



ISSN 2282-6483

Alma Mater Studiorum - Università di Bologna
DEPARTMENT OF ECONOMICS

**Political Violence
and the Rise of Fascism**

Luca V.A. Colombo
Michele Magnani
Massimiliano Gaetano Onorato

Quaderni - Working Paper DSE N°1222



Political Violence and the Rise of Fascism*

LUCA V.A. COLOMBO[†]

MICHELE MAGNANI[‡]

MASSIMILIANO GAETANO ONORATO[§]

April 2026

Abstract

In the early 1920s, Italian fascism grew from a marginal group into an organized party capable of challenging incumbent political forces and precipitating democratic backsliding. A key driver of this expansion was the strategic use of violence by squads that moved across municipalities to strike opponents and local institutions. We show that road networks were central to the diffusion of fascist violence: by lowering travel times and facilitating rapid incursions, roads made violence harder to anticipate and more effective. We document that such violence profoundly altered local political institutions, accelerating the consolidation of fascist control within a few years.

JEL Classification: D74, N44, N74, P16

Keywords: road networks, state capacity, political violence, democratic backsliding, fascism

*We thank Adriano Amati, Leah Boustan, Davide Cipullo, Gemma Dipoppa, Victor Gay, Michela Giorcelli, Pau Grau, Leander Heldring, Daniel Meierrieks, Stelios Michalopoulos, Joel Mokyr, Mounu Prem, Andrea Ruggeri, Andrea Tesei, Paolo Vanin, Nico Voigtländer, as well as seminar participants at Alma Mater Studiorum Università di Bologna, Brown University, Northwestern University, Yale University, UCLA, Università Bocconi, Università Cattolica del Sacro Cuore, and conference participants at Virtual Workshop in Historical Political Economy, ASREC Europe 2024 (Thessaloniki), IIPF 2025, Peace, Conflicts and the Economy Workshop (UniCatt), Authoritarianism and Nation Building Workshop (Bergamo), EHES 2025 (Hohenheim), PEDD 2026 (Münster), and EPCS 2026 (Madrid) for comments and discussion. We are especially grateful to Tommaso Celani, whose dedication and commitment in the early stage of this project had a lasting impact on the paper. We also thank Vico Genovesi, Paolo Iovino, and Michele Maccarini for excellent research assistance. Massimiliano Onorato is grateful to the Whitney & Betty MacMillan Center for International and Area Studies at Yale University for support and hospitality while working on this project and acknowledges financial support from European Union Funding - NextGenerationEU - Public Notice No. 104 of February 2, 2022, issued by the Ministry of University and Research for the submission of project proposals under “PRIN 2022”, funded within the framework of the National Recovery and Resilience Plan (NRRP) - Mission 4: “Education and Research” - Component 2: “From Research to Business” - Investment 1.1: “Fund for the National Research Programme (NRP) and Projects of Significant National Interest (PRIN)”. Funding Approval Decree No. 967 of 30.06.2023 - Project Title: “Empirical Evaluation of Historical Policies: Fascist Land Reclamation Program and Human Capital Accumulation in the Long-Run” - MUR Project Code: 20227SNASS - CUP: J53D23004120006.

[†]Università Cattolica del Sacro Cuore; E-mail: lucava.colombo@unicatt.it.

[‡]Università Bocconi; E-mail: michele.magnani@unibocconi.it.

[§]Università degli Studi di Bologna; E-mail: massimiliano.onorato@unibo.it.

Non-technical Summary

How do democratic regimes collapse? Much of the existing literature focuses on abrupt institutional breakdowns led by military coups or coordinated actions by political elites. This paper studies a different dynamics: the gradual erosion of democracy through decentralized political violence. We examine the Italian case in the early 1920s, when fascism evolved in just a few years from a marginal political movement into the force that brought an end to liberal democracy.

Our central argument is that the spatial mobility of fascist squads played a crucial role in this process. Fascist violence depended on the ability of organized groups to move rapidly across space. Fascist squads were able to travel by trucks along the existing road network, concentrating force against local opponents and evading easy identification by the authorities. Contemporary observers described this strategy as a “war of movement,” contrasting it with the more static and defensive organization of socialist and workers’ groups.

To investigate this phenomenon, we construct a new municipality-level dataset on political violence in Italy between 1919 and 1924. The data are based on confidential reports sent by local government officials (*prefetti*) to the Ministry of the Interior and preserved in the Italian national archives. The dataset contains more than 14,000 observations on episodes of political violence, distinguishing fascist from non-fascist perpetrators. We combine these data with a digitized reconstruction of the Italian road network in 1913, allowing us to measure each municipality’s access to roads infrastructure.

Our empirical analysis shows that municipalities located closer to main roads experienced significantly higher levels of fascist violence. The relationship is especially strong during key moments of political instability, such as the 1921 elections and the months preceding the March on Rome in 1922. By contrast, proximity to railways does not predict fascist violence, suggesting that roads – and the flexibility provided by motor vehicles – were particularly important for fascist operations.

The paper also highlights the interaction between demand and supply factors. Violence was more intense in municipalities with stronger socialist support, where local elites had greater incentives to repress labor movements and left-wing organizations. At the same time, violence spread more easily to areas located near early fascist strongholds and well connected through the road network. This suggests that infrastructure reduced the costs of projecting violence across municipalities, allowing fascist squads to operate beyond the locations where the movement initially enjoyed strong local support.

We further show that fascist violence had important political consequences. Municipalities exposed to fascist attacks were significantly more likely to experience the dissolution of their elected councils. Historical evidence indicates that fascist squads often intimidated local politicians and administrators into resigning, thereby weakening democratic institutions at the local level. We also document that municipalities experiencing council dissolutions subsequently became more likely to host local branches of the Fascist Party.

Finally, the paper studies the electoral effects of violence. Exposure to fascist violence increased electoral support for fascist candidates in the 1921 and 1924 elections, while contributing to the erosion of socialist and left-wing parties’ support over time. These findings suggest that violence was an effective instrument through which fascists consolidated territorial control and expanded their political power.

Overall, the paper shows how infrastructure and mobility shaped the dynamics of

democratic breakdown in post-WWI Italy. The existing road network, combined with the strategic use of motor vehicles, allowed a relatively small and decentralized movement to scale up violence rapidly and undermine democratic institutions from below. More broadly, the findings speak to the wider relationship between infrastructure, state capacity, and political violence, highlighting how transportation networks can also facilitate coercion and authoritarian consolidation.

1 Introduction

In the early 1920s, Italy experienced a striking episode of democratic breakdown: the rapid collapse of liberal institutions and the ascent of fascism. Within a few years, a fringe movement of radical nationalists became a dominant political force, culminating in Mussolini’s appointment as Prime Minister in 1922. Existing accounts emphasize political instability, economic distress, and the fragmentation of traditional elites as key determinants of regime change (Mann, 2004; Riley, 2010). However, the central question remains how a marginal movement, initially at the periphery of the political arena, managed to seize power so quickly and ultimately undermine democratic institutions.

Democratic breakdowns occurring through top-down mechanisms in which relatively small groups – typically within the military or political elites – abruptly reshape political regimes have been extensively investigated (e.g., Acemoglu and Robinson, 2005; Acemoglu et al., 2010).¹ We study, instead, a bottom-up mechanism of democratic erosion in which, rather than resulting from a single disruptive event, the collapse of democracy is induced by localized violent actions that weaken political competition and progressively destabilize institutions.

In the early stages of the fascist movement, violence was largely carried out by groups that operated with considerable autonomy. Fascist squads targeted political opponents and local administrators with the aim of weakening opposition and asserting territorial control. Locally organized groups typically used trucks to move along the existing road network and reach different locations to conduct punitive expeditions. This enabled fascists to concentrate force at the local level, exploit numerical superiority over their opponents, and evade identification by local authorities (Gentile, 2021; Saluppo, 2020; Tasca, 2021). By shifting attention from abrupt regime change to micro-level processes of institutional change, our approach highlights an alternative pathway to authoritarian rule driven by the spatial projection of violence.

To test this mechanism, we assemble a novel dataset on political violence in Italy, drawing on confidential reports by local government officials (the “*prefetti*”) stored in the national archives in Rome. The dataset contains more than 14,000 municipality-day-perpetrator observations and distinguishes between fascist and non-fascist perpetrators of violence, including socialists and communists. To the best of our knowledge, it constitutes the most comprehensive dataset on political violence in Italy between the end of WWI and the onset of the fascist regime. We combine these data with a digitized map of the Italian road network in 1913 to construct a measure of road access based on the distance of each municipality to the nearest road segment. To address endogeneity concerns, we

¹Derpanopoulos et al. (2016) and Marinov and Goemans (2014) study the effect of coups on democratization, while Bennett et al. (2021) analyze the impact on corruption and the quality of judicial institutions.

implement an instrumental variable strategy based on a least-cost path road network, that captures the impact of exogenous geographic factors on infrastructure development (see, e.g., [Banerjee et al., 2020](#); [Faber, 2014](#); [Voigtländer and Voth, 2025](#)). We run counterfactual first-stage regressions to show that access to the least-cost path network is not correlated with predetermined political and economic characteristics. Moreover, as is customary in this literature, we exclude from the sample all main cities, representing the nodes of the network, to ensure that the results are not driven by the largest urban centers.²

Our empirical analysis yields three main findings. First, municipalities closer to the road network experienced significantly higher levels of fascist violence, especially during key national political junctures such as the 1921 general elections and the March on Rome in 1922.³ Railroad accessibility, by contrast, does not correlate with fascist violence, as rail transport lacked the operational flexibility and unpredictability characteristic of fascist groups traveling by truck. Second, the effect of road access reflects both demand- and supply-side factors. On the one hand, violence was more intense in areas with a stronger socialist presence, consistent with higher demand for repression. On the other hand, proximity to fascist organizational strongholds – such as local party branches – facilitated the supply of violence across municipalities, highlighting the importance of spatial mobility. Third, fascist violence had substantial political consequences. It increased the likelihood of municipal council dissolution and further contributed to the entrenchment of the fascist movement at the local level. It also strengthened electoral support for the Fascist Party, helping to explain the increase in fascist vote shares and the weakening of the Socialist Party. Specifically, it facilitated the early fascist movement’s entry into Parliament in the 1921 elections and its strong affirmation in the 1924 elections, the last before the country’s authoritarian turn. Overall, our results highlight how the interaction between local institutional and socio-political factors and the fascists’ ability to exploit a relatively new technology, such as motor vehicles, enabled an initially small and peripheral movement to scale up its actions and generate far-reaching political effects in a short period of time.

Our paper mainly contributes to three strands of recent literature. First, it relates to the extensive political economy literature that studies the determinants of democratic stability (e.g., [Acemoglu and Robinson, 2005](#); [Persson and Tabellini, 2009](#); [Przeworski, 2019](#)). [Levitsky and Ziblatt \(2018\)](#) argue that “mutual toleration”, i.e. the idea that political opponents “have an equal right to exist, compete for power, and govern” is one of the implicit norms that help democracies endure. Like many other potential auto-

²We also provide evidence, as a robustness check, that dropping all towns close to any segment of the network does not alter the results.

³Reassuringly, proximity to the road network does not predict other forms of political conflict or social unrest.

crats, Mussolini instead viewed political opponents as unpatriotic and as an “existential threat” to the country, thereby justifying the use of violence. In this respect, we document a micro-level mechanism through which organized violence weakened opposition and undermined these informal democratic norms, facilitating regime change. Second, we contribute to a growing literature that highlights the potentially adverse effects of state capacity (Acemoglu and Robinson, 2019, 2023; Müller-Crepon et al., 2021; Seeberg, 2021), focusing in particular on the political consequences of infrastructure. As González et al. (2025) and Voigtländer and Voth (2025) point out, investments in infrastructure may be used strategically to sustain an autocrat’s grip on power. Infrastructures can also boost violence by authoritarian regimes against civilians or help the spread and relocation of insurgency (Zhukov, 2012, 2016). Albertus and Gay (2025) document that the extension of the horse-post network in pre-revolutionary France fueled rural rebellion against increased state presence and centralization. Our paper documents how the existing road network enabled radical groups to project violence across space, ultimately contributing to the collapse of democratic institutions. Third, our paper speaks to the literature on interwar authoritarian regimes in Europe. Koenig (2023) and De Juan et al. (2024) examine the legacy of WWI on the electoral outcomes in Weimar Germany, showing how the presence of veterans and civilians’ exposure to soldiers’ casualties increased support for right-wing factions in the 1920s. Satyanath et al. (2017) emphasize the importance of dense local social networks for the rise of the Nazi Party in Germany, while Becker and Voth (2023) study the interplay between “shallow religiosity” and the rise of Nazism. Focusing on the Italian case, Acemoglu et al. (2022) argue that the sudden increase in support for the Socialist Party after WWI was one of the reasons that led the upper and middle classes to back fascism.⁴ Our work highlights the prominence of violence perpetrated by groups that strategically exploited existing infrastructure and a relatively new technology (e.g., motor vehicles) and shows how this facilitated the authoritarian turn of post-WWI Italy. More broadly, our findings have relevance well beyond the Italian case, as several paramilitary organizations in interwar Europe (notably, Hitler’s *brownshirts*) explicitly modeled themselves after fascist *blackshirts* (Reichardt, 2009).

The paper proceeds as follows. Section 2 describes the relevant historical background. Section 3 illustrates our data on violence and historical road networks. Section 4 presents the results of OLS regressions, describes our instrumental variable strategy, and presents IV results, together with falsification tests. Section 5 investigates how fascist violence is linked to specific demand and supply factors. Section 6 explores the impact of fascist violence on local political institutions. Section 7 concludes. Four appendices provide information on the original data used in the paper (Appendix A), the procedure to ob-

⁴Although focusing on a later period, Carillo (2022) documents how the foundation of “new towns” in the 1930s translated into stronger support not only for the fascist regime but also for neo-fascist organizations after Italy’s transition to democracy.

tain the instrumental variable used in the analysis ([Appendix B](#)), empirical results not included in the main text ([Appendix C](#)), and the results of empirical analyses relying on an alternative measure of road access, based on the 1868 road network ([Appendix D](#)).

2 Historical Background

Initially little more than a group of radical nationalists and intellectuals, the fascist movement exploited post-WWI economic instability, labor unrest, and social tensions to gradually attract support from industrialists, landowners, and conservative elites eager to constrain workers' demands. Following the conclusion of the September 1920 general strike, the fascist movement began to deploy organized violence against the “unpatriotic” left. Since late 1920, war veterans, young radicals, and members of the lower middle class, as well as petty criminals, coalesced into action squads (in Italian: “*squadre d'azione*”, whose members then came to be known as “*squadristi*”, or “blackshirts” due to their distinctive uniforms), that is, paramilitary units aimed at countering the spread of revolutionary ideals. These units engaged in violent attacks against leftist organizations, labor unions, and political opponents in general.

Fascist actions “involved a mobilization system based on speed, concentration, and surprise” allowing squads to “rapidly coordinate attacks against individual targets” ([Saluppo, 2020](#)). Fascist squads made extensive use of trucks to conduct “punitive expeditions” against “real or alleged offenses committed by socialist, communist, or Catholic adversaries” (quoted in [Gentile, 2021](#), ch.2). These facts highlight the quasi-military planning and coordination of fascist attacks, in contrast to the less organized nature of the violence carried out by the workers' movement at the time ([Fabbri, 2009](#)). Historical accounts also suggest that the strategic use of an automotive technology still in its infancy enabled fascists to vastly expand their operating range, multiplying their attacks despite a limited number of militants.⁵ As noted by a contemporary commentator, the fascists benefited from waging a “war of movement” rather than the defensive “war of position” fought by their opponents: “in the struggle between the truck and the People's House, the former will prevail” ([Tasca, 2021](#), ch.7).

Violent actions – ranging from targeted assassinations and physical assaults to forced castor oil ingestion and public humiliation – were intended to raid and devastate local headquarters of the Socialist Party, destroy printing presses, and assault local cooperatives ([Fincardi, 2008](#)). The decentralized structure of the Socialist Party made it an easy target for fascist squads, which leveraged their mobility by moving from one province to another ([Gentile, 2021](#), ch.2). Support from groups from neighboring provinces allowed local fascist organizations to gain a dominant position also in areas initially hostile to

⁵In the year 1924, no more than 35 thousand vehicles were produced in Italy ([DeLong, 2022](#), ch. XIII).

them. Moreover, it was more difficult for public authorities to identify and recognize squad members from other provinces (Gentile, 2021, ch.9; Saluppo, 2020). Over time, fascist squads also increasingly targeted local branches and cooperatives linked to the Catholic Popular Party, which was seen as one of the main opponents of the fascist movement once the socialists had weakened in strength and influence (Gentile, 2012). Finally, they directed their violence against municipal and provincial councils to force their resignation, thereby facilitating the eventual consolidation of fascism at the local level (Gentile, 2021; Millan, 2014).

As squads ravaged the countryside, the fascist movement gained prominence on the political stage. In the snap election of 1921 – called by Prime Minister Giolitti to take advantage of the crisis of the left precipitated by the early months of “*squadristismo*” – 35 fascist candidates were elected on the conservative National Bloc list. After the election, a normalization effort attempted by Mussolini, aimed at curbing the excesses of political clashes and promoting a moderate side of the fascist movement, led to a dispute with local squad commanders. As a result of this power struggle, Mussolini’s national leadership was formally recognized with the transformation of the movement into the National Fascist Party (“*Partito Nazionale Fascista*”, or PNF), but squad leaders retained substantial autonomy and continued to engage in violence despite directives from the leadership (De Felice, 2019). The following year, fascists capitalized on the political fragmentation of the liberal establishment. In the summer of 1922, after a no-confidence vote in the Chamber over the management of public order, Prime Minister Facta resigned. Left-wing unions and the Socialist Party called a general anti-fascist (“legalitarian”) strike intended to forge a broad coalition encompassing the left, the Catholic Party, and the progressive wing of the liberal lists. Internal rivalries within the left (with the Communist Party reluctant to heed the call of the Socialist Party from which it had just split), the difficult coexistence of Catholic and socialist unions, and the mistrust of the middle classes and the liberal press, still reminiscent of the revolutionary slogans of the 1919-20 period, contributed to the failure of the attempt. Moreover, in the absence of clear instructions to local police from the outgoing government, blackshirts took it upon themselves to restore public order, carrying out widespread actions against the strikers. The fascists sarcastically thanked “the organizers of the strike for the opportunity to show their strength” (Franzinelli, 2022).

The violence exerted by the squads to defeat the workers’ movement allowed fascists to establish a *de facto* undisputed territorial control in several provinces. The same methods could then be used to threaten the liberal establishment. In October 1922, the Fascist Party staged the March on Rome. Although the coup attempt was largely symbolic (Salvemini, 2015), it pressured King Victor Emmanuel III to appoint Mussolini as Prime Minister, marking the beginning of fascist rule. Despite fascists now being in

government, violence did not disappear – rather, it spread to parts of the country (such as the South) where it had previously been less intense (Foot, 2022; Petersen, 1982). The 1924 election, called by Mussolini with the aim of obtaining a solid majority of fascist MPs in Parliament, was characterized by a generally coercive atmosphere, with instances of voter suppression, fraud, and outright violence, although the results were also influenced by an effective propaganda campaign waged by the fascists (Visani, 2004). The PNF secured an overwhelming victory, prompting increased resistance from opposition figures in Parliament. By January 1925, Mussolini openly assumed autocratic control of the country, dismantling the remaining democratic institutions, suppressing political opposition, and instituting widespread repression.

3 Data

For the purposes of our empirical analysis, we assemble a novel and comprehensive dataset on episodes of political violence perpetrated in Italy between 1919 and 1924 and digitize historical maps of the Italian main road network in 1913. To systematically collect data on political violence, we accessed the confidential notes on politically related issues that local representatives of the national government (the “*Prefetti*”) regularly submitted to the Ministry of the Interior in Rome. These documents are preserved at the national archives (“*Archivio Centrale dello Stato*”).⁶ We collected information on 14,639 episodes of violence identified by municipality-day-perpetrator that occurred between 1919 and 1924 in 3,327 municipalities out of the 9,000 existing in 1921. They are associated with a total of 2,285 deaths.

The level of detail and granularity in our dataset largely exceeds those of other sources on political violence in Italy during the same period. Existing datasets are typically based either on information reported by contemporary newspapers (Fabbri, 2009; Franzinelli, 2019; Mencarelli, 2019) or on internal memos produced by political parties (Chiurco, 1973; Matteotti, 2019; Secchia, 1971).⁷

Potential threats to the quality of our data stem from non-random reporting and inherent differences in administrative capacity across locations. First, underreporting may arise if episodes of violence were recorded unevenly across municipalities, for instance, due to differences in administrative “legibility” (Scott, 1998). To assess this concern, we

⁶Each report contains information on a specific episode of political violence, detailing the date and location of the event, as well as its dynamics, perpetrators, victims, and casualties (if any). A detailed description of the data and of the relevant data sources is provided in Section A.1 of Appendix A.

⁷Other scholars (De Felice, 2019, pp. 765-6; Gentile, 2021, p. 473) provide data on political violence based on aggregate statistics reported by the government at a coarser level of aggregation (e.g., provinces rather than municipalities). The second-largest dataset after ours is provided by Franzinelli (2019), who identifies slightly more than 2,500 episodes of political violence for the period 1919-1922. Figure A.6 in Section A.1 of Appendix A graphically compares our data with those from Franzinelli (2019) taken over the same period.

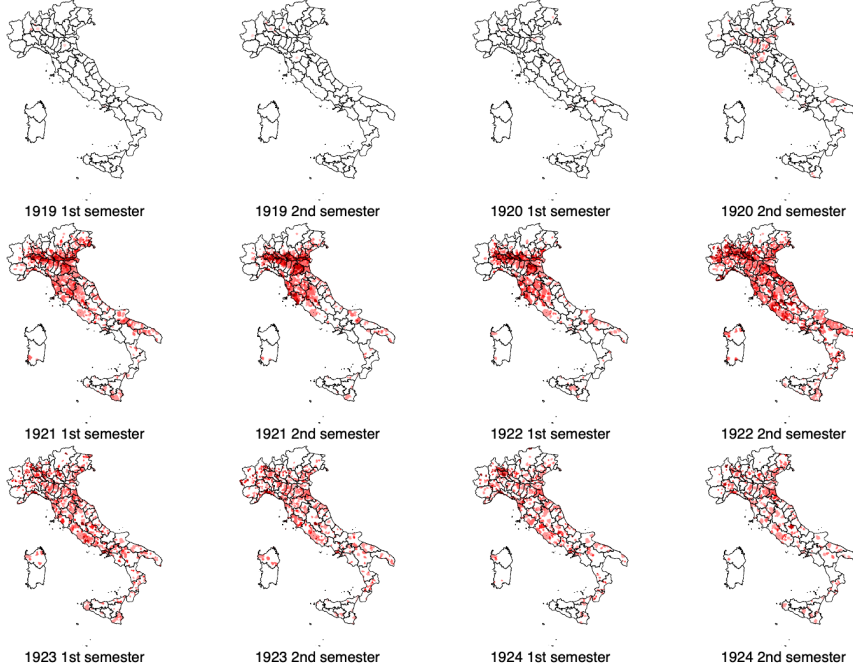
show, in Table A.1 of Appendix A, that the share of highly salient events – i.e., the ratio of murders, which are less likely to be underreported, to the total number of attacks – does not systematically correlate with road access. Second, reporting may reflect the ideological orientation of local officials. If public authorities were systematically more tolerant of fascist violence, this could bias the data. However, such a bias would attenuate our estimates, unless it varies systematically between locations. To address this concern, all specifications include province fixed effects (and province-by-time and municipality fixed effects in panel regressions), which absorb persistent differences in reporting behavior. Moreover, historical evidence points to substantial continuity in public order administration during our period of analysis, with no major turnover in local officials before the late 1920s. Taken together, these considerations suggest that measurement error is unlikely to be systematically related to our key explanatory variables. Finally, one may be concerned that our measure of violence captures persistent differences in local propensities for violent confrontation, rather than the specific tactical mechanism we emphasize. Areas with historically higher levels of criminality may be more prone to political violence during periods of ideological conflict (see Kalyvas, 2006, ch.X). We address this concern by showing, in Table A.1 of Appendix A, that late-nineteenth-century crime rates (from Acemoglu et al., 2022) are uncorrelated with political violence in the 1920s, suggesting that our results are not driven by underlying differences in local criminality.⁸

Figure 1 illustrates the spatial and temporal distribution of political violence in our data by depicting the territorial spread of fascist actions by semesters, starting in 1919. Darker hues indicate areas with a higher concentration of violence. Fascist actions were relatively infrequent until the end of 1920. From 1921 onward, a sharp increase in fascist violence becomes evident, particularly concentrated in the Po Valley and Tuscany. In subsequent years, fascist violence spread further across the country, albeit with substantial regional heterogeneity in intensity. A monthly decomposition of episodes of political violence (including both fascist and non-fascist perpetrators) is presented in Figure 2.

While violence was a characteristic feature of the entire fascist period, episodes were far more frequent in the early phase of the movement, before Mussolini became Prime Minister in October 1922. To account for temporal variation in the incidence of political violence, we use two outcome variables in our regression analysis: the first covers the full period of our data (*Fascist violence 1919-1924*), while the second is restricted to the interval from January 1919 to October 1922 (*Fascist violence 1919-1922*). The latter corresponds to a period of significant political and social unrest at the national level, which began with the “red scare” and the early days of fascism and culminated in the fascist “March on Rome” in October 1922. Both variables are constructed by summing all episodes within each time period and normalizing by municipal population. We rely

⁸A more detailed discussion of potential biases in our *prefetti*-reported measures and of the relationship between political violence and pre-existing crime rates is provided in Section A.1 of Appendix A.

Figure 1: Fascist Violence per 1,000 inhabitants by Semesters



Source: our computations from official reports stored at the *Archivio Centrale dello Stato*. See Section A.1 in Appendix A for details.

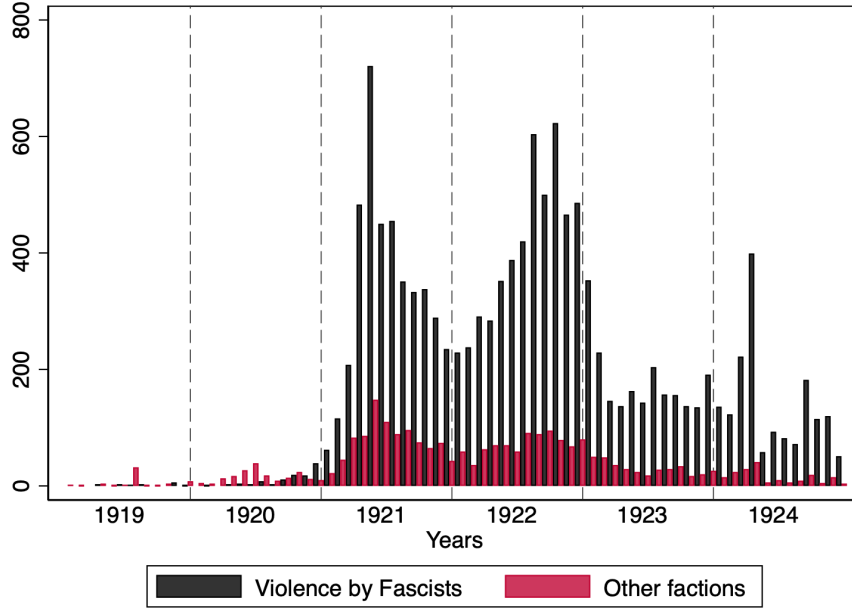
on the same sources used to measure fascist violence to identify episodes involving other actors, such as socialists and communists, Catholics, republicans, and police forces.⁹

To investigate the consequences of fascist violence, we collect systematic information on the timing of the opening of local branches of the Fascist Party in the Italian municipalities between 1919 and 1924. These data are drawn from original documentation preserved in the national archives. In particular, we collect: (i) reports by local officials recording the opening of fascist branches; and (ii) internal budgetary records of the fascist movement (from November 1921, the Fascist Party), which track financial transfers from the center to local committees. We cross-check the information from these two sources to determine the opening date of each branch: when the exact date is not explicitly reported, we use the earliest recorded mention of a branch as its opening date.¹⁰ This information is particularly relevant for our analysis, as it allows us to disentangle the effect of the road network from that of the Fascist Party’s territorial organization on the diffusion of political violence. Since one of the objectives of fascist squad violence was to force municipal councils to resign (see Section 2), we also collect data on the dissolution of municipal councils for the years 1919–1924 from the *Gazzetta Ufficiale del Regno*

⁹Fascists are responsible for 85% of the episodes. Their most frequent targets are left-wing supporters (65% of their attacks), followed by Catholics (10%), and liberals (6%). About 3% of fascist attacks are directed against local politicians (mayors and councilmen).

¹⁰A detailed description of these data, as well as of the data collection, cleaning, and processing procedures, is provided in Section A.3 of Appendix A.

Figure 2: Political Violence by Month



Source: our computations from official reports stored at the *Archivio Centrale dello Stato*. See Section A.1 in Appendix A for details.

d'Italia.¹¹

To assess the role of the road network in the diffusion of fascist violence, we scan maps of the Kingdom of Italy's road network dating to 1913 and digitize them using GIS techniques. The maps belong to the “*Carta d'Italia*” series published by [Touring Club Italiano](#) (1913) and are based on data from the *Istituto Geografico Militare*, the Italian cartographic authority. Figure 3 illustrates the output of the digitization process. Our main explanatory variable – *Distance to main road (1913)* – measures the straight-line distance, in kilometers, between the centroid of each municipality and the closest main road.¹² To account for the potential role of other transportation networks in the diffusion of violence, we also compute the straight-line distance, in kilometers, from each municipality to the nearest railway station. Data on the railroad network are from [Direzione Generale delle Ferrovie dello Stato](#) (1919).

Finally, in our empirical analysis, we account for demographic (total population and population density), geographic (area, altitude, distance to the closest main town, and terrain ruggedness) and socioeconomic characteristics of the Italian municipalities (the literacy rate, the share of unemployed individuals, industrial and agrarian workers, lower-middle class – tenants, office clerks, artisans, public employees – and elites citizens –

¹¹Further details on these data are provided in Section A.3 of Appendix A.

¹²We also digitized a set of older maps, which we use to extract an alternative explanatory variable used in Appendix D, belonging to the “*Carta Itineraria del Regno d'Italia*” series published by [Corpo di Stato Maggiore per le Amministrazioni militari](#) (1868). Detailed information on the digitization of the road network and the underlying data sources is provided in Section A.2 of Appendix A.

Figure 3: The Italian main road network in 1913



Note: the map displays the digitized main road network of 1913. See Section A.2 in Appendix A for details.

entrepreneurs and rentiers). These data are drawn from the Population Census of 1921 (Ministero dell’economia nazionale, 1925). We complement these data with municipality-level information from Acemoglu et al. (2022) on the socialist vote share in 1919, as well as the presence of landlords’ associations and WWI veterans. Table 1 reports descriptive statistics for all variables used in our empirical analysis.

4 The Role of Road Access for the Spread of Political Violence

4.1 OLS and IV Estimates

Our empirical strategy is twofold. We first rely on OLS regressions and then address endogeneity concerns using an instrumental variable approach. In both cases, we use as dependent variables both the number of episodes of political violence per thousand inhabitants and a dummy for the occurrence of at least one episode of violence.

Baseline OLS Estimates. Our baseline OLS specification is given by

$$Y_{i,j} = \alpha + \beta D_{i,j} + \gamma X_{i,j} + \Gamma_j + \varepsilon_{i,j} , \quad (1)$$

where $Y_{i,j}$ is fascist violence, defined either as the number of incidents per thousand inhabitants or as a dummy equal to one if at least one incident was reported within the different time-horizons outlined in Section 3 (1919-22 or 1919-24); $D_{i,j}$ is the straight-line distance, in kilometers, between the centroid of each municipality and the closest

main road; $X_{i,j}$ is a vector of socioeconomic and geographic controls (see Table 1), which includes the distance of each municipality from the main town of its district; Γ_j are province fixed effects; and $\varepsilon_{i,j}$ is the error term, with standard errors clustered at the province level. Province fixed effects account for time-invariant provincial characteristics, such as overall crime levels or administrative capacity.

Table 2 reports the estimates of Equation (1), using distance to the 1913 road network, $D_{i,j}$, as the main explanatory variable, for both the sub-period 1919-1922 (Columns (1)-(4)) and the full period 1919-1924 (Columns (5)-(8)). The specifications in Panel A (respectively, Panel B) present results using as the dependent variable the count of fascist attacks per thousand inhabitants (respectively, a dummy equal to one if the municipality experienced at least one fascist attack) within each time interval.

The specifications in Columns (1) and (5) of Table 2 control only for the geomorphological characteristics of the municipality (altitude, terrain ruggedness, and straight-line distance to the district capital), as well as for the Socialist Party vote share in 1919. Columns (2) and (6) additionally control for the municipal area and demographic characteristics, such as population and population density. Columns (3) and (7) further include controls for socioeconomic conditions (i.e., literacy rate; the shares of agrarian laborers, industrial workers, middle-class individuals, and elite individuals – entrepreneurs and rentiers; and a dummy for the presence of landlords’ associations). Finally, Columns (4) and (8) control for the share of WWI veterans in the male population, who may have provided support for fascist activities. The distance coefficient is negative and statistically significant in all but two specifications of the model, highlighting the instrumental role of road accessibility in facilitating fascist violence.¹³

Identification and IV Estimates. Measurement errors and omitted variables bias may undermine the validity of the OLS analysis. Municipalities with better road connections may have been more exposed to the circulation of political ideas; in particular, improved connectivity may have fostered the diffusion of socialism in well connected areas. In this case, our results might capture the spread of socialist ideas, with fascist violence reflecting a reaction by the middle and upper classes to the “red scare” (see, e.g., Acemoglu et al., 2022). Moreover, fascism itself was a novel political movement. Support may have radiated from the early urban intellectual clubs established in 1919-20 along the road network. If so, better-connected municipalities would have been more likely to host sympathizers and logistical bases. The squads might then have selected targets along “corridors” where they expected to receive support and mobilize resources. Hence, our measure of road access would capture unobserved ideological penetration and mobilization capacity by fascists rather than the causal effect of access per se. To address these

¹³Estimates of the coefficients for the control variables are reported in Table C.1 in Appendix C. We also compute Conley standard errors adjusted for spatial correlation up to various cutoff distances, following Colella et al. (2019), and report the results in Table C.3.

concerns, we adopt an instrumental variable approach based on the idea that, *ceteris paribus*, cost efficiency requires roads to be built along the least-cost routes between origin and destination points, given the geomorphological characteristics of the territory (Banerjee et al., 2020; Faber, 2014; González et al., 2025). We define these least-cost routes as the least-cost path network, whose nodes correspond to the capital cities of each of the 245 districts (*“capoluoghi di circondario”*) into which Italy was organized in 1919–1924.¹⁴ We then use the straight-line distance, in kilometers, from the centroid of each municipality to the least-cost path network as an instrument for the endogenous distance variable $D_{i,j}$ in Equation (1).

A potential threat to our identification strategy could arise from the fact that the virtual road network, although designed to minimize travel costs based on geomorphological features, may still connect nodes that are economically and politically relevant. To address this concern, and following Faber (2014), we exclude from all IV specifications the cities corresponding to the nodes of the network.¹⁵ The first stage is given by

$$D_{i,j} = \alpha + \delta Z_{i,j}^{LCP} + \gamma X_{i,j} + \Gamma_j + u_{i,j} , \quad (2)$$

where $D_{i,j}$ (the distance of a municipality from the 1913 road network) is regressed on the instrument $Z_{i,j}^{LCP}$ (the straight-line distance, in kilometers, between the centroid of each municipality and the closest point on the least-cost path network), along with the same set of controls $X_{i,j}$ used in the OLS specifications and the province fixed effects Γ_j . Standard errors $u_{i,j}$ are clustered at the province level.¹⁶

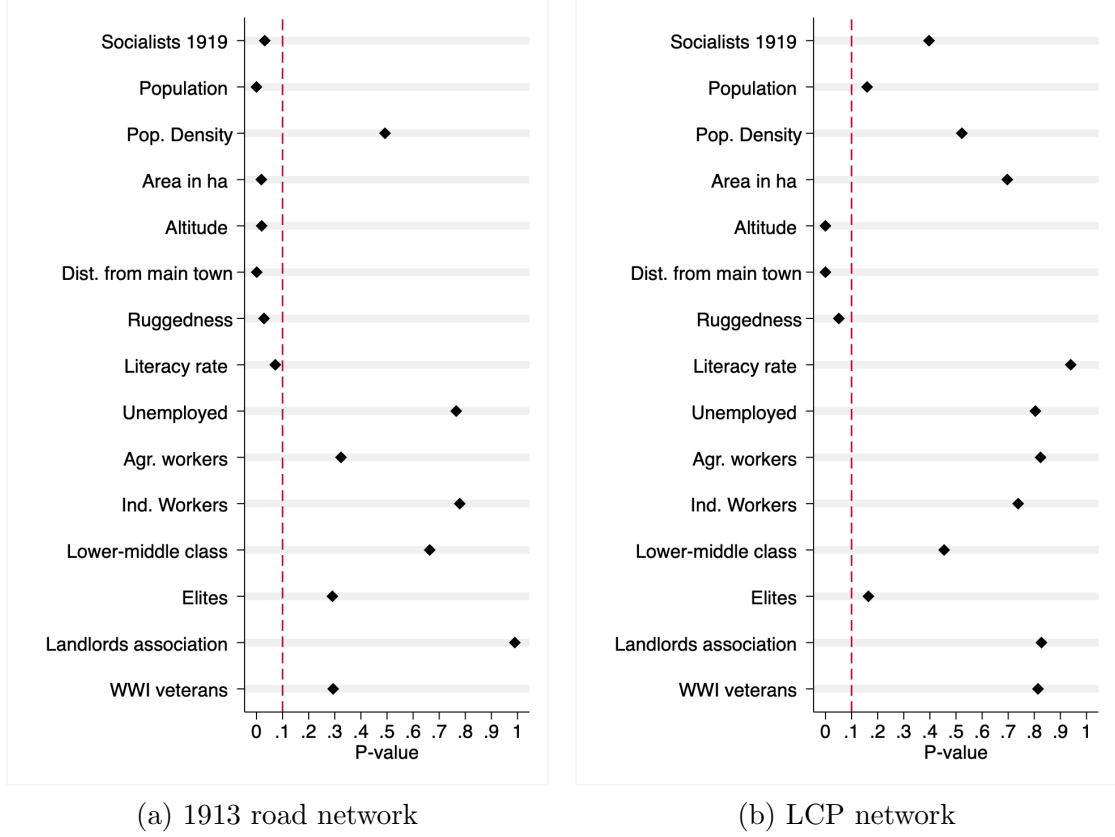
To assess the plausibility of our identification strategy, we check whether the proximity to the road network (both actual and virtual) is correlated with municipal characteristics. Panel (a) of Figure 4 reports the p-values for the estimated coefficients from counterfactual first-stage regressions in which the control variable is regressed on the distance of a municipality from the actual 1913 road network, $D_{i,j}$, along with all the other covariates in $X_{i,j}$ (see Columns (4) or (8) of Table 2). Panel (b) replicates the same exercise but using a municipality’s distance from the least-cost path network, $Z_{i,j}^{LCP}$. Conditional on controls, a municipality’s distance from the 1913 road network correlates with several geographic and socioeconomic variables. Conversely, distance from the least-cost path network does

¹⁴See Appendix B for details on the construction of the least-cost path network.

¹⁵Since the actual road network was planned and built prior to the period under analysis, it can be considered predetermined with respect to the events we study. For this reason, we retain network nodes in the OLS specification. Nonetheless, as shown in Table C.2 of Appendix C, excluding them does not affect our results when using fascist violence per thousand inhabitants as the dependent variable, whereas the coefficients of distance to the main road network become smaller and not statistically significant when using the dummy dependent variable.

¹⁶As is standard in this literature, we assume the exogeneity of the instrument conditional on controlling for the geographical variables that affect the shape of the network (i.e., altitude, ruggedness, and a municipality’s distance from its district’s main town).

Figure 4: Balance tests for the 1913 and LCP road networks



Note: In each panel, the x-axis depicts the p-value from a regression of each covariate on the distance from the closest main road in 1913 (Panel (a)), and from the closest segment of the LCP (Panel (b)), controlling for the full set of covariates as in Columns (4) and (8) of Table 2. See notes to Table 2. The dashed line marks the conventional 10% level of significance.

not meaningfully predict municipalities' political or economic characteristics.¹⁷

Table 3 illustrates the reduced form estimates, documenting a negative correlation between the instrument and the dependent variables that capture the intensive (Columns (1) and (3)) and extensive (Columns (2) and (4)) margin of fascist violence.

Table 4 reports the results of first-stage regressions. The coefficient for the instrumental variable shows a positive correlation with *Distance 1913*, with estimates that statistically differ from zero at the 1% level. The F-statistic (also the effective-F computed following [Olea and Pflueger \(2013\)](#)) largely exceeds the conventional threshold of 10 for all possible sets of controls.

IV estimates of the effect of road proximity on fascist violence are reported in Table 5. The estimated coefficients of the instrumented distance from the closest main road range from -0.010 to -0.015 for both versions of the dependent variable. All but three speci-

¹⁷The observed correlation with geographical variables is not problematic, as it follows by construction from the definition of the least-cost path network. These variables are always included as controls in our regressions.

cations are significant at the 1% level (the remaining ones at the 5% level).¹⁸ Comparing two towns, one located directly on a main road (i.e., having a distance equal to zero) and another 12 km away (corresponding to the 9th decile of the distribution), we expect a 0.18 decrease in the number of episodes of fascist violence per thousand inhabitants over the whole period, conditional on the most demanding set of controls in Column (8) (corresponding to 64% of the mean of the dependent variable). Using the same set of controls with the binary dependent variable, we estimate a 0.15 reduction in the probability that a municipality is targeted by fascists over the full period (corresponding to 42% of the mean).

To assess, from a dynamic perspective, the instrumental role played by road accessibility in the diffusion of fascist violence, we aggregate violence episodes between 1919 and 1924 into four-month periods and estimate

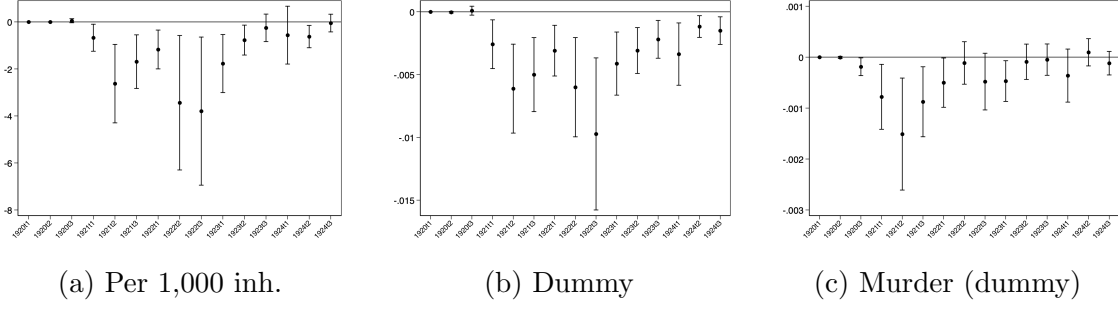
$$y_{i,j,t} = \sum_q \hat{D}_{i,j} \mathbb{1}_t^q \beta_q + \alpha_i + \mu_t + \Gamma_j \times \mu_t + u_{i,j,t} , \quad (3)$$

where $D_{i,j}$ (municipality i 's distance from the road network in 1913) interacted with time-period indicator dummies, $\mathbb{1}_t$, is instrumented by the interaction of $Z_{i,j}^{LCP}$ with $\mathbb{1}_t$, α_i is a municipal fixed effect, μ_t is a time fixed effect, and $\Gamma_j \times \mu_t$ is a province-specific time trend. Standard errors $u_{i,j,t}$ are clustered at the province level. The inclusion of both province-by-time and municipality fixed effects allows us to account for unobservable factors potentially correlated with fascist activity, which cannot be addressed in the cross-sectional specification of Equation (1). This approach also helps mitigate concerns related to heterogeneity in the likelihood that a municipality is mentioned in official reports. The estimated coefficients, illustrated in Figure 5, highlight two periods of intensified activity by fascist squads: the first in the spring and summer of 1921, beginning with the electoral campaign leading up to the May 15th elections and continuing through the Pacification Treaty signed with the Socialist Party at the end of August; the second, more pronounced, in the summer and fall of 1922, immediately preceding the March on Rome. Interestingly, as Mussolini consolidated his control after the March on Rome, the effect of road accessibility on violence tends to decline.¹⁹

¹⁸Fully consistent results are obtained using spatially adjusted Conley's standard errors accounting for correlation up to several different thresholds, as shown in Table C.4 in Appendix C. Table 6 reports results for specifications analogous to the baseline ones but excluding southern municipalities from the sample. We identify the South as the so-called *Mezzogiorno*, including all municipalities within present-day regions corresponding to territories that were part of the Kingdom of the Two Sicilies prior to unification – Abruzzo, Apulia, Basilicata, Calabria, Campania, Molise, and Sicily – as well as Sardinia. The point estimates are roughly twice as large as those in Table 5, consistent with historical evidence concerning the greater scale and territorial spread of fascist violence in the Center-North, as illustrated in Figure 1.

¹⁹In Section C.4 in Appendix C, we exploit plausibly exogenous variation in the timing of fascist violence induced by weather conditions, specifically rainfall. The results from panel IV estimates, reported in Table C.5, show a sharp decline in the probability of fascist attacks in areas and weeks with more

Figure 5: Time heterogeneity of fascist violence – by four-month periods



Note: the dependent variables are the number of episodes of fascist violence per 1,000 inhabitants (in Panel (a)), a dummy equal to 1 if at least a fascist attack (in Panel (b)), or a dummy equal to 1 if at least a fascist murder was reported in the municipality in the four-month period (in Panel (c)). The coefficients are computed with panel IV regressions using the instrumented km distance from the closest main road interacted with time dummies as main explanatory variables, along with municipal, time, and province-by-month fixed effects. Standard errors are clustered at the province level. 90% confidence intervals reported.

A potential concern is that the effect of road access on fascist violence is driven by unobserved historical characteristics of better-connected locations. Although the least-cost path network is constructed through a cost-minimization procedure based solely on geomorphological factors, towns located along the ‘fastest’ connections between major centers may have experienced more favorable development trajectories. As a result, such locations could possess unobserved historical characteristics whose influence on our outcome variable cannot be fully captured by our set of covariates. While our baseline IV specification already omits major towns (i.e., the nodes of the virtual network), we further argue against this concern by showing, in Table 7, that our results are robust to excluding either all municipalities in the first quartile of the distance distribution from the 1913 main road network (Columns (1) and (2)) or all municipalities whose administrative boundaries are intersected by a main road (Columns (3) and (4)).

4.2 Roads as a Strategic Variable

Decentralized and loosely coordinated fascist squads traveling throughout the country to perpetrate political violence played a crucial role in weakening traditional incumbent parties at the local level. There are at least three channels through which the road network supported this effort. First, traveling by road rather than rail made fascist raids more unpredictable. Second, rapid movement across different districts (*circondari*) allowed fascists to reduce the risk of being identified and monitored by local authorities. Third, the capillarity of the road network enabled fascist squads to carry out violence even in areas where fascists were not *ex ante* present.

persistent rainfall. This is consistent with the idea that the exogenous spike in transportation costs provides a disincentive for the attacks by fascist squads traveling on roads.

Railway Connections. To check that railroads did not affect the diffusion of fascist violence, we georeference the universe of Italian railway stations existing in 1919.²⁰ Estimates from specifications that include distance to the nearest railway station as an additional control are reported in Table 8. The coefficients for our measure of road access are similar to those in the baseline specifications in Table 5, while the coefficients for proximity to the railroad are not statistically significant in any specification.

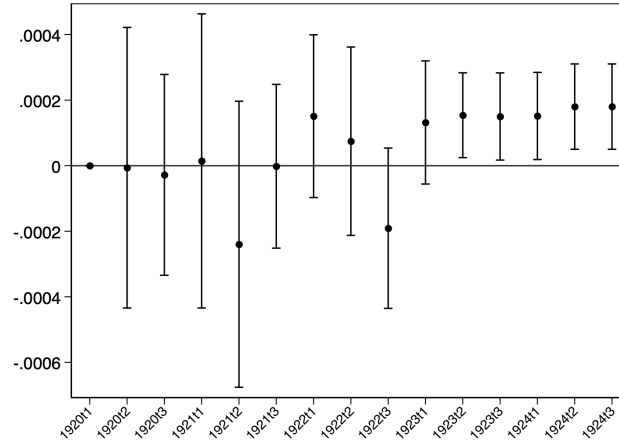
Proximity between Perpetrators and Targets. Historical evidence suggests that squads based in one district often carried out attacks in neighboring districts to avoid easy identification by local police, that could implement surveillance and other preemptive measures facilitated by geographic proximity between fascist headquarters and state authorities. Accordingly, towns that were more easily accessible from adjacent districts may have been more exposed to fascist attacks, pointing to a strategic rationale for the relationship between road accessibility and fascist violence. In order to investigate this mechanism, we estimate regressions in which the main explanatory variable is a municipality’s distance (in kilometers) from the closest road *outside* its own district, rather than from the closest main road overall. We instrument this variable with the distance (in kilometers) from the closest segment of the least-cost path network located outside the municipality’s district. Consistent with the hypothesis that fascist squads targeted locations beyond their own districts when conducting “punitive expeditions”, Table 9 shows that road accessibility from adjacent districts has a negative and significant effect on fascist violence.

Excluding Municipalities with a Fascist Branch in 1919–1924. A plausible alternative explanation for the occurrence of fascist attacks is that they were driven by (unobserved) grassroots support for fascist squads in the targeted locations. Because we cannot reconstruct the exact dynamics of each violent incident from the archival documents, it is possible that some attacks were carried out by local *squadristi* and their supporters rather than by organized squads traveling by truck. The effect of road access on fascist violence could then reflect the unobserved characteristics of well-connected towns that correlate with local support for fascism. To address this concern, we replicate the IV estimate of Equation (1) after excluding from the sample all municipalities in which a fascist branch was established between 1919 and 1924.²¹ The results in Table 10 confirm that road accessibility had a relevant effect on fascist violence.

²⁰We rely on the list of railway stations reported in the official timetable of the [Direzione Generale delle Ferrovie dello Stato \(1919\)](#) to compute the distance, in kilometers, between the centroid of each municipality and the nearest station, thereby obtaining a proxy for railroad accessibility at the municipal level.

²¹Note that, because we do not focus on the exact timing of the opening of fascist branches, we adopt a conservative approach by excluding all towns in which a branch may have been established as a consequence of a successful attack, even if no prior local support for fascism existed.

Figure 6: Time heterogeneity of non-fascist violence – by four-month periods (dummy)



Note: the dependent variable is a dummy equal to 1 if at least an episode of political violence (not involving fascists) was reported in the municipality in the month. The coefficients are computed with panel IV regressions using the instrumented km distance from the closest main road interacted with month indicator dummies as main explanatory variables, along with municipal, month, and province-by-month fixed effects. Standard errors are clustered at the province level. 90% confidence intervals reported.

4.3 Falsification

To provide further evidence that road access is specifically relevant for the unfolding of fascist violence, we conduct falsification exercises using as dependent variables episodes of violence not involving fascists (neither as perpetrators nor as targets) and a dummy for the occurrence of workers' strikes.

Table 11 reports IV estimates of Equation (1) when we use episodes of political violence not involving fascists (in Panels A and B) or the occurrence of workers' strikes (in Panel C) as dependent variables. Although the estimated effect of road access on the number of violent incidents is significant at 10% in the whole sample, it becomes statistically indistinguishable from zero when excluding municipalities closer to the road network (Columns (3) and (4)) or those with direct access to it (Columns (5) and (6)). No significant effects emerge in Panels B and C. Comparing these results with those in Table 7, the effect of road access on non-fascist violence and other forms of political turmoil appears to be entirely driven by well-connected locations, in contrast to the pattern observed for fascist attacks.

Similarly, Figure 6, the counterpart of Figure 5 in Section 4.1, shows no clear pattern over time.

5 Demand and Supply Factors of Fascist Violence

So far, our analysis has provided evidence of a causal effect of road access on the diffusion of fascist violence. We now explore the demand and supply factors that underlie the rise of the fascist movement. On the demand side, we examine the role of local support for the Socialist Party as a driver of elite demand for repression through fascist violence. In particular, we analyze how municipal-level support for the Socialist Party affected both the extensive and intensive margins of violence. On the supply side, we investigate how fascist violence is related to the geographical location of *fasci di combattimento* headquarters, further highlighting the importance of road accessibility for the spatial projection of fascist violence.

The Demand for Fascist Violence. To capture the role of demand for fascist violence, Table 12 reports results from the baseline IV specification in Section 4.1, splitting the sample according to the median vote share (28.5%) of the Socialist Party (PSI) in the 1919 general elections. Panel A presents the estimated coefficients for the subsample of municipalities where the Socialist Party obtained a vote share above the national median, while Panel B includes municipalities below this threshold. In both panels, the dependent variable is the number of episodes of fascist violence per thousand inhabitants (Columns (1) and (2)), and a dummy variable equal to one if at least one fascist attack was reported (Columns (3) and (4)) within the 1919-1922 or 1919-1924 periods. This distinction is relevant because it allows us to separately assess the impact of demand on the intensive and extensive margins of the effect of road access on violence.

The coefficients in Columns (1) and (2) indicate that the effect of road access on fascist attacks per thousand inhabitants is driven by municipalities with stronger socialist support. Although confidence intervals are wider than in the baseline – likely due to the smaller sample size – the point estimates for municipalities above the median 1919 socialist vote share are more than twice as large as the corresponding full-sample estimates in Table 5. By contrast, for municipalities below the median, the coefficients are between one third and one half of the full-sample estimates and are not statistically different from zero. When using the dummy dependent variable, the coefficients of road access are significant only among municipalities below the median level of socialist support. The estimates in Columns (3) and (4) of Panel B of Table 12 are smaller in absolute value than those in Panel A; however, compared to the mean of the dependent variable, they are larger for 1919–1922 and comparable for 1919–1924.

These results highlight how infrastructural capacity had a heterogeneous effect in shaping the spatial patterns of fascist violence. Road access affected the intensive margin – i.e., the intensity of fascist attacks – primarily in areas where demand for the intervention of fascist squads was stronger. Conversely, it influenced the extensive margin of fascist violence where the socialists, the main targets of fascist squads, were weaker.

Our findings indicate that better road access also exposed municipalities with relatively lower demand for repression to fascist actions. Lower travel costs created incentives to target these locations at least once within the period under consideration. In both high- and low-socialist support contexts, infrastructural capacity acted as a supply-side factor, reducing the cost of carrying out organized violence, the key mechanism through which the fascist movement gained power at the local level.

The Supply of Fascist Violence. As noted above, the spread of fascist violence is also related to the geographic distribution of fascist squads (i.e., the supply of violent militants). We test whether municipalities located at shorter travel distances from a local fascist headquarters were, *ceteris paribus*, more frequently targeted. To do so, we exploit data from the *Archivio Centrale dello Stato* on the establishment of fascist headquarters at the municipal level (*sezioni dei fasci di combattimento*) across Italy from the foundation of the fascist movement in March 1919 up to November 1920.²² The historiography on fascism identifies November 1920 as a turning point in the political rise of the movement, as fascists began to employ political violence on a large scale and in an organized fashion immediately after the administrative elections of that month (Gentile, 2021; Lyttelton, 2004; Millan, 2017; Saluppo, 2020; Tasca, 2021). To limit concerns of reverse causality – where violence induces the opening of local fascist branches – we do not consider openings of headquarters that occurred *after* November 1920. Indeed, as illustrated in Figures 1 and 2, fascist violence became increasingly prominent from late 1920 onward, whereas prior to that date fascist actions were comparable in scale, or even less frequent, than actions involving other factions. Figure 7 maps the municipalities that hosted a fascist branch as of November 1920.

We compute least-cost path connections between each municipality and the nearest fascist branch existing in November 1920²³ and use it to estimate the following panel regression at the municipality and monthly level:

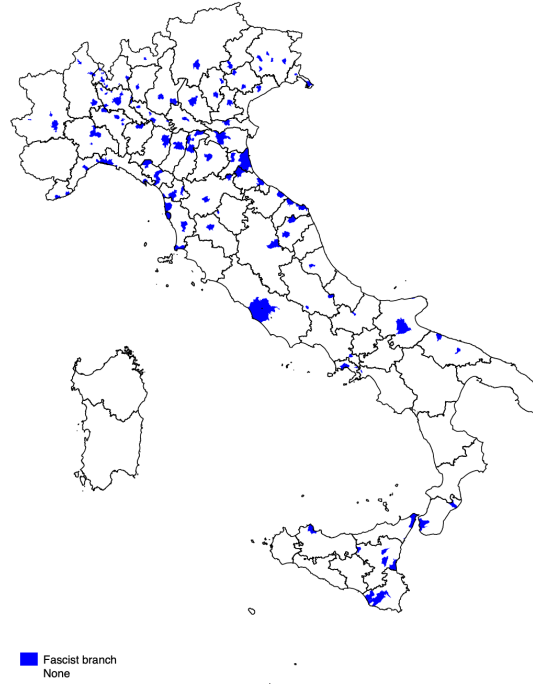
$$Y_{i,j,t} = \alpha_i + \mu_t + \sum_{t=-6, t \neq -1}^{+11} \beta_t \widehat{\text{Distance}}_{i,j}^{1913-HQ} \times \mu_t + \varepsilon_{i,j,t} , \quad (4)$$

where $Y_{i,j,t}$ is the count of political violence episodes per 1,000 inhabitants (or a binary dummy variable if at least one episode is reported) in municipality i belonging to district j in month t , $\widehat{\text{Distance}}_{i,j}^{1913-HQ}$ is the 1913 network-based length (in kilometers) of

²²Details on the data collection are provided in Section A.3 of Appendix A.

²³We employ a slightly modified versions of the original terrain ruggedness raster, obtained by overlaying it with either the actual 1913 road network or with the LCP network. In each resulting raster, cells crossed by a road are assigned a cost equal to half of the original value, so as to reflect the greater ease of access implied by roads. For each raster, we then simulate the shortest paths between each municipality and the nearest fascist branch, recording their length (in kilometers). This yields $\text{Distance}_{i,j}^{1913-HQ}$ for the 1913 network-based raster, and $\text{Distance}_{i,j}^{LCP-HQ}$ for the LCP network-based raster.

Figure 7: Fascist branches (November 1920)



Source: our computations from official reports stored at the *Archivio Centrale dello Stato*. See Section A.3 in Appendix A for details.

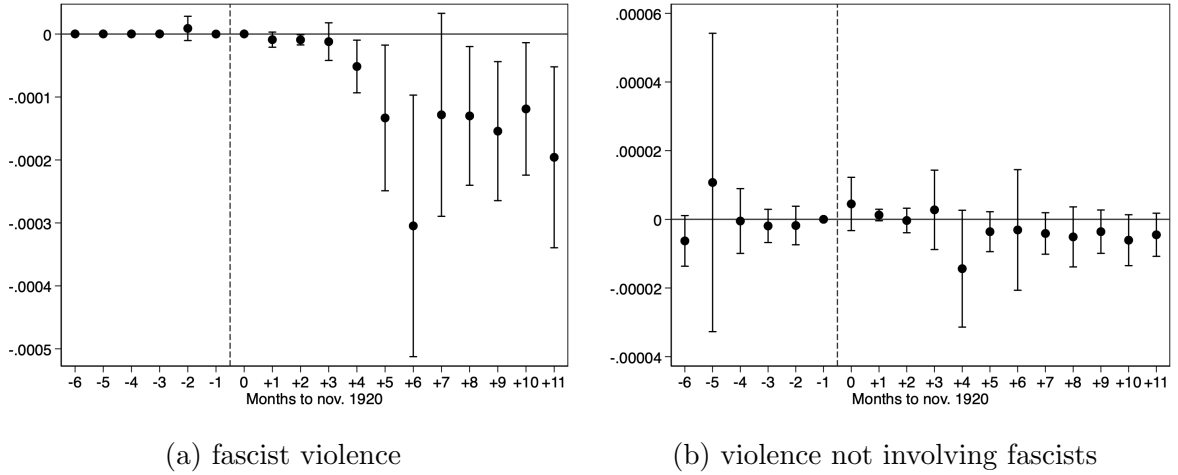
the simulated travel path between each municipality and the closest fascist headquarters existing in November 1920 instrumented with the LCP network-based length (in kilometers) of the travel path between each municipality and the closest fascist headquarters, α_i is a municipality fixed effect, μ_t is a month fixed effect, and $\varepsilon_{i,j,t}$ is the error term, with standard errors clustered at the province level. We include municipality and month fixed effects to control for unobserved heterogeneity, so that the coefficients β_t capture the effect of travel distance to the closest fascist branch on political violence.²⁴

Panel (a) of Figure 8 plots the estimated coefficients when fascist violence per 1,000 inhabitants is used as the dependent variable, while Panel (b) reports the results when the dependent variable is violence not involving fascists. Within the eighteen-month window around the beginning of “*squadrismo*” (November 1920), the estimated coefficients for the effect of proximity to a fascist branch are negative and increasing in magnitude after November 1920 for fascist violence. By contrast, no clear pattern emerges for episodes of violence that do not involve fascists. Figure C.1 in Appendix C illustrates analogous results using a dummy for fascist violence and the number of fascist murders per 1,000 inhabitants as dependent variables. The two plots are overall consistent with the dynamics highlighted in Panel (a) of Figure 8, showing a declining trend beginning in

²⁴Note that we exclude from the sample: (i) all district capital cities (consistent with the baseline IV specification of Subsection 4.1); and (ii) all municipalities that hosted a fascist headquarters at any point between 1919 and 1924 (consistent with the exercise reported in Table 10).

or around November 1920. The negative sign of the coefficients indicates that proximity to a fascist branch (in terms of travel distance along least-cost paths) contributed to the spread of early fascist violence.²⁵ Taken together with the findings of the previous section, these results suggest that fascist branches acted as local hubs from which early squad activity radiated along the existing road network.

Figure 8: Effect of distance from the closest fascist branch on (a) fascist violence and (b) violence not involving fascists per 1,000 inh. – -6/+12 months to November 1920 ($t=0$)



Note: The coefficients are computed with panel regressions using the km distance along the least-cost path from each municipality to the closest fascist branch as of November 1920 interacted with month indicator dummies as explanatory variables, along with municipality and month fixed effects. 95% confidence intervals are reported. Standard errors are clustered at the province level.

6 The Impact of Fascist Violence on Local Political Institutions

The analysis in the previous section shows that supply and demand factors, together with the characteristics of road infrastructure, played an important role in explaining the scale and direction of the diffusion of fascist violence. It remains to be assessed what have been the main goals of such violence in the fascists' pursuit of power. Historians (e.g., Ebner, 2010; Gentile, 2012) emphasize that one of the strategic aims of fascist squads was to intimidate, threaten, and even physically assault local elected officials (primarily from the Socialist Party, but not exclusively) to force their resignation. This strategy had two main effects. First, it underscored the weakness of anti-fascist parties at the

²⁵Table C.6 in Appendix C reports point estimates for the main coefficient from four models analogous to those above, but using a post-November 1920 dummy instead of month indicators. The results are fully consistent with those depicted in Figure 8 and Figure C.1. Considering, for instance, the specification using fascist violence per 1,000 inhabitants as the dependent variable, each additional kilometer of distance from the nearest branch is associated with a 3.4% reduction in fascist attacks relative to their mean value in the months following November 1920.

local level. Second, it revealed the unpreparedness of local state authorities to effectively deal with the consequences of fascist violence, as the *prefetti* (i.e., the government officials responsible for managing such crises and, if necessary, appointing interim administrators) often received the notice of council members' resignations as a *fait accompli*. In what follows, we investigate (i) the extent to which fascist violence had a causal effect on the dissolution of municipal councils, (ii) how such dissolutions relate to the opening of new fascist branches in the same municipalities, and (iii) the impact of fascist violence on the electoral performances of the Fascist Party (and its left-wing opponents) in the general elections held in 1921 and 1924.

Fascist Violence and the Dissolution of Municipal Councils. To assess the effect of fascist violence on the probability of town council dissolution, we collect all issues of the official government bulletin of the Kingdom of Italy (the *Gazzetta Ufficiale del Regno d'Italia*) and parse the digitized text to identify ministerial decrees formally ratifying such dissolutions.²⁶ We restrict the sample to the period between November 1920 and December 1924.²⁷ During this interval, 976 municipalities had their councils dissolved. Since we cannot precisely identify the motivation for each dissolution from the text of the decrees, this count includes cases unrelated to fascist actions, such as resignations due to budgetary difficulties. This measurement error should bias the estimated coefficient of violence toward zero, implying that our estimates of the causal effect of squad violence on the probability of council dissolution should be interpreted as lower bounds of the true effect.

Table 13 reports the results of regressions in which the dependent variable is a dummy that takes value one if the town council was dissolved between November 1920 (i.e., after the beginning of “*squadrismo*”) and December 1924. The first column presents reduced-form estimates, in which the dependent variable is directly regressed on distance to the closest segment of the least-cost path network. Columns (2)-(5) report IV estimates in which fascist violence (under alternative definitions) is instrumented using distance to the closest segment of the least-cost path network. Across all specifications, the results indicate a causal link between fascist violence and the likelihood of council and mayoral resignations in 1920-1924. Conditional on controls, municipalities targeted by at least one fascist action in 1919-1922 were approximately 80% more likely to experience council dissolution than other municipalities.

The Increasing Presence of the Fascist Party at the Local Level. We explore the relationship between the dissolution of municipal councils and the establishment of fascist

²⁶Details on the data collection are provided in Section A.3 of Appendix A.

²⁷The administrative elections of late October and early November 1920 were held after incumbent councils had remained in office for six years, rather than the statutory five years, due to wartime extensions. This was the last round of administrative elections held under democratic conditions, as in the subsequent elections of 1925 most towns featured a single list of fascist and fascist-aligned candidates.

branches in the same municipalities by exploiting the timing of dissolution decrees together with the opening dates of a fascist headquarters, as documented in the archival resources described in Section A.3 of Appendix A.²⁸ We collapse the data at the monthly level to mitigate measurement error in the exact timing of each event. As noted in Section 3, for some fascist branches we can only approximate the date of opening using the earliest recorded mention of the branch in archival documents. On the other hand, the dissolution of a municipal council required a Royal Decree, drafted by the Minister and signed by the King, typically issued with a delay of a few weeks after the *de facto* resignation of the council members. We assemble a panel at the municipal-month level and estimate the panel regression

$$Y_{i,j,t} = \alpha_i + \mu_t + \beta D_{i,j,t} + \Gamma_j \times \mu_t + \varepsilon_{i,j,t} , \quad (5)$$

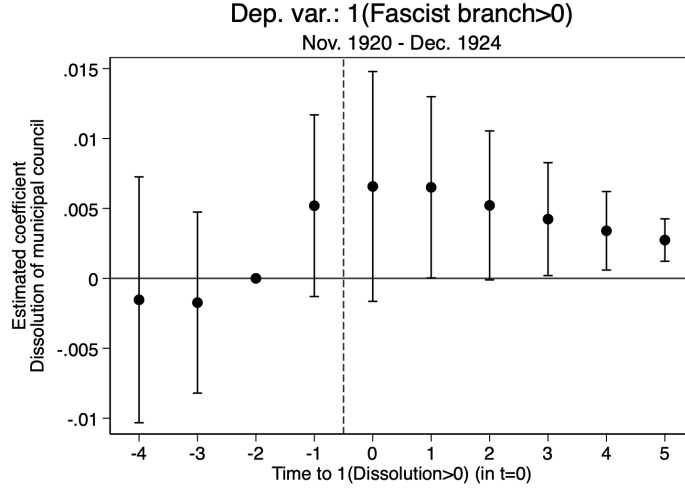
where $Y_{i,j,t}$ is a dummy variable that takes value one if a fascist headquarters exists in municipality i in province j in month t , $D_{i,j,t}$ is a dummy variable equal to one if the council of municipality i is dissolved in any period $\hat{t} \leq t$, α_i is a municipality fixed effect, μ_t is a month fixed effect, $\Gamma_j \times \mu_t$ is a province-specific time trend, and $\varepsilon_{i,j,t}$ is the error term, with standard errors clustered at the province level. We acknowledge that a causal interpretation of the results may not hold, as a successful fascist attack may simultaneously lead to both the dissolution of the municipal council and the establishment of a new headquarters in the same municipality. Nevertheless, it is interesting to note that the probability of hosting a fascist branch increases significantly after a council is dissolved. As shown in Table 14, the estimated coefficients for $D_{i,j,t}$ indicate that the dissolution of a municipal council is associated with a 6 – 11% increase in the probability that a new fascist headquarters is established in the municipality within the following six months. To further corroborate our analysis, we also focus on the following event study

$$Y_{i,j,t} = \alpha_i + \mu_t + \sum_{n=-4, n \neq -2}^{+5} \beta_n \mathbb{1}[t - E_{i,j} = n] + \varepsilon_{i,j,t} , \quad (6)$$

where $E_{i,j}$ is the month in which the town council of municipality i is dissolved and $\mathbb{1}[t - E_{i,j} = n]$ is an indicator of being n months from the dissolution. Figure 10 depicts the dynamic relationship between council dissolution and the opening of a fascist branch. The reference period is set to $t = -2$ to highlight the anticipation effect at $t = -1$, which may arise from the delay in the issuance of the dissolution decree, as argued above. The estimated coefficients show a marked increase in the post-dissolution period relative to the pre-dissolution period within the ten-month window, with estimates significant at the 5% level. These results provide further suggestive evidence that fascist violence could

²⁸The number of municipalities opening their first fascist headquarters in each month is depicted in Figure C.3 of Appendix C.

Figure 10: Event study of the relationship between the dissolution of a municipal council (in $t=0$) and the opening of a fascist branch.



Note: the figure displays IV estimates of β_n from Equation (6). 95% confidence intervals are reported. Standard errors are clustered at the province level.

have been strategically used to weaken state institutions at the municipal level.

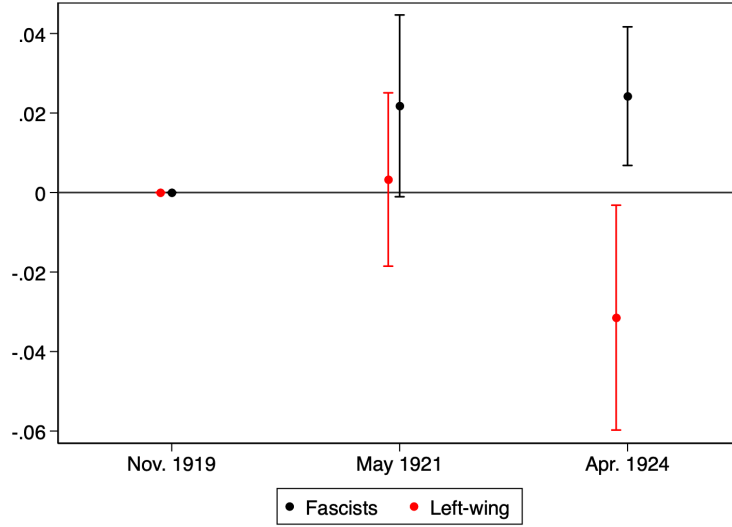
The Electoral Benefits of Fascist Violence. In order to explore the extent to which violence is associated with the electoral performance of the Fascist Party at the local level, we estimate a panel IV specification using municipal-level electoral results. The analysis covers three electoral waves: the 1919 general election (used as the reference period), the 1921 election, and the 1924 election. We run separate regressions for fascists and left-wing parties, and estimate the following equation:²⁹

$$\begin{aligned}
 VoteShare_{i,j,t}^P = & \sum_{t \in \{1921, 1924\}} \beta_t^P \mathbb{1}(\widehat{Violence}_{i,j}(t^-, t]) + \\
 & + \rho VoteShare_{i,j,t^-}^P + \alpha_i + \mu_t + \Gamma_j \times \mu_t + \varepsilon_{i,j,t},
 \end{aligned} \tag{7}$$

where $VoteShare_{i,j,t}^P$ is the vote share of faction P (either the Fascist Party or the left-wing parties) in municipality i of province j at election $t \in \{1919, 1921, 1924\}$, $\widehat{Violence}_{i,j}(t^-, t]$ is a dummy equal to one if at least an episode of fascist violence occurred in municipality i between election t and the previous election t^- . This variable is instrumented using the distance (in kilometers) from the least-cost path network interacted with time dummies. We include municipality fixed effects α_i , election fixed effects μ_t , and province-by-election fixed effects $\Gamma_j \times \mu_t$, as well as the lagged vote share of faction P , $VoteShare_{i,j,t^-}^P$. Standard errors $\varepsilon_{i,j,t}$ are clustered at the province level. Conditional on controls, the estimated

²⁹The 1919 left-wing results correspond to the vote share of the Socialist Party. In 1921, they include the combined vote shares of the Socialist Party and the newly established Communist Party. The 1924 results correspond to the total vote share of these two parties plus the moderate-reformist *Partito Socialista Unitario*, whose members were expelled from the Socialist Party in 1922.

Figure 11: Panel Estimates of the Effect of Fascist Violence on the Fascist Vote Share and on the Left-wing Parties (combined) Vote Share



Note: the figure displays IV estimates of β_t from Equation (7) for fascists and left-wing vote shares in 1921 and 1924. 95% confidence intervals are reported. Standard errors are clustered at the province level.

coefficients β_t^P , depicted in Figure 11, capture the relationship between exposure to fascist violence and electoral outcomes in 1921 and 1924, relative to the 1919 baseline. For the 1921 election, the results reveal the first electoral payoffs of violence for the vote share of the fascists, while the result of left-wing parties was not meaningfully affected. This pattern is consistent with the idea that, at this early stage, the fascist movement had not yet consolidated its local dominance. Point estimates indicate that exposure to fascist violence is associated with an increase in the fascist vote share of approximately 2%, relative to an average vote share of 5.3%. This seems to suggest that early fascist violence was more effective in establishing the presence of fascism on the political landscape than in displacing left-wing support. By contrast, for the 1924 election, we observe a strong negative association between fascist violence and the electoral performance of left-wing parties. At the same time, the relationship between violence and the Fascist Party's vote share appears more limited, with point estimates suggesting an increase of about 2% relative to an average vote share of 65%. This pattern is consistent with a context in which the consolidation of fascist power was accompanied more by the weakening of the opposition than by further gains in fascist support achieved through squad actions.³⁰

³⁰As discussed in Section 2, the 1924 electoral results are informative but should be interpreted with caution. More generally, the mechanism that links fascist violence with electoral results likely reflects a combination of persuasion through propaganda and coercion. Assessing which domain contributed more is beyond the scope of our analysis.

7 Concluding Remarks

We assess the extent to which the diffusion of fascist violence contributed to institutional instability in Italy in the early 1920s, a period marked by the progressive consolidation of fascism as an autocratic regime. We find that municipalities located closer to main roads experienced higher levels of violence, reflecting the comparatively low cost for fascist squads to reach them by truck. We also show that, as a consequence of the violence and intimidation carried out by fascist squads, these municipalities were more likely to experience the dissolution of their municipal councils. On the extensive margin, proximity to the road network was especially important for municipalities with weaker support for the Socialist Party, where the demand for repression by local elites was presumably lower. By contrast, on the intensive margin, proximity mattered more in areas with stronger socialist presence. From a supply-side perspective, proximity to local branches of the Fascist Party was a key factor in explaining the incidence of fascist violence. Towns ‘blessed by remoteness’ were, instead, less hit by fascist expeditions. To identify these effects, we gather rich data from historical archives and employ an instrumental variable strategy based on a least-cost path road network.

Our results highlight that the use of violence by fascist groups at the local level largely contributed to the weakening of democratic institutions in post-WWI Italy, facilitating Mussolini’s rise to power and the transition from a democratic to an autocratic regime. We also show that the diffusion of fascist violence at the municipal level was systematically shaped by the conditions of Italy’s main road network, as fascist squads heavily relied on trucks to operate across neighboring districts and towns. In this respect, our paper contributes to the growing literature on the ‘dark side’ of state capacity, highlighting the unintended consequences of the latter.

References

- Acemoglu, D., De Feo, G., De Luca, G., and Russo, G. (2022). War, Socialism, and the Rise of Fascism: An Empirical Exploration. *The Quarterly Journal of Economics*, 137(2):1233–1296.
- Acemoglu, D. and Robinson, J. A. (2005). *Economic Origins of Dictatorship and Democracy*. Cambridge University Press.
- Acemoglu, D. and Robinson, J. A. (2019). *The Narrow Corridor: States, Societies, and the Fate of Liberty*. Penguin Press.
- Acemoglu, D. and Robinson, J. A. (2023). Weak, Despotic, or Inclusive? How State Type Emerges from State versus Civil Society Competition. *American Political Science Review*, 117(2):407–420.
- Acemoglu, D., Ticchi, D., and Vindigni, A. (2010). A Theory of Military Dictatorships. *American Economic Journal: Macroeconomics*, 2(1):1–42.

- Albertus, M. and Gay, V. (2025). State-Building and Rebellion in the Run-Up to the French Revolution. *American Political Science Review*, forthcoming.
- Banerjee, A., Duflo, E., and Qian, N. (2020). On the Road: Access to Transportation Infrastructure and Economic Growth in China. *Journal of Development Economics*, 145:102442.
- Becker, S. O. and Voth, H.-J. (2023). From the Death of God to the Rise of Hitler. IZA Discussion Paper 16538, Institute of Labor Economics (IZA), Bonn.
- Bennett, D. L., Bjørnskov, C., and Gohmann, S. F. (2021). Coups, regime transitions, and institutional consequences. *Journal of Comparative Economics*, 49(2):627–643.
- Bertelli, C., Micheli, G., Romano, R., and Bortolotti, L. (1985). *Storia d'Italia. Annali 8. Insediamento e Territorio*. Einaudi.
- Bonfatti, R., Facchini, G., Tarasov, A., Tedeschi, G. L., and Testa, C. (2022). The Baccarini Law Railways (1880-1890): Their Long-Run Sectoral Economic Impact. *Rivista di storia economica*, 38(2):233–261.
- Carillo, M. F. (2022). Fascistville: Mussolini's New Towns and the Persistence of Neo-Fascism. *Journal of Economic Growth*, 27(4):527–567.
- Central Intelligence Agency (2006). *World Data Bank II: North America, South America, Europe, Africa, Asia*. Inter-university Consortium for Political and Social Research.
- Chiurco, G. A. (1973). *Storia della rivoluzione fascista*. Edizioni del Borghese, Milano.
- Cifelli, A. (1999). *I prefetti del Regno nel ventennio fascista*. Scuola Superiore dell'Amministrazione dell'Interno.
- Colella, F., Lalive, R., Sakalli, S. O., and Thoenig, M. (2019). Inference with Arbitrary Clustering. IZA Discussion Papers 12584, Institute of Labor Economics (IZA).
- Corpo di Stato Maggiore per le Amministrazioni militari (1868). *Carta Itineraria del Regno d'Italia*. G. Pellas, Firenze.
- De Felice, R. (2019). *Mussolini: Il fascista; 1. La conquista del potere, 1921-1925*. Einaudi, Torino.
- De Juan, A., Haass, F., Koos, C., Riaz, S., and Tichelbaecker, T. (2024). War and Nationalism: How WW1 Battle Deaths Fueled Civilians' Support for the Nazi Party. *American Political Science Review*, 118(1):144–162.
- DeLong, J. B. (2022). *Slouching Towards Utopia: An Economic History of the Twentieth Century*. Hachette UK.
- Derpanopoulos, G., Frantz, E., Geddes, B., and Wright, J. (2016). Are coups good for democracy? *Research & Politics*, 3(1):1–7.
- Direzione Generale delle Ferrovie dello Stato (1919). *Orario generale delle strade ferrate – Marzo 1919*. F.lli Pozzo.
- Ebner, M. R. (2010). *Ordinary Violence in Mussolini's Italy*. Cambridge University Press.
- Fabbri, F. (2009). *Le Origini della Guerra Civile: L'Italia dalla Grande Guerra al Fascismo*. UTET.

- Faber, B. (2014). Trade integration, Market Size, and Industrialization: Evidence from China's National Trunk Highway System. *The Review of Economic Studies*, 81(3):1046–1070.
- Fincardi, M. (2008). La spedizione punitiva: conquista e sottomissione del territorio. In Isnenghi, M. and Albanese, G., editors, *Gli Italiani in guerra. Conflitti, identità, memorie dal Risorgimento ai nostri giorni*, volume 4, pages 310–317. UTET.
- Foot, J. (2022). A micro-history of Fascist violence. Squadristi, victims and perpetrators. *Journal of Modern Italian Studies*, 27(4):528–549.
- Franzinelli, M. (2019). *Squadristi: Protagonisti e tecniche della violenza fascista 1919-1922*. Feltrinelli, Milano.
- Franzinelli, M. (2022). *L'insurrezione fascista*. Mondadori, Milano.
- Gentile, E. (2012). *E fu subito regime. Il fascismo e la marcia su Roma*. Laterza.
- Gentile, E. (2021). *Storia del partito fascista: movimento e milizia. 1919-1922*. Laterza.
- González, F., Miquel-Florensa, J., Prem, M., and Straub, S. (2025). The Dark Side of Infrastructure: Roads, Repression and Land in Authoritarian Paraguay. *The Economic Journal*, 135(666):653–669.
- Kalyvas, S. N. (2006). *The Logic of Violence in Civil War*. Cambridge University Press.
- Koenig, C. (2023). Loose Cannons: War Veterans and the Erosion of Democracy in Weimar Germany. *The Journal of Economic History*, 83(1):167–202.
- Levitsky, S. and Ziblatt, D. (2018). *How Democracies Die*. Crown.
- Lyttelton, A. (2004). *The Seizure of Power: Fascism in Italy, 1919-1929*. Routledge.
- Mann, M. (2004). *Fascists*. Cambridge University Press.
- Marinov, N. and Goemans, H. (2014). Coups and Democracy. *British Journal of Political Science*, 44(4):799–825.
- Martinez, M. (2024). A Reconstruction of the Italian Road Network, 1861-1910. *Rivista di storia economica, Italian Review of Economic History*, XL(3):247–276.
- Matteotti, G. (2019). *Un anno di dominazione fascista*. Rizzoli, Milano.
- Mencarelli, P. (2019). *Fascismo. Inchiesta socialista sulle gesta dei fascisti in Italia*. Biblion Edizioni, Milano.
- Millan, M. (2014). *Squadrisimo e squadristi nella dittatura fascista*. Viella.
- Millan, M. (2017). Origins. In Arthurs, J., Ebner, M., and Ferris, K., editors, *The Politics of Everyday Life in Fascist Italy: Outside the State?*, pages 19–49, New York. Palgrave Macmillan US.
- Ministero dell'economia nazionale (1925). *Censimento della popolazione del Regno d'Italia al 1. dicembre 1921*. Ministero dell'economia nazionale, Direzione generale della statistica.
- Moraglio, M. (2004). Le politiche viarie in Italia da fine Ottocento al regime fascista. *Studi Storici*, 45(2):555–580.

- Müller-Crepon, C., Hunziker, P., and Cederman, L.-E. (2021). Roads to Rule, Roads to Rebel: Relational State Capacity and Conflict in Africa. *The Journal of Conflict Resolution*, 65(2-3):563–590.
- Olea, J. L. M. and Pflueger, C. (2013). A Robust Test for Weak Instruments. *Journal of Business & Economic Statistics*, 31(3):358–369.
- Persson, T. and Tabellini, G. (2009). Democratic capital: The nexus of political and economic change. *American Economic Journal: Macroeconomics*, 1(2):88–126.
- Petersen, J. (1982). Violence in italian fascism, 1919–25. In Mommsen, W. J. and Hirschfeld, G., editors, *Social Protest, Violence and Terror in Nineteenth- and Twentieth-century Europe*, pages 275–299. Palgrave Macmillan UK, London.
- Przeworski, A. (2019). *Crises of Democracy*. Cambridge University Press.
- Reichardt, S. (2009). *Camicie Nere, Camicie Brune: Milizie Fasciste in Italia e in Germania*. Il Mulino.
- Riley, D. (2010). *The Civic Foundations of Fascism in Europe: Italy, Spain, and Romania, 1870–1945*. Johns Hopkins University Press.
- Rogall, T. (2021). Mobilizing the Masses for Genocide. *American Economic Review*, 111(1):41–72.
- Saluppo, A. (2020). Paramilitary Violence and Fascism: Imaginaries and Practices of Squadristo, 1919–1925. *Contemporary European History*, 29(3):289–308.
- Salvemini, G. (2015). *Le origini del fascismo in Italia*. Feltrinelli.
- Sandulli, A. M. (1967). *Le Opere pubbliche*. Neri Pozza.
- Satyanath, S., Voigtländer, N., and Voth, H.-J. (2017). Bowling for fascism: Social capital and the rise of the nazi party. *Journal of Political Economy*, 125(2):478–526.
- Scott, J. C. (1998). *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. Yale University Press.
- Secchia, P. (1971). *Le armi del fascismo: (1921-1971)*. Feltrinelli, Milano.
- Seeberg, M. B. (2021). How State Capacity Helps Autocrats win Elections. *British Journal of Political Science*, 51(2):541–558.
- Tasca, A. (2021). *Nascita e avvento del fascismo: l'Italia dall'armistizio alla marcia su Roma*. Neri Pozza.
- Tosatti, G. (2001). Il prefetto e l'esercizio del potere durante il periodo fascista. *Studi Storici*, 42(4):1021–1039.
- Touring Club Italiano (1913). *Carta d'Italia del Touring club italiano*. Istituto geografico De Agostini, Novara.
- Visani, A. (2004). *La conquista della maggioranza. Mussolini, il PNF e le elezioni del 1924*. Fratelli Frilli.
- Voigtländer, N. and Voth, H.-J. (2025). Highway to Hitler. *American Economic Journal: Applied Economics*, forthcoming.

- Zhukov, Y. M. (2012). Roads and the Diffusion of Insurgent Violence: The Logistics of Conflict in Russia's North Caucasus. *Political Geography*, 31(3):144–156.
- Zhukov, Y. M. (2016). On the Logistics of Violence: Evidence from Stalin's Great Terror, Nazi-Occupied Belarus, and Modern African Civil Wars. In *Economic Aspects of Genocides, Other Mass Atrocities, and Their Preventions*. Oxford University Press.

Table 1: Descriptive Statistics of the main variables

	Mean	Median	Std Dev	Min	Max	N
Fascist violence 1919-22 (per 1,000)	0.184	0.000	0.491	0.000	9.501	9212
Fascist violence 1919-24 (per 1,000)	0.274	0.000	0.588	0.000	9.501	9212
Fascist violence 1919-22 (dummy)	0.252	0.000	0.434	0.000	1.000	9212
Fascist violence 1919-24 (dummy)	0.345	0.000	0.475	0.000	1.000	9212
Non-fascist violence 1919-22 (per 1,000)	0.008	0.000	0.064	0.000	3.546	9212
Non-fascist violence 1919-24 (per 1,000)	0.008	0.000	0.066	0.000	3.546	9212
Non-fascist violence 1919-22 (dummy)	0.039	0.000	0.193	0.000	1.000	9212
Non-fascist violence 1919-24 (dummy)	0.040	0.000	0.196	0.000	1.000	9212
Socialist vote share in 1919	0.316	0.284	0.271	0.000	1.000	5772
Pop. in 1921	4362.647	2122.500	17636.759	58.000	819184.000	9212
Pop. density (1,000 inh. per ha)	0.002	0.001	0.008	0.000	0.509	9184
Municipal area (ha)	3408.712	1828.000	5536.691	5.000	207462.000	9184
Altitude of the town hall	362.680	296.000	298.022	1.000	1816.000	9036
Distance to main town	17.998	15.772	13.058	0.000	371.306	9035
Ruggedness index	246.636	183.133	231.658	0.000	1199.993	9035
Literacy rate	75.588	85.000	21.173	14.000	100.000	9184
Unemployment rate	3.502	3.100	1.991	0.300	33.000	9184
Share of agrarian workers	51.809	55.600	17.152	2.100	90.200	9184
Share of industrial workers	15.035	11.600	10.469	0.400	52.800	9184
Share of lower-middle class	12.767	11.900	5.132	2.700	42.700	9184
Share of upper class	2.764	2.500	1.334	0.000	9.100	9184
Landlord association (dummy)	0.050	0.000	0.218	0.000	1.000	5772
WWI veterans	0.371	0.390	0.078	0.192	0.604	5772
Strike in 1913-4	0.012	0.000	0.109	0.000	1.000	5772
Strike in 1920	0.246	0.000	0.431	0.000	1.000	5772
Dissolution of muni council	0.118	0.000	0.323	0.000	1.000	9212
Distance to railway station (1919)	6.402	4.542	6.412	0.067	204.155	9035
Distance to main road (1868)	4.392	2.423	6.045	0.002	204.182	9035
Distance to main road (1913)	5.396	3.300	7.311	0.007	203.870	9035
Distance to closest LCP	6.478	4.203	7.148	0.000	201.496	9035
Dist. to main road (outside district)	10.512	8.759	7.792	0.043	211.253	9035
Dist. to LCP (outside district)	11.012	9.131	8.277	0.257	210.991	9035
Travel dist. to fascist branch (Nov. 1920)	46.225	30.051	45.515	0.000	276.944	8566

Table 2: OLS estimates of the relationship between fascist violence and road access

Dep. var.: Fascist Violence								
	1919–1922				1919–1924			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: per 1,000								
Distance to main road (1913)	-0.0021 (0.0015)	-0.0022 (0.0015)	-0.0022* (0.0013)	-0.0024** (0.0012)	-0.0038** (0.0016)	-0.0039** (0.0016)	-0.0038*** (0.0014)	-0.0040*** (0.0013)
Panel B: dummy								
Distance to main road (1913)	-0.0042*** (0.0013)	-0.0038*** (0.0013)	-0.0033*** (0.0012)	-0.0034*** (0.0013)	-0.0048*** (0.0017)	-0.0045** (0.0017)	-0.0040** (0.0017)	-0.0039** (0.0017)
Terrain controls	✓	✓	✓	✓	✓	✓	✓	✓
Geographic controls		✓	✓	✓		✓	✓	✓
Economic controls			✓	✓			✓	✓
WWI Veterans				✓				✓
PSI 1919	✓	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	64	64	64	64	64	64	64	64
N. Obs.	5,771	5,771	5,771	5,771	5,771	5,771	5,771	5,771
Mean Dep. Var. (Panel A)	0.230	0.230	0.230	0.230	0.337	0.337	0.337	0.337
Mean Dep. Var. (Panel B)	0.285	0.285	0.285	0.285	0.387	0.387	0.387	0.387

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants (in Panel A) or dummies equal to 1 if the municipality was targeted by at least a fascist attack (in Panel B) in 1919–1922 or 1919–1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest main road. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table 3: Reduced form estimates of the effect of proximity to the least-cost path network on fascist violence

Dep. var.: Fascist Violence				
	1919–1922		1919–1924	
	per 1,000 (1)	dummy (2)	per 1,000 (3)	dummy (4)
Distance to closest LCP	-0.0029*** (0.0009)	-0.0023*** (0.0008)	-0.0033*** (0.0010)	-0.0027*** (0.0009)
Terrain controls	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓
WWI Veterans	✓	✓	✓	✓
PSI 1919	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
N. Clusters	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants (Columns (1) and (3)) or dummies equal to 1 if the municipality was targeted by at least a fascist attack (Columns (2) and (4)) in 1919–1922 or 1919–1924. The main explanatory variable is expressed as the km distance from each municipality to the closest segment of the least-cost path network. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table 4: First-Stage relationship between the distance to the closest main road and the distance to the closest least-cost path

Dep. Var.	Distance to main road (1913)			
	(1)	(2)	(3)	(4)
Distance to closest LCP	0.2330*** (0.0493)	0.2305*** (0.0491)	0.2279*** (0.0490)	0.2275*** (0.0481)
Terrain controls	✓	✓	✓	✓
Geographic controls		✓	✓	✓
Economic controls			✓	✓
WWI Veterans				✓
PSI 1919	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
N. Clusters	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606
F-stat	22.34	22.03	21.66	22.37

Note: the dependent variable is expressed as the km distance from each municipality to the closest main road. The main explanatory variable is expressed as the km distance from each municipality to the closest segment of the least-cost path network. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table 5: IV estimates of the effect of road access on fascist violence

Dep. var.: Fascist Violence	1919–1922				1919–1924			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: per 1,000								
Distance to main road (1913)	-0.0100** (0.0044)	-0.0104** (0.0045)	-0.0123*** (0.0047)	-0.0126*** (0.0045)	-0.0128*** (0.0047)	-0.0134*** (0.0048)	-0.0144*** (0.0050)	-0.0147*** (0.0049)
Panel B: dummy								
Distance to main road (1913)	-0.0119*** (0.0043)	-0.0091** (0.0037)	-0.0101*** (0.0032)	-0.0102*** (0.0033)	-0.0152*** (0.0049)	-0.0123*** (0.0042)	-0.0120*** (0.0041)	-0.0121*** (0.0041)
Terrain controls	✓	✓	✓	✓	✓	✓	✓	✓
Geographic controls	✓	✓	✓		✓	✓	✓	
Economic controls			✓	✓			✓	✓
WWI Veterans				✓				✓
PSI 1919	✓	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	60	60	60	60	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606
First stage F	22.34	22.03	21.66	22.37	22.34	22.03	21.66	22.37
Mean Dep. Var. (Panel A)	0.230	0.230	0.230	0.230	0.337	0.337	0.337	0.337
Mean Dep. Var. (Panel B)	0.285	0.285	0.285	0.285	0.387	0.387	0.387	0.387

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants (in Panel A) or dummies equal to 1 if the municipality was targeted by at least a fascist attack (in Panel B) in 1919–1922 or 1919–1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest segment of the least-cost path network (Columns (1) and (6)), or the km distance from each municipality to the closest main road instrumented with the km distance to the closest segment of the least-cost path network (Columns (2)–(5) and (7)–(10)). All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table 6: IV estimates of the effect of road access on fascist violence – excluding South

Dep. var.: Fascist Violence								
	1919–1922				1919–1924			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: per 1,000 inh.								
Distance to main road (1913)	-0.0201* (0.0116)	-0.0212* (0.0119)	-0.0254** (0.0126)	-0.0229** (0.0116)	-0.0256** (0.0120)	-0.0268** (0.0125)	-0.0291** (0.0132)	-0.0265** (0.0128)
Panel B: dummy								
Distance to main road (1913)	-0.0147 (0.0103)	-0.0126 (0.0095)	-0.0144 (0.0088)	-0.0132 (0.0090)	-0.0215* (0.0116)	-0.0195* (0.0106)	-0.0198* (0.0107)	-0.0197* (0.0107)
Terrain controls	✓	✓	✓	✓	✓	✓	✓	✓
Geographic controls		✓	✓	✓		✓	✓	✓
Economic controls			✓	✓			✓	✓
WWI Veterans				✓				✓
PSI 1919	✓	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	44	44	44	44	44	44	44	44
N. Obs.	4,450	4,450	4,450	4,450	4,450	4,450	4,450	4,450
First stage F	13.93	13.21	12.07	12.09	13.93	13.21	12.07	12.09
Mean Dep. Var. (Panel A)	0.181	0.181	0.181	0.181	0.271	0.271	0.271	0.271
Mean Dep. Var. (Panel B)	0.238	0.238	0.238	0.238	0.331	0.331	0.331	0.331

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants (in Panel A) or dummies equal to one if the municipality was targeted by at least a fascist attack (in Panel B) in 1919–1922 or 1919–1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest main road outside the district (*Circondario*) instrumented with the km distance to the closest segment of the least-cost path network outside the district. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table 7: IV estimates of the effect of road access on fascist violence – excluding municipalities close to the main road network and municipalities crossed by roads

Dep. var.: Fascist Violence	No 1st quartile		Not crossed by roads	
	1919-22	1919-24	1919-22	1919-24
	(1)	(2)	(3)	(4)
Panel A: per 1,000 inh.				
Distance to main road (1913)	-0.0138*** (0.0044)	-0.0151*** (0.0045)	-0.0179*** (0.0044)	-0.0219*** (0.0052)
Panel B: dummy				
Distance to main road (1913)	-0.0124*** (0.0033)	-0.0133*** (0.0036)	-0.0141*** (0.0031)	-0.0169*** (0.0039)
Terrain controls	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓
WWI Veterans	✓	✓	✓	✓
PSI 1919	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
N. Obs.	4,040	4,040	2,969	2,969
First stage F	24.93	24.93	34.20	34.20
Mean Dep. Var. (Panel A)	0.259	0.358	0.228	0.331
Mean Dep. Var. (Panel B)	0.209	0.308	0.201	0.305

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants in each municipality (Panel A) or dummies equal to one if the municipality was targeted by at least a fascist attack (Panel B) in 1919–1922 or 1919–1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest main road instrumented with the km distance to the closest segment of the least-cost path network. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table 8: IV estimates of the effect of road access on fascist violence – controlling for the distance from the closest railway station

Dep. var.: Fascist Violence								
	1919–1922				1919–1924			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: per 1,000 inh.								
Distance to main road (1913)	-0.0119* (0.0069)	-0.0120* (0.0069)	-0.0140** (0.0070)	-0.0146** (0.0067)	-0.0127* (0.0070)	-0.0129* (0.0070)	-0.0143** (0.0072)	-0.0150** (0.0070)
Distance to railway	0.0018 (0.0036)	0.0015 (0.0035)	0.0016 (0.0028)	0.0019 (0.0029)	-0.0001 (0.0037)	-0.0004 (0.0036)	-0.0000 (0.0031)	0.0002 (0.0031)
Panel B: dummy								
Distance to main road (1913)	-0.0125** (0.0055)	-0.0099** (0.0045)	-0.0108** (0.0042)	-0.0110** (0.0043)	-0.0137** (0.0064)	-0.0111** (0.0053)	-0.0107** (0.0053)	-0.0108** (0.0053)
Distance to railway	0.0005 (0.0021)	0.0008 (0.0019)	0.0007 (0.0016)	0.0008 (0.0017)	-0.0014 (0.0021)	-0.0011 (0.0019)	-0.0012 (0.0019)	-0.0012 (0.0019)
Terrain controls	✓	✓	✓	✓	✓	✓	✓	✓
Geographic controls		✓	✓	✓		✓	✓	✓
Economic controls			✓	✓			✓	✓
WWI Veterans				✓				✓
PSI 1919	✓	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	60	60	60	60	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606
First stage F	13.03	13.20	13.56	14.42	13.03	13.20	13.56	14.42
Mean Dep. Var. (Panel A)	0.230	0.230	0.230	0.230	0.337	0.337	0.337	0.337
Mean Dep. Var. (Panel B)	0.285	0.285	0.285	0.285	0.387	0.387	0.387	0.387

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants in each municipality (Panel A) or dummies equal to one if the municipality was targeted by at least a fascist attack (Panel B) in 1919–1922 or 1919–1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest main road instrumented with the km distance to the closest segment of the least-cost path network. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality, the altitude of its town hall, a terrain ruggedness index, the distance to the main town of the district. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table 9: IV estimates of the effect of road access from adjacent districts on fascist violence

Dep. var.: Fascist Violence								
	1919–1922				1919–1924			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: per 1,000 inh.								
Dist. main road (outside district)	-0.0026 (0.0021)	-0.0026 (0.0021)	-0.0048*** (0.0015)	-0.0051*** (0.0017)	-0.0047 (0.0031)	-0.0048 (0.0031)	-0.0060*** (0.0023)	-0.0064*** (0.0024)
Panel B: dummy								
Dist. main road (outside district)	-0.0022 (0.0022)	-0.0020 (0.0018)	-0.0038*** (0.0013)	-0.0039*** (0.0014)	-0.0042 (0.0028)	-0.0040 (0.0025)	-0.0043** (0.0021)	-0.0043** (0.0022)
Terrain controls	✓	✓	✓	✓	✓	✓	✓	✓
Geographic controls		✓	✓	✓		✓	✓	✓
Economic controls			✓	✓			✓	✓
WWI Veterans				✓				✓
PSI 1919	✓	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	60	60	60	60	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606
First stage F	43.06	42.74	47.06	46.88	43.06	42.74	47.06	46.88
Mean Dep. Var. (Panel A)	0.181	0.181	0.181	0.181	0.271	0.271	0.271	0.271
Mean Dep. Var. (Panel B)	0.238	0.238	0.238	0.238	0.331	0.331	0.331	0.331

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants in each municipality (Panel A) or dummies equal to one if the municipality was targeted by at least a fascist attack (Panel B) in 1919–1922 or 1919–1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest main road instrumented with the km distance to the closest segment of the least-cost path network. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality, the altitude of its town hall, a terrain ruggedness index, the distance to the main town of the district. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table 10: IV estimates of the effect of road access on fascist violence – excluding municipalities with a fascist branch in 1919–1924

Dep. var.: Fascist Violence								
	1919–1922				1919–1924			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: per 1,000 inh.								
Distance to main road (1913)	-0.0127** (0.0060)	-0.0136** (0.0064)	-0.0160** (0.0070)	-0.0152** (0.0065)	-0.0140** (0.0060)	-0.0150** (0.0065)	-0.0157** (0.0070)	-0.0148** (0.0068)
Panel B: dummy								
Distance to main road (1913)	-0.0086 (0.0057)	-0.0076 (0.0050)	-0.0094** (0.0047)	-0.0090* (0.0047)	-0.0119* (0.0065)	-0.0106** (0.0051)	-0.0106** (0.0051)	-0.0105** (0.0052)
Terrain controls	✓	✓	✓	✓	✓	✓	✓	✓
Geographic controls		✓	✓	✓		✓	✓	✓
Economic controls			✓	✓			✓	✓
WWI Veterans				✓				✓
PSI 1919	✓	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	58	58	58	58	58	58	58	58
N. Obs.	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667
First stage F	17.57	16.99	16.59	16.71	17.57	16.99	16.59	16.71
Mean Dep. Var. (Panel A)	0.155	0.155	0.155	0.155	0.244	0.244	0.244	0.244
Mean Dep. Var. (Panel B)	0.188	0.188	0.188	0.188	0.280	0.280	0.280	0.280

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants in each municipality (Panel A) or dummies equal to one if the municipality was targeted by at least a fascist attack (Panel B) in 1919–1922 or 1919–1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest main road instrumented with the km distance to the closest segment of the least-cost path network. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality, the altitude of its town hall, a terrain ruggedness index, the distance to the main town of the district. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table 11: IV estimates of the effect of road access on violence not involving fascists and workers' strikes

Dep. var.: Violence not involving fascists						
	Full sample		No 1st quartile		Not crossed by roads	
	1919-22	1919-24	1919-22	1919-24	1919-22	1919-24
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: per 1,000						
Distance to main road (1913)	-0.0021*	-0.0024*	-0.0004	-0.0007	-0.0003	-0.0006
	(0.0013)	(0.0013)	(0.0005)	(0.0005)	(0.0004)	(0.0005)
Panel B: dummy						
Distance to main road (1913)	-0.0022	-0.0024	-0.0006	-0.0010	-0.0017	-0.0019
	(0.0016)	(0.0016)	(0.0019)	(0.0018)	(0.0017)	(0.0016)
Dep. var.: Strikes						
	Full sample		No 1st quartile		Not crossed by roads	
	1913-14	1920	1913-14	1920	1913-14	1920
	(1)	(2)	(3)	(4)	(5)	(6)
Panel C: dummy						
Distance to main road (1913)	0.0007	-0.0018	0.0011	-0.0012	0.0006	-0.0037
	(0.0010)	(0.0022)	(0.0011)	(0.0021)	(0.0009)	(0.0025)
Terrain controls	✓	✓	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓	✓	✓
WWI Veterans	✓	✓	✓	✓	✓	✓
PSI vote share	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓
N. Clusters	60	60	60	60	58	58
N. Obs.	5,606	5,606	4,040	4,040	2,969	2,969
First stage F	22.60	22.37	25.22	24.93	34.81	34.20
Mean Dep. Var. (Panel A)	0.230	0.337	0.209	0.308	0.201	0.305
Mean Dep. Var. (Panel B)	0.285	0.387	0.259	0.358	0.228	0.331
Mean Dep. Var. (Panel C)	0.009	0.243	0.007	0.245	0.007	0.239

Note: the dependent variables are: the number of violent incidents not involving fascists either as victims or perpetrators per 1,000 inhabitants in each municipality in 1919–1922 or 1919–1924 (Panel A); dummies equal to one if the municipality reported at least one incident not involving fascists (Panel B) in 1919–1922 or 1919–1924; dummies equal to one if a strike was recorded in the municipality in 1913–1914 or 1920 from Acemoglu et al. (2022). The main explanatory variable is expressed as the km distance from each municipality to the closest main road instrumented with the km distance to the closest segment of the least-cost path network. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table 12: IV estimates of the effect of road access (1913 map) on fascist violence (per 1,000) – splitting the sample above (Panel A) and below (Panel B) median socialist vote share in 1919

Dep. var.: Fascist Violence				
	Per 1,000		Dummy	
	1919–22 (1)	1919–24 (2)	1919–22 (3)	1919–24 (4)
Panel A: above PSI median				
Distance to main road (1913)	-0.0371* (0.0203)	-0.0507** (0.0256)	-0.0099 (0.0148)	-0.0222 (0.0203)
N. Clusters	55	55	134	134
N. Obs.	2,802	2,802	2,802	2,802
First stage F	12.66	12.66	12.46	12.46
Mean Dep. Var.	0.3872	0.5276	0.4315	0.5389
Panel B: below PSI median				
Distance to main road (1913)	-0.0013 (0.0025)	-0.0031 (0.0030)	-0.0071** (0.0034)	-0.0088** (0.0036)
N. Clusters	55	55	151	151
N. Obs.	2,804	2,804	2,804	2,804
First stage F	20.89	20.89	24.76	24.76
Mean Dep. Var.	0.0733	0.1466	0.1394	0.2364
Terrain controls	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓
WWI Veterans	✓	✓	✓	✓
PSI 1919	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Note: the dependent variables are the number of episodes of fascist violence per 1,000 inhabitants in each municipality (Columns (1) and (2)) or dummies equal to 1 if the municipality was targeted by at least a fascist attack (Columns (3) and (4)) in 1919–1922 or 1919–1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest main road instrumented with the km distance to the closest segment of the least-cost path network. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table 13: IV estimates of the effect of road access and fascist violence on the dissolution of municipal councils (nov. 1920 - dec. 1924)

Dep. Var.: 1(Dissolution)	Reduced form	IV			
	(1)	(2)	(3)	(4)	(5)
Distance to closest LCP	-0.0018** (0.0007)				
Fascist violence 1919-1922		0.6327* (0.3304)			
Fascist violence 1919-22 (dummy)			0.7822** (0.3826)		
Fascist violence 1919-1924				0.5422** (0.2677)	
Fascist violence 1919-24 (dummy)					0.6613** (0.3180)
Terrain controls	✓	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓	✓
WWI Veterans	✓	✓	✓	✓	✓
PSI 1919	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓
N. Clusters	60	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606	5,606
First stage F		9.75	8.00	10.84	9.29
Mean Dep. Var.	0.0894	0.0894	0.0894	0.0894	0.0894

Note: the dependent variable is a dummy that takes value equal to one if the municipality was dissolved between november 1920 and the end of 1924. The main explanatory variable is either expressed as the km distance from each municipality to the closest least-cost path (Column (1)) or fascist violence in each municipality instrumented with the km distance from each municipality to the closest least-cost path (Columns (2)-(5)). All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table 14: Panel estimates of the relationship between municipality dissolution and opening of a fascist branch

Dep. Var.:	1(Fascist branch > 0)	
	(1)	(2)
1(Dissolution > 0)	0.1051*** (0.0241)	0.0541*** (0.0103)
Municipality FE	✓	✓
Month FE	✓	✓
Province × month FE		✓
N. Obs.	646,344	646,344
N. provinces	75	75

Note: the dependent variable is a dummy equal to one for all months after the opening of a fascist branch in the municipality. The main explanatory variable is a dummy that takes value one for all months after the dissolution of the municipal council by the authorities. Standard errors (in parentheses) are clustered at the province level.

Appendix A Original Data Construction

A.1 Political Violence

Sources and Data Curation. We use official government documents stored at the *Archivio Centrale dello Stato* in Rome to assemble the first comprehensive dataset on fascist violence in 1919-1924. We access the communications that the Ministry of the Interior regularly received from local officials (*Prefetti*) to keep central authorities informed about politically related issues in the country’s provinces. Each report contains information on a specific episode, outlining the dynamics of the event with victims and perpetrators, as well as precise data on its date and location. Until 1920, the reports on political violence were pooled with documents regarding strikes, local elections, natural disasters, etc. in the “Public Order” folder.³¹ As political clashes started getting harsher and more frequent, they were filed in a separate folder from 1921 onwards (except for Rome, which already had a “*Fasci di combattimento*” folder in 1920).³² Figures A.1-A.5, below, provide a few examples of the documents found in the archival folders. We manually inspect each document to extract the relevant information. We define the factions involved and the type of event, distinguishing between direct aggression, conflict, and storming of a party office, geocoding each event to the 1921 *comuni*. In order to limit double counting issues, we collapse events at the day-municipality-perpetrator level, so that our dataset contains no more than one incident initiated by a given group for each municipality-day pair.³³

Existing quantitative accounts of *squadrist*ism relied on journalistic sources or political parties’ internal reports. De Felice (2019, pp. 765-6) and Gentile (2021, p. 473) cite statistics provided by the Ministry of Interior for deaths and charges against fascists for few months of 1921, disaggregated at the provincial level. An inquiry by the Socialist Party in 1921 (Mencarelli, 2019) records hundreds of attacks against their supporters up to the immediate aftermath of the general elections of May 1921. Fabbri (2009) provides evidence on political violence covering the three-year span between November 1918 and 1921, while Franzinelli (2019) reports evidence of politically motivated incidents up to October 1922. The latter is, to the best of our knowledge, the largest existing dataset

³¹ *Archivio Centrale dello Stato*, Ministero dell’Interno, Direzione Generale Pubblica Sicurezza, Divisione Affari Generali e Riservati: Categorie annuali (1919), C1 - Ordine Pubblico, Affari per provincia, bb. 62-77; Id., Categorie annuali (1920), C1 - Ordine Pubblico, Affari per provincia, bb. 58-84.

³² *Archivio Centrale dello Stato*, Ministero dell’Interno, Direzione Generale Pubblica Sicurezza, Divisione Affari Generali e Riservati: Categorie annuali (1920), G1 - Associazioni, Fasci di combattimento, b. 105; Id., Categorie annuali (1921), G1 - Associazioni, Fasci di combattimento, bb.90-113; Id., Categorie annuali (1922), G1 - Associazioni, Fasci di combattimento, bb. 107-162; Id., Categorie annuali (1923), G1 - Associazioni, Fasci di combattimento, bb. 77-105; Id., Categorie annuali (1924), G1 - Associazioni, Fasci di combattimento, bb. 74-88.

³³ As an example, the document of Figure A.5 reports two distinct attacks in a single night by a group of fascists against two different buildings. In our dataset, the two attacks count as a single incident in that municipality-day pair.

prior to ours, identifying around 2500 episodes. There are also a few books that offer lists of victims from the different factions, such as [Matteotti \(2019\)](#) on the first year of “fascist domination” and the chronicle of future communist senator Pietro [Secchia \(1971\)](#). On the other side, a list of early fascist “martyrs” can be found in [Chiurco \(1973\)](#). We cross-check each of the incidents on our list against these other sources and complement the relevant information when needed.

Despite actions involving fascist members and supporters (be it as perpetrators or less often as victims) make up the vast majority of the sample, our dataset includes also episodes involving other factions, ranging from other right-wing forces as nationalists or *Arditi* to centre-left parties as the republican, popular and socialist ones, in addition to a considerable amount of clashes with the *Carabinieri* and the armed forces. When the party affiliation is unclear (or it is made clear that there is no affiliation at all), the actors involved are classified as ‘common citizens’. During the six year period, fascists are responsible for 87% of the incidents: 12853 out of a total of 14639 episodes in our dataset.

Bias in Reporting and Other Potential Issues. The use of official reports to track political violence suffers from three main concerns: (i) a selection bias due to “administrative legibility”; (ii) a selection bias deriving from local officials’ ideological preferences; and (iii) a potential correlation between political violence and general crime statistics.

Regarding the first concern, it is impossible to precisely quantify the extent of selection in the data. Our figures likely represent a lower bound of the true incidence of political violence, as minor episodes may not always have been reported to local authorities. If such underreporting is random, our estimates remain valid, and the magnitude of the coefficients would be subject to downward bias. However, reporting may be systematically higher in more accessible areas, where authorities benefit from greater “legibility” ([Scott, 1998](#)) compared to peripheral locations. To address this concern, we test whether reporting differs systematically depending on road accessibility by focusing on murders. Given their saliency and their small number in the period of analysis, it is unlikely that such events would go unreported, even in less accessible areas. Therefore, we compute the ratio of murders to the total number of fascist attacks and examine whether this measure correlates with road accessibility. If a legibility-driven selection bias were present, a positive correlation should be expected.³⁴ As shown in Columns (1) and (2) of Table [A.1](#), we find no evidence of a significant relationship between this ratio and either distance to the road network or distance to the least-cost path network.

A second potential source of bias may stem from the ideological orientation of the officials (*prefetti*) responsible for the reports. Individuals pursuing careers in public or-

³⁴We restrict this analysis to municipalities with at least one recorded fascist attack, i.e., those for which the denominator of the murder-incidence ratio is non-zero.

Table A.1: Bias Diagnostics for Political Violence Data

Dep. var.	Fascist Murder Incidence Ratio		Political Violence 1919-1924	
	(1)	(2)	(3)	(4)
Distance to closest LCP	0.0011 (0.0010)			
Distance to main road (1913)		0.0007 (0.0012)		
Crimes in 1874			0.0013 (0.0011)	
Violent crimes in 1874				0.0044 (0.0072)
N. Clusters	72	72	64	64
N. Obs.	3,140	3,140	5,772	5,772
Province FE	✓	✓	✓	✓

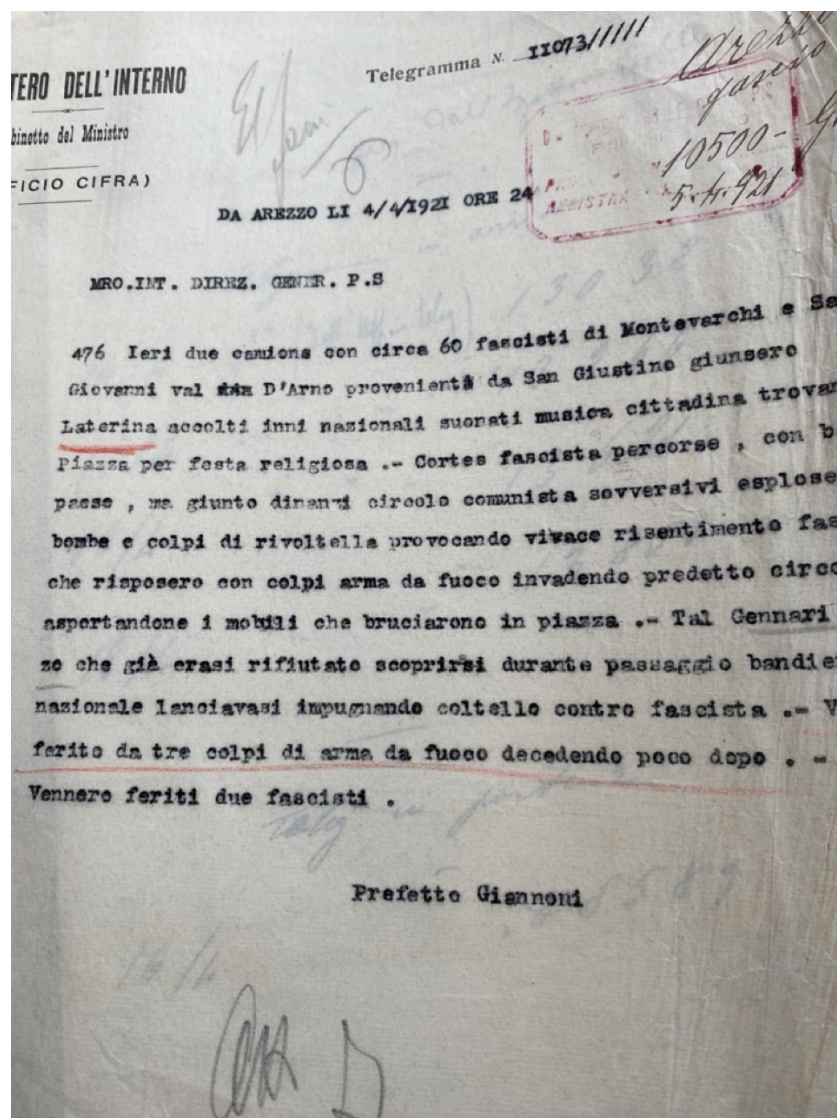
Note: the dependent variable of Columns (1) and (2) is the ratio between the number of fascist attacks involving a murder and the total number of attacks. The dependent variable of Columns (3) and (4) is the number of fascist attacks per thousand inhabitants in 1919-1924. *Crimes in 1874* and *Violent crimes in 1874* (from (Acemoglu et al., 2022)) are rates for total crimes and for violent crimes only over the population in 1874. All columns include province fixed effects. Standard errors (in parentheses) are clustered at the province level.

der institutions during the Italian Liberal period may have held, on average, relatively conservative views. This could have made them more sympathetic to the Fascist Party – given its opposition to left-wing movements – and thus more likely to downplay or misreport fascist violence. If such bias were uniform across all *prefetti*, our estimates would suffer from an attenuation bias, reinforcing rather than undermining our conclusions. However, concerns arise if tolerance towards fascism varied systematically among officials. We address this issue in two ways. First, all specifications include province fixed effects (and province-by-time fixed effects, along with municipal fixed effects, in panel regressions), which account for unobservable heterogeneity at the individual official level. Second, historical evidence points to substantial institutional continuity in public order administration during the transition from the Liberal period to the early years of fascist rule. In particular, there is no evidence of a sharp increase in turnover, forced retirements, or new appointments in 1922–24 (Cifelli, 1999). A major reorganization of *prefetti* careers occurred only after 1927 – beyond our period of analysis – when Mussolini replaced a large share of pre-fascist personnel within the Ministry of the Interior (Tosatti, 2001).

Finally, our measure of political violence may simply proxy for the underlying criminality. Locations characterized by persistently high levels of (violent) crime may also be more prone to political violence during periods of intense ideological conflict (see Kalyvas, 2006, ch. X). In this case, our measure would capture deeper, long-standing local factors (e.g., weak social cohesion or a higher propensity for violence) specific to better connected towns, rather than the dynamics of political violence. We address this concern by checking whether our measures of political violence in 1919-1924 are predicted by

historical crime rates, by regressing a measure of crime intensity in 1874 from [Acemoglu et al. \(2022\)](#) on our variable for the occurrence of political violence. As shown in Columns (3) and (4) of Table A.1, we find no evidence of a significant relationship either for overall crime or for violent crime.

Figure A.1: Fascists assault a Communist Party branch, murdering an opponent - Arezzo, April 1921



Source: Archivio Centrale dello Stato, Ministero dell'Interno, Direzione Generale Pubblica Sicurezza, Divisione Affari Generali e Riservati: Categorie annuali (1921), G1 - Associazioni, Fasci di combattimento, Arezzo.

Figure A.2: Fascists kidnap a political opponent - Serravezza (Lucca), May 1922

MINISTERO DELL'INTERNO
Gabinetto del Ministro
(UFFICIO CIFRA)

Telegramma N. 11375 (5) Le

13713. 21
22.5.1922

URGENZA DA L U C C A 19.5.1922 ore 11/10 arrivo ore 14

MINISTERO INTERNO DIREZIONE GENERALE DI P. S.

N° 988 Ore 2 scorsa notte circa 200 fascisti Carrara giungevano
Serravezza e penetrati camera lavoro vi issavano tricolore.
 Ciò fatto portatisi domicilio noto sovversivo Fellini segretario
 Camera lavoro lo fecero salire automobile per condurlo Carrara.
 Veicolo però giunto ~~qu~~ Querceta fu fermato da RR.CC.
 proclamato Serravezza sciopero generale protesta. Accorsi colà Tenen
 RR.CC. Viareggio e funzionario Pietrasanta. Questore trovati luogo.
 Effettuato fermo alcuni fascisti. Rinforzi inviati solo insufficienti
 per cui prego mandare 50 carabinieri località più vicina.
 Riservomi ulteriori notizie.

Prefetto **DIPONATO**
UFFICIO DELLA C.I.F.
TELEGRAMMA N° 988
SPEBITO LI 17 MAGGIO
ore 10,10

Prefetto Lucca

A 988. Diposto chiesto mio cinquanta carabinieri. Ministero raccomanda che accada su terra Massa, che viene contemporaneamente interposta, siano intensificate indagini per i

Source: Archivio Centrale dello Stato, Ministero dell'Interno, Direzione Generale Pubblica Sicurezza, Divisione Affari Generali e Riservati: Categorie annuali (1922), G1 - Associazioni, Fasci di combattimento, Lucca.

Figure A.3: Fascists confront two suspects of the murder of a fascist sympathizer - Guidizolo (Mantova), January 1922

Mod. 25 per Serv. Elett.

Mantova fascista
Guidizolo

1404 - G. 1
12.1.1922

TELEGRAMMA-ESPRESSO DI STATO

MINISTERO dell'Interno

AUTORITÀ MITTENTE
P. Prefettura di Mantova

DATA
G. 12 M. 1 A. 1922

ORA 19.30

NUM. 71

N. 6782 - In sera, ore 21.00 in Guidizolo, un gruppo di 10 fascisti, tutti istruiti, bastonarono due giovani socialisti, che erano stati arrestati assieme ad altri, per l'omicidio del fascista Perelli e in questi giorni scarcerati dall'autorità. Guidizolo, uno di essi, riportò lesioni gravi in giorni di tutto complicità e l'altro, leggero contusioni, subendo una volta anche ulteriori incidenti, ma il fatto produsse egualmente una clamorosa e i pericoli aumentano. Prima ancora che si verificasse il fatto stesso, era stata indotta a Guidizolo, per stampana alle ore 11, un comitato fascista, al quale erano state inviate le rappresentanze dei fascisti della provincia. Nella l'occasione degli avvenimenti, pochi risultano che da Guidizolo i fascisti si sarebbero recati in forte numero nel vicino comune di Medole col proposito di impedire una pubblica conferenza che colà doveva tenere nel pomeriggio di oggi l'on. Zaniboni, ad evitare che, inoltre, si vedesse manifestare l'ardore per il Guidizolo e l'on. Zaniboni, informato da questo ufficio della possibilità di gravi incidenti, rinunciò speranzosamente di recarsi a Medole. I fascisti convenuti a Guidizolo, anche sabato a Medole, non avrebbe avuto luogo la riunione socialista, ritornarono alle loro sedi, senza che si verificassero incidenti. Furono praticate perquisizioni personali a Guidizolo ed a Medole, che in quest'ultimo luogo furono condusse all'arresto del fascista Carlini, lungo per porte abusive di rivoltella e di certo Maddella Carlo, ritenuto socialista, per porte di rivoltella. Esercizio misure erano state adottate per il mantenimento dell'ordine pubblico, con l'invio sul posto di due funzionari e militari di Carabinieri con autorizzati.

H. Prefetto
Loffo

Source: Archivio Centrale dello Stato, Ministero dell'Interno, Direzione Generale Pubblica Sicurezza, Divisione Affari Generali e Riservati: Categorie annuali (1922), G1 - Associazioni, Fasci di combattimento, Mantova.

Figure A.4: Fascists from the neighboring province infiltrate a workers' cooperative and batter those present - Rubiera (Reggio Emilia), February 1921

MINISTERO DELL'INTERNO
 Gabinetto del Ministro
 UFFICIO CIFRA)

Telegramma N. 4716 11111

G.1
Sanis

DIREZIONE GENERALE DELLA P.S.
 UFFICIO AFFARI GENERALI
 PROTO. N. 6016
 REGIST. N. 15.2.921

Reggio Emilia
G.1
fascio

da Reggio Emilia li 13/2/1921 ore 20,15 arrivato ore 23

Ministero Interno
 Direzione Generale P.S. Roma

121 . Oggi ore 15 circa 20 fascisti Modena recatisi Rubiera con camion penetrati di sorpresa locali quella cooperativa percuotevano con bastoni socialisti presenti di cui uno restava leggermente ferito e dopo aver esplose colpi rivoltella ripartivano subito stop

Inviato funzionario sul posto con carabinieri per indagini .
 Telegrafato Modena per identificazione fascisti responsabilità . Riservansi dettagliate notizie.

Prefetto
 Boniburini

RAH

Source: Archivio Centrale dello Stato, Ministero dell'Interno, Direzione Generale Pubblica Sicurezza, Divisione Affari Generali e Riservati: Categorie annuali (1921), G1 - Associazioni, Fasci di combattimento, Reggio Emilia.

Figure A.5: Fascists assault the houses of several citizens - Massa, May 1922

Mod. 36^{re} Serv. Int.

Ham

TELEGRAMMA-ESPRESSO DI STATO

Ministero dell'Interno *14792-9.1*

3.6.22

class. fascio

AUTORITÀ MITTENTE	DATA										
<i>Il Prefetto di Massa e Carrara</i>	<table border="1"> <tr> <td>Giorno</td> <td>Mese</td> <td>Anno</td> <td>Ora</td> <td>Minuti</td> </tr> <tr> <td><i>30</i></td> <td><i>maggio</i></td> <td><i>1922</i></td> <td></td> <td></td> </tr> </table>	Giorno	Mese	Anno	Ora	Minuti	<i>30</i>	<i>maggio</i>	<i>1922</i>		
Giorno	Mese	Anno	Ora	Minuti							
<i>30</i>	<i>maggio</i>	<i>1922</i>									

N. 4102 - Nella notte del 29 seguente un gruppo di individui, tra cui Bartoli figlio di Giuseppe e Albati Giovanni di Enrico, appartenente locale fascio di combattimento, tentavano nella frazione bella di questo comune, penetrare abitazioni private, sorvegliate, qualificandosi per agenti forza pubblica, non riuscendo, però, nell'intento avendo familiari del Bartoli inviato aiuto. Dopo ciò i suddetti erano rendicorsi di alcune vecchie quinte private, manovrando tutto sotto la velle di rappresaglia politica.

Il Bartoli ed il Albati, nella stessa notte e nella stessa località, entrambi armati, penetrarono abitazioni sorvegliate Pucci Giuseppe e Bordignon abitando arrecando ben danni alle suppellettili e colpendo il Pucci livimenti con un basto ad una mano.

Venne tratto in arresto il Bartoli figlio, nella cui casa fu rinvenuta e sequestrata una rivoltella non denunciata e continuano attive le indagini per l'arresto del Albati Giovanni, datori alla latitanza e per l'identificazione degli altri componenti il gruppo.

Basto il Bartoli che il Albati sono stati denunciati alla competente autorità giudiziaria.

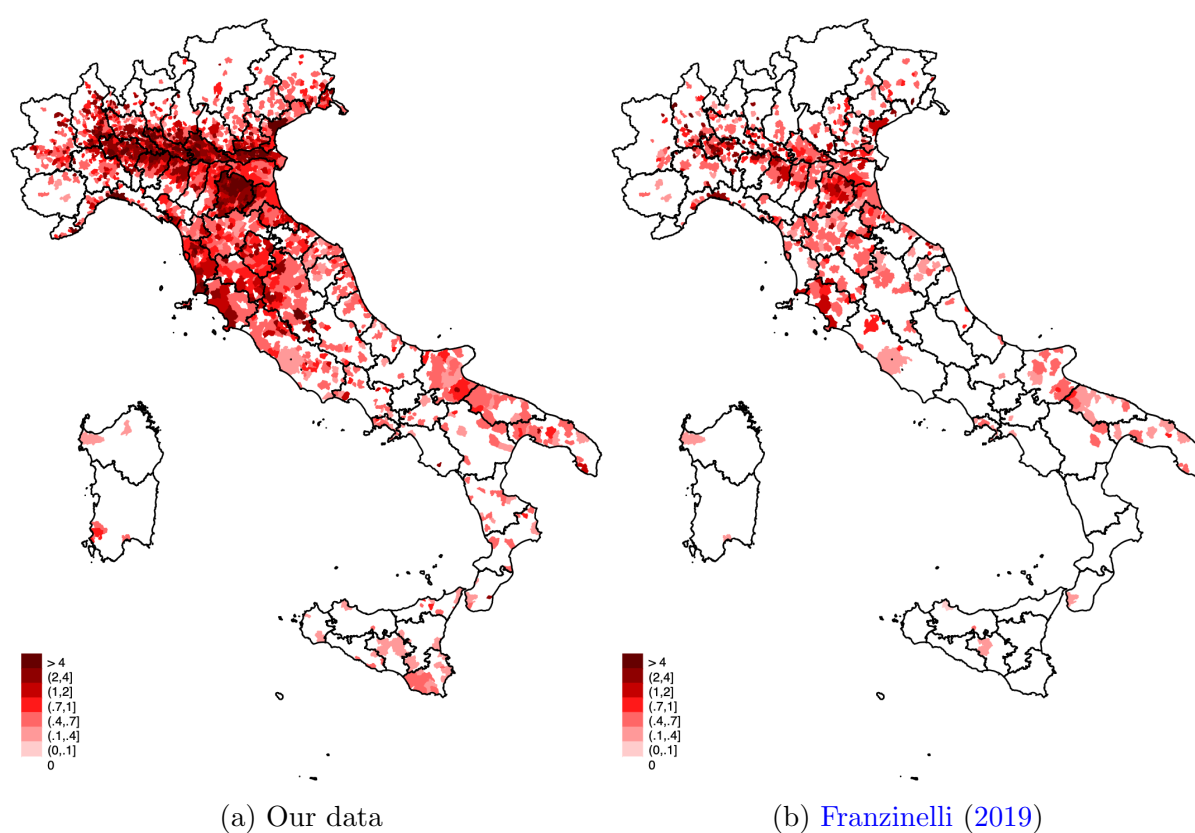
Il Prefetto

Barz

Vedansi a tergo avvertenze importantissime

Source: Archivio Centrale dello Stato, Ministero dell'Interno, Direzione Generale Pubblica Sicurezza, Divisione Affari Generali e Riservati: Categorie annuali (1922), G1 - Associazioni, Fasci di combattimento, Massa.

Figure A.6: Fascist violence per thousand inhabitants in 1919–1922: our data (Panel (a)) and [Franzinelli \(2019\)](#) (Panel (b))



Source: our computations from official reports stored at the *Archivio Centrale dello Stato* (Panel (a)), and [Franzinelli \(2019\)](#) (Panel (b)). See Section A.1 in [Appendix A](#) for details.

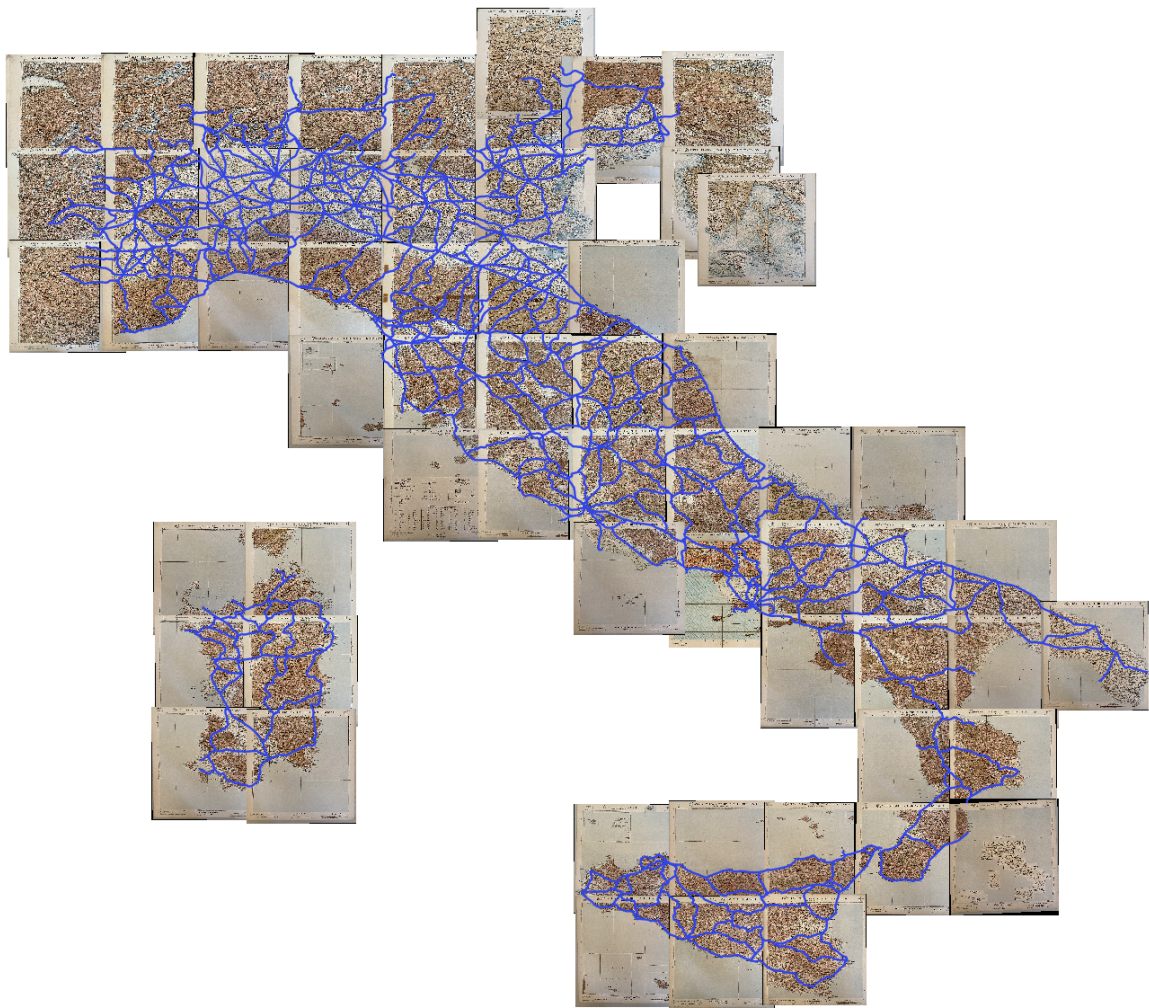
A.2 Digitization of the Historical Road Network

We reconstruct a digital version of the historical road network of the Kingdom of Italy maps from the “*Carta d’Italia*” series by the [Touring Club Italiano \(1913\)](#), the major national tourist organization. Owing to the nature of the original cartographic source, the roads depicted as “main roads” correspond to those best suited for rapid travel – either by tourists, as in the case of the *Touring Club* map, or by military troops, which was one of the primary objectives of the map produced by the *Istituto Geografico Militare*, on which the *Touring Club* map is based.

Original copies of the 55 maps comprising this series have been scanned at high-resolution. We import the images of the maps in QGIS and employ the *georeferencer* tool to assign the correct coordinates to several landmarks in order to align the maps with digital versions of the Italian peninsula. Next, we manually trace each road segment following the georeferenced historical maps, thus creating a digital version of the road networks depicted in our sources. We have not been able to use any automatic pattern recognition due to the age of the maps and their graphical inconsistencies. Therefore, the process of manually creating the digital copy of the roads is likely to have resulted in some discrepancies with the actual historical roads in some cases.

Figure [A.8](#) shows the road network traced in QGIS overlaying the georeferenced historical maps. As documented by the historical literature on Italian infrastructure development (e.g., [Bertelli et al., 1985](#); [Bonfatti et al., 2022](#); [Martinez, 2024](#)), the newborn unified Kingdom inherited unevenly developed road patterns from the pre-existing states, and several law bills enacted in the first decades after the Unification failed to improve the conditions of existing roads. In fact, due to budgetary issues, the central government gradually devolved to provinces the management of roads, along with any needed maintenance work. Between 1866 and 1910, the extent of the road network under direct state management decreased from 14,000 km to 8,000 km, while the road network administered by provinces grew from 10,000 km to more than 40,000 km ([Moraglio, 2004](#)). These shifts resulted in local governments having to sustain the costs of maintenance for more roads than they were prepared for, effectively degrading the state of road connections in those decades. Moreover, most public resources were directed to the development of railways, considered at the time as the most strategic means of transportation from a political-economic as well as military point of view ([Sandulli, 1967](#)). It was only after WWI, and especially after Mussolini took power, that road infrastructure started to gain prominence, along with the development of the national car industry. Indeed, in 1928 the fascist government created a new central body tasked with controlling and maintaining the main roads of the country, the AASS (*Azienda Autonoma Statale per le Strade*).

Figure A.8: Digitized 1913 Road Network on Historical Maps

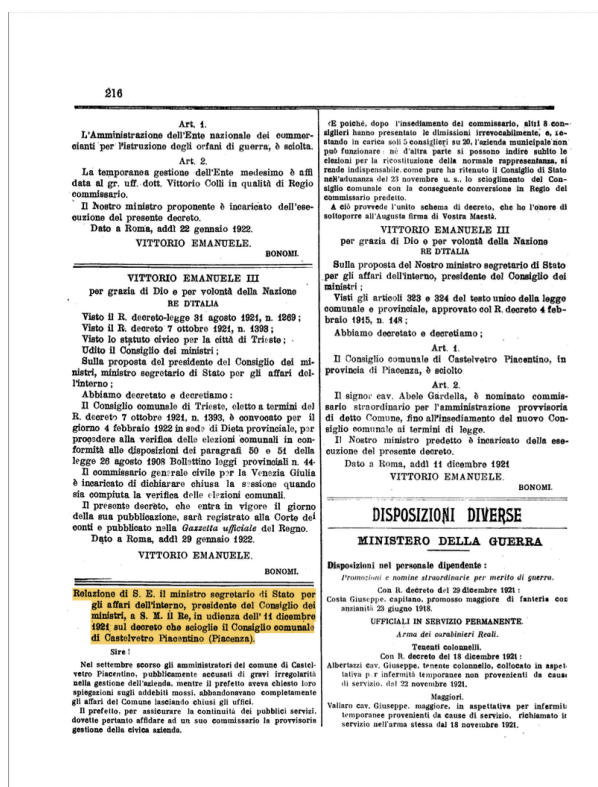


Source: our digitization of historical maps from [Touring Club Italiano \(1913\)](#) .

A.3 Municipal Councils Dissolution and Opening of Fascist Branches

Municipal Councils Dissolution. We collect all issues published between 1919 and 1924 of the *Gazzetta Ufficiale del Regno d'Italia* (the official journal of record of the Italian government) in pdf format from the online archive.³⁵ We extract the full text of each issue and parse the resulting content to identify decrees issued by the Ministry of the Interior dissolving municipal councils. These decrees typically follow a standardized format as they are structured as a report illustrated by the minister for the monarch that was formally entitled to sign off the bill, indicating the name of the municipality and the date of dissolution decree. Figure A.9, below, provides one example of such decrees.

Figure A.9: Dissolution decree for the municipal council of Castelvetro Piacentino (Piacenza), December 11th 1921



Source: *Gazzetta Ufficiale del Regno d'Italia*, no. 27, February 2nd 1922

Because the decrees themselves offer limited details on the underlying causes of dissolution, we restrict our sample to dissolutions occurring after November 1920. As claimed in the text, this cutoff aligns with the emergence of organized fascist violence and the increasing use of intimidation against local administrations. Earlier dissolutions, which are more likely to reflect routine political turnover or administrative reasons, are excluded to minimize measurement errors. The resulting dataset contains the municipality and the date for each qualifying dissolution decree.

³⁵The digitized issues of the *Gazzetta Ufficiale* are available at <https://www.gazzettaufficiale.it/>.

Opening of Fascist Branches. We track the establishment of local fascist branches at the municipal level across Italy using original documents stored at the *Archivio Centrale dello Stato*. We rely on two main sources covering the period 1919-1924: (i) confidential reports sent by provincial *prefetti* to the Ministry of the Interior concerning the opening of fascist branches;³⁶ and (ii) internal budgetary records of the fascist movement (and, after November 1921, of the National Fascist Party).³⁷ Neither source is fully comprehensive, and the resulting dataset is subject to measurement error in both the timing and the spatial distribution of branch openings.

In the first series of documents, some *prefetti* reported the inauguration of new branches immediately after the event (see, e.g., Figure A.10) or compiled retrospective lists of all openings over a given time interval, often including exact dates (see, e.g., Figure A.11). However, in other cases, the communications were less regular. Some officials issued occasional memos listing all active branches in their jurisdiction at a given time, without specifying when each branch was established (see, e.g., Figure A.12). In these cases, we compare subsequent memos to infer a *terminus ante quem* for each newly listed branch – setting its opening date equal to the date of the first mention. Since the interval between subsequent communications can exceed two months, the measurement error on the timing may be non-negligible.

The second source of original documents on fascist branches, internal party documents, includes balance sheets and financial reports listing local branches that received subsidies or were otherwise recognized by the party central committee (e.g., Figure A.13). Here, too, lacking a precise date of opening, we interpret the first mention of a branch as a *terminus ante quem* for its establishment. When both sources provide information for the same municipality, we take the earlier of the two dates as the final measure. If the prefect reports an exact date (i.e., at the day level), we prioritize this measure. While some branches appear only in party records and are never reported by public officials, we find no instance in which a prefect’s precise date is preceded by the *ante quem* date inferred from party documents.

³⁶ *Archivio Centrale dello Stato*, Ministero dell’Interno, Direzione Generale Pubblica Sicurezza, Divisione Affari Generali e Riservati: Categorie annuali (1923), G1 - Associazioni, Fasci di combattimento, Costituzione fascio, b. 76; Id., Categorie annuali (1924), G1 - Associazioni, Fasci di combattimento, Costituzione fascio, b. 90; Id., Categorie annuali (1925), G1 - Associazioni, Fasci di combattimento, Costituzione fascio, bb. 115-116.

³⁷ *Archivio Centrale dello Stato*, Partito nazionale fascista, Direttorio, Servizi amministrativi.

Figure A.10: Opening of a fascist headquarters in Lecce, December 4th 1920

Mod. 25, Serv. Elett.

TELEGRAMMA-ESPRESSO DI STATO

Ministero dell'Interno

Bollo postale dell'ufficio di partenza

AUTORITÀ MITTENTE	DATA				
	Giorno	Mese	Anno	Ore	Minuti
R. Prefettura di Lecce (Uff. P.S.)	6	12	1920		

N° 2433 - Ieri, ad iniziativa alcuni studenti, si è costituito in questa città fascio combattimento - Nell'occasione fu tenuta pubblica riunione a questo teatro Apollo ed alla presenza di circa cento persone, perirono vari oratori affermando che lo scopo della nuova istituzione è quello di salvare la Nazione dai nemici interni rappresentati specialmente dai socialisti e dal partito clericale e di fare opera per una graduale trasformazione sociale in forma pacifica e con l'intervento dei Governi.

Nessun incidente.

L. PREFETTO

On. Ministero Interno
Direzione Generale P.S.
Roma

Source: Archivio Centrale dello Stato, Ministero dell'Interno, Direzione Generale Pubblica Sicurezza, Divisione Affari Generali e Riservati: Categorie annuali (1924), G1 - Associazioni, Fasci di combattimento, Costituzione fascio, Lecce.

Figure A.11: Detailed report on all fascist headquarters present within the municipality of Montepulciano (Siena), June 1921

Prospetto dei Fasci Italiani di Combattimento costituiti nelle Frazioni del Comune di Montepulciano

Frazioni del Comune di Montepulciano	Data della costituzione	Componenti il Direttorio	Numero degli iscritti	Programma d'azione
1 Abbadia	9 Giugno 1921	Bernardini Donato. Segretario politico Contini Guido. Membro del Direttorio Stefani Giovanni id. id. Famperini Lorenzo id. id. Bocardi Ulisse id. id.	45	Combattere il Bolscevismo e tutti i nemici della Patria.
2 Acquaroia	12 Giugno 1921	Giorgetti Guido. Segretario politico Bacchiotti Elio. Membro del Direttorio Luberini Oreste id. id. Vannucini Raffaella id. id. Guatti Valerio id. id. Giorgetti Gustavo id. id.	35	Combattere il Bolscevismo e tutti i nemici della Patria.
3 Valiano	5 Giugno 1921	Chielli Vittorio. Presidente Lazaroni Giulio. Segretario politico Salletti Gino. Membro del Direttorio Fetti Santi id. id. Contini Eraldo id. id.	12	Combattere il Bolscevismo e tutti i nemici della Patria.

Source: Archivio Centrale dello Stato, Ministero dell'Interno, Direzione Generale Pubblica Sicurezza, Divisione Affari Generali e Riservati: Categorie annuali (1923), G1 - Associazioni, Fasci di combattimento, Costituzione fascio, Siena.

Figure A.12: Report on all fascist headquarters present within the district of Teramo as of March 1921

Teramo, 14.3.1921

R. PREFETTURA
DELLA
PROVINCIA DI TERAMO

Raccomandata - Riservata

MINISTERO DELL'INTERNO
14 MAR 1921

51.26.3. Costituzioni

Risposta alla nota del 1.3.1921

Div. Sec. 2273

Oggetto

Fasci di combattimento

1.3.1921

1° Teramo con circa 90 iscritti. Il direttorio provvisorio è composto dei Signori Quieti Dott. Rosario, Barbalato Rag. Emanuele, De Flaviis Geom. Tommaso, Camillo Renato Baccalà, Nanni Aw. Nino, assessore del Comune di Teramo, segretario.

Il fascio di Teramo dirige l'organizzazione di tutta la provincia.

2° - Campli con circa 100 iscritti; Presidente Barbalato Aw. Antonio.

3° Mosciano S. Angelo - con circa 150 iscritti; Presidente Zenobi Gaetano.

4° - Rosburgo - con circa 100 iscritti. Presidente; De Berardinis Davide.

I fasci di Campli, Mosciano S. Angelo e Rosburgo (comune di Montepagano) non hanno ancora costituito il direttorio.

Il programma di azione dei fasci è identico a quello del Comitato centrale di Milano, che fa capo a Benito Mussolini, e cioè; valorizzazione della vittoria ed opposizione a tutte le degenerazioni del socialismo in quanto tende allo sfacelo della nazione.

Mi riservo di mandare al più presto le notizie relative al circondario di Penne, per le quali ho già sollecitato il Sottoprefetto, e di tenere in-

ALLIGATI N.

Onorevole

Ministero dell'Interno

Direzione Generale della

Pubblica Sicurezza

Div/ne affari riservati

R O M A

Source: Archivio Centrale dello Stato, Ministero dell'Interno, Direzione Generale Pubblica Sicurezza, Divisione Affari Generali e Riservati: Categorie annuali (1925), G1 - Associazioni, Fasci di combattimento, Costituzione fascio, Teramo.

Figure A.13: Subsidies from the national committee of the fascist movement to the local branches, 1920

ALLEGATO N.6

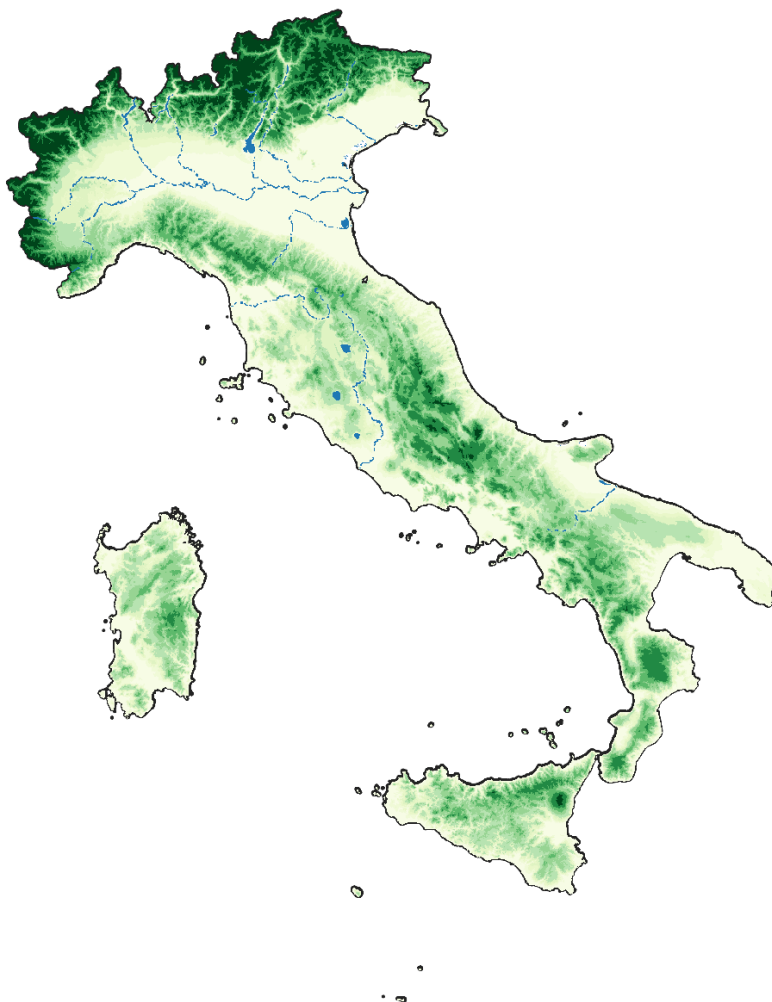
1920		S O V V E N Z I O N I			
		<u>SOVVENZIONI AI FASCI -</u>			
Gennaio	23	Brescia	L.	200	=
Marzo	9	Carrara	"	200	=
"	23	Avanguardia Studentesca Milano	"	300	=
"	"	Parma	"	200	=
Aprile	20	Verona	"	300	=
"	"	Brescia	"	500	=
"	"	Genova Avanguardia	"	100	=
"	"	Pavia	"	50	=
"	27	Sondrio	"	350	=
"	"	Roma	"	1000	=
"	29	Vicenza	"	150	=
Maggio	2	Trieste	"	1000	=
"	8	Venezia	"	1000	=
"	"	Torino	"	1000	=
"	"	Roma	"	500	=
"	12	"	"	500	=
"	18	Pavia	"	100	=
"	26	Caulonia	"	600	=
"	"	Catania	"	400	=
Giugno	9	Brescia	"	300	=
"	"	Sondrio	"	200	=
"	17	Caulonia	"	1000	=
"	21	All'Avanguardia Studentesca -Roma-	"	100	=
"	22	Pisa	"	300	=
"	23	Venezia	"	1500	=
"	"	Cremona	"	1000	=
"	"	Mantova	"	150	=
llo	1	Pano	"	150	=
"	"	Bergamo	"	150	=
"	3	Firenze	"	1500	=
"	12	Milano -Avanguardia Studentesca-	"	1200	=
"	25	Bergamo	"	375	=
"	31	Milano -Avanguardia Studentesca-	"	50	=
osto	2	Spazio	"	1000	=
"	"	Catania	"	400	=
"	"	Parma	"	500	=
"	"	Verona	"	1000	=
"	"	Siena	"	300	=
"	"	Genova	"	500	=
"	2	Milano	"	2000	=
"	3	Venezia	"	1500	=
"	9	Mantova	"	500	=
"	"	Brescia	"	500	=
"	19	Firenze	"	1000	=
"	21	Monfalcone	"	500	=
"	"	Fiume	"	200	=
"	"	Brescia	"	500	=
"	"	Genova	"	1500	=
"	"	Ragusa	"	200	=
"	"	Catania	"	500	=
"	"	Senigallia	"	500	=
"	"	Crema	"	200	=
"	24	Trieste	"	1000	=
		A riportare	L.	30525	=

Source: Archivio Centrale dello Stato, Partito nazionale fascista, Direttorio, Servizi amministrativi.

Appendix B The Least-Cost Path Network

The instrument has been created following a two-step process. In the first step, we obtain and refine a cost raster expressing the difficulty of traveling through each portion of the territory. First, we download a Digital Earth Model (DEM) image of the European continent as a georeferenced raster file with a 1×1 km grid from the European Environment Agency³⁸. We clip the raster to the present-day boundaries of the Italian Republic using the shapefile made available by the Italian Statistical Agency.³⁹ We also remove the major internal and coastal lakes and the main rivers,⁴⁰ editing the rivers polygons so as to include bridges displayed in the 1913 map. Then we reclassify the values of the raster cells to obtain a smoother 1–20 cost categories interval. The final cost raster is shown in Figure B.1.

Figure B.1: Final Terrain Cost Raster



³⁸Available at [EEA-DEM 1x1km](#)

³⁹Available at [Confini delle unità amministrative a fini statistici](#).

⁴⁰We keep the rivers in the 1-4 rank interval (1 being the label for the most important rivers) according to the CIA World Databank II classification ([Central Intelligence Agency, 2006](#)).

In the second step, we use the QGIS Least-Cost Path plugin using the refined raster as cost layer to connect each *Capoluogo di circondario* (i.e. district capital city) with the *Capoluoghi* of the adjacent *circondari*. The *Circondari* were an administrative subdivision below the province, corresponding to the French *arrondissements*, established in 1859 and later abolished in 1927. At the time there were 239 *Circondari*, and their capital cities had prominence at the administrative level over other municipalities, hosting the *prefetti* and *sottoprefetti*, as well as courts and land registries. The simulated network is shown in Figure B.2. Finally, we compute the straight-line distance between each municipality and the closest road belonging to the virtual network, and use this as an instrument for the distance to the historical network.

Figure B.2: Least-cost path Network



Note: the map displays the network constructed with the QGIS Least-Cost Path plugin, connecting each *capoluogo di circondario* with the adjacent *capoluoghi*.

The overall consistency between the virtual road network and the actual one is confirmed by the summary statistics for the distances computed using the 1913 maps and for the instrument illustrated in Table 1. The mean and median distances from a munic-

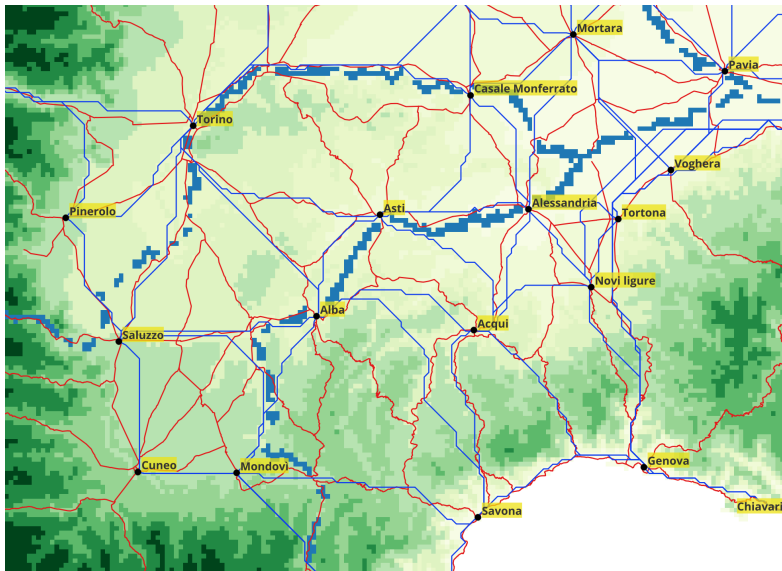
ipality to the closest main road (5.4km and 3.3km, respectively) are slightly smaller than the mean and median distances to the closest segment of the virtual network (6.5km and 4.2km, respectively). Table B.1 reports the unconditional correlation coefficients between our road access proxies, namely the distance to the least-cost path network, the distance to the actual 1913 network. The relatively small correlation coefficient can be due to two main reasons. On the one hand, actual roads are not built with the aim of connecting only district capitals. For instance, roads may be built to connect economically relevant locations with the rest of the country, such as ports, industrial plants, touristic resorts, etc. There could also be historical persistence in the presence of roads, in that declining towns (that are not counted in our list of nodes) may still be the destination of main roads that were built when the towns were flourishing. In addition to that, infrastructural capacity can be well developed in places like mountain passes and areas bordering foreign states for strategic military considerations. All such road connections are difficult to reproduce with our approach and are underrepresented in the virtual network. On the other hand, our procedure, being based on the morphology of the terrain, performs inherently worse where the terrain has little variability, such as in large valleys or plains. This could be seen by looking at Figure B.3 below. The simulated connections, in blue, mirror fairly well the actual road tracks in the mountainous areas between the Ligurian coast close to Genoa to the south and the Piedmont plains to the north. Moving to the less rugged terrain of the Po Valley, east of Turin, the least-cost paths are more likely to detach from the actual roads.

Notwithstanding these limitations, the results of the first stage regressions reported in Table 4 show that, conditional on controls, we can confidently exclude that our proxy of road access based on the least-cost path network is a weak instrument for the measure based on historical roads.

Table B.1: Correlation between the distance measures

	Distance to closest LCP	Distance to main road (1913)	Distance to main road (1868)
Distance to closest LCP	1		
Distance to main road (1913)	0.349	1	
Distance to main road (1868)	0.418	0.597	1

Figure B.3: Comparison between actual and virtual road networks – detail of north-western Italy



Note: the map displays the LCP network (in blue), the historical 1913 network (in red), and the location of the *capoluoghi di circondario*.

Appendix C Further Results

C.1 OLS

Table C.1: OLS estimates of the relationship between fascist violence and road access (1913 map) – breakdown of the controls

Dep. Var: Fascist violence (per 1,000)	1919–1922				1919–1924			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Distance to main road (1913)	-0.0021 (0.0015)	-0.0022 (0.0015)	-0.0022* (0.0013)	-0.0024** (0.0012)	-0.0038** (0.0016)	-0.0039** (0.0016)	-0.0038*** (0.0014)	-0.0040*** (0.0013)
Socialist vote share in 1919	0.3711*** (0.0516)	0.3714*** (0.0519)	0.3949*** (0.0453)	0.3918*** (0.0476)	0.4156*** (0.0555)	0.4166*** (0.0556)	0.4261*** (0.0534)	0.4226*** (0.0534)
Altitude of the town hall	-0.0002*** (0.0000)	-0.0002*** (0.0000)	-0.0001*** (0.0000)	-0.0001*** (0.0000)	-0.0002*** (0.0001)	-0.0002*** (0.0001)	-0.0001*** (0.0000)	-0.0001*** (0.0000)
Distance to main town	0.0005 (0.0004)	0.0005 (0.0004)	0.0003 (0.0004)	0.0003 (0.0004)	-0.0005 (0.0008)	-0.0006 (0.0008)	-0.0006 (0.0008)	-0.0006 (0.0008)
Ruggedness index	-0.0001** (0.0000)	-0.0001** (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0001* (0.0001)	-0.0001* (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)
Pop. in 1921		-0.0003** (0.0001)	-0.0004*** (0.0001)	-0.0004*** (0.0001)		-0.0005*** (0.0001)	-0.0006*** (0.0002)	-0.0006*** (0.0002)
Pop. density		-0.3407 (0.6255)	-0.2350 (0.5320)	-0.2088 (0.4983)		-0.2380 (0.6693)	-0.2055 (0.6184)	-0.1762 (0.5832)
Municipal area (Km ²)		0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)		-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)
Literacy rate			0.0005 (0.0009)	0.0005 (0.0008)			0.0008 (0.0011)	0.0009 (0.0011)
Unemployment rate			0.0020 (0.0056)	0.0019 (0.0051)			-0.0002 (0.0067)	-0.0003 (0.0063)
Share of agrarian workers			-0.0055 (0.0033)	-0.0051* (0.0026)			-0.0029 (0.0038)	-0.0025 (0.0033)
Share of industrial workers			-0.0118* (0.0062)	-0.0111** (0.0046)			-0.0065 (0.0065)	-0.0056 (0.0052)
Share of lower-middle class			-0.0065 (0.0056)	-0.0048 (0.0038)			-0.0019 (0.0066)	0.0001 (0.0056)
Share of upper class			0.0059 (0.0103)	0.0047 (0.0098)			0.0064 (0.0120)	0.0051 (0.0115)
Landlord association (dummy)			0.2334*** (0.0710)	0.2328*** (0.0708)			0.2391*** (0.0892)	0.2385*** (0.0892)
WWI veterans				0.6532 (0.6905)				0.7343 (0.5686)
Province FE	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	64	64	64	64	64	64	64	64
N. Obs.	5,771	5,771	5,771	5,771	5,771	5,771	5,771	5,771
R-squared	0.3311	0.3313	0.3436	0.3449	0.2860	0.2863	0.2925	0.2937

Note: the dependent variable is the number of violent episodes per 1,000 inhabitants in each municipality. The main explanatory variable is expressed as the km distance from each municipality to the closest main road. Standard errors (in parentheses) are clustered at the province level.

Table C.2: OLS estimates of the relationship between fascist violence and road access (1913 map) – dropping main towns

Dep. var.: Fascist Violence								
	1919–1922				1919–1924			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: per 1,000								
Distance to main road (1913)	-0.0020 (0.0016)	-0.0022 (0.0015)	-0.0024* (0.0013)	-0.0026** (0.0012)	-0.0037** (0.0016)	-0.0040** (0.0015)	-0.0039*** (0.0014)	-0.0041*** (0.0013)
N. Clusters	60	60	60	60	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606
R-squared	0.33	0.33	0.34	0.34	0.28	0.28	0.29	0.29
Mean Dep. Var.								
Panel B: dummy								
Distance to main road (1913)	-0.0032** (0.0013)	-0.0014 (0.0012)	-0.0013 (0.0012)	-0.0014 (0.0011)	-0.0039** (0.0017)	-0.0020 (0.0016)	-0.0018 (0.0016)	-0.0018 (0.0016)
Terrain controls	✓	✓	✓	✓	✓	✓	✓	✓
Geographic controls		✓	✓	✓		✓	✓	✓
Economic controls			✓	✓			✓	✓
WWI Veterans				✓				✓
PSI 1919	✓	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	60	60	60	60	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606
R-squared	0.39	0.43	0.44	0.44	0.33	0.37	0.37	0.37
Mean Dep. Var.								
Mean Dep. Var. (Panel A)	0.230	0.230	0.230	0.230	0.337	0.337	0.337	0.337
Mean Dep. Var. (Panel B)	0.285	0.285	0.285	0.285	0.387	0.387	0.387	0.387

Note: the dependent variables are the number of violent incidents not involving fascists either as victims or perpetrators per 1,000 inhabitants in each municipality (Panel A) or dummies equal to one if the municipality reported at least one incident not involving fascists (Panel B) in 1919–1922 or 1919–1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest main road. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

C.2 Conley Standard Errors

Table C.3: OLS estimates of the relationship between road access (1913 map) and fascist violence – Conley Standard Errors

Dep. var.: Fascist violence	1919–1922		1919–1924	
	per 1,000 (1)	dummy (2)	per 1,000 (3)	dummy (4)
Distance to main road (1913)	-0.0024	-0.0034	-0.0040	-0.0039
[15 km cut-off]	(0.0013)*	(0.0012)***	(0.0015)***	(0.0014)***
[30 km cut-off]	(0.0013)*	(0.0013)***	(0.0015)***	(0.0015)***
[45 km cut-off]	(0.0014)*	(0.0013)***	(0.0015)***	(0.0015)**
[60 km cut-off]	(0.0014)*	(0.0013)***	(0.0015)***	(0.0016)**
Terrain controls	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓
WWI Veterans	✓	✓	✓	✓
PSI 1919	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
N. Obs.	5,771	5,771	5,771	5,771
R-squared	0.34	0.41	0.29	0.35
Mean Dep. Var.	0.2329	0.3023	0.3405	0.4029

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants (Columns (1) and (3)) or dummies equal to 1 if the municipality was targeted by at least a fascist attack (Columns (2) and (4)) in 1919–1922 or 1919–1924. The main explanatory variable is expressed as the km distance from each municipality to the closest main road. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors adjusted for spatial autocorrelation with Bartlett kernel decay in space are reported in parentheses. We allow errors to be correlated within a circle of radius 15, 30, 45, or 60 kilometers around each municipality centroid, following [Colella et al. \(2019\)](#).

C.3 IV

Table C.4: IV estimates of the effect of road access (1913 map) on fascist violence – Conley Standard Errors

Dep. var.: Fascist violence	1919–1922		1919–1924	
	per 1,000	dummy	per 1,000	dummy
	(1)	(2)	(3)	(4)
Distance to main road (1913)	-0.0126	-0.0102	-0.0147	-0.0121
[15 km cut-off]	(0.0043)***	(0.0040)**	(0.0057)***	(0.0048)**
[30 km cut-off]	(0.0046)***	(0.0042)**	(0.0060)**	(0.0051)**
[45 km cut-off]	(0.0046)***	(0.0041)**	(0.0058)**	(0.0049)**
[60 km cut-off]	(0.0044)***	(0.0040)**	(0.0055)***	(0.0047)**
Terrain controls	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓
WWI Veterans	✓	✓	✓	✓
PSI 1919	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
N. Obs.	5,606	5,606	5,606	5,606
First stage F	30.80	30.80	30.80	30.80
Mean Dep. Var.	0.2302	0.2852	0.3370	0.3873

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants (Columns (1) and (3)) or dummies equal to 1 if the municipality was targeted by at least a fascist attack (Columns (2) and (4)) in 1919–1922 or 1919–1924. The main explanatory variable is expressed as the km distance from each municipality to the closest main road. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors adjusted for spatial autocorrelation with Bartlett kernel decay in space are reported in parentheses. We allow errors to be correlated within a circle of radius 15, 30, 45, or 60 kilometers around each municipality centroid, following [Colella et al. \(2019\)](#).

C.4 Meteorological Shocks and Political Violence

By affecting road conditions, meteorological phenomena could be responsible for a differential effect over time of the road network on violence. Building on Rogall (2021), we exploit the exogenous variation in road travel costs induced by weather variability, and more specifically by variation in rainfall.

To this end, we collect historical records on weekly precipitations from the pre-1950 E-OBS gridded dataset.⁴¹ This dataset reconstructs precipitation data for $0.1^\circ \times 0.1^\circ$ cells (about 11×11 km) interpolating all available data from historical meteorological stations. We obtain a measure of rainfall at the municipal level by computing the weighted average of the four closest grid cells, the weight being the inverse of the distance between the centroid of the municipality and the centroid of each cell, capped at one for all distances smaller than 11 km (i.e., the length of the cell of the precipitation data grid). Considering the four closest cells allows us to obtain a smoothed measure of rainfall in the vicinity of each municipality centroid, which is more appropriate for our purposes than relying solely on the raw precipitation value of the cell containing the centroid. Formally, we compute the following measure

$$\widehat{\text{Rain}}_{it} = \frac{\sum_{k=i_1}^{i_4} w_k \text{Rain}_{kt}}{\sum_{k=i_1}^{i_4} w_k}, \quad (\text{C.8})$$

where

$$w_k = \min \left[1, \frac{11}{\text{Distance}_{ik}} \right] \quad (\text{C.9})$$

is the weight of cell k for municipality i which depends on the straight-line km distance, Distance_{ik} , between the centroids of i and k , and Rain_{kt} is the cumulated amount of rain (in mm) in cell k in week t . Next, we standardize all variables to have zero mean and unit variance, so that we can interpret the estimates in terms of standard deviations. We estimate the following panel regression model

$$Y_{i,j,t} = \alpha_{i,j} + \mu_t + \beta_1 \widehat{\text{Rain}}_{i,j,t} + \beta_2 \text{Distance}_{i,j}^{1913} \times \widehat{\text{Rain}}_{i,j,t} + \varepsilon_{i,j,t}, \quad (\text{C.10})$$

where $Y_{i,j,t}$ is a measure of political violence in municipality i belonging to province j in week t , $\alpha_{i,j}$ is a municipality fixed effect, μ_t is a week fixed effect, $\text{Distance}_{i,j}^{1913}$ is the km distance from municipality i in district j to the closest main road of the 1913 network, and $\varepsilon_{i,j,t}$ is the error term, clustered at the province level.

The results, reported in Table C.5, show that the coefficient of the interaction term is negative and significant when we use fascist violence as the dependent variable, while it displays no statistically significant association with episodes of violence not involving

⁴¹The E-OBS dataset is available at <https://surfobs.climate.copernicus.eu/>. Note that since the cells covering the Italian peninsula lack data for 1919, we focus on the 1920–1924 interval.

Table C.5: Panel estimates of the effect of rain and road access on political violence

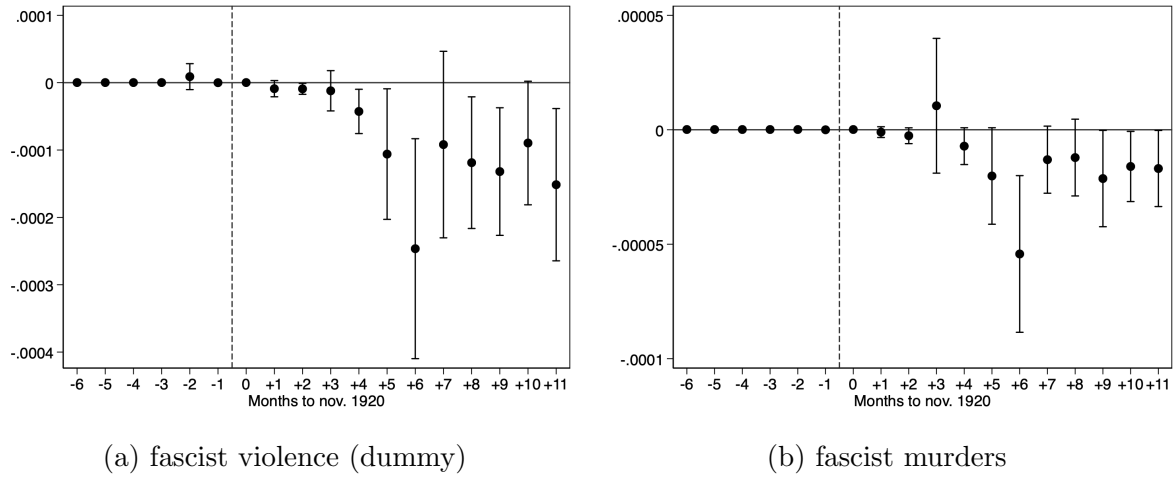
Dep. Var.:	Fascist violence			Not involving fascists
	(1)	(2)	(3)	(4)
Rainfall	-0.0007 (0.0010)	-0.0013 (0.0010)	-0.0012 (0.0010)	-0.0007 (0.0010)
Rainfall $\times$ Distance to main road	-0.0013* (0.0007)	-0.0017** (0.0007)	-0.0017** (0.0007)	-0.0002 (0.0005)
Past fascist violence			0.0110 (0.0068)	
Municipality FE	✓	✓	✓	✓
Week FE	✓	✓	✓	✓
Province $\times$ month FE		✓	✓	✓
N. Obs.	2,713,010	2,713,010	2,713,010	2,713,010
N. municipalities	8809	8809	8809	8809
N. provinces	72	72	72	72

Note: the dependent variables are dummies equal to one if at least a fascist attack (Columns (1)–(3)) or an incident not involving fascists (Column (4)) were reported in the municipality in the week. The main explanatory variables are expressed as the total millimeters of rain accumulated in the week (*Rainfall*) and the km distance from each municipality to the closest main road (*Distance to main road*), respectively. Column (3) includes a dummy equal to one if the municipality was ever targeted by fascist violence in any week before the current one. Standard errors (in parentheses) are clustered at the province level.

fascists. Furthermore, results are robust to the inclusion of a province-specific time trend and to controlling for past fascist actions.⁴² This is consistent with the hypothesis that the exogenous spike in transportation costs induced by adverse meteorological conditions lowers the probability of observing fascist violence in a town, and the more so the farther away that town lies from the main road network (under the assumption that main roads were comparatively better maintained and less impacted by foul weather).

⁴²Note that the sum of the estimated coefficients for Rainfall and the interaction term is negative and significant at the 1% level for the model specifications of Columns (1)–(3), while it is not different from zero in Column (4).

Figure C.1: Event study of the effect of LCP distance from the closest fascist branch on (a) fascist violence dummy and (b) fascist murders per 1,000 inh. – -6/+12 months to November 1920



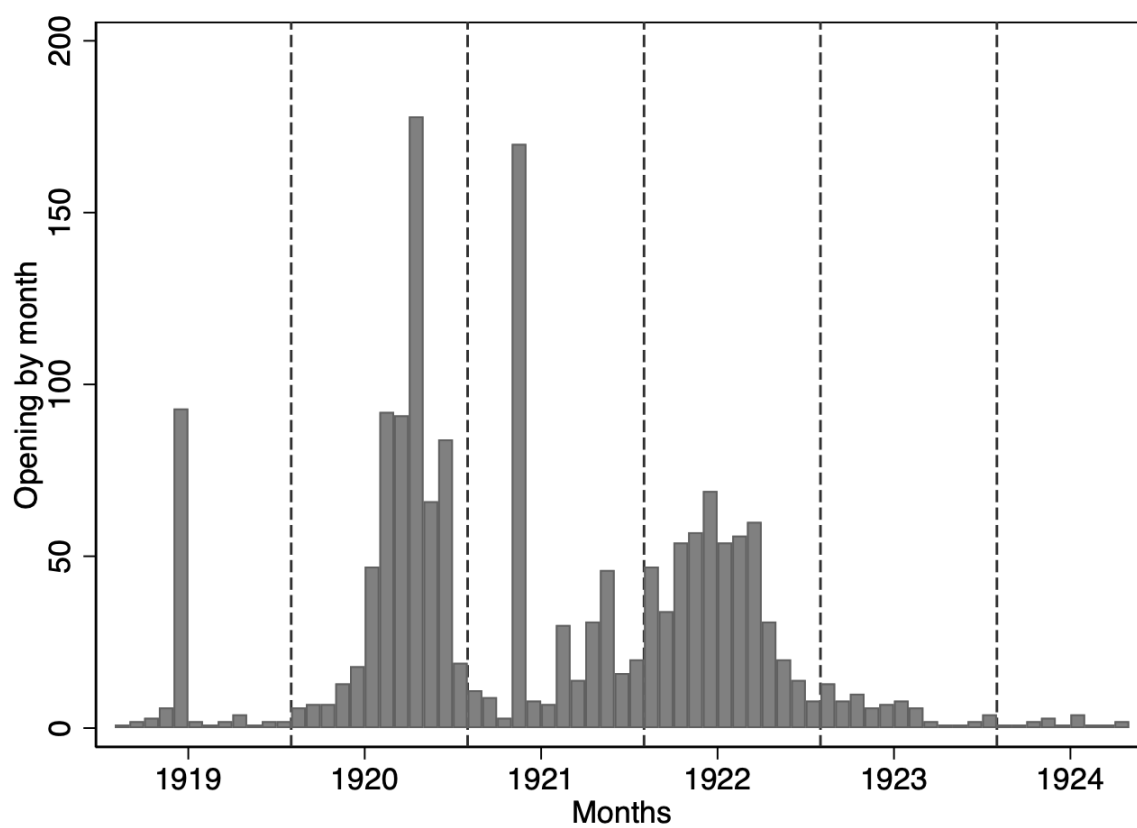
Note: The coefficients are computed with panel regressions using the km distance along the least-cost path from each municipality to the closest fascist branch as of November 1920 interacted with month indicator dummies as explanatory variables, along with municipality and month fixed effects. 95% confidence intervals are reported. Standard errors are clustered at the province level.

Table C.6: Panel estimates of the relationship between the travel distance from the closest fascist branch and political violence (-6/+12 months to Nov. 1920)

Dep. Var.:	Fascist violence			Not involving fascists
	per 1,000 (1)	dummy (2)	murders (3)	per 1,000 (4)
Dist. to fascist headquarter $\times$ Post	-0.0001*** (0.0000)	-0.0001*** (0.0000)	-0.0000*** (0.0000)	-0.0000 (0.0000)
Municipality FE	✓	✓	✓	✓
Month FE	✓	✓	✓	✓
N. Obs.	221,216	221,216	221,216	221,216
N. municipalities	6913	6913	6913	6913
N. provinces	69	69	69	69
Mean Dep. Var.	0.0050	0.0042	0.0006	0.0005

Note: the dependent variable of Column (1) (Column (3)) is the number of fascist attacks (respectively, fascist murders) per 1,000 inhabitants within the municipality in the month. The dependent variable of Column (2) is a dummy that takes value equal to one if at least one fascist attack was reported within the municipality in the month. The dependent variable of Column (4) is the number of episodes not involving fascists per 1,000 inhabitants within the municipality in the month. The main explanatory variable is expressed as the travel distance (in km) along the least-cost path from each municipality to the closest fascist branch as of November 1920 interacted with a dummy equal to one for all months from Nov. 1920 onward. All specifications include municipality and month fixed effects. Standard errors (in parentheses) are clustered at the province level.

Figure C.3: Fascist headquarters opening per month



Source: our computations from official reports stored at the *Archivio Centrale dello Stato*.

Appendix D Exploiting the 1868 road network

D.1 OLS

Table D.1: OLS estimates of the relationship between fascist violence and road access (1868 map)

PANEL A: Fascist violence (per 1,000)								
	1919–1922				1919–1924			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Distance to main road (1868)	-0.0035* (0.0020)	-0.0038* (0.0020)	-0.0034* (0.0017)	-0.0034* (0.0017)	-0.0056** (0.0022)	-0.0060*** (0.0022)	-0.0054*** (0.0020)	-0.0055*** (0.0020)
Terrain controls	✓	✓	✓	✓	✓	✓	✓	✓
Geographic controls		✓	✓	✓		✓	✓	✓
Economic controls			✓	✓			✓	✓
WWI Veterans				✓				✓
PSI 1919	✓	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	60	60	60	60	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606
R-squared	0.33	0.33	0.34	0.34	0.28	0.28	0.29	0.29
Mean Dep. Var.	0.2302	0.2302	0.2302	0.2302	0.3371	0.3371	0.3371	0.3371

PANEL B: Fascist violence (dummy)								
	1919–1922				1919–1924			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Distance to main road (1868)	-0.0048*** (0.0018)	-0.0037** (0.0016)	-0.0037** (0.0015)	-0.0037** (0.0015)	-0.0061*** (0.0018)	-0.0049*** (0.0016)	-0.0048*** (0.0016)	-0.0048*** (0.0016)
Terrain controls	✓	✓	✓	✓	✓	✓	✓	✓
Geographic controls		✓	✓	✓		✓	✓	✓
Economic controls			✓	✓			✓	✓
WWI Veterans				✓				✓
PSI 1919	✓	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	60	60	60	60	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606
R-squared	0.39	0.43	0.44	0.44	0.33	0.37	0.37	0.37
Mean Dep. Var.	0.2854	0.2854	0.2854	0.2854	0.3876	0.3876	0.3876	0.3876

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants in each municipality (Panel A) or dummies equal to 1 if the municipality was targeted by at least a fascist attack (Panel B) in 1919–1922 or 1919–1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest main road. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table D.2: OLS estimates of the relationship between fascist violence and road access (1868 map) – breakdown of the controls

Dep. Var: Fascist violence (per 1,000)								
	1919–1922				1919–1924			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Distance to main road (1868)	-0.0035* (0.0019)	-0.0036* (0.0019)	-0.0032* (0.0016)	-0.0033** (0.0016)	-0.0057*** (0.0021)	-0.0058*** (0.0021)	-0.0052*** (0.0018)	-0.0053*** (0.0019)
Socialist vote share in 1919	0.3711*** (0.0509)	0.3712*** (0.0512)	0.3941*** (0.0447)	0.3913*** (0.0471)	0.4162*** (0.0550)	0.4169*** (0.0551)	0.4250*** (0.0531)	0.4219*** (0.0531)
Altitude of the town hall	-0.0002*** (0.0000)	-0.0002*** (0.0000)	-0.0001*** (0.0000)	-0.0001*** (0.0000)	-0.0002*** (0.0001)	-0.0002*** (0.0001)	-0.0001*** (0.0000)	-0.0001*** (0.0000)
Distance to main town	0.0007 (0.0005)	0.0006 (0.0005)	0.0004 (0.0005)	0.0004 (0.0005)	-0.0003 (0.0007)	-0.0004 (0.0008)	-0.0005 (0.0007)	-0.0005 (0.0007)
Ruggedness index	-0.0001** (0.0000)	-0.0001** (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0001* (0.0001)	-0.0001* (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)
Pop. in 1921		-0.0004** (0.0001)	-0.0004*** (0.0002)	-0.0004*** (0.0001)		-0.0005*** (0.0002)	-0.0006*** (0.0002)	-0.0006*** (0.0002)
Pop. density		-0.3302 (0.6227)	-0.2298 (0.5265)	-0.2019 (0.4917)		-0.2141 (0.6628)	-0.1951 (0.6099)	-0.1640 (0.5741)
Municipal area (Km ²)		0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)		0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)
Literacy rate			0.0004 (0.0009)	0.0005 (0.0008)			0.0008 (0.0011)	0.0008 (0.0010)
Unemployment rate			0.0020 (0.0055)	0.0019 (0.0051)			-0.0002 (0.0065)	-0.0003 (0.0062)
Share of agrarian workers			-0.0057* (0.0033)	-0.0054** (0.0026)			-0.0032 (0.0038)	-0.0029 (0.0032)
Share of industrial workers			-0.0120* (0.0061)	-0.0113** (0.0046)			-0.0068 (0.0065)	-0.0060 (0.0052)
Share of lower-middle class			-0.0069 (0.0055)	-0.0051 (0.0037)			-0.0024 (0.0065)	-0.0005 (0.0055)
Share of upper class			0.0046 (0.0103)	0.0034 (0.0099)			0.0043 (0.0122)	0.0030 (0.0118)
Landlord association (dummy)			0.2322*** (0.0701)	0.2317*** (0.0699)			0.2372*** (0.0880)	0.2366*** (0.0879)
WWI veterans				0.6443 (0.6991)				0.7194 (0.5893)
Province FE	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	64	64	64	64	64	64	64	64
N. Obs.	5,771	5,771	5,771	5,771	5,771	5,771	5,771	5,771
R-squared	0.3314	0.3316	0.3438	0.3450	0.2865	0.2868	0.2928	0.2939

Note: the dependent variable is the number of violent episodes per 1,000 inhabitants in each municipality. The main explanatory variable is expressed as the km distance from each municipality to the closest main road. Standard errors (in parentheses) are clustered at the province level.

D.2 IV

Table D.3: First-Stage relationship between the distance to the closest main road (1868 map) and the distance to the closest least-cost path

Dep. Var.	Distance to main road (1868)			
	(1)	(2)	(3)	(4)
Distance to closest LCP	0.1151** (0.0457)	0.1125** (0.0458)	0.1129** (0.0455)	0.1129** (0.0456)
Terrain controls	✓	✓	✓	✓
Geographic controls		✓	✓	✓
Economic controls			✓	✓
WWI Veterans				✓
PSI 1919	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
N. Clusters	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606
F-stat	6.34	6.02	6.15	6.13

Note: the dependent variable is expressed as the km distance from each municipality to the closest main road. The main explanatory variable is expressed as the km distance from each municipality to the closest segment of the least-cost path network. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table D.4: IV estimates of the effect of road access (1868 map) on fascist violence

PANEL A: Fascist violence (per 1,000)										
	1919–1922					1919–1924				
	Red. form	2SLS				Red. form	2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Distance to closest LCP	-0.0029*** (0.0009)					-0.0033*** (0.0010)				
Distance to main road (1868)		-0.0202* (0.0117)	-0.0213* (0.0123)	-0.0248* (0.0128)	-0.0254* (0.0136)		-0.0260** (0.0126)	-0.0274** (0.0134)	-0.0290** (0.0137)	-0.0296** (0.0146)
Terrain controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Geographic controls	✓		✓	✓	✓	✓		✓	✓	✓
Economic controls	✓			✓	✓	✓			✓	✓
WWI Veterans	✓				✓	✓				✓
PSI 1919	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	60	60	60	60	60	60	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606
First stage F		6.34	6.02	6.15	6.13		6.34	6.02	6.15	6.13
Mean Dep. Var.	0.2302	0.2302	0.2302	0.2302	0.2302	0.3371	0.3371	0.3371	0.3371	0.3371

PANEL B: Fascist violence (dummy)										
	1919–1922					1919–1924				
	Red. form	2SLS				Red. form	2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Distance to closest LCP	-0.0023*** (0.0008)					-0.0027*** (0.0009)				
Distance to main road (1868)		-0.0241* (0.0139)	-0.0186* (0.0112)	-0.0203* (0.0107)	-0.0205* (0.0111)		-0.0307** (0.0145)	-0.0252** (0.0117)	-0.0243** (0.0111)	-0.0243** (0.0112)
Terrain controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Geographic controls	✓		✓	✓	✓	✓		✓	✓	✓
Economic controls	✓			✓	✓	✓			✓	✓
WWI Veterans	✓				✓	✓				✓
PSI 1919	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
N. Clusters	60	60	60	60	60	60	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606	5,606
First stage F		6.34	6.02	6.15	6.13		6.34	6.02	6.15	6.13
Mean Dep. Var.	0.2854	0.2854	0.2854	0.2854	0.2854	0.3876	0.3876	0.3876	0.3876	0.3876

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants (in Panel A) or dummies equal to 1 if the municipality was targeted by at least a fascist attack (in Panel B) in 1919–1922 or 1919–1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest segment of the least-cost path network (Columns (1) and (6)), or the km distance from each municipality to the closest main road instrumented with the km distance to the closest segment of the least-cost path network (Columns (2)–(5) and (7)–(10)). All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table D.5: IV estimates of the effect of 1868 road access on fascist violence – excluding municipalities close to the main road network and crossed by roads

PANEL A: Fascist violence (per 1,000)				
	No 1st quartile		No towns crossed by roads	
	1919-22	1919-24	1919-22	1919-24
	(1)	(2)	(3)	(4)
Distance to main road (1868)	-0.0281** (0.0125)	-0.0277** (0.0118)	-0.0309*** (0.0118)	-0.0285** (0.0116)
Terrain controls	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓
WWI Veterans	✓	✓	✓	✓
PSI 1919	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
N. Clusters	59	59	57	57
N. Obs.	4,048	4,048	2,138	2,138
First stage F	7.82	7.82	8.24	8.24
Mean Dep. Var.	0.2095	0.3043	0.1649	0.2566
PANEL B: Fascist violence (dummy)				
	No 1st quartile		No towns crossed by roads	
	1919-22	1919-24	1919-22	1919-24
	(1)	(2)	(3)	(4)
Distance to main road (1868)	-0.0203** (0.0096)	-0.0197*** (0.0076)	-0.0203** (0.0091)	-0.0200* (0.0106)
Terrain controls	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓
WWI Veterans	✓	✓	✓	✓
PSI 1919	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
N. Clusters	59	59	57	57
N. Obs.	4,048	4,048	2,138	2,138
First stage F	7.82	7.82	8.24	8.24
Mean Dep. Var.	0.2626	0.3560	0.1763	0.2652

Note: the dependent variables are the number of violent episodes per 1,000 inhabitants in each municipality (Panel A) or dummies equal to one if the municipality was targeted by at least a fascist attack (Panel B) in 1919-1922 or 1919-1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest main road. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table D.6: IV estimates of the effect of road access (1868 map) on violence not involving fascists

PANEL A: Violence not involving fascists (per 1,000)						
	Full sample		No 1st quartile		No towns crossed by roads	
	1919-22	1919-24	1919-22	1919-24	1919-22	1919-24
	(1)	(2)	(3)	(4)	(5)	(6)
Distance to main road (1868)	-0.0043 (0.0031)	-0.0048 (0.0032)	-0.0013 (0.0009)	-0.0017* (0.0010)	0.0002 (0.0006)	-0.0001 (0.0008)
Terrain controls	✓	✓	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓	✓	✓
WWI Veterans	✓	✓	✓	✓	✓	✓
PSI 1919	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓
N. Clusters	60	60	59	59	57	57
N. Obs.	5,606	5,606	4,048	4,048	2,138	2,138
First stage F	6.13	6.13	7.82	7.82	8.24	8.24
Mean Dep. Var.	0.0091	0.0095	0.0072	0.0078	0.0053	0.0064
PANEL B: Violence not involving fascists (dummy)						
	Full sample		No 1st quartile		No towns crossed by roads	
	1919-22	1919-24	1919-22	1919-24	1919-22	1919-24
	(1)	(2)	(3)	(4)	(5)	(6)
Distance to main road (1868)	-0.0043 (0.0038)	-0.0049 (0.0039)	-0.0031 (0.0033)	-0.0037 (0.0033)	-0.0017 (0.0031)	-0.0020 (0.0031)
Terrain controls	✓	✓	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓	✓	✓
Economic controls	✓	✓	✓	✓	✓	✓
WWI Veterans	✓	✓	✓	✓	✓	✓
PSI 1919	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓
N. Clusters	60	60	59	59	57	57
N. Obs.	5,606	5,606	4,048	4,048	2,138	2,138
First stage F	6.13	6.13	7.82	7.82	8.24	8.24
Mean Dep. Var.	0.0371	0.0380	0.0319	0.0326	0.0187	0.0201

Note: the dependent variables are the number of violent incidents not involving fascists either as victims or perpetrators per 1,000 inhabitants in each municipality (Panel A) or dummies equal to one if the municipality reported at least one incident not involving fascists (Panel B) in 1919–1922 or 1919–1924, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest main road. All specifications include province fixed effects and the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Table D.7: IV estimates of the effect of road access (1868 map) on strikes

Dep. Var: Strikes	1913-14		1920		
	(1)	(2)	(3)	(4)	(5)
Distance to main road (1868)	0.0014 (0.0019)	0.0015 (0.0019)	-0.0030 (0.0047)	-0.0037 (0.0046)	-0.0036 (0.0045)
Socialist vote share in 1913	0.0005 (0.0088)	0.0002 (0.0082)			
Socialist vote share in 1919			0.0851* (0.0448)	0.0864** (0.0414)	0.0867** (0.0411)
Terrain controls	✓	✓	✓	✓	✓
Geographic controls	✓	✓	✓	✓	✓
Economic controls		✓		✓	✓
WWI Veterans					✓
Province FE	✓	✓	✓	✓	✓
N. Clusters	60	60	60	60	60
N. Obs.	5,606	5,606	5,606	5,606	5,606
First stage F	6.09	6.22	6.02	6.15	6.13
Mean Dep. Var.	0.0087	0.0087	0.2431	0.2431	0.2431

Note: the dependent variables are dummies equal to one if a strike was recorded in the municipality in 1913-1914 or 1920, respectively. The main explanatory variable is expressed as the km distance from each municipality to the closest main road instrumented with the km distance to the closest segment of the least-cost path network. All specifications include province fixed effects. Columns (1)-(2) include the Socialist Party vote share in 1913 as a control. Columns (3)-(5) include the Socialist Party vote share in 1919 as a control. Terrain controls include: altitude of the town hall, a terrain ruggedness index, the distance to the main town of the district. Geographic controls include: population and population density in 1921, the area (in ha) of the municipality. Economic controls include the share of industrial and agricultural workers, unemployed, lower-middle class (artisans, public employees, office clerks) and elites (entrepreneurs and rentiers) individuals over the population, as well as a dummy for the presence of a landlords association and the literacy rate in 1921. The last set of covariates controls for the share of WWI veterans over the adult male population. Standard errors (in parentheses) are clustered at the province level.

Quest'opera è soggetta alla licenza Creative Commons



CC BY-NC 4.0 DEED

Attribuzione - Non commerciale 4.0 Internazionale



Alma Mater Studiorum - Università di Bologna
DEPARTMENT OF ECONOMICS

Strada Maggiore 45
40125 Bologna - Italy
Tel. +39 051 2092604
Fax +39 051 2092664
<http://www.dse.unibo.it>