Index	230.45	137.03	1.90	698.74
Latitude	40.87	1.10	37.96	42.86
Within-District Centrality in 1806	27.61	8.94	8.60	103.61
State-Owned Status in 1979	0.02	0.12	0	1
Seat of a Bishop in 1797	0.02	0.16	0	1
Seat of an Archbishop in 1797	0.00	0.06	0	1
Princedom in 1797	0.04	0.20	0	1
Population Above 5,000 in 1300–1500	0.01	0.11	0	1
Spread of the Plague in 1658	0.39	0.49	0	1
Distance to the Closest Ancient Roman Road	11.34	7.69	0.17	42.52
Exposure to Earthquakes in 1005–1805	1.76	0.50	0.78	4.08

Notes: Descriptive statistics are based on 974 municipality-level observations.

TABLE D5: CORRELATION MATRIX OF TIME-INVARIANT MUNICIPALITY-LEVEL CONTROL VARIABLES

Variable		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
District Capital	[1]	1														
Coastal Nature	[2]	0.09	1													
Land Surface	[3]	0.40	0.14	1												
Altitude	[4]	-0.05	-0.31	0.13	1											
Terrain Ruggedness Index	[5]	-0.03	-0.10	0.04	0.52	1										
Latitude	[6]	0.00	-0.26	-0.03	0.21	0.11	1									
Within-District Centrality in 1806	[7]	0.00	0.14	0.20	0.05	0.12	-0.12	1								
State-Owned Status in 1979	[8]	0.46	0.14	0.27	-0.09	-0.01	0.03	-0.01	1							
Seat of a Bishop in 1797	[9]	0.41	0.09	0.12	-0.04	0.00	0.01	0.07	0.36	1						
Seat of an Archbishop in 1797	[10]	0.38	0.08	0.22	-0.05	-0.05	-0.01	-0.01	0.25	-0.01	1					
Princedom in 1797	[11]	0.02	0.03	0.06	0.01	-0.02	-0.06	0.02	-0.03	0.00	-0.01	1				
Population Above 5,000 in 1300–1500	[12]	0.64	0.16	0.35	-0.05	-0.04	0.00	-0.01	0.49	0.33	0.41	0.02	1			
Spread of the Plague in 1658	[13]	0.00	-0.15	-0.14	0.12	0.23	0.13	-0.02	0.07	0.00	-0.02	0.02	0.02	1		
Distance to the Closest Ancient Roman Road	[14]	-0.06	-0.01	0.11	0.21	0.09	0.04	-0.02	-0.04	-0.06	-0.01	0.00	-0.02	-0.17	1	
Exposure to Earthquakes in 1005–1805	[15]	0.03	-0.25	-0.17	0.21	0.27	0.54	-0.02	0.04	0.07	-0.04	0.00	-0.03	0.32	-0.19	1

Notes: Correlation coefficients are based on 974 municipality-level observations.

APPENDIX E—Population analysis: identification, robustness, and placebo tests

This Appendix reports the results of the identification, robustness, and placebo exercises presented in the main text.

Baseline and Identification

Table E1 reports the estimated coefficients of the event study analysis aimed at assessing the potential existence of anticipatory effects—see Figure 4 in the main text. Table E2 reports the results of the estimation of Equation (1) in the main text by assessing the urban development premium of district capitals during the Bourbonic and the Kingdom of Italy periods separately.

Suggestive Evidence on Migration

We complement the analysis presented in Table 2 in the main text by examining the role of migration as a potential factor influencing the population dynamics of district capitals.

As previously discussed, the selection of a city as a district capital led to the arrival of officials, civil servants, soldiers, and policemen along with their families. We assess the impact of these migration flows to determine whether an immigration rate premium can be detected for district capitals compared with non-capital cities in the period following the implementation of the 1806 Napoleonic reform. Naturally, conducting such an empirical test requires access to statistical data on migration flows at the municipality level. It is noteworthy that, during the "French Decade," the Napoleonic authorities conducted numerous statistical surveys to gather demographic information at the municipality, district, and province levels as well as insights into various aspects of the economic and social life of the Kingdom of Naples.[88]

Despite the numerous surveys conducted during this period, scholarly attention has primarily focused on the so-called *Statistica Murattiana*, that is, a comprehensive statistical survey of the physical, demographic, and economic resources of the Kingdom of Naples initiated in 1811 during the reign of Joachim Murat and conceived and supervised by Luca de Samuele Cagnazzi (Martuscelli 1979). The *Statistica Murattiana*, inspired by similar surveys undertaken in France during the Consulate period (1799–1804) and extended to the territories under Napoleonic rule in Italy (Martuscelli 1979), was structured around a questionnaire comprising five sections, each addressing a distinct theme, namely: the physical condition of the Kingdom; population movements; subsistence and welfare of the population; fishing and rural economy; and manufacturing.

The *Statistica Murattiana* has been judged by some scholars as "one of the most remarkable sources for the economic and social history of southern Italy" (Pedio 1964, p. 235, our translation) and as a "survey of the greatest importance" (Ricchioni 1942, p. 50, our translation). This high regard stems from the fact that the responses were not provided by

[88] Some examples can help us better understand the impressive efforts of the Napoleonic authorities in this regard. For instance, the Decree of 29 October 1808 marked the introduction of the first regulations governing the civil status service (Ciccolella 2000). In November 1808, the Minister of the Interior tasked the Intendants with analyzing the fairs held in their provinces, gathering information on their timing, duration, and the goods traded. Similarly, in July 1808, the Minister requested a survey of weights and measures in the municipalities of each district, aiming to establish a uniform system. Additionally, surveys were conducted on manufacturing, trade, and the condition of forests and woodlands. In 1810, a survey was conducted on uncultivated lands, lakes, ponds, and swamps. Furthermore, French authorities continuously monitored market prices in the principal markets of the Kingdom's provinces (Palomba 1984).

"high peripheral officials" (Palomba 1984, p. 422, our translation), but by "genuine sources stripped of political concerns" (Ricchioni 1942, p. 50, our translation). However, these favorable evaluations of the *Statistica Murattiana* have been significantly re-evaluated over time, particularly concerning the statistical reliability of the survey (Cassese 1955; Palomba 1984). Several examples highlight the reasons for the low quality of the data. In February 1810, the Intendant of *Calabria Citeriore* reported to the Ministry of the Interior that population statistics would not be compiled "with that exactitude, which is required, since the mayors, administrators, and inhabitants all are averse to these travails" (NSA, fs. 2285, our translation). Nevertheless, he provided the Ministry with an "approximate" population estimate, based on data from 1807, which was undoubtedly inaccurate "as a result of the Civil War of the *Calabrie*" (NSA, fs. 2288, our translation).

The challenges encountered during the statistical survey were attributed not only to the poor condition of the road network, impeding communication between the center and the periphery of the Kingdom, but also to deficiencies within the local bureaucracy, including understaffing and low educational qualification among municipal employees (Ciccolella 2000). In highlighting the low skill level of bureaucrats, it is noteworthy that in 1815 the Intendant of *Basilicata* informed the Minister of the Interior that municipal clerks compiled population statistics by simply adding the "yearly excess of births over deaths to previous totals, disregarding the impact of emigrations, historical events, and conscriptions on population changes" (NSA, fs. 2285, our translation). It is thus not surprising that, despite the abundance of information of the *Statistica Murattiana*, historians and demographers have questioned the reliability of these data (Palomba 1984; Ciccolella 2000).

Despite the data quality issues, we have decided to utilize this statistical source. Nevertheless, we have implemented data cleaning procedures to improve its quality. For this reason, we have first digitalized demographic data sourced from Martuscelli (1979), who compiles population figures from the *Statistica Murattiana*. This source includes data on adults and pupils (categorized by gender), marital status, occupation, births and deaths, new residents, and emigrants spanning the period 1812–1815. However, comprehensive information covering all the provinces of the Kingdom of Naples is only available for the year 1814. For this reason, we rely on migration data referring to the post-Napoleonic reform year 1814. Second, we have cleaned the digitalized dataset to narrow the sample to only those municipalities reporting reliable data. In particular, we have excluded municipalities reporting missing values, an adult population greater than or equal to total municipal population, data for individual categories (or their sum) greater than or equal to total municipal population, and a population growth rate in the periods 1797–1814 and 1814–1828 exceeding a threshold of ±40%. The cleaning procedure left us with a sample of 478 municipalities, of which 11 district capitals.

We have constructed two variables capturing migration in 1814, namely: an immigration rate defined as the number of new residents in a municipality per 1,000 inhabitants; and an emigration rate defined as the number of emigrants per 1,000 inhabitants. We have then tested for differences in migration patterns between district capitals and non-capital cities by relying on an OLS estimation approach, also controlling for municipality- and province-level controls.

Even though the results of this exercise which are reported in Table E3 should be regarded as purely suggestive and taken sparingly, they still provide us with some interesting insights. First, we find evidence of an immigration rate premium for district capitals compared with non-capital cities; second, we do not find differences in terms of emigration rate between capital and non-capital municipalities; finally, we do not find evidence of spillover effects.

Overall, these evidences suggest that district capitals were attracting more new residents than non-capital cities but, at the same time, neighboring non-capital cities were not experiencing an out-migration process in favor of district capitals. This also corroborates our main results of an urban development premium gained by district capitals compared with non-capital cities after the implementation of the 1806 administrative reform.

The Italian *Mezzogiorno* as a Malthusian economy

In this paper, we hypothesize that district capitals experienced a population growth premium. Specifically, following the 1806 administrative reform, district capitals underwent more rapid urban development. In a Malthusian economy, characterized by a strong relationship between population growth and economic resources, population increases tend to outpace available resources, leading to stagnation in income per capita. Indeed, any short-term advancements in technology or agricultural productivity typically result in population growth rather than a sustained rise in living standards. Consequently, in a Malthusian economy, population growth does not translate into increased income per capita (Ashraf and Galor 2011). On the contrary, a post-Malthusian economy emerges when advances in technology and improved resource management "break" the link between population growth and resource scarcity. During this phase, productivity improvements lead to higher income per capita, even as the population continues to grow (Ashraf and Galor 2011). Thus, a post-Malthusian economy is characterized by a sustained increase in income per capita over time.[89]

The Malthusian model generally applies to pre-industrial societies, where most of the population is employed in agriculture and technological progress is slow. There is little doubt that southern Italy, in the early nineteenth century, was a Malthusian economy, that is, predominantly agricultural, with very low literacy rates, and still far from experiencing the demographic transition (Livi Bacci 1977). As highlighted by economic historians, sustained industrial development in this geographical area only began in the early twentieth century (Ciccarelli and Fenoaltea 2014). Indeed, in almost all the provinces of the Kingdom of Naples, a very high percentage of the population was employed in agriculture. This figure did not change significantly either during Napoleonic rule or the Bourbon Restoration period. In 1800, the agricultural employment rate ranged from 75% to 90% across all provinces of the Kingdom of Naples, with the exception of the city of Naples, and it remained constantly high during the period 1800–1861. For instance, the rate declined slightly from 91% to 87% in the province of *Abruzzo Citeriore*, while it decreased marginally from 92% to 91% in the province of *Molise* (Chilosi and Ciccarelli 2021). In some provinces, such as *Terra di Lavoro*, this rate even increased. As noted earlier, the sole exception was the city of Naples, where employment was primarily concentrated in tertiary activities supporting the "Administrative Monarchy" (Spagnoletti 1997, p. 123, our translation). The share of those employed in these activities, although decreasing over the period under analysis, still represented 42% of total employment in 1861. In 1845, Naples alone had 8,337 civil servants (Spagnoletti 1997). Another source of tertiary employment in Naples was linked to the demand for domestic and service personnel by the nobility and bourgeoisie including domestic servants, porters, carters, and lackeys who predominantly resided in the capital (Davis 2006). Indeed, with a population of 410,000 inhabitants, Naples was "the place where the bureaucratic apparatus and almost all

[89] The wheels of changes allowing the transition out of the Malthusian world into modern economic growth, that is, technological progress, human capital, and the decline in population growth, are described in Galor (2022).

state expenditure was concentrated and where the most splendid Italian court and the upper strata of the aristocracy and bourgeoisie of the provinces where housed" (Spagnoletti 1997, p. 169, our translation). It is therefore not surprising that Nitti (1903), in his work entitled *Napoli e la Questione Meridionale*, noted that Naples had long been the largest Italian "city of consumption." Ultimately, it was a city lacking any significant productive or manufacturing vocation.

The Malthusian character of the Kingdom of Naples' economy is often attributed to centuries of foreign misrule and the subsequent exploitation of economic and social resources (Davis 2006), which transformed the Italian *Mezzogiorno* into a "paradise inhabited by devils" (Croce 2006), rendering it incapable of embracing the innovative dynamics of the modern age. In short, it was a profoundly backward region, as suggested by Antonio Gramsci in his *Quaderni del Carcere* (Davis 2006), and unable to break free from its Malthusian trajectory.[90]

However, even in a Malthusian economy, technological progress is not in principle absent; rather it results in a long-run increase in population and, given land, population density (Galor 2022). Therefore, we have tested the robustness of the baseline and event study analyses see column (6) in Table 1 and Figure 4 in the main text by considering population density (i.e., population per square km) as the dependent variable instead of population in line with, for example, Acemoglu, Johnson, and Robinson (2002). As shown in column (1) in Table E4, the baseline result on the district capital city treatment effect obtained by estimating Equation (1) in the main text is not statistically significant. However, the results obtained by estimating Equation (2) in the main text that is, the event study analysis specification highlight not only the absence of anticipatory effects but also a positive and statistically significant coefficient of the treatment dummy variable for district capital city relative to the post-reform year 1828. To explore further these results, we have thus investigated the distribution of the population density variable and found that the negligible average effect is driven by a severe outlying municipality, that is, the municipality of *Atrani*, which is indeed the smallest municipality in southern and in entire Italy in terms of land surface (i.e., 0.12 square km). This clearly emerges in Figure E1, which reports a boxplot analysis on the variable for population density: indeed, the municipality of *Atrani* emerges as an outlier in terms of population density with respect to all the observation years from 1648 to 1911. Based on this evidence, we have estimated Equations (1) and (2) in the main text by using population density as the dependent variable and excluding the municipality of *Atrani* from the estimation sample. The results of this exercise are reported in columns (3) and (4) in Table E4, respectively: first, we find that district capital cities experienced, on average, a population density premium compared to non-capital cities of approximately 46 inhabitants per square km; second, we do not find evidence of anticipatory effects. We have finally tested the validity of this analysis by estimating Equations (1) and (2) in the main text using population (in thousand inhabitants) as the dependent variable and excluding the municipality of *Atrani* from the estimation sample. The results of this exercise, which are reported in columns (5) and (6) in Table E4, fully corroborate the main evidence reported in column (6) in Table 1 and Figure 4 in the main text, respectively: indeed, we estimate an urban development premium of approximately 2,000 inhabitants for district capitals compared with non-capital cities, and we do not find evidence of anticipatory effects.

[90] For more recent interpretations of this vision of the economy and society of the Italian *Mezzogiorno* as a Malthusian world, we can refer to literary works such as Carlo Levi's *Cristo si è fermato a Eboli* and Giuseppe Tomasi di Lampedusa's *Il Gattopardo*.

Robustness Analysis

Tables E5 to E19 and Figure E2 report the results of a series of robustness exercises aimed at assessing the main findings presented in Table 1 in the main text.

First, we consider a "canonical" two-period difference-in-differences setting and narrow the observation period to only the pre-reform year 1797 and the post-reform year 1828. The results of this exercise are reported Table E5.

Second, we test for inference by clustering standard errors at various district and province levels. We consider the districts defined as for the 1806 Napoleonic reform, the Bourbonic period (year 1828), and the Kingdom of Italy period (1861–1911); we consider the provinces defined as for the pre-Napoleonic period, the 1806 Napoleonic reform, the Napoleonic period of 1807–1815 and Bourbonic year 1816 (during which provinces had the same structure), the Bourbonic period of 1817–1860, and the Kingdom of Italy period (1861–1911). This exercise also allows us to further control for the marginal changes in district boundaries occurred over the observation period. Tables E6 and E7 report the distribution of municipalities with respect to the various district and province levels considered in this exercise, while Table E8 reports the estimation results.

Third, we correct standard errors for spatial dependence of unknown form a la Conley (1999). We consider distance cut-off values of 50, 100, 150, and 200 km beyond which we assume spatial correlation to be zero, and allow a Bartlett distance linear decay in the correlation structure. The results of this exercise are reported in Table E9.

Fourth, we rely on a kernel matching approach to deal with potential selection biases related to the fact that, net of the criteria we adopted for identifying the estimation sample that is, the exclusion of municipalities that either were provincial capital before the 1806 reform or became provincial capitals between 1806 and 1911, became capitals of *governo*, and/or *circondario*, and/or *mandamento*, or underwent changes in administrative status between 1806 and 1911 , we had to drop some municipalities due to missing population data. Given the relatively small size of the treatment group (i.e., 15 municipalities), we expect kernel matching to exploit our data best as it uses all units in the control group to construct a match for each treated unit conditional on the treated and control units lying on the common support. We match district capitals with non-capital cities in a cross-sectional setting with respect to both the 1806 within-district centrality measure and the pre-1806 historical variables entering Equation (1) in the main text (i.e., state-owned municipality in 1797, bishop seat in 1797, archbishop seat in 1797, princedom in 1797, spread of the plague in 1658, "large city" in the period 1300–1500, distance to the closest ancient Roman road, and exposure to earthquakes in the period 1005–1805) and consider optimal, half-optimal, and double-optimal bandwidths. Table E10 reports the balance test on the matching procedures, while Table E11 reports the estimation results.

Fifth, we replicate the baseline model—see column (6) in Table 1 in the main text—by considering a walking time-based measure of within-district centrality in 1806 defined as the average pairwise duration of travel (expressed in hours) among the municipalities within a district. The results of this exercise are reported in column (1) in Table E12. Sixth, we control for municipalities' distance to the own district's centroid in 1806 rather than for within-district centrality in 1806. The results of this exercise are reported in column (2) in Table E12. Seventh, we restrict the control group to only those municipalities with a 1797 population level equal to or greater than the minimum 1797 population level in the treatment group in order to compare district capitals and non-capital cities that, at the time of the Napoleonic reform, were of similar size. The results of this exercise are reported in column (3) in Table E12. Eighth,

we exclude the district capitals of *Barletta* and *Pozzuoli* from the treatment group as no control municipality belonging to these two districts is included in our estimation sample. The results of this exercise are reported in column (4) in Table E12.

Nineth, we estimate Equations (1) and (2) in the main text by also adding the observation year 1814, related to the Napoleonic period, although on the restricted estimation sample for which 1814 population data are reliable. We also estimate Equations (1) and (2) on this reduced sample but omitting the observation year 1814. The results of these exercises are reported in Tables E13 and E14.

Tenth, we test for potential biases related to the phenomenon of "agro-towns." Although urbanization has been traditionally used as an indicator of development (Bairoch 1988), southern Italy can be a subtle case for economic historians due to the presence of "agro-towns," that is, large rural agglomerations of peasants that could number thousands of inhabitants but were not proper "modern cities" even when they combined food production with some (proto-)industrial activity (Blok 1969; Malanima 2005; Curtis 2013, 2015; Chilosi and Ciccarelli 2022).[91] Despite "agro-towns" were a widespread phenomenon in the Italian *Mezzogiorno*, they were mostly concentrated in western Sicily and the northern Apulian planes (Piccioni 2003; Malanima 2005; Curtis 2013). We test the robustness of our results to potential biases related to the presence of "agro-towns" by relying on two main data sources to identify those municipalities that were most likely peasants' agglomerations. First, we identify municipalities specialized exclusively in agricultural production from Giustiniani (1797–1805, Vol. I–X). Second, we rely on Curtis (2013, p. 378), who identifies six areas where "agro-towns" were most prevalent in continental *Mezzogiorno*, namely: *Basilicata*; the coastal plains of Latium; the *Crotonese* area of *Calabria*; the northern plains of Apulia (the so-called *Tavoliere*); the Apulian area of *Salento*; and the plains around Naples. We thus estimate Equation (1) in the main text on three alternative sub-samples of municipalities: first, we exclude only municipalities specialized exclusively in agricultural production; second, we exclude only those agricultural municipalities located in the (modern) Apulia region; third, we exclude agricultural municipalities located in the territories identified by Curtis (2013, p. 378). The results of these exercises are reported in Table E15.

Eleventh, we estimate Equation (1) in the main text by also controlling for market potential effects. Following Harris (1954) and Hanson (2005), we construct a time-varying market potential variable as follows:

$$Market\ Potential_{mt} = \sum_{j=1}^{J} \left(Population_{jt} \times e^{-d_{mj}} \right) \tag{E1}$$

[91] Malanima (2005) shows that, using demographic data from post-unification censuses and a conventional threshold of 5,000 residents in urban centers, southern Italy would emerge as one of the most urbanized areas in the world. However, southern Italy was characterized by the presence of these peasants' agglomerations. As noted by Malanima (2005, p. 98), "In the pre-modern world, agrarian families, although almost invariably present in both small and large towns, were usually only a minority. This was the case in the medieval cities of central and northern Italy, but not in the South, where the majority of the inhabitants of both large and small centres were often peasants. This was especially true of Sicily, where sparse settlement did not exist at all, and the population lived in large urban villages." See also Chilosi and Ciccarelli (2022) on this issue and the use of alternative cut-off values in defining urbanization rates.

where $Population_{jt}$ denotes the population of municipality j, with $j \neq m$, in observation year t, and d_{mj} denotes the distance between municipalities m and j. We also construct a time-invariant market potential variable by setting the pre-Napoleonic observation year 1797 as the reference point:

$$Market\ Potential_{m1797} = \sum_{j=1}^{J} \left(Population_{j1797} \times e^{-d_{mj}} \right) \quad \text{(E2)}$$

that enters Equation (1) in the main text interacted with year fixed effects. The results of this exercise are reported in Table E16.

Twelfth, we enlarge the treatment group and consider also those municipalities that have been district capitals only for a period of time between August 1806 and 1911—provided that they have never been provincial capitals—and which, therefore, we excluded from the estimation sample (see Table E17 for the list of municipalities). Table E18 reports the results of a series of robustness tests performed on the enlarged estimation sample that includes also 23 (out of the 26) additional district capitals for which we have been able to collect population figures over the entire observation period. Column (1) reports the results obtained by estimating Equation (1) in the main text on the enlarged estimation sample, and suggests an urban development premium of approximately 2,300 inhabitants for district capitals compared with non-capital cities. In column (2), we disentangle the district capital status' population effects between the municipalities that have been capital cities over the entire period of August 1806–1911 and those that have been capital cities only for a period of time between August 1806 and 1911. In column (3), we report the results obtained by estimating a modified version of Equation (1) in the main text where the district capital dummy variable is replaced by a continuous variable capturing the (cumulated) number of years a municipality has been a district capital. The results of these exercises suggest a relatively higher premium for municipalities that have been district capitals for a longer period of time: in other words, a longer exposure to the district capital city status has led to a higher urban development premium.

Thirteenth, we rely on the bias-corrected Synthetic Control Method proposed by Abadie and L'Hour (2021). We allow for the selection of synthetic control municipalities among all the non-capital cities based on the following municipality-level predictors: population in 1648, 1669, and 1797; baseline geographical controls (distance to the own provincial capital, within-district centrality in 1806, coastal dummy, land surface, altitude, latitude, and terrain ruggedness); and baseline historical (pre-1806) controls (1797 state-owned municipality dummy, 1797 bishop seat dummy, 1797 archbishop seat dummy, 1797 princedom municipality dummy, 1658 plague dummy, "large cities" dummy in the period 1300–1500, distance to the closest ancient Roman road, and exposure to earthquakes in the period 1005–1805). Figure E2 plots the estimated bias-corrected gap in population (defined in thousand inhabitants) between district capitals and synthetic control municipalities: the graphical evidence fully corroborates our main analysis.

As a final robustness exercise, we test for the different geographical units introduced by the 1806 Napoleonic administrative reform in the Kingdom of Naples namely, the *governo*, the district, and the province. We consider the 1,768 municipalities that belonged to the Kingdom of Naples at the time of the Napoleonic reforms and still existed as municipal

administrative units in 1911. Specifically, we rely on a cross-sectional setting and regress population in 1828, population density in 1828, and the log-yearly average growth rate of population in the period 1797–1828 on a categorical variable which takes a value of zero for non-capital cities thus representing our reference category , a value of one for the municipalities that were seat of *governo* in 1828, a value of two for the municipalities that were district capitals in 1828, and a value of three for the municipalities that were provincial capitals in 1828. In particular, we have been able to retrieve 1797 population figures for 1,704 municipalities and 1828 population figures for 1,762 municipalities, while information on both years is available for 1,699 municipalities only. We enrich the empirical model by including a dummy variable capturing whether a municipality was a provincial capital before the 1806 Napoleonic administrative reform, as well as municipality-level controls and either district or province fixed effects. The results of this exercise are reported in Table E19, and suggest three interesting insights. First, we find that capital cities recorded an urban development premium compared with non-capital cities, and this is especially the case for district capitals. Second, we find evidence that such premium was increasing in magnitude in the relative importance of capital cities. Finally, we do not find evidence of a persistent advantage for those municipalities that were provincial capitals already before 1806.

Placebo Analysis

We conduct two placebo exercises. As a first exercise, we assess the magnitude of the district capital treatment effect by estimating Equation (1) in the main text on 1,000 randomly drawn placebo treated units. Figure E3 plots the cumulative distribution of the estimated placebo coefficients, while Table E20 summarizes the results of the inference exercise on the 1,000 randomly drawn placebo treated units. We find that the "true" estimated effect associated with the district capital status is larger than 100% of the placebo effects. Moreover, among all the 1,000 estimated placebo regressions, we find 0% results to be statistically significant at 0.1% level, 1% results at 1%, 4.7% results at 5% level, and 5.3% results at 10% level. Overall, only 11% of the placebo treatment effects show some level of statistical significance.

As a second exercise, we consider the control municipalities closest to the centroid of their district in 1806 as placebo treated units and estimate three alternative specifications of Equation (1) in the main text see Table E21. First, we augment Equation (1) by including a dummy variable for the placebo district capitals: as shown in column (1), we estimate an average urban development premium of approximately 2,000 inhabitants for district capitals compared with non-capital cities, while we do not find evidence of an urban development premium for placebo district capitals. Second, we compare the placebo district capitals with the "true" control municipalities that is, we exclude the "true" district capitals from the estimation sample: as shown in column (2), we corroborate the absence of an urban development premium for placebo district capitals compared with the "true" non-capital cities. Third, we exclude the "true" control municipalities from the estimation sample and compare district capitals with placebo district capitals: as shown in column (3), we estimate an even higher average urban development premium for district capitals. Besides corroborating our main findings, these results also suggest that the municipalities selected as district capitals by the Napoleonic authorities in 1806 gained an urban development premium due to acquiring supra-municipal administrative functions and becoming "centers of power" and not because of a mere geographical effect related to their spatial centrality within districts.

Institutions versus Geography

We now provide more suggestive evidence to disentangle the population effects of being a district capital city from those (potentially) related to the geographical centrality of district capitals—that is, the selection criterion adopted by the Napoleonic authorities to identify district capitals in 1806. Indeed, it could be that higher geographical centrality has induced an urban development premium per se because of ease of movement and, thus, higher attractiveness for the surrounding population.

We estimate two series of cross-sectional population level equations via OLS for the years 1828–1911, and proxy for geographical centrality through two alternative variables: first, the measure of within-district centrality in 1806 defined as the average pairwise distance among municipalities within a district; second, the distance between a municipality and the centroid of its district in 1806. As shown in Table F22, we estimate a positive and statistically significant association between city size and the district capital city variable; by contrast, we find city size to be in a negligible association with both geographical centrality measures. This evidence further corroborates our results: district capitals gained an urban development premium by becoming "centers of power" and the seats of supra-municipal administrative functions.

TABLE E1: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: EVENT STUDY ANALYSIS

Dependent Variable	Population
Period Covered	1648–1911
	(1)
District Capital – Year 1648	0.720
	(0.843)
District Capital – Year 1669	-0.031
	(0.694)
District Capital – Year 1797	Ref.
District Capital – Year 1828	0.830***
	(0.288)
District Capital – Year 1859	1.819****
	(0.550)
District Capital – Year 1861	1.659**
	(0.681)
District Capital – Year 1871	1.924**
	(0.746)
District Capital – Year 1881	2.533***
	(0.975)
District Capital – Year 1901	3.188**
	(1.294)
District Capital – Year 1911	3.812**
	(1.522)
Municipality FE	Yes
Year FE	Yes
Bourbonic District Time Trends	Yes
Kingdom of Italy District Time Trends	Yes
Municipality-Level Controls	
Distance to Own Provincial Capital City	Yes
Geographical Controls × Year FE	Yes
Historical Controls × Year FE	Yes
Province Controls	Yes
No. of Observations	9,740
No. of Municipalities	974
No. of Treated Municipalities	15
No. of Control Municipalities	959
No. of Years	10
R^2	0.89

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level.

TABLE E2: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: ASSESSING PERIOD-SPECIFIC EFFECTS

Dependent Variable	Population
Period Covered	1648–1911
	(1)
District Capital	
Bourbonic and Pre-Lanza Law Period	1.198*
	(0.717)
Kingdom of Italy in the Post-Lanza Law Period	2.623**
	(1.254)
Municipality FE	Yes
Year FE	Yes
Bourbonic District Time Trends	Yes
Kingdom of Italy District Time Trends	Yes
Municipality-Level Controls	
Distance to Own Provincial Capital City	Yes
Geographical Controls × Year FE	Yes
Historical Controls × Year FE	Yes
Province Controls	Yes
No. of Observations	9,740
No. of Municipalities	974
No. of Treated Municipalities	15
No. of Control Municipalities	959
No. of Years	10
R^2	0.89

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level. The Bourbonic period refers to observation years 1828, 1859, and 1861. The Kingdom of Italy (post-Lanza period) refers to observation years 1871, 1881, 1901, and 1911.

TABLE E3: SUGGESTIVE EVIDENCE ON MIGRATION IN 1814

Dependent Variable	Immigration Rate				Emigration Rate			
Estimation Method	OLS							
Excluding Three Nearest Neighbors	No	No	No	Yes	No	No	No	Yes
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
District Capital	3.820	…	4.050	3.912	-0.518	…	-0.207	0.374
	(2.020)*		(2.043)**	(2.062)*	(2.096)		(2.082)	(2.195)
	[2.180]*		[2.193]*	[2.272]*	[2.274]		[2.271]	[2.358]
	{2.050}*		{2.055}**	{2.111}*	{2.294}		{2.303}	{2.365}
Three Nearest Neighbors	…	1.300	1.422	…	…	1.928	1.922	…
		(1.281)	(1.279)			(1.687)	(1.686)	
		[0.884]	[0.886]			[1.798]	[1.812]	
		{0.931}	{0.933}			{1.621}	{1.632}	
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Municipalities	478	478	478	445	478	478	478	445
No. of Treated Municipalities	11	11	11	11	11	11	11	11
No. of Control Municipalities	467	467	467	434	467	467	467	434
R^2	0.13	0.13	0.13	0.13	0.07	0.08	0.08	0.07

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors: clustered at the municipality level in parentheses; clustered at the 1814 district level in brackets; corrected for spatial dependence (50 km distance cut-off) in braces. The set of municipality-level controls includes population in 1814, population growth in 1797–1814, coastal dummy, land surface, altitude, terrain ruggedness, latitude, distance to the own provincial capital city in 1814. The set of province-level controls includes provincial-to-Kingdom of Naples population in 1814.

TABLE E4: POPULATION DENSITY EFFECTS OF DISTRICT CAPITAL CITY STATUS

Dependent Variable	Population Density				Population	
Estimation Sample	Whole Sample		Dropping the Municipality of *Atrani*			
Test	Baseline	Event Study	Baseline	Event Study	Baseline	Event Study
	(1)	(2)	(3)	(4)	(5)	(6)
District Capital	120.359	…	46.407*	…	1.980**	…
	(124.848)		(24.188)		(0.987)	
District Capital – Year 1648	…	-63.162	…	-10.462	…	0.699
		(132.525)		(26.250)		(0.842)
District Capital – Year 1669	…	-62.055	…	-0.592	…	-0.035
		(99.222)		(23.482)		(0.692)
District Capital – Year 1797	…	Ref.	…	Ref.	…	Ref.
District Capital – Year 1828	…	51.925*	…	23.997****	…	0.835***
		(30.694)		(7.141)		(0.290)
District Capital – Year 1859	…	35.245	…	39.859**	…	1.831****
		(101.490)		(16.446)		(0.550)
District Capital – Year 1861	…	53.395	…	38.100**	…	1.670**
		(68.653)		(15.955)		(0.680)
District Capital – Year 1871	…	54.560	…	41.420**	…	1.941***
		(82.398)		(21.011)		(0.745)
District Capital – Year 1881	…	63.886	…	45.049**	…	2.547***
		(87.817)		(19.856)		(0.975)
District Capital – Year 1901	…	132.150	…	50.149**	…	3.181**
		(84.675)		(22.909)		(1.293)
District Capital – Year 1911	…	202.862	…	69.140***	…	3.794**
		(157.587)		(22.458)		(1.520)
No. of Observations	9,740	9,740	9,730	9,730	9,730	9,730
No. of Municipalities	974	974	973	973	973	973
No. of Treated Municipalities	15	15	15	15	15	15
No. of Control Municipalities	959	959	958	958	958	958
No. of Years	10	10	10	10	10	10
R^2	0.92	0.92	0.90	0.90	0.89	0.90

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable for population is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level. The estimation period is 1648–1911. All specifications include municipality FE, year FE, Bourbonic district time trends, Kingdom of Italy district time trends, municipality-level controls, and province controls.

FIGURE E1: DETECTING OUTLYING OBSERVATIONS IN POPULATION DENSITY DISTRIBUTION (1648–1911)

Notes: The boxplot refers to the variable for population density (defined as population per square km). The distribution of the variable covers 7,940 municipality-year observations. Red labels identify the extreme outlying values referring to the municipality of *Atrani*, which reports outlying population density values in all the observation years.

TABLE E5: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: TWO-PERIOD ANALYSIS

Dependent Variable	Population
Observation Years	1797 and 1828
	(1)
District Capital	0.953
	(0.309)***
	[0.348]***
	{0.273}***
Municipality FE	Yes
Year FE	Yes
Municipality-Level Controls	
Distance to Own Provincial Capital City	Yes
Geographical Controls × Year FE	Yes
Historical Controls × Year FE	Yes
Province-Level Controls	Yes
No. of Observations	1,948
No. of Municipalities	974
No. of Treated Municipalities	15
No. of Control Municipalities	959
No. of Years	2
R^2	0.17

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors clustered: at the municipality level in parentheses; at the Bourbonic district level in brackets; at the Bourbonic province level in braces.

TABLE E6: NUMBER OF MUNICIPALITIES BY DISTRICT AS FOR THE INFERENCE ROBUSTNESS TEST

District	Napoleonic District (1806)		Bourbonic District (1828)		Kingdom of Italy District (1861)	
	No.	%	No.	%	No.	%
Altamura	4	0.41	4	0.41	4	0.41
Amantea	16	1.64	…	…	…	…
Aquila	33	3.39	28	2.87	28	2.87
Ariano	18	1.85	19	1.95	15	1.54
Avellino	28	2.87	35	3.59	30	3.08
Avezzano	…	…	27	2.77	27	2.77
Bari	9	0.92	9	0.92	9	0.92
Barletta	2	0.21	1	0.10	1	0.10
Benevento	…	…	…	…	17	1.75
Bonati	44	4.52	…	…	…	…
Bovino	…	…	9	0.92	5	0.51
Brindisi	…	…	7	0.72	7	0.72
Campagna	…	…	26	2.67	24	2.46
Campobasso	23	2.36	41	4.21	31	3.18
Caserta	…	…	30	3.08	30	3.08
Casoria	…	…	6	0.62	6	0.62
Castellammare	…	…	2	0.21	2	0.21
Castrovillari	25	2.57	27	2.77	27	2.77
Catanzaro	30	3.08	25	2.57	25	2.57
Cerreto	…	…	…	…	13	1.33
Chieti	37	3.80	28	2.87	28	2.87
Civita Ducale	16	1.64	6	0.62	6	0.62
Cosenza	30	3.08	29	2.98	29	2.98
Cotrone	…	…	17	1.75	17	1.75
Foggia	15	1.54	4	0.41	4	0.41
Gaeta	25	2.57	21	2.16	20	2.05
Gallipoli	…	…	30	3.08	30	3.08
Gerace	18	1.85	12	1.23	12	1.23
Isernia	50	5.13	30	3.08	37	3.80
Lagonegro	28	2.87	25	2.57	24	2.46
Lanciano	47	4.83	27	2.77	27	2.77
Larino	17	1.75	24	2.46	24	2.46
Lecce	53	5.44	27	2.77	27	2.77
Manfredonia	4	0.41	…	…	…	…
Matera	20	2.05	14	1.44	14	1.44
Melfi	…	…	10	1.03	10	1.03
Mesagne	11	1.13	…	…	…	…
Montefusco	42	4.31	…	…	…	…
Monteleone	20	2.05	14	1.44	14	1.44
Napoli	5	0.51	2	0.21	2	0.21
Nicastro	…	…	9	0.92	9	0.92
Nola	…	…	11	1.13	8	0.82
Palmi	…	…	11	1.13	11	1.13
Paola	…	…	15	1.54	15	1.54
Civita di Penne	29	2.98	25	2.57	25	2.57
Piedimonte d'Alife	…	…	28	2.87	15	1.54
Potenza	24	2.46	23	2.36	25	2.57
Pozzuoli	1	0.10	1	0.10	1	0.10
Reggio	14	1.44	5	0.51	5	0.51
Rossano	18	1.85	9	0.92	9	0.92
Sala Consilina	26	2.67	17	1.75	16	1.64
Salerno	34	3.49	19	1.95	19	1.95
San Bartolomeo in Galdo	…	…	…	…	10	1.03
San Severo	…	…	10	1.03	10	1.03
Santa Maria di Capua	60	6.16	…	…	…	…
Sant'Angelo de' Lombardi	…	…	27	2.77	23	2.36
Solmona	31	3.18	19	1.95	19	1.95
Sora	34	3.49	26	2.67	25	2.57
Taranto	13	1.33	13	1.33	13	1.33
Teramo	20	2.05	24	2.46	24	2.46
Vallo	…	…	37	3.80	37	3.80
Vasto	…	…	29	2.98	29	2.98
Total	974	100.00	974	100.00	974	100.00

Notes: The 1806 distribution of municipalities is defined as for Law No. 14 of 19 January 1807. The 1828 distribution of municipalities is defined as for Marzolla (1832). The 1861 distribution of municipalities is defined as for MAIC (1865). MAIC stands for Ministero dell'Agricoltura, Industria e Commercio

TABLE E7: NUMBER OF MUNICIPALITIES BY PROVINCE AS FOR THE INFERENCE ROBUSTNESS TEST

Pre-Napoleonic Period (1797)			Napoleonic Period					
			1806			1807–1815		
Province	No.	%	Province	No.	%	Province	No.	%
Abruzzo Citeriore	84	8.62	Abruzzo Citeriore	84	8.62	Abruzzo Citeriore	84	8.62
Abruzzo Ulteriore	129	13.24	Prima d'Abruzzo Ulteriore	49	5.03	Prima d'Abruzzo Ulteriore	49	5.03
		0.00	Seconda d'Abruzzo Ulteriore	80	8.21	Seconda d'Abruzzo Ulteriore	80	8.21
Basilicata	72	7.39	Basilicata	72	7.39	Basilicata	72	7.39
Calabria Citeriore	80	8.21	Calabria Citeriore	89	9.14	Calabria Citeriore	80	8.21
Calabria Ulteriore	93	9.55	Calabria Ulteriore	82	8.42	Calabria Ulteriore	93	9.55
		0.00			0.00			0.00
Principato Citeriore	99	10.16	Principato Citeriore	104	10.68	Principato Citeriore	99	10.16
Principato Ulteriore	81	8.32	Principato Ulteriore	88	9.03	Principato Ulteriore	81	8.32
		0.00			0.00			0.00
Capitanata	118	12.11	Capitanata	36	3.70	Capitanata	23	2.36
		0.00	Molise	73	7.49	Molise	95	9.75
Terra di Lavoro	127	13.04	Terra di Lavoro	119	12.22	Terra di Lavoro	116	11.91
		0.00	Napoli	6	0.62	Napoli	11	1.13
Terra d'Otranto	77	7.91	Terra d'Otranto	77	7.91	Terra d'Otranto	77	7.91
Terra di Bari	14	1.44	Terra di Bari	15	1.54	Terra di Bari	14	1.44
Total	974	100.00	Total	974	100.00	Total	974	100.00

Bourbonic Period						Kingdom of Italy		
1816			1817–1860			1861		
Province	No.	%	Province	No.	%	Province	No.	%
Abruzzo Citeriore	84	8.62	Abruzzo Citeriore	84	8.62	Abruzzo Citeriore	84	8.62
Prima d'Abruzzo Ulteriore	49	5.03	Prima d'Abruzzo Ulteriore	49	5.03	Prima d'Abruzzo Ulteriore	49	5.03
Seconda d'Abruzzo Ulteriore	80	8.21	Seconda d'Abruzzo Ulteriore	80	8.21	Seconda d'Abruzzo Ulteriore	80	8.21
Basilicata	72	7.39	Basilicata	72	7.39	Basilicata	73	7.49
Calabria Citeriore	80	8.21	Calabria Citeriore	80	8.21	Calabria Citeriore	80	8.21
Calabria Ulteriore	93	9.55	Calabria Ulteriore I	28	2.87	Calabria Ulteriore I	28	2.87
		0.00	Calabria Ulteriore II	65	6.67	Calabria Ulteriore II	65	6.67
Principato Citeriore	99	10.16	Principato Citeriore	99	10.16	Principato Citeriore	96	9.86
Principato Ulteriore	81	8.32	Principato Ulteriore	81	8.32	Principato Ulteriore	68	6.98
		0.00			0.00	Benevento	40	4.11
Capitanata	23	2.36	Capitanata	23	2.36	Capitanata	19	1.95
Molise	95	9.75	Molise	95	9.75	Molise	92	9.45
Terra di Lavoro	116	11.91	Terra di Lavoro	116	11.91	Terra di Lavoro	98	10.06
Napoli	11	1.13	Napoli	11	1.13	Napoli	11	1.13
Terra d'Otranto	77	7.91	Terra d'Otranto	77	7.91	Terra d'Otranto	77	7.91
Terra di Bari	14	1.44	Terra di Bari	14	1.44	Terra di Bari	14	1.44
Total	974	100.00	Total	974	100.00	Total	974	100.00

Notes: The 1797 distribution of municipalities is defined as for Giustiniani (1797–1805). The 1806 distribution of municipalities is defined as for Law No. 14 of 19 January 1807. The 1807–1815 distribution of municipalities is defined as for Decree No. 922 of 4 May 1811. The 1816 distribution of municipalities is defined as for Law No. 570 of 12 December 1816. The 1817–1860 distribution of municipalities is defined as for Marzolla (1832). The 1861 distribution of municipalities is defined as for MAIC (1865). MAIC stands for Ministero dell'Agricoltura, Industria e Commercio.

TABLE E8: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: INFERENCE THROUGH ALTERNATIVE CLUSTERING OF THE STANDARD ERRORS

Dependent Variable	Population							
Period Covered	1648–1911							
Clustering Level	District				Province			
	Napoleonic (1806)	Bourbonic (1828)	Kingdom of Italy (1861)	Pre-Napoleonic	Napoleonic (1806)	Napoleonic (1807–1815) / Bourbonic (1816)	Bourbonic (1817–1860)	Kingdom of Italy (1861)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
District Capital	1.967*	1.967*	1.967*	1.967**	1.967**	1.967**	1.967**	1.967**
	(1.063)	(1.056)	(1.057)	(0.718)	(0.742)	(0.751)	(0.877)	(0.877)
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bourbonic District Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Kingdom of Italy District Time Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Municipality-Level Controls								
Distance to Own Provincial Capital City	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Geographical Controls × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Historical Controls × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Observations	9,740	9,740	9,740	9,740	9,740	9,740	9,740	9,740
No. of Municipalities	974	974	974	974	974	974	974	974
No. of Treated Municipalities	15	15	15	15	15	15	15	15
No. of Control Municipalities	959	959	959	959	959	959	959	959
No. of Years	10	10	10	10	10	10	10	10
R^2	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors are reported in parentheses.

TABLE E9: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: INFERENCE VIA SPATIAL STANDARD ERRORS

Dependent Variable	Population			
Period Covered	1648–1911			
Distance Cut-Off (Spatial Correlation)	50 km	100 km	150 km	200 km
	(1)	(2)	(3)	(4)
District Capital	1.967****	1.967****	1.967****	1.967****
	(0.503)	(0.497)	(0.434)	(0.416)
Municipality FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Bourbonic District Time Trends	Yes	Yes	Yes	Yes
Kingdom of Italy District Time Trends	Yes	Yes	Yes	Yes
Municipality-Level Controls				
Distance to Own Provincial Capital City	Yes	Yes	Yes	Yes
Geographical Controls × Year FE	Yes	Yes	Yes	Yes
Historical Controls × Year FE	Yes	Yes	Yes	Yes
Province Controls	Yes	Yes	Yes	Yes
No. of Observations	9,740	9,740	9,740	9,740
No. of Municipalities	974	974	974	974
No. of Treated Municipalities	15	15	15	15
No. of Control Municipalities	959	959	959	959
No. of Years	10	10	10	10
R^2	0.89	0.89	0.89	0.89

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Conley (1999) standard errors are reported in parentheses.

TABLE E10: BALANCE TEST ON THE VARIABLES USED IN THE KERNEL MATCHING

Matching Variable	Difference in Mean Value (Treatment Group – Control Group) [p-value]							
	Sample							
	Un-Matched		Matched Sample					
			Half-Optimal Bandwidth		Optimal Bandwidth		Double-Optimal Bandwidth	
Within-District Centrality in 1806	0.107	[0.964]	-2.617	[0.501]	1.109	[0.748]	0.627	[0.846]
State-Owned Municipality in 1797	0.458	[0.000]	-0.126	[0.552]	-0.216	[0.295]	-0.113	[0.588]
Seat of a Bishop in 1797	0.517	[0.000]	-0.007	[0.979]	-0.060	[0.810]	0.082	[0.731]
Seat of an Archbishop in 1797	0.199	[0.000]	0.000	[1.000]	0.000	[1.000]	-0.057	[0.723]
Princedom in 1797	0.025	[0.633]	0.114	[0.397]	0.102	[0.395]	0.088	[0.422]
Spread of the Plague in 1658	0.013	[0.918]	-0.156	[0.473]	-0.303	[0.162]	-0.209	[0.336]
Population Above 5,000 in 1300–1500	0.596	[0.000]	0.007	[0.978]	0.068	[0.785]	0.073	[0.751]
Distance to the Closest Ancient Roman Road	-3.557	[0.075]	-1.225	[0.700]	-1.196	[0.681]	-1.533	[0.580]
Exposure to Earthquakes in 1005–1805	0.121	[0.354]	0.053	[0.852]	-0.010	[0.968]	0.198	[0.553]
No. Municipalities	974		958		968		969	
No. Treated Municipalities	15		8		9		10	
No. Control Municipalities	959		950		959		959	

TABLE E11 POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: ANALYSIS ON MATCHED SAMPLES

Dependent Variable	Population					
Period Covered	1648–1911					
Bandwidth in Kernel Matching	Half-Optimal		Optimal		Double-Optimal	
	(1)	(2)	(3)	(4)	(5)	(6)
District Capital	4.092****	3.786****	3.793****	3.402****	2.908****	3.111****
	(0.885)	(0.398)	(0.769)	(0.318)	(0.683)	(0.317)
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bourbonic District Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Kingdom of Italy District Time Trends	Yes	Yes	Yes	Yes	Yes	Yes
Municipality-Level Controls						
Distance to Own Provincial Capital City	Yes	Yes	Yes	Yes	Yes	Yes
Geographical Controls × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
(of which) Within-District Centrality in 1806	No	Yes	No	Yes	No	Yes
Historical Controls × Year FE	No	Yes	No	Yes	No	Yes
Province Controls	Yes	Yes	Yes	Yes	Yes	Yes
No. of Observations	9,580	9,580	9,680	9,680	9,690	9,690
No. of Municipalities	958	958	968	968	969	969
No. of Treated Municipalities	8	8	9	9	10	10
No. of Control Municipalities	950	950	959	959	959	959
No. of Years	10	10	10	10	10	10
R^2	0.98	0.99	0.98	0.99	0.97	0.99

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level.

TABLE E12: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: FURTHER ROBUSTNESS ANALYSES

Dependent Variable	Population			
Period Covered	1648–1911			
Robustness Test	Walking Time-based Within-District Centrality in 1806	Distance to District's Centroid in 1806	Control Municipalities with 1797 Population ≥ Minimum 1797 Population in Treatment Group	Excluding *Barletta* and *Pozzuoli* from the Treatment Group
	(1)	(2)	(3)	(4)
District Capital	1.966**	1.975**	2.501*	2.004**
	(0.987)	(0.987)	(1.448)	(1.017)
Municipality FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Bourbonic District Time Trends	Yes	Yes	Yes	Yes
Kingdom of Italy District Time Trends	Yes	Yes	Yes	Yes
Municipality-Level Controls				
Distance to Own Provincial Capital City	Yes	Yes	Yes	Yes
Geographical Controls × Year FE	Yes	Yes	Yes	Yes
Historical Controls × Year FE	Yes	Yes	Yes	Yes
Province Controls	Yes	Yes	Yes	Yes
No. of Observations	9,740	9,740	1,270	9,720
No. of Municipalities	974	974	127	972
No. of Treated Municipalities	15	15	15	13
No. of Control Municipalities	959	959	112	959
No. of Years	10	10	10	10
R^2	0.89	0.89	0.93	0.88

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level.

TABLE E13: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: ANALYSIS ON 1814 SAMPLE

Dependent Variable	Population	
Period Covered	1648–1911	
Observation Year 1814	Included	Excluded
	(1)	(2)
District Capital	2.149**	2.704**
	(1.070)	(1.200)
Municipality FE	Yes	Yes
Year FE	Yes	Yes
French District Time Trend	Yes	No
Bourbonic District Time Trends	Yes	Yes
Kingdom of Italy District Time Trends	Yes	Yes
Municipality-Level Controls		
Distance to Own Provincial Capital City	Yes	Yes
Geographical Controls × Year FE	Yes	Yes
Historical Controls × Year FE	Yes	Yes
Province-Level Controls	Yes	Yes
No. of Observations	5,258	4,780
No. of Municipalities	478	478
No. of Treated Municipalities	11	11
No. of Control Municipalities	467	467
No. of Years	11	10
R^2	0.92	0.92

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level.

TABLE E14: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: EVENT STUDY ANALYSIS ON 1814 SAMPLE

Dependent Variable	Population	
Period Covered	1648–1911	
Observation Year 1814	Included	Excluded
	(1)	(2)
District Capital – Year 1648	0.920	0.769
	(0.931)	(0.909)
District Capital – Year 1669	-0.239	-0.362
	(0.812)	(0.797)
District Capital – Year 1797	Ref.	Ref.
District Capital – Year 1814	0.387**	…
	(0.197)	
District Capital – Year 1828	1.184****	1.193****
	(0.220)	(0.225)
District Capital – Year 1859	2.353****	2.390****
	(0.637)	(0.639)
District Capital – Year 1861	2.245***	2.294***
	(0.814)	(0.815)
District Capital – Year 1871	2.229***	2.286***
	(0.824)	(0.827)
District Capital – Year 1881	3.072***	3.142***
	(1.144)	(1.148)
District Capital – Year 1901	4.345**	4.439***
	(1.697)	(1.698)
District Capital – Year 1911	5.063**	5.168**
	(2.032)	(2.031)
Municipality FE	Yes	Yes
Year FE	Yes	Yes
French District Time Trend	Yes	No
Bourbonic District Time Trends	Yes	Yes
Kingdom of Italy District Time Trends	Yes	Yes
Municipality-Level Controls		
Distance to Own Provincial Capital City	Yes	Yes
Geographical Controls × Year FE	Yes	Yes
Historical Controls × Year FE	Yes	Yes
Province-Level Controls	Yes	Yes
No. of Observations	5,258	4,780
No. of Municipalities	478	478
No. of Treated Municipalities	11	11
No. of Control Municipalities	467	467
No. of Years	11	10
R^2	0.92	0.92

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level.

TABLE E15: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: EXCLUDING "AGRO-TOWNS"

Dependent Variable	Population		
Period Covered	1648–1911		
Excluded Agricultural Municipalities	Kingdom of Naples	Apulia Region	Curtis (2013)
	(1)	(2)	(3)
District Capital	2.028**	2.006**	1.968**
	(0.982)	(0.982)	(0.982)
Municipality FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Bourbonic District Time Trends	Yes	Yes	Yes
Kingdom of Italy District Time Trends	Yes	Yes	Yes
Municipality-Level Controls			
Distance to Own Provincial Capital City	Yes	Yes	Yes
Geographical Controls × Year FE	Yes	Yes	Yes
Historical Controls × Year FE	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes
No. of Observations	7,580	9,110	8,880
No. of Municipalities	758	911	888
No. of Treated Municipalities	14	15	15
No. of Control Municipalities	744	896	873
No. of Years	10	10	10
R^2	0.89	0.90	0.90

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level. Municipalities specialized in agriculture are identified based on Giustiniani (1797–1805, Vol. I–X). Curtis (2013, p. 378) identifies six areas where "agro-towns" were most prevalent in the continental *Mezzogiorno*, namely: *Basilicata*, the coastal plains of Latium, the *Crotonese* area of *Calabria*, the northern plains of Apulia (the so-called *Tavoliere*), the Apulian area of *Salento*, and the plains around Naples.

TABLE E16: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: CONTROLLING FOR MARKET POTENTIAL

Dependent Variable	Population	
Period Covered	1648–1911	
Market Potential	Time-Varying	Time Invariant (1797)
	(1)	(2)
District Capital	1.968**	1.973**
	(0.987)	(0.986)
Municipality FE	Yes	Yes
Year FE	Yes	Yes
Bourbonic District Time Trends	Yes	Yes
Kingdom of Italy District Time Trends	Yes	Yes
Municipality-Level Controls		
Distance to Own Provincial Capital City	Yes	Yes
Geographical Controls × Year FE	Yes	Yes
Historical Controls × Year FE	Yes	Yes
Province-Level Controls	Yes	Yes
No. of Observations	9,740	9,740
No. of Municipalities	974	974
No. of Treated Municipalities	15	15
No. of Control Municipalities	959	959
No. of Years	10	10
R^2	0.89	0.89

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level. The time-invariant market potential variable is defined using 1797 population figures, and enters the regression model interacted with year FE.

TABLE E17: MUNICIPALITIES THAT HAVE BEEN DISTRICT CAPITAL ONLY FOR A PERIOD OF TIME

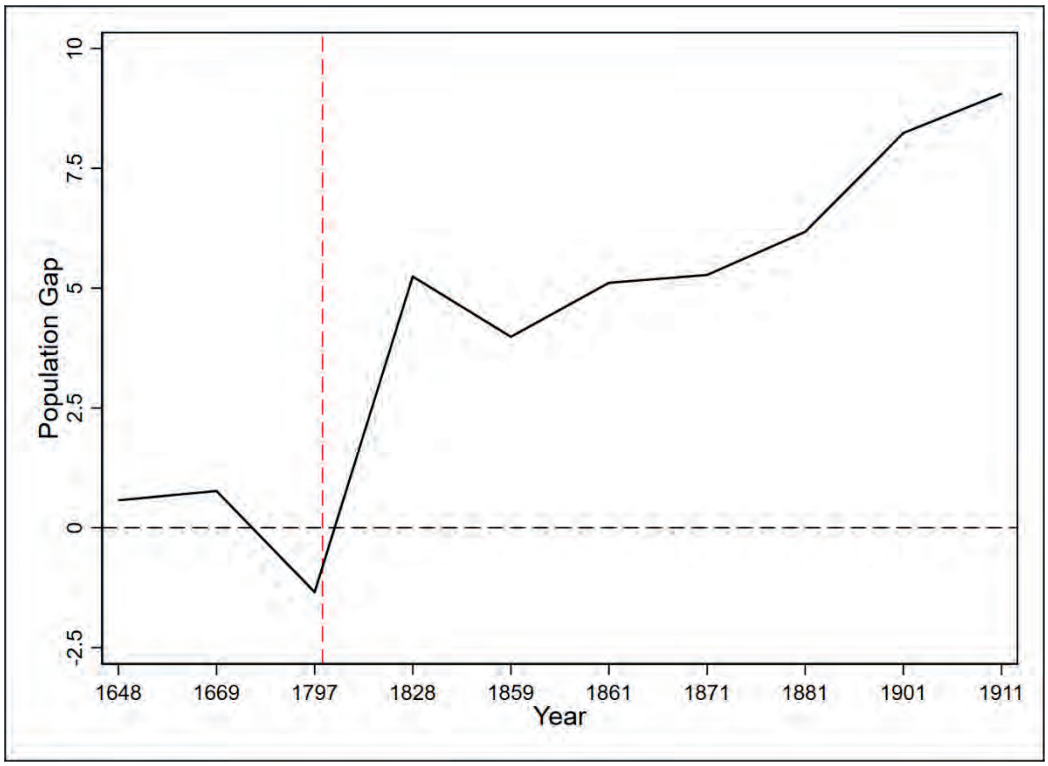
Municipality	Included in the Enlarged Sample or Eligible but Excluded from the Enlarged Sample	Period as District Capital
Amantea	Included	August 1806–April 1811
Avezzano	Included	May 1811–1911
Bovino	Included	May 1811–1911
Brindisi	Included	December 1816–1911
Campagna	Included	May 1811–1911
Casoria	Excluded—Missing pre-1806 population data	May 1811–1911
Cerreto Sannita	Included	February 1861–1911
Città Sant'Angelo	Included	1837–1848
Cotrone	Included	December 1816–1911
Gallipoli	Included	December 1816–1911
Nicastro	Included	December 1816–1911
Larino	Included	December 1816–1911
Manfredonia	Included	August 1806–April 1811
Melfi	Included	May 1811–1911
Mesagne	Included	August 1806–November 1816
Nola	Included	May 1811–1911
Palmi	Included	December 1816–1911
Paola	Included	May 1811–1911
Civita di Penne	Included	August 1806–1837, 1848–1911
Piedimonte d'Alife	Included	May 1811–1911
San Bartolomeo in Galdo	Excluded—Missing pre-1806 population data	February 1861–1911
San Severo	Included	May 1811–1911
Sant'Angelo de' Lombardi	Included	May 1811–1911
Vallo	Included	May 1811–1911
Vasto	Excluded—Missing pre-1806 population data	May 1811–1911
Bonati	Included	August 1806–April 1811

TABLE E18: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: ENLARGED TREATMENT GROUP

Dependent Variable	Population		
Period Covered	1648–1911		
	(1)	(2)	(3)
District Capital – Enlarged Treatment Group	2.372****	…	…
	(0.514)		
District Capital – Original Estimation Sample	…	3.122***	…
		(1.073)	
District Capital – Additional Treated Units	…	2.062****	…
		(0.581)	
No. of Years as District Capital	…	…	0.046****
			(0.011)
Municipality FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Bourbonic District Time Trends	Yes	Yes	Yes
Kingdom of Italy District Time Trends	Yes	Yes	Yes
Municipality-Level Controls			
Distance to Own Provincial Capital City	Yes	Yes	Yes
Geographical Controls × Year FE	Yes	Yes	Yes
Historical Controls × Year FE	Yes	Yes	Yes
Province Controls	Yes	Yes	Yes
No. of Observations	9,970	9,970	9,970
No. of Municipalities	997	997	997
No. of Treated Municipalities	38	38	38
No. of Control Municipalities	959	959	959
No. of Years	10	10	10
R^2	0.90	0.90	0.90

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level.

FIGURE E2: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: SYNTHETIC CONTROL METHOD



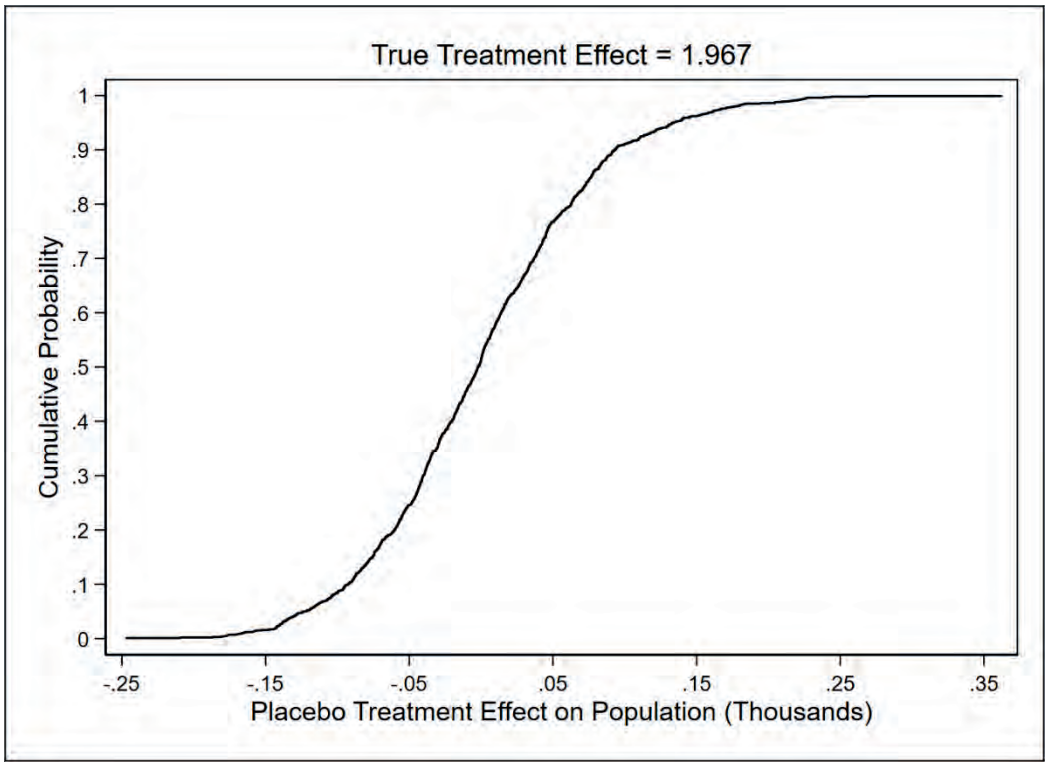
Notes: The plot reports the bias-corrected gap in population (defined in thousand inhabitants) between district capitals and synthetic control municipalities estimated using the approach proposed by Abadie and L'Hour (2021), and implemented using Wiltshire's (2022) "allsynth" Stata code. Synthetic control municipalities are chosen among all the non-capital cities based on the following municipality-level predictor variables: population in 1648, 1669, and 1797; baseline geographical controls (distance to the own provincial capital, coastal dummy, land surface, altitude, latitude, terrain ruggedness, within-district centrality in 1806); and baseline historical (pre-1806) controls (1797 state-owned municipality dummy, 1797 bishop seat dummy, 1797 archbishop seat dummy, 1797 princedom municipality dummy, 1658 plague dummy, "large cities" dummy in the period 1300–1500, distance to the closest ancient Roman road, exposure to earthquakes in the period 1005–1805). The red dashed line refers to the 1806 Napoleonic administrative reform.

TABLE E19: DIFFERENT GEOGRAPHICAL UNITS: A CORRELATION ANALYSIS

Dependent Variable	Population (Thousands, 1828)		Population Density (1828)		log[Yearly Average Population Growth (1797-1828)]	
Estimation Method	OLS					
	(1)	(2)	(3)	(4)	(5)	(6)
Municipality Without Administrative Functions	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Head of *Governo*	1.652****	1.709****	22.647	29.433	0.020****	0.020****
	(0.284)	(0.261)	(20.457)	(18.114)	(0.001)	(0.001)
Head of District	4.349****	4.105****	61.950**	48.445*	0.032****	0.034****
	(0.975)	(1.201)	(24.525)	(27.325)	(0.003)	(0.003)
Head of Province	23.484*	24.572	198.077*	161.945	0.044****	0.047****
	(13.100)	(14.952)	(101.982)	(110.128)	(0.006)	(0.007)
Head of Province Before 1806	7.946	8.585	93.922	90.825	0.002	0.001
	(7.550)	(8.615)	(63.049)	(65.842)	(0.005)	(0.005)
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
District FE	Yes	No	Yes	No	Yes	No
Province FE	No	Yes	No	Yes	No	Yes
No. of Municipalities	1,762	1,762	1,762	1,762	1,699	1,699
R^2	0.29	0.23	0.14	0.12	0.60	0.56

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the municipality level. The set of municipality-level controls includes coastal dummy, land surface, altitude, terrain ruggedness, latitude, distance to closest ancient Roman road, state-owned municipality status in 1797, seat of bishop status in 1797, seat of archbishop status in 1797, and distance to the own provincial capital in 1828. Log-population in 1797 is included as a control in columns (5) and (6).

FIGURE E3: CUMULATIVE DISTRIBUTION OF 1,000 RANDOMLY DRAWN PLACEBO TREATMENT COEFFICIENTS



Notes: The plot reports the cumulative distribution of coefficients obtained by estimating Equation (1)—see column (6) in Table 1 in the main text—with 1,000 randomly drawn placebo treated units. The *y*-axis indicates the point in the distribution, while the *x*-axis indicates the value of the placebo coefficients.

TABLE E20: INFERENCE ON 1,000 RANDOMLY DRAWN PLACEBO TREATED UNITS

Significance Level	Regressions with Significant Placebo Treatment Effect	
	No.	%
10%	53	5.30
5%	47	4.70
1%	10	1.00
0.1%	0	0.00

Notes: Percentage values are defined with respect to 1,000 estimations of Equation (1)—see column (6) in Table 1 in the main text.

TABLE E21: POPULATION EFFECTS OF DISTRICT CAPITAL CITY STATUS: PLACEBO TREATED UNITS IDENTIFIED BASED ON PROXIMITY TO DISTRICT'S CENTROID IN 1806

Dependent Variable	Population		
Period Covered	1648–1911		
Estimation Sample	Whole Sample	Excluding District Capitals	District vs. Placebo District Capitals
	(1)	(2)	(3)
District Capital	1.974**	…	5.062***
	(0.987)		(1.597)
Placebo District Capital	0.329	0.323	Ref.
	(0.206)	(0.202)	
Municipality FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Bourbonic District Time Trends	Yes	Yes	Yes
Kingdom of Italy District Time Trends	Yes	Yes	Yes
Municipality-Level Controls			
Distance to Own Provincial Capital City	Yes	Yes	Yes
Geographical Controls × Year FE	Yes	Yes	Yes
Historical Controls × Year FE	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes
No. of Observations	9,740	9,590	360
No. of Municipalities	974	959	36
No. of Treated Municipalities	15	…	15
No. of Placebo Treated Municipalities	21	21	…
No. of Control Municipalities	938	938	21
No. of Years	10	10	10
R^2	0.89	0.83	0.98

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors (in parentheses) are clustered at the municipality level. Placebo district capitals are those control municipalities that are closest to their own 1806 district's centroid, and identified based on the whole population of municipalities existing in 1806.

TABLE E22: INSTITUTIONS VERSUS GEOGRAPHY: A CORRELATION ANALYSIS

Dependent Variable	Population						
Observation Year	1828	1859	1861	1871	1881	1901	1911
Geographical Centrality Measure	Within-District Centrality in 1806						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
District Capital	6.668	8.328	8.588	8.896	9.745	11.309	12.401
	(1.064)****	(1.367)****	(1.504)****	(1.604)****	(1.762)****	(2.540)****	(2.888)****
	[1.081]****	[1.368]****	[1.509]****	[1.593]****	[1.776]****	[2.574]****	[2.930]****
Within-District Centrality in 1806	-0.000	-0.008	-0.009	-0.006	-0.010	-0.016	-0.019
	(0.004)	(0.005)	(0.005)*	(0.005)	(0.006)	(0.010)	(0.012)
	[0.005]	[0.006]	[0.006]	[0.006]	[0.006]	[0.010]	[0.012]
R^2	0.54	0.57	0.61	0.60	0.62	0.58	0.56
Geographical Centrality Measure	Distance to District's Centroid in 1806						
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
District Capital	6.673	8.374	8.628	8.915	9.777	11.350	12.451
	(1.064)****	(1.373)****	(1.513)****	(1.603)****	(1.771)****	(2.567)****	(2.919)****
	[1.080]****	[1.378]****	[1.521]****	[1.593]****	[1.786]****	[2.599]****	[2.959]****
Distance to District's Centroid in 1806	0.001	-0.000	-0.001	-0.002	-0.003	-0.007	-0.007
	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.006)	(0.007)
	[0.004]	[0.004]	[0.004]	[0.005]	[0.005]	[0.007]	[0.008]
R^2	0.54	0.56	0.61	0.60	0.62	0.58	0.56
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-Level Controls							
Provincial-to-Kingdom of Naples Population	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Provincial Railway Density	No	Yes	Yes	Yes	Yes	Yes	Yes
Provincial Literacy Rate	No	No	Yes	Yes	Yes	Yes	Yes
No. of Municipalities	974	974	974	974	974	974	974
No. of Treated Municipalities	15	15	15	15	15	15	15
No. of Control Municipalities	959	959	959	959	959	959	959

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable is defined in thousand inhabitants. Standard errors clustered at the municipality level are reported in parentheses. Standard errors clustered at the district level (Bourbonic district for the observation years 1828 and 1859, while Kingdom of Italy district for the observation years 1861–1911) are reported in brackets. The set of municipality-level controls includes: coastal dummy; land surface; altitude; terrain ruggedness; latitude; year-specific distance to the own provincial capital city.

APPENDIX F—Industrial development analysis: data and descriptive statistics

In this Appendix, we summarize the variables (definition and data source) used in the industrial development analysis presented in the main text (Table F1) and report some descriptive statistics (Table F2).

TABLE F1: DATA SOURCE AND VARIABLE DEFINITION

Variable	Definition	Source
Municipality-Level		
Industrial City in 1850–1860	Dummy for municipalities identified as production centers in 1850–1860	Petrocchi (1955); Mangone (1976)
Total Employment per Inhabitant in 1911	Total employment over population in 1911	MAIC (1912, 1913)
Industrial Employment per Inhabitant in 1911	Industrial employment over population in 1911	MAIC (1912, 1913)
Services Employment per Inhabitant in 1911	Services employment over population in 1911	MAIC (1912, 1913)
District Capital	Dummy for district capital city municipalities	Various sources (1)
Population Density (1828, 1911)	Population per km^2	Various sources (2); ISTAT (3)
Population Growth in 1797–T (T = 1828, 1911)	Population growth between 1797 and T	Various sources (4)
Coastal Municipality	Dummy for coastal municipalities	ISTAT (3)
Land Surface	Land surface (km^2)	ISTAT (3)
Altitude	Altitude (km)	ISTAT (3)
Terrain Ruggedness Index	Terrain Ruggedness Index	EEA (5)
Latitude	Latitude (degrees)	ISTAT (3)
Distance to the Own Provincial Capital City (1828, 1911)	Distance between the municipality centroid and the centroid of its own provincial capital city (km)	ISTAT (3)
Province-Level		
Provincial-to-Kingdom of Naples Population (1828, 1911)	Share of provincial population to total population in the Kingdom of Naples' territory	Various sources (2)
Provincial Railway Density (1859, 1911)	Provincial density of the railway network (km^2)	Ciccarelli and Groote (2017)
Provincial Literacy Rate (1911)	Provincial rate of literate adult population	Ciccarelli and Weisdorf (2019)

Notes: (1) Law No. 132 of 8 August 1806, Law No. 272 of 8 December 1806, Decree No. 922 of 4 May 1811, Law No. 570 of 12 December 1816, Marzolla (1832), De Sanctis (1840), MAIC (1864, 1865). (2) Marzolla (1832), MAIC (1912). (3) Elaboration on digital cartography. (4) Giustiniani (1797–1805), Marzolla (1832), MAIC (1874, 1912). (5) Elaboration on EEA's Global Digital Elevation Model (DEM) derived from GTOPO30 with 1 km-by-1 km resolution. MAIC stands for Ministero dell'Agricoltura, Industria e Commercio. ISTAT stands for Istituto Nazionale Italiano di Statistica. EEA stands for European Environment Agency.

TABLE F2: DESCRIPTIVE STATISTICS OF THE DEPENDENT AND CONTROL VARIABLES

Variable	Mean	Std. Dev.	Min.	Max.
Municipality-Level				
Industrial City in 1850–1860	0.02	0.12	0	1
Total Employment per Inhabitant in 1911	0.02	0.03	0.00	0.42
Industrial Employment per Inhabitant in 1911	0.02	0.03	0.00	0.42
Services Employment per Inhabitant in 1911	0.00	0.00	0.00	0.02
District Capital	0.02	0.12	0	1
Population Density in 1828	116.05	540.73	4.87	16,583.75
Population Density in 1911	148.02	405.89	12.75	11,708.13
Population Growth in 1797–1828	0.35	1.13	-0.88	21.50
Population Growth in 1797–1911	1.02	2.06	-0.88	36.10
Coastal Municipality	0.11	0.31	0	1
Land Surface	32.29	28.78	0.12	431.38
Altitude	455.74	284.76	2.00	1,433.00
Terrain Ruggedness Index	230.45	137.03	1.90	698.74
Latitude	40.87	1.10	37.96	42.86
Distance to the Own Provincial Capital City in 1828	37.99	21.71	3.63	121.73
Distance to the Own Provincial Capital City in 1911	37.57	21.79	3.63	121.73
Province-Level				
Provincial-to-Kingdom of Naples Population in 1828	0.07	0.03	0.03	0.15
Provincial-to-Kingdom of Naples Population in 1911	0.06	0.02	0.03	0.15
Provincial Railway Density in 1859	0.00	0.02	0.00	0.20
Provincial Railway Density in 1911	0.12	0.11	0.06	1.00
Provincial Literacy Rate in 1911	0.45	0.07	0.36	0.65

Notes: Descriptive statistics are based on 974 municipality-level observations.

APPENDIX G—Industrial development analysis: robustness tests

In this Appendix, we present a series of exercises aimed at testing the robustness of the results reported in Table 3 in the main text.

First, we replicate the analysis on industrial development by relying on an instrumental variable (IV) approach to deal with potential biases arising from omitted variables and selection related to the fact that, net of the criteria we adopted for identifying the estimation sample, we had to drop some municipalities due to missing population data. We thus instrument the variable for district capital city with the variable for within-district centrality in 1806 plus a series of historical (pre-1806) variables, namely: the dummy variable for state-owned municipalities in 1797; the dummy variables for bishop and archbishop seat in 1797; the dummy variable for princedom municipalities in 1797; a dummy variable capturing whether a municipality recorded a population of at least 5,000 inhabitants in 1797; and the variable capturing municipalities' exposure to earthquakes in the period 1005–1805 see Table G1 for a summary of the IVs (definition and data source). The results of this exercise are reported in Table G2. Specifically, we report the results of the IV-LPM estimation of Equation (4) in the main text for industrial development in the Bourbonic period where the dependent variable is the dummy for "industrial city" in 1850–1860 in columns (1) and (2); we report the results of the IV estimates for the Kingdom of Italy period where the dependent variable is the number of (total, industrial, services) employees per inhabitant in 1911 in columns (3) to (5). The first-stage F statistic on the excluded IVs is higher than the conservative cut-off value of 10 and the p-value of the Hansen J statistic testing the over-identifying restrictions is negligible in all the estimated specifications. Looking at the Bourbonic period, we estimate that district capitals were approximately 31% more likely to be industrial cities than non-capital cities. Looking at the Kingdom of Italy period, we estimate that district capitals had approximately 0.06 employees per inhabitant more than non-capital cities, and that as for the OLS analysis this result is driven by industrial rather than services employment.

Second, we replicate the analysis presented in Table 3 in the main text as well as the IV analysis presented in Table G2 by clustering standard errors at the district level. The results for industrial development in the period 1850–1860 are reported in Table G3, while those concerning industrial development in the year 1911 are reported in Table G4.

TABLE G1: DATA SOURCE AND VARIABLE DEFINITION

Variable	Definition	Source
Within-District Centrality 1806	Average pairwise distance among municipalities within a district in 1806 (km)	Law 14, 19 January 1807; ISTAT (1)
State-Owned Status in 1797	Dummy for state-owned municipalities	Giustiniani (1797–1805)
Seat of a Bishop in 1797	Dummy for bishop seat municipalities	Giustiniani (1797–1805)
Seat of an Archbishop in 1797	Dummy for archbishop seat municipalities	Giustiniani (1797–1805)
Princedom in 1797	Dummy for princedom municipalities	Giustiniani (1797–1805)
Population Above 5,000 in 1797	Dummy for municipalities with a population greater than or equal to 5,000 inhabitants in 1797	Giustiniani (1797–1805)
Exposure to Earthquakes in 1005–1805	No. of earthquakes weighted by intensity in [0, 1] and scaled by distance to the epicenter in 1005–1805	Rovida et al. (2020)

Notes: (1) Elaboration on digital cartography. ISTAT stands for Istituto Nazionale Italiano di Statistica.

TABLE G2: INDUSTRIAL DEVELOPMENT: IV ESTIMATES

Dependent Variable	Industrial City in 1850–1860		Employment Per Inhabitant in 1911		
			Total	Industrial	Services
Estimation Method	IV-LPM	IV-LPM	IV	IV	IV
	(1)	(2)	(3)	(4)	(5)
District Capital	0.321**	0.311**	0.061***	0.057**	0.004***
	(0.138)	(0.140)	(0.023)	(0.023)	(0.001)
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes	Yes	Yes
1871 *Compartimento* FE	…	…	Yes	Yes	Yes
No. of Municipalities	974	974	974	974	974
No. of Treated Municipalities	15	15	15	15	15
No. of Control Municipalities	959	959	959	959	959
R^2	0.07	0.07	0.06	0.06	0.06
First-Stage F Statistic on Excluded IVs	12.98	12.93	13.57	13.57	13.57
Hansen J Statistic [p-value]	0.124	0.125	0.827	0.805	0.293

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the municipality level. Municipality-level controls in all specifications are coastal feature, land surface, altitude, terrain ruggedness, and latitude. Estimates on industrial development in 1850–1860: the set of municipality-level controls includes population density in 1828, population growth in 1797–1828, distance to the own provincial capital city in 1828; the set of province-level controls in column (1) includes provincial-to-Kingdom of Naples population in 1828; the set of province-level controls in column (2) includes provincial-to-Kingdom of Naples population in 1828, provincial railway density in 1859. Estimates on employment per inhabitant in 1911: the set of municipality-level controls includes population density in 1911, population growth in 1797–1911, distance to the own provincial capital city in 1911; the set of province-level controls includes provincial-to-Kingdom of Naples population in 1911, provincial railway density in 1911, provincial literacy rate in 1911. The set of excluded IVs includes within-district centrality in 1806; 1797 state-owned dummy; 1797 bishop dummy; 1797 archbishop dummy; 1797 princedom dummy; population above 5,000 inhabitants in 1797; exposure to earthquakes in 1005–1805.

TABLE G3: INDUSTRIAL DEVELOPMENT IN 1850–1860: STANDARD ERRORS CLUSTERED AT THE DISTRICT LEVEL

Dependent Variable	Industrial City					
Estimation Method	Probit		LPM		IV-LPM	
	(1)	(2)	(3)	(4)	(5)	(6)
District Capital	1.617****	1.541****	0.242**	0.236**	0.321**	0.311**
	(0.336)	(0.348)	(0.109)	(0.110)	(0.138)	(0.140)
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
No. of Municipalities	974	974	974	974	974	974
No. of Treated Municipalities	15	15	15	15	15	15
No. of Control Municipalities	959	959	959	959	959	959
Pseudo-R^2	0.16	0.17	…	…	…	…
R^2	…	…	0.07	0.08	0.07	0.07
First-Stage F Statistic on Excluded IVs	…	…	…	…	12.35	11.98
Hansen J Statistic (p-value)	…	…	…	…	0.277	0.251

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the Bourbonic 1828 district level. The set of municipality-level controls includes: population density in 1828; population growth in 1797–1828; coastal dummy; land surface; altitude; terrain ruggedness; latitude; distance to the own provincial capital city in 1828. The set of province-level controls in columns (1), (3), and (5) includes: provincial-to-Kingdom of Naples population in 1828. The set of province-level controls in columns (2), (4), and (6) includes: provincial-to-Kingdom of Naples population in 1828; provincial railway density in 1859. The set of excluded IVs includes: within-district centrality in 1806; 1797 state-owned dummy; 1797 bishop dummy; 1797 archbishop dummy; 1797 princedom dummy; population above 5,000 inhabitants in 1797; exposure to earthquakes in 1005–1805.

TABLE G4: EMPLOYMENT IN 1911: STANDARD ERRORS CLUSTERED AT THE DISTRICT LEVEL

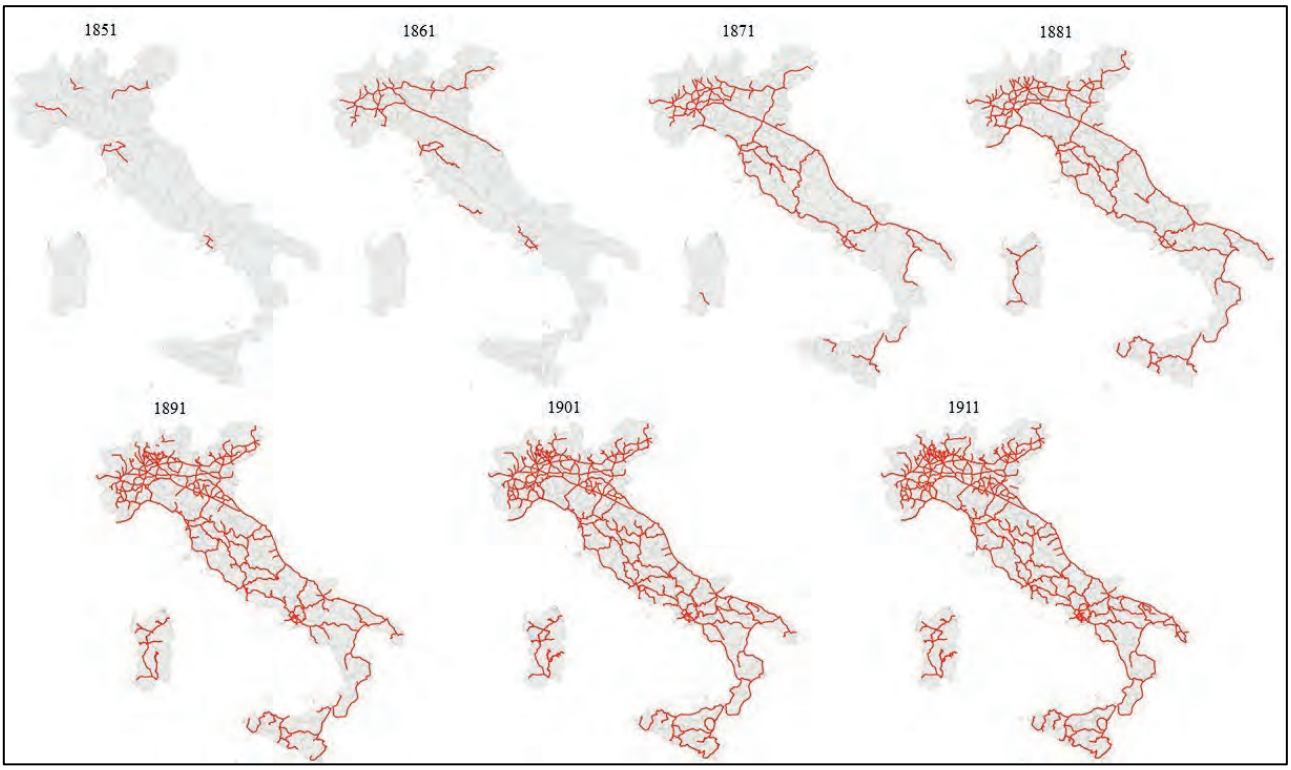
Dependent Variable	Employment Per Inhabitant					
	Total Employment		Industrial Employment		Services Employment	
Estimation Method	OLS	IV	OLS	IV	OLS	IV
	(1)	(2)	(3)	(4)	(5)	(6)
District Capital	0.030**	0.061***	0.027**	0.057***	0.002**	0.004***
	(0.012)	(0.022)	(0.013)	(0.022)	(0.001)	(0.001)
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
1871 *Compartimento* FE	Yes	Yes	Yes	Yes	Yes	Yes
No. of Municipalities	974	974	974	974	974	974
No. of Treated Municipalities	15	15	15	15	15	15
No. of Control Municipalities	959	959	959	959	959	959
R^2	0.07	0.06	0.07	0.06	0.08	0.06
First-Stage F Statistic on Excluded IVs	…	14.32	…	14.32	…	14.32
Hansen J Statistic (p-value)	…	0.706	…	0.678	…	0.114

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the Kingdom of Italy district level. The set of municipality-level controls includes: population density in 1911; population growth in 1797–1911; coastal dummy; land surface; altitude; terrain ruggedness; latitude; distance to the own provincial capital city in 1911. The set of province-level controls includes: provincial-to-Kingdom of Naples population in 1911; provincial railway density in 1911; provincial literacy rate in 1911. The set of excluded IVs includes: within-district centrality in 1806; 1797 state-owned dummy; 1797 bishop dummy; 1797 archbishop dummy; 1797 princedom dummy; population above 5,000 inhabitants in 1797; exposure to earthquakes in 1005–1805.

APPENDIX H—Mechanism analysis: data and descriptive statistics

In this Appendix, we provide graphical information on the evolution of the railway network in Italian territory in the period 1851–1911 (Figure H1). We also summarize the variables (definition and data source) used in the mechanism analysis presented in the main text (Table H1), and report some descriptive statistics (Table H2).

FIGURE H1: EVOLUTION OF THE RAILWAY NETWORK IN THE ITALIAN TERRITORY (1851–1911)



Notes: The maps are taken from Basile, Ciccarelli, and Groote (2022).

TABLE H1: DATA SOURCE AND VARIABLE DEFINITION

Variable	Definition	Source
Municipality-Level		
Hospital Established in 1832–1845	Dummy for municipalities where a hospital had been established in 1832–1845	RMI (1857)
Presence of Secondary Schools in 1839	Dummy for municipalities endowed with a secondary school in 1839	Serristori (1839)
Presence of Kindergartens in 1869	Dummy for municipalities endowed with at least one kindergarten in 1869	DGS (1870)
Pupils per Inhabitants in 1869	No. pupils in kindergartens in 1869 over population in 1861	DGS (1870); MAIC (1865)
Total Expenses per Inhabitant in 1884	Total municipal expenses in 1884 over population in 1881	MAIC (1882, 1887)
Discretionary Expenses per Inhabitant in 1884	Discretionary municipal expenses in 1884 over population in 1881	MAIC (1882, 1887)
Share of Discretionary Expenses in 1884	Discretionary municipal expenses over total municipal expenses in 1884	MAIC (1887)
Share of Discretionary Expenses in Public Education in 1884	Discretionary municipal expenses over total municipal expenses for public education in 1884	MAIC (1887)
Share of Discretionary Expenses in Public Infrastructures in 1884	Discretionary municipal expenses over total municipal expenses for public infrastructures in 1884	MAIC (1887)
Presence of a Train Station in 1873	Dummy for municipalities endowed with a train station in 1874	DGS (1874)
District Capital	Dummy for district capital city municipalities	Various sources (1)
Population Density (1828, 1861, 1871, 1881)	Population per km^2	Various sources (2); ISTAT (3)
Population Growth in 1797–T (T = 1828, 1861, 1871, 1881)	Population growth between 1797 and T	Various sources (4)
Coastal Municipality	Dummy for coastal municipalities	ISTAT (3)
Land Surface	Land surface (km^2)	ISTAT (3)
Altitude	Altitude (km)	ISTAT (3)
Terrain Ruggedness Index	Terrain Ruggedness Index	EEA (5)
Latitude	Latitude (degrees)	ISTAT (3)
Distance to the Own Provincial Capital City (1828, 1861, 1871, 1881)	Distance between the municipality centroid and the centroid of its own provincial capital city (km)	ISTAT (3)
Expenses to Revenues in 1884	Total expenses sustained by a municipality over total revenues in 1884	MAIC (1887)
Province-Level		
Provincial-to-Kingdom of Naples Population (1828, 1861, 1871, 1911)	Share of provincial population to total population in the Kingdom of Naples' territory	Various sources (2)
Provincial Railway Density (1861, 1871, 1881)	Provincial density of the railway network (km^2)	Ciccarelli and Groote (2017)
Provincial Literacy Rate (1861, 1871, 1881)	Provincial rate of literate adult population	Ciccarelli and Weisdorf (2019)
Provincial-to-Kingdom of Naples Public Primary Schools in 1862	Share of provincial public primary schools to total public primary schools in the Kingdom of Naples' territory	DGS (1865)

Notes: (1) Law No. 132 of 8 August 1806, Law No. 272 of 8 December 1806, Decree No. 922 of 4 May 1811, Law No. 570 of 12 December 1816, Marzolla (1832), De Sanctis (1840), MAIC (1864, 1865). (2) Marzolla (1832), MAIC (1865, 1874, 1882). (3) Elaboration on digital cartography. (4) Giustiniani (1797–1805), Marzolla (1832), MAIC (1865, 1874, 1882). (5) Elaboration on EEA's Global Digital Elevation Model (DEM) derived from GTOPO30 with 1 km-by-1 km resolution. RMI stands for *Real Ministero dell'Interno*. DGS stands for Direzione Generale di Statistica. MAIC stands for Ministero dell'Agricoltura, Industria e Commercio. ISTAT stands for Istituto Nazionale Italiano di Statistica EEA stands for European Environment Agency.

TABLE H2: DESCRIPTIVE STATISTICS OF THE DEPENDENT AND CONTROL VARIABLES

Variable	Mean	Std. Dev.	Min.	Max.
Municipality-Level				
Hospital Established in 1832–1845	0.01	0.07	0	1
Presence of Secondary Schools in 1839	0.01	0.10	0	1
Presence of Kindergartens in 1869	0.02	0.15	0	1
Pupils per Inhabitants in 1869	0.00	0.00	0.00	0.03
Total Expenses per Inhabitant in 1884	9.67	6.99	2.09	85.20
Discretionary Expenses per Inhabitant in 1884	0.98	2.00	0.00	30.99
Share of Discretionary Expenses in 1884	0.09	0.11	0.00	0.77
Share of Discretionary Expenses in Public Education in 1884	0.04	0.08	0.00	0.73
Share of Discretionary Expenses in Public Infrastructures in 1884	0.12	0.24	0.00	1.00
Presence of a Train Station in 1873	0.05	0.21	0	1
District Capital	0.02	0.12	0	1
Population Density in 1828	116.05	540.73	4.87	16,583.75
Population Density in 1861	130.12	692.85	6.69	21,384.74
Population Density in 1871	136.27	723.40	6.45	22,338.31
Population Density in 1881	141.87	738.27	7.59	22,769.49
Population Growth in 1797–1828	0.35	1.13	-0.88	21.50
Population Growth in 1797–1861	0.57	1.47	-0.86	24.63
Population Growth in 1797–1871	0.66	1.57	-0.86	27.92
Population Growth in 1797–1881	0.75	1.67	-0.86	29.46
Coastal Municipality	0.11	0.31	0	1
Land Surface	32.29	28.78	0.12	431.38
Altitude	455.74	284.76	2.00	1,433.00
Terrain Ruggedness Index	230.45	137.03	1.90	698.74
Latitude	40.87	1.10	37.96	42.86
Distance to the Own Provincial Capital City in 1828	37.99	21.71	3.63	121.73
Distance to the Own Provincial Capital City in 1861	37.57	21.79	3.63	121.73
Distance to the Own Provincial Capital City in 1871	37.57	21.79	3.63	121.73
Distance to the Own Provincial Capital City in 1881	37.57	21.79	3.63	121.73
Expenses to Revenues in 1884	1.25	0.53	0.50	7.96
Province-Level				
Provincial-to-Kingdom of Naples Population in 1828	0.07	0.03	0.03	0.15
Provincial-to-Kingdom of Naples Population in 1861	0.06	0.02	0.03	0.13
Provincial-to-Kingdom of Naples Population in 1871	0.06	0.02	0.03	0.13
Provincial-to-Kingdom of Naples Population in 1881	0.06	0.02	0.03	0.13
Provincial Railway Density in 1861	0.01	0.03	0.00	0.22
Provincial Railway Density in 1871	0.04	0.05	0.00	0.31
Provincial Railway Density in 1881	0.06	0.04	0.01	0.31
Provincial Literacy Rate in 1861	0.18	0.03	0.14	0.32
Provincial Literacy Rate in 1871	0.20	0.03	0.16	0.36
Provincial Literacy Rate in 1881	0.25	0.04	0.20	0.42
Provincial-to-Kingdom of Naples Public Primary Schools in 1862	0.07	0.03	0.03	0.12

Notes: Descriptive statistics are based on 974 municipality-level observations.

APPENDIX I—Mechanism analysis: robustness tests

In this Appendix, we present a series of exercises aimed at testing the robustness of the results reported in Table 4 in the main text.

First, we replicate the analysis on public goods provision and transport network accessibility by relying on an IV approach and, specifically, by instrumenting the variable for district capital city with the same set of excluded IVs we considered in the analysis on industrial development see Table I1 for a summary of the IVs (definition and data source). We rely on an IV-LPM estimation approach to deal with binary dependent variables and on an IV approach to deal with continuous and fractional dependent variables. The results of this exercise are reported in Table I2, and fully corroborate those reported in Table 4 in the main text.

Second, we replicate the analysis presented in Table 4 in the main text as well as the IV analysis presented in Table I2 by clustering standard errors at the district level. The results concerning the establishment of a hospital in the period 1832–1845 are reported in Table I3; the results concerning the presence of a secondary school in 1839 are reported in Table I4; the results concerning kindergartens in 1869 are reported in Table I5; the results concerning municipal expenses in 1884 are reported in Table I6; and the results concerning the presence of an active train station in 1873 are reported in Table I7.

TABLE I1: DATA SOURCE AND VARIABLE DEFINITION

Variable	Definition	Source
Within-District Centrality 1806	Average pairwise distance among municipalities within a district in 1806 (km)	Law 14, 19 January 1807; ISTAT [(1)]
State-Owned Status in 1797	Dummy for state-owned municipalities	Giustiniani (1797–1805)
Seat of a Bishop in 1797	Dummy for bishop seat municipalities	Giustiniani (1797–1805)
Seat of an Archbishop in 1797	Dummy for archbishop seat municipalities	Giustiniani (1797–1805)
Princedom in 1797	Dummy for princedom municipalities	Giustiniani (1797–1805)
Population Above 5,000 in 1797	Dummy for municipalities with a population greater than or equal to 5,000 inhabitants in 1797	Giustiniani (1797–1805)
Exposure to Earthquakes in 1005–1805	No. of earthquakes weighted by intensity in [0, 1] and scaled by distance to the epicenter in 1005–1805	Rovida et al. (2020)

Notes: (1) Elaboration on digital cartography. ISTAT stands for Istituto Nazionale Italiano di Statistica.

TABLE I2: UNDERLYING MECHANISMS: IV ESTIMATES

Dependent Variable	Hospital Established in 1832–1845	Presence of a Secondary School in 1839	Kindergartens in 1869	
			Presence of a Kindergarten	Pupils Per Inhabitant
Estimation Method	IV-LPM	IV-LPM	IV-LPM	IV
	(1)	(2)	(3)	(4)
District Capital	0.348**	0.303**	0.552****	0.003*
	(0.147)	(0.143)	(0.154)	(0.001)
Municipality-/Province-Level Controls	Yes	Yes	Yes	Yes
No. of Municipalities	974	974	974	974
No. of Treated Municipalities	15	15	15	15
No. of Control Municipalities	959	959	959	959
R^2	0.19	0.21	0.22	0.08
First-Stage F Statistic on Excluded IVs	12.98	12.98	12.97	12.97
Hansen J Statistic [p-value]	0.794	0.316	0.245	0.139

Dependent Variable	Municipal Expenses in 1884					
	Total Expenses Per Inhabitant	Discretionary Expenses Per Inhabitant	Share Discretionary Expenses	Share Discretionary Expenses in Public Education	Share Discretionary Expenses in Public Infrastructure	Presence of an Active Train Station in 1873
Estimation Method	IV	IV	IV	IV	IV	IV-LPM
	(5)	(6)	(7)	(8)	(9)	(10)
District Capital	1.068	2.861**	0.171****	0.377****	0.219**	0.312*
	(2.364)	(1.305)	(0.045)	(0.062)	(0.103)	(0.162)
Municipality-/Province-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
1871 *Compartimento* FE	Yes	Yes	Yes	Yes	Yes	Yes
No. of Municipalities	974	974	974	974	974	974
No. of Treated Municipalities	15	15	15	15	15	15
No. of Control Municipalities	959	959	959	959	959	959
R^2	0.26	0.25	0.19	0.39	0.12	0.14
First-Stage F Statistic on Excluded IVs	13.51	13.51	13.51	13.51	13.51	13.61
Hansen J Statistic [p-value]	0.278	0.741	0.983	0.562	0.197	0.728

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the municipality level. Municipality-level controls in all specifications are coastal feature, land surface, altitude, terrain ruggedness, and latitude. Estimates on hospitals established in the period 1832–1845 and secondary schools in 1839: the set of municipality-level controls includes population density in 1828, population growth in 1797–1828, distance to the own provincial capital city in 1828; the set of province-level controls includes provincial-to-Kingdom of Naples population in 1828. Estimates on kindergartens in 1869: the set of municipality-level controls includes population density in 1861, population growth in 1797–1861, distance to the own provincial capital city in 1861; the set of province-level controls includes provincial-to-Kingdom of Naples population in 1861, provincial railway density in 1861, provincial literacy rate in 1861, provincial-to-Kingdom of Naples public primary schools in 1862. Estimates on municipal expenses in 1884: the set of municipality-level controls includes population density in 1881, population growth in 1797–1881, distance to the own provincial capital city in 1881, total expenses to revenues in 1884; the set of province-level controls includes provincial-to-Kingdom of Naples population in 1881, provincial railway density in 1881, provincial literacy rate in 1881. Estimates on train stations in 1873: the set of municipality-level controls includes population density in 1871, population growth in 1797–1871, distance to the own provincial capital city in 1871; the set of province-level controls includes provincial-to-Kingdom of Naples population in 1871, provincial railway density in 1871, provincial literacy rate in 1871. The set of excluded IVs includes: within-district centrality in 1806; 1797 state-owned dummy; 1797 bishop dummy; 1797 archbishop dummy; 1797 princedom dummy; population above 5,000 inhabitants in 1797; exposure to earthquakes in 1005–1805.

TABLE I3: HOSPITALS ESTABLISHED IN 1832–1845: STANDARD ERRORS CLUSTERED AT THE DISTRICT LEVEL

Dependent Variable	Hospitals		
Estimation Method	Probit	LPM	IV-LPM
	(1)	(2)	(3)
District Capital	3.202****	0.263**	0.348**
	(0.733)	(0.116)	(0.147)
Municipality-Level Controls	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes
No. of Municipalities	974	974	974
No. of Treated Municipalities	15	15	15
No. of Control Municipalities	959	959	959
Pseudo-R^2	0.55	…	…
R^2	…	0.21	0.19
First-Stage F Statistic on Excluded IVs	…	…	12.35
Hansen J Statistic (p-value)	…	…	0.797

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the Bourbonic district level. The set of municipality-level controls includes: population density in 1828; population growth in 1797–1828; coastal dummy; land surface; altitude; terrain ruggedness; latitude; distance to the own provincial capital city in 1828. The set of province-level controls includes: provincial-to-Kingdom of Naples population in 1828. The set of excluded IVs includes: within-district centrality in 1806; 1797 state-owned dummy; 1797 bishop dummy; 1797 archbishop dummy; 1797 princedom dummy; population above 5,000 inhabitants in 1797; exposure to earthquakes in 1005–1805.

TABLE I4: SECONDARY SCHOOLS IN 1839: STANDARD ERRORS CLUSTERED AT THE DISTRICT LEVEL

Dependent Variable	Secondary Schools		
Estimation Method	Probit	LPM	IV-LPM
	(1)	(2)	(3)
District Capital	1.957****	0.284**	0.303**
	(0.565)	(0.117)	(0.141)
Municipality-Level Controls	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes
No. of Municipalities	974	974	974
No. of Treated Municipalities	15	15	15
No. of Control Municipalities	959	959	959
Pseudo-R^2	0.46	…	…
R^2	…	0.21	0.21
First-Stage F Statistic on Excluded IVs	…	…	12.35
Hansen J Statistic (p-value)	…	…	0.443

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the Bourbonic district level. The set of municipality-level controls includes: population density in 1828; population growth in 1797–1828; coastal dummy; land surface; altitude; terrain ruggedness; latitude; distance to the own provincial capital city in 1828. The set of province-level controls includes: provincial-to-Kingdom of Naples population in 1828. The set of excluded IVs includes: within-district centrality in 1806; 1797 state-owned dummy; 1797 bishop dummy; 1797 archbishop dummy; 1797 princedom dummy; population above 5,000 inhabitants in 1797; exposure to earthquakes in 1005–1805.

TABLE I5: KINDERGARTENS IN 1869: STANDARD ERRORS CLUSTERED AT THE DISTRICT LEVEL

Dependent Variable	Kindergartens				
	Presence			Pupils Per Inhabitant	
Estimation Method	Probit	LPM	IV-LPM	OLS	IV
	(1)	(2)	(3)	(4)	(5)
District Capital	1.895****	0.447****	0.552****	0.003**	0.003*
	(0.423)	(0.124)	(0.151)	(0.001)	(0.001)
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes	Yes	Yes
No. of Municipalities	974	974	974	974	974
No. of Treated Municipalities	15	15	15	15	15
No. of Control Municipalities	959	959	959	959	959
Pseudo-R^2	0.36	…	…	…	…
R^2	…	0.23	0.22	0.08	0.08
First-Stage F Statistic on Excluded IVs	…	…	12.15	…	12.15
Hansen J Statistic (p-value)	…	…	0.402	…	0.153

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. The dependent variable capturing the number of pupils per inhabitant is based on 1861 population figures. Standard errors (in parentheses) are clustered at the Kingdom of Italy district level. The set of municipality-level controls includes: population density in 1861; population growth in 1797–1861; coastal dummy; land surface; altitude; terrain ruggedness; latitude; distance to the own provincial capital city in 1861. The set of province-level controls includes: provincial-to-Kingdom of Naples population in 1861; provincial railway density in 1861; provincial literacy rate in 1861; provincial-to-Kingdom of Naples public primary schools in 1862. The set of excluded IVs includes: within-district centrality in 1806; 1797 state-owned dummy; 1797 bishop dummy; 1797 archbishop dummy; 1797 princedom dummy; population above 5,000 inhabitants in 1797; exposure to earthquakes in 1005–1805.

TABLE I6: MUNICIPAL EXPENSES IN 1884: STANDARD ERRORS CLUSTERED AT THE DISTRICT LEVEL

Dependent Variable	Total Expenses Per Inhabitant		Discretionary Expenses Per Inhabitant		Share Discretionary Expenses		Share Discretionary Expenses in Public Education		Share Discretionary Expenses in Public Infrastructures	
Estimation Method	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
District Capital	0.499	1.068	2.291***	2.861**	0.155****	0.171****	0.308****	0.377****	0.191**	0.219**
	(1.415)	(2.507)	(0.739)	(1.232)	(0.037)	(0.044)	(0.067)	(0.061)	(0.079)	(0.096)
Municipality-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1871 *Compartimento* FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of Municipalities	974	974	974	974	974	974	974	974	974	974
No. of Treated Municipalities	15	15	15	15	15	15	15	15	15	15
No. of Control Municipalities	959	959	959	959	959	959	959	959	959	959
R^2	0.26	0.26	0.25	0.25	0.19	0.19	0.40	0.39	0.12	0.12
First-Stage F Statistic on Excluded IVs	…	13.94	…	13.94	…	13.94	…	13.94	…	13.94
Hansen J Statistic (p-value)	…	0.484	…	0.663	…	0.977	…	0.598	…	0.198

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Per inhabitant dependent variables are based on 1881 population figures. Standard errors (in parentheses) are clustered at the Kingdom of Italy district level. The set of municipality-level controls includes: population density in 1881; population growth in 1797–1881; coastal dummy; land surface; altitude; terrain ruggedness; latitude; distance to the own provincial capital city in 1881; total expenses to revenues in 1884. The set of province-level controls includes: provincial-to-Kingdom of Naples population in 1881; provincial railway density in 1881; provincial literacy rate in 1881. The set of excluded IVs includes: within-district centrality in 1806; 1797 state-owned dummy; 1797 bishop dummy; 1797 archbishop dummy; 1797 princedom dummy; population above 5,000 inhabitants in 1797; exposure to earthquakes in 1005–1805.

TABLE I7: TRAIN STATIONS IN 1873: STANDARD ERRORS CLUSTERED AT THE DISTRICT LEVEL

Dependent Variable	Train Stations		
Estimation Method	Probit	LPM	IV-LPM
	(1)	(2)	(3)
District Capital	1.252**	0.204*	0.312**
	(0.516)	(0.120)	(0.157)
Municipality-Level Controls	Yes	Yes	Yes
Province-Level Controls	Yes	Yes	Yes
1871 *Compartimento* FE	Yes	Yes	Yes
No. of Municipalities	974	974	974
No. of Treated Municipalities	15	15	15
No. of Control Municipalities	959	959	959
Pseudo-R^2	0.29	…	…
R^2	…	0.15	0.14
First-Stage F Statistic on Excluded IVs	…	…	13.95
Hansen J Statistic (p-value)	…	…	0.734

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors (in parentheses) are clustered at the Kingdom of Italy district level. The set of municipality-level controls includes: population density in 1871; population growth in 1797–1871; coastal dummy; land surface; altitude; terrain ruggedness; latitude; distance to the own provincial capital city in 1871. The set of province-level controls includes: provincial-to-Kingdom of Naples population in 1871; provincial railway density in 1871; provincial literacy rate in 1871. The set of excluded IVs includes: within-district centrality in 1806; 1797 state-owned dummy; 1797 bishop dummy; 1797 archbishop dummy; 1797 princedom dummy; population above 5,000 inhabitants in 1797; exposure to earthquakes in 1005–1805.

APPENDIX J—Long-run analysis: data and descriptive statistics

In this Appendix, we summarize the variables (definition and data source) used in the long-run analysis presented in the main text (Table J1), and report some descriptive statistics (Table J2).

TABLE J1: DATA SOURCE AND VARIABLE DEFINITION

Variable	Definition	Source
Yearly Average Population Growth in 1797–2011	Yearly average population growth between 1797 and 2011	Giustiniani (1797–1805); ISTAT [1]
Population Density in 2011	Population in 2011 per km^2	ISTAT [1] [2]
Agglomeration in 2011	Employment in 2011 per km^2	ISTAT [1] [2]
Employment Per Inhabitant in 2011	Employment per inhabitant in 2011	ISTAT [1]
Share of Tertiary-Educated Population in 2011	Share of population with tertiary education to total population in a municipality in 2011	ISTAT [1]
Share of Illiterate Population in 2011	Share of illiterate population to total population in a municipality in 2011	ISTAT [1]
Income Per Taxpayer in 2010	Income (in thousand Euros) per taxpayer in 2010	MEF
Labor Productivity in 2015	Firms' value added (in thousand Euros) per worker in 2015	ISTAT [3]
District Capital	Dummy for district capital city municipalities	Various sources [4]
Population in 1797	Population in 1797	Giustiniani (1797–1805)
Land Surface	Land surface (km^2)	ISTAT [2]
Coastal Municipality	Dummy for coastal municipalities	ISTAT [2]
Altitude	Altitude (km)	ISTAT [2]
Terrain Ruggedness Index	Terrain Ruggedness Index	EEA [5]
Latitude	Latitude (degrees)	ISTAT [2]
Distance to NUTS-2 Region Capital City	Distance between the municipality centroid and the centroid of its own NUTS-2 region capital city (km)	ISTAT [2]

Notes: (1) Italian Population Census. (2) Elaboration on digital cartography. (3) Territorial economic accounts. (4) Law No. 132 of 8 August 1806, Law No. 272 of 8 December 1806, Decree No. 922 of 4 May 1811, Law No. 570 of 12 December 1816, Marzolla (1832), De Sanctis (1840), MAIC (1864, 1865). (5) Elaboration on EEA's Global Digital Elevation Model (DEM) derived from GTOPO30 with 1 km-by-1 km resolution. ISTAT stands for Istituto Nazionale Italiano di Statistica MEF stands for Italian Ministry of Economy and Finance. EEA stands for European Environment Agency.

TABLE J2: DESCRIPTIVE STATISTICS OF THE DEPENDENT AND CONTROL VARIABLES

Estimation Sample	Whole Sample				Excluding Municipalities with Upgraded Administrative Status After 1911			
	Mean	Std. Dev.	Min.	Max.	Mean	Std. Dev.	Min.	Max.
Yearly Average Population Growth in 1797–2011	0.01	0.02	0.00	0.28	0.01	0.02	0.00	0.28
Population Density in 2011	230.28	731.69	3.47	11,088.57	225.90	725.69	3.47	11,088.57
Agglomeration in 2011	34.25	106.92	0.24	1,808.25	32.85	101.56	0.24	1,808.25
Employment Per Inhabitant in 2011	0.14	0.11	0.02	2.01	0.14	0.11	0.02	2.01
Share of Tertiary-Educated Population in 2011	0.10	0.03	0.02	0.27	0.10	0.03	0.02	0.27
Share of Illiterate Population in 2011	0.03	0.02	0.00	0.15	0.03	0.02	0.00	0.15
Income Per Taxpayer in 2010	12.18	1.92	7.75	20.18	12.16	1.89	7.75	20.18
District Capital	0.02	0.12	0	1	0.01	0.11	0	1
Population in 1797	1,751.12	1,532.55	100.00	18,000.00	1,707.41	1,342.08	100.00	18,000.00
Land Surface	32.29	28.78	0.12	431.38	31.91	27.70	0.12	431.38
Coastal Municipality	0.11	0.31	0	1	0.11	0.31	0	1
Altitude	454.93	285.07	2.00	1,433.00	456.33	284.59	2.00	1,433.00
Terrain Ruggedness Index	229.25	136.47	0.00	698.74	229.86	136.36	0.00	698.74
Latitude	40.87	1.10	37.96	42.86	40.87	1.10	37.96	42.86
Distance to NUTS-2 Region Capital City	69.03	41.03	4.68	190.90	69.07	41.10	4.68	190.90
No. of Municipalities	974				970			
Estimation Sample	Excluding Municipalities with Missing Labor Productivity Data							
	Whole Sample				Excluding Municipalities with Upgraded Administrative Status After 1911			
	Mean	Std. Dev.	Min.	Max.	Mean	Std. Dev.	Min.	Max.
Labor Productivity in 2015	25.92	12.86	4.50	162.16	25.89	12.88	4.50	162.16
District Capital	0.02	0.12	0	1	0.01	0.11	0	1
Land Surface	32.45	28.84	0.12	431.38	32.06	27.76	0.12	431.38
Coastal Municipality	0.11	0.31	0	1	0.11	0.31	0	1
Altitude	451.82	283.99	2.00	1,433.00	453.23	283.51	2.00	1,433.00
Terrain Ruggedness Index	228.47	136.59	0.00	698.74	229.09	136.48	0.00	698.74
Latitude	40.87	1.10	37.96	42.86	40.86	1.10	37.96	42.86
Distance to NUTS-2 Region Capital City	69.09	41.10	4.68	190.90	69.13	41.17	4.68	190.90
No. of Municipalities	965				961			

APPENDIX K—Long-run analysis: test on enlarged estimation sample

In this Appendix, we present additional long-run evidence based on an enlarged estimation sample including also those municipalities we excluded from the analysis exclusively due to missing population data, namely: the municipalities of *Sala* (corresponding to the modern *Sala Consilina*) and *Castellammare* (corresponding to the modern *Castellammare di Stabia*), that were eligible treated units as they were selected as district capitals in 1806 and maintained their status unchanged until 1911; and 248 municipalities the were eligible control units.

We summarize the variables (definition and data source) used in this exercise in Table K1, and report some descriptive statistics in Table K2. We present the empirical results obtained by estimating Equation (5) in the main text via OLS on the enlarged estimation sample in Table K3.

TABLE K1: DATA SOURCE AND VARIABLE DEFINITION

Variable	Definition	Source
Yearly Average Population Growth in 1859–2011	Yearly average population growth between 1859 and 2011	MAIC (1864); ISTAT (1)
Population Density in 2011	Population in 2011 per km^2	ISTAT (1) (2)
Agglomeration in 2011	Employment in 2011 per km^2	ISTAT (1) (2)
Employment Per Inhabitant in 2011	Employment per inhabitant in 2011	ISTAT (1)
Share of Tertiary-Educated Population in 2011	Share of population with tertiary education to total population in a municipality in 2011	ISTAT (1)
Share of Illiterate Population in 2011	Share of illiterate population to total population in a municipality in 2011	ISTAT (1)
Income Per Taxpayer in 2010	Income (in thousand Euros) per taxpayer in 2010	MEF
Labor Productivity in 2015	Firms' value added (in thousand Euros) per worker in 2015	ISTAT (3)
District Capital	Dummy for district capital city municipalities	Various sources (4)
Population in 1859	Population in 1859	MAIC (1864)
Land Surface	Land surface (km^2)	ISTAT (2)
Coastal Municipality	Dummy for coastal municipalities	ISTAT (2)
Altitude	Altitude (km)	ISTAT (2)
Terrain Ruggedness Index	Terrain Ruggedness Index	EEA (5)
Latitude	Latitude (degrees)	ISTAT (2)
Distance to NUTS-2 Region Capital City	Distance between the municipality centroid and the centroid of its own NUTS-2 region capital city (km)	ISTAT (2)

Notes: (1) Italian Population Census. (2) Elaboration on digital cartography. (3) Territorial economic accounts. (4) Law No. 132 of 8 August 1806, Law No. 272 of 8 December 1806, Decree No. 922 of 4 May 1811, Law No. 570 of 12 December 1816, Marzolla (1832), De Sanctis (1840), MAIC (1864, 1865). (5) Elaboration on EEA's Global Digital Elevation Model (DEM) derived from GTOPO30 with 1 km-by-1 km resolution. ISTAT stands for Istituto Nazionale Italiano di Statistica. MEF stands for Italian Ministry of Economy and Finance. EEA stands for European Environment Agency.

TABLE K2: DESCRIPTIVE STATISTICS OF THE DEPENDENT AND CONTROL VARIABLES

Estimation Sample	Whole Sample				Excluding Municipalities with Upgraded Administrative Status After 1911			
	Mean	Std. Dev.	Min.	Max.	Mean	Std. Dev.	Min.	Max.
Yearly Average Population Growth in 1859–2011	0.00	0.02	-0.01	0.35	0.00	0.02	-0.01	0.35
Population Density in 2011	282.75	823.56	3.29	11,088.57	279.45	819.83	3.29	11,088.57
Agglomeration in 2011	40.19	116.73	0.24	1,808.25	39.10	112.95	0.24	1,808.25
Employment Per Inhabitant in 2011	0.13	0.11	0.02	2.01	0.13	0.11	0.02	2.01
Share of Tertiary-Educated Population in 2011	0.10	0.03	0.02	0.27	0.10	0.03	0.02	0.27
Share of Illiterate Population in 2011	0.03	0.02	0.00	0.15	0.03	0.02	0.00	0.15
Income Per Taxpayer in 2010	12.20	1.96	7.63	20.18	12.18	1.94	7.63	20.18
District Capital	0.01	0.12	0.00	1.00	0.01	0.11	0.00	1.00
Population in 1859	2,450.38	2,018.12	194.00	26,379.00	2,409.24	1,808.56	194.00	25,843.00
Land Surface	29.90	27.05	0.12	431.38	29.58	26.10	0.12	431.38
Coastal Municipality	0.11	0.32	0.00	1.00	0.11	0.31	0.00	1.00
Altitude	439.44	283.56	1.00	1,433.00	440.50	283.23	1.00	1,433.00
Terrain Ruggedness Index	231.16	137.36	0.00	698.74	231.66	137.27	0.00	698.74
Latitude	40.72	1.18	37.96	42.86	40.72	1.18	37.96	42.86
Distance to NUTS-2 Region Capital City	66.51	40.27	4.68	190.90	66.53	40.33	4.68	190.90
No. of Municipalities	1,224				1,220			
Estimation Sample	Excluding Municipalities with Missing Labor Productivity Data							
	Whole Sample				Excluding Municipalities with Upgraded Administrative Status After 1911			
	Mean	Std. Dev.	Min.	Max.	Mean	Std. Dev.	Min.	Max.
Labor Productivity in 2015	25.65	12.35	4.50	162.16	25.62	12.36	4.50	162.16
District Capital	0.01	0.12	0.00	1.00	0.01	0.11	0.00	1.00
Land Surface	30.00	27.10	0.12	431.38	29.69	26.15	0.12	431.38
Coastal Municipality	0.11	0.32	0.00	1.00	0.11	0.31	0.00	1.00
Altitude	436.86	282.55	1.00	1,433.00	437.92	282.22	1.00	1,433.00
Terrain Ruggedness Index	230.56	137.46	0.00	698.74	231.06	137.38	0.00	698.74
Latitude	40.71	1.18	37.96	42.86	40.71	1.18	37.96	42.86
Distance to NUTS-2 Region Capital City	66.53	40.32	4.68	190.90	66.55	40.38	4.68	190.90
No. of Municipalities	1,215				1,211			

TABLE K3: LONG-RUN ANALYSIS ON ENLARGED ESTIMATION SAMPLE

Estimation Method	OLS							
Dependent Variable	Yearly Average Population Growth (1859–2011)	Population Density (2011)	Agglomeration (2011)	Employment Per Inhabitant (2011)	Share Tertiary-Educated Population (2011)	Share Illiterate Population (2011)	Income Per Taxpayer (2010)	Labor Productivity (2015)
Sample	Whole Sample							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
District Capital	0.011	579.052	113.031	0.081	0.063	-0.014	3.618	6.848
	(0.004)***	(170.801)****	(29.378)****	(0.018)****	(0.011)****	(0.004)****	(0.517)****	(3.092)**
	[0.004]***	[206.009]***	[37.521]***	[0.019]****	[0.012]****	[0.006]**	[0.529]****	[3.185]**
	{0.004}***	{187.216}***	{33.051}****	{0.019}****	{0.010}****	{0.005}***	{0.517}****	{3.186}**
	⟨0.003⟩****	⟨215.929⟩***	⟨37.941⟩***	⟨0.018⟩****	⟨0.011⟩****	⟨0.006⟩**	⟨0.502⟩****	⟨3.225⟩**
	«0.003»****	«184.052»***	«32.454»****	«0.016»****	«0.008»****	«0.007»**	«0.352»****	«2.590»***
No. of Municipalities	1,224	1,224	1,224	1,224	1,224	1,224	1,224	1,215
No. of Treated Municipalities	17	17	17	17	17	17	17	17
No. of Control Municipalities	1,207	1,207	1,207	1,207	1,207	1,207	1,207	1,198
R^2	0.30	0.28	0.27	0.10	0.11	0.37	0.29	0.08
Sample	Excluding Municipalities with Upgraded Administrative Status After 1911							
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
District Capital	0.011	615.949	116.652	0.082	0.060	-0.014	3.432	7.676
	(0.004)***	(195.380)***	(33.641)****	(0.020)****	(0.011)****	(0.004)****	(0.464)****	(3.508)**
	[0.004]***	[228.594]**	[42.790]**	[0.021]****	[0.011]****	[0.007]**	[0.423]****	[3.539]**
	{0.004}***	{211.523}***	{37.443}***	{0.021}****	{0.010}****	{0.005}***	{0.436}****	{3.580}**
	⟨0.003⟩****	⟨243.030⟩**	⟨42.769⟩***	⟨0.021⟩****	⟨0.010⟩****	⟨0.006⟩**	⟨0.412⟩****	⟨3.572⟩**
	«0.003»****	«209.393»***	«37.144»***	«0.018»****	«0.009»****	«0.007»*	«0.345»****	«2.843»***
No. of Municipalities	1,220	1,220	1,220	1,220	1,220	1,220	1,220	1,211
No. of Treated Municipalities	14	14	14	14	14	14	14	14
No. of Control Municipalities	1,206	1,206	1,206	1,206	1,206	1,206	1,206	1,197
R^2	0.32	0.28	0.27	0.10	0.11	0.37	0.28	0.08

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$. Standard errors: clustered at the municipality level in parentheses; clustered at the 2015 province level in brackets; corrected for spatial dependence with 50 km distance cut-off in braces; corrected for spatial dependence with 100 km distance cut-off in angle brackets; corrected for spatial dependence with 200 km distance cut-off in guillemets. All specifications include municipality-level controls and NUTS-2 region FEs. The set of municipality-level controls includes coastal dummy, land surface, altitude, terrain ruggedness, latitude, distance to the own NUTS-2 region's capital city. The specifications reported in columns (1) and (9) controls also for population in 1859. Firms' labor productivity is defined as value added per employee. Figures for personal income and firms' value added are defined in thousand Euros. The municipalities that upgraded their administrative status after 1911 are *Taranto* (provincial capital from 1923), *Pescara* (provincial capital from 1927), *Isernia* (provincial capital form 1970), and *Barletta* (provincial capital from 2009).

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