# Rebel Governance and Development: The Persistent Effects of Guerrillas in El Salvador *

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**Abstract**

How does rebel governance affect long-term development? Rebel forces have controlled territory and imposed their own institutions in many countries over the past decades, affecting millions of people. We investigate the economic, social, and political consequences of temporary territorial control by guerrillas during the Salvadoran Civil War. During that time, guerrillas displaced state authorities and created informal institutions that encouraged autonomy and self-sufficiency. Using a spatial regression discontinuity design, we show that areas once under guerrilla control have experienced worse economic outcomes over the last 20 years than adjacent areas controlled by the state. In these areas, higher social capital coexists with negative economic consequences. The fact that rebel institutions developed as an alternative to the state generated mistrust of outsiders and isolated these areas from the rest of the country, resulting in higher dependence on subsistence farming and disengagement from postwar governments. Results are larger in areas where rebel governance initiatives and norms were stronger and do not revert despite increased postwar public investment in formerly guerrilla areas. This study shows that when non-state actors develop alternative governance institutions, these can prompt adverse development effects through lasting norms of distrust of out-groups.

**Keywords:** Armed non-state actors, governance, norms, economic development
**JEL Classification:** O10, N3

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*"Mayors, judges, security posts, everything disappears, (...), practically the whole state disappears, and the state was us."*

(FMLN Military Commander, March 2022)

## I INTRODUCTION

Rebel forces have controlled sizable territories and populations for decades, affecting millions worldwide (Cunningham, Gleditsch and Salehyan, 2013). Yet, the consequences of their presence on development and whether these effects endure after they lose control remain largely unknown. In principle, rebels may affect long-term development through their governance – the administration of civilian affairs in seized territories as a substitute for the state (Arjona, Kasfir and Mampilly, 2015; Arjona, 2016; Stewart, 2018; Breslawski, 2021; Grasse, Sexton and Wright, 2021; Sánchez De La Sierra, 2020). Unlike gangs, cartels or the paramilitary, rebels usually seek to replace the state fully. Thus, rebels establish stable and durable territorial control during conflict and create new institutions to regulate civilian life.[1] One particularly relevant feature of rebel governance is the creation of autonomous governing institutions, which promote self-reliance in communities and change local norms (Pearce, 1986; Binford, 1997; Kubota, 2017; Martin, Piccolino and Speight, 2021).[2]

This paper provides evidence that rebel governance can hinder long-term development by generating a culture of mistrust towards outsiders that persists even when rebels relinquish control. We provide three main results. First, using variation in the formation of boundaries of rebel-controlled areas in El Salvador, we show that after the end of rebel governance and the return of the state, individuals living inside formerly guerrilla-controlled territories have lower human capital, wealth, and earnings compared to individuals living in nearby areas that have always been under state control. Second, we find no evidence of convergence over time: we show that the divergence in economic outcomes between the areas persists over 20 years despite the absence of rebel control and increased state investment. Notably, these areas were similar in these outcomes and factors

[1] For example, in Colombia, the FARC (*Fuerzas Armadas Revolucionarias de Colombia*) controlled many remote areas before signing a peace agreement in 2016, much as Perú's Shining Path (*Sendero Luminoso*) controlled the Andes Valley in the 1980s. Other well-documented examples of armed actors engaged in local governance include groups in the Democratic Republic of the Congo, South Sudan, Liberia, India, Indonesia, Sri Lanka, Greece, Bolivia, Guatemala, Cuba, and Venezuela. See Arjona, Kasfir and Mampilly (2015) for an analysis of these case studies.

[2] We have seen these rebels' institutions in several contexts, from the New People's Army in the Philippines, which established local committees in areas under their control; the Maoist insurgency in Nepal, which organized civilians under a parallel government in the territories under their control; the National Resistance Army in Uganda, which established civilian-elected committees; to guerrillas in Central America that established local village councils and autonomous community-based organizations.

that proxy social norms before rebel governance. Third, we shed light on the mechanisms behind the persistence of negative effects. While rebel governance is associated with many characteristics that can affect long-term development, one can be particularly important: creating local institutions to replace the state. In contrast to gangs and the paramilitary, rebels tend to introduce institutions to elicit support and fully supplant the state. Qualitative evidence suggests that these institutions promoted norms of self-sufficiency and distanced communities from outsiders, generating mistrust in these areas and disengagement from the state. We argue that if these changes in social norms are persistent, they can explain why the negative effects on development persist over time. We find that higher levels of social capital in these areas coexist with individuals who engage less with the state and distrust external actors more, leading to lower access to some public goods and higher dependence on agriculture. Consistent with this mechanism, exploiting variation in the settlement of different factions, we find that within guerrilla areas, the negative effects on development are mostly explained by areas where guerrilla factions promoted self-governance norms more intensively.

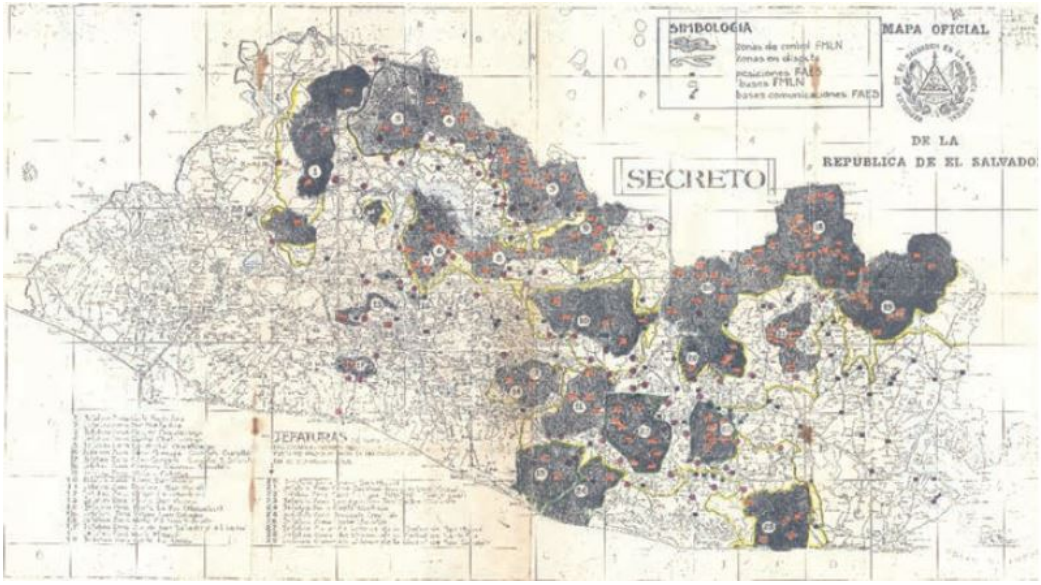
To show these results, we focus on the long-term development impacts of territorial control by the Farabundo Martí National Liberation Front (*Frente Farabundo Martí para la Liberación Nacional*, FMLN) in El Salvador between 1981-1992. The FMLN was an armed organization formed in October 1980 that united the five largest leftist guerrilla organizations in El Salvador.[3] During the beginning of the civil war, the FMLN (herein FMLN, rebels, or guerrillas) consolidated its territorial, economic, social, and political control in multiple areas, effectively replacing the Salvadoran state. In areas controlled by the FMLN, guerrillas eliminated local state authorities and promoted autonomous institutions to respond to health, education, and economic demands. These organizations flourished as an alternative to formal institutions, promoting social capital and distancing local communities de facto from local politicians and outsiders (Wood, 2008; Binford, 1997). In contrast, during the same period, nearby areas remained under state control. After the end of the Civil War in 1992, the state regained control of the entire country.

To isolate the causal channels, we exploit the location of boundaries of rebels' territorial control documented in the United Nations map used during peace talks between the Salvadoran government and the FMLN. Figure 1 illustrates these areas and boundaries. The scope of the control zones and the location of the borders were not controversial: the two parties in the negotiations

[3]These included *Fuerzas Populares de Liberación Farabundo Martí*, *Ejercito Revolucionario del Pueblo*, *Resistencia Nacional*, *Partido Comunista Salvadoreño*, and *Partido Revolucionario de los Trabajadores Centroamericanos*.

agreed that this was the territorial division by the end of the civil war. Indeed, we validated the map with commanders from both sides during our fieldwork. Given this setting, we use a spatial regression discontinuity design that compares areas that were under full guerrilla control and areas that were either controlled by the Salvadoran Armed Forces or disputed by both parties. Our empirical strategy estimates the effect of being under the control of the guerrilla for approximately ten years on outcomes up to 20 years after the state regained control of the areas.

Figure 1. Guerrilla-Controlled Areas




*Source:* Castañeda (2016).
*Notes:* This map shows the location of guerrilla-controlled areas. It was submitted to the United Nations for the Chapultepec Peace Accords and approved jointly by the Salvadoran Government and the FMLN as part of the cease-fire negotiation process from 1990 to 1992.

We use geospatial data on night light luminosity from 1992 to 2013 and census tract data on education and wealth for 1992 and 2007 to measure the effects immediately after the end of the war and the longer-term effects. To disentangle mechanisms, we designed and conducted our own survey in 2022 for a representative sample of about 4,000 households located in the eastern region (across formerly controlled- and non-controlled areas) to obtain contemporaneous measures of trust and social capital. Since we have several rounds of years for some outcomes (light density, education, wealth, occupation, and public investment), we can also study convergence over the years after the territorial control ended. We complement this survey data with public opinion and household surveys (2004-2018) to further explore mechanisms explaining the main effects. Finally, we implement focus groups with ex-combatants and citizens living in the Salvadoran

departments of Morazán and Chalatenango to understand the economic and social dynamics of guerrilla-controlled areas in El Salvador before, during, and after the war.

Supporting the validity of our research design, we find that all geospatial, social and economic variables observed before guerrilla territorial control vary smoothly around the boundaries of rebel-controlled areas. In particular, geocoded data from multiple sources—including covariates that proxy state capacity, violence, demographics, trust, agricultural suitability, and land concentration—confirms there were no differences in these dimensions before guerrillas seized control. Importantly, we find no differences in proxies of trust and social norms, such as the presence of ecclesial base communities–which were strongly associated with the religious movement that emphasized the liberation of the oppressed, known as Liberation Theology. The only significant difference between the areas around the boundary is a small discontinuity of approximately 17 m in altitude. This is consistent with qualitative evidence and findings from our interviews with former combatants that show the FMLN's territorial boundaries were primarily defined by war-related considerations and thus independent of preexisting economic conditions (Castañeda, 2016).[4] In particular, rebel territories included strategic locations that offered a topographic advantage against the enemy.

Results reveal that guerrilla control in the 1980s had large and persistent negative effects on development outcomes from the end of territorial control in 1992 up to the present day. Almost 20 years after the end of guerrilla governance and the return of the state, areas inside formerly FMLN-controlled territories have less night light luminosity, lower human capital, and worse wealth outcomes than areas outside them. Moreover, we find that effects persist over time and that the magnitudes do not mitigate over time: we observe negative effects on light density, wealth, education, and earnings each year between 1992 and 2018. Additionally, cohorts that started their education during guerrilla control and those who made educational decisions *after* territorial control have fewer years of schooling. Results are robust to the selection of bandwidth and RD functional form, as well as excluding observations close to the boundary and dropping urban areas from our study sample. Moreover, the estimates are similar when we extend the sample to areas outside the boundary, when we keep individuals that have lived all their lives in the same location, and when we trim the sample to potential selective migration. Finally, providing further validity to

[4] In our analysis, we show that this difference in altitude is not correlated with any economic outcomes at baseline, which confirms that these locations were chosen solely for strategic advantage. We do this by comparing the economic outcomes of areas without guerrilla territorial control but with 17 m of difference in altitude and find no economic differences between them. We also show that controlling for altitude leaves our results unchanged.

our identification strategy, we find no differences in education for individuals who finished their education before the territorial control started.

What explains these enduring adverse effects on development? The entire region has experienced the same formal institutions since the war ended, and guerrillas no longer govern any areas. We hypothesize, however, that since rebel institutions were developed as an alternative to the state, they also generated a culture of mistrust toward outsiders. In particular, informal norms developed through the participatory institutions promoted by the FMLN between 1981 and 1992—such as the view that citizens should guarantee their needs independent of elites and the state (Pearce, 1986)—induced persistent changes in the relationships between communities in FMLN areas and outsiders. Rebels usually create alternative institutions that promote local cooperation and instill loyalty to the local community (Keister and Slantchev, 2014). Yet, these norms can erode trust in outgroups (Kubota, 2017), and crowd out the role of the post-conflict state if they are developed to avoid dependence on political and economic elites (Martin, Piccolino and Speight, 2021, 2022).[5] This impedes the development of trust in and engagement with outsiders in the long run and promotes their social and economic isolation.

In line with these arguments, our quantitative results show that individuals living in areas once controlled by the FMLN trust all state institutions less and are less likely to engage with politicians and outsiders. Moreover, using our geocoded survey from 2022, we also find evidence of higher social capital within the community: people interact with community members more often and participate in civil society organizations at a higher rate in former guerrilla areas relative to the control group.[6] We also find that individuals in former guerrilla areas are more likely to donate to a community member and less likely to donate to outsiders and sell their land to someone outside their community, even though they perceive demand for it. This result aligns with our focus group results, which suggest that regardless of whether agricultural landowners or private actors want to invest in former guerrilla areas today, residents are less willing to let them because they distrust individuals outside their community.[7]

[5] Kubota (2017) finds that Sri Lankan guerrillas co-opted state institutions, which reduced trust in the postwar government. Martin, Piccolino and Speight (2021) find that civilians in Côte d'Ivoire relied on former rebel actors for protection, which crowded out government police forces in the post-conflict period.

[6] Our findings on higher social capital in guerrilla areas are also consistent with recent work that shows how individuals living in areas where non-state actors established rebel governance are more resilient to weather shocks than individuals in areas where non-state actors were mostly predatory (Ibáñez et al., 2023).

[7] These results are consistent with previous literature highlighting that when individuals interact primarily with members of their group and enforcement occurs through strong informal institutions, individuals will develop values of loyalty and cooperation with the in-group and neglect out-groups (Greif, 1997; Tabellini, 2008). Moreover, disunion

Consistent with distrust of outsiders and lower engagement with politicians, we find that residents of former guerrilla areas today are less willing to pay taxes, report lower access to/utilization of public services, and rely much more on agriculture since 1992. However, these effects are not driven by a lack of public investment in the postwar period. We find, since 1995, more public investment in the same services where households report less access and utilization. Moreover, we have observed many newly constructed schools in formerly guerrilla areas since 1998. We also find no differences in state buildings, hospitals, and police stations across areas, providing further evidence that government discrimination against these areas in the postwar period is not driving the results.

To provide support to the hypothesis that enduring changes in social norms drive the persistence of negative economic outcomes, we also show evidence that the negative effects of rebel presence are stronger in places where self-governance norms were more intensely promoted. First, we exploit the location of base ecclesial communities in 1974, relatively autonomous Catholic religious groups. These base communities directly exposed peasants to concepts of local cooperation, autonomy from elites, and bottom-up organization through the teachings of Liberation Theology. These progressive Catholic groups sided with the FMLN to denounce economic disparities and provided a base of support for the Salvadoran guerrilla. Importantly, the presence of base ecclesial communities is balanced across treatment and control, suggesting that rebels did not target places with higher levels of pre-existing social capital, leftist ideology, or collectivist norms. Thus, we test whether, in these locations, the effects of self-governance are stronger due to these local norms. We find that in places with a base ecclesial community in 1974, the effects of guerrillas are larger, which is consistent with the idea that norms of self-reliance produce social and economic isolation.

Second, we take advantage of the fact that rebel governance was less intense in some areas based on the faction of rebels in charge.[8] We find that effects exacerbate in areas where self-governance initiatives were presumably more powerful because the adoption of institutional changes was led

among groups that ended up under the control of different actors during a civil war is common, and it is attributed to trust gaps in which people trust in-group members more than they trust out-groups (Whitt, 2010).

[8] Among the factions of the FMLN, two groups were particularly powerful, and the main institutional innovators– the ERP and FPL, who introduced self-governance institutions, such as the *poderes de doble cara* and the *poderes populares locales*, respectively (Binford, 1997; Pearce, 1986). Although self-governance expanded to all the fronts, some areas experienced self-governance from earlier on, where the presence of the ERP and FPL was more significant, particularly in the Western Front, in Morazán, and Chalatenango (Álvarez, 2010). Importantly, based on our interviews with commanders, the factions were not assigned based on pre-existing levels of state capacity. Indeed, we corroborate this statement by looking at heterogeneous effects based on state presence at baseline, and we do not find differential effects.

by powerful and innovative factions early on. We also find similar effects when we examine the heterogeneity of these effects by proximity to an FMLN base/headquarters, as opposed to places that are far, and presumably, the guerrilla had less influence over. These heterogeneous effects suggest that conditional on institutions that can promote changes in social norms, the effects on economic outcomes are stronger. Moreover, we do not find any evidence that social norms are endogenous to the level of development. In particular, when we look at areas with significant economic differences in wealth and education that the guerrillas never controlled, we find that individuals are just as likely to trust institutions or engage with the state.

While violence plays an important role in civil conflict, we find evidence indicating that the differential impacts of conflict do not drive the effects of rebel governance. First, there was no increase in bombings, massacres, and victims from 1980 to 1992 in guerrilla-controlled areas relative to nearby areas outside rebel control. Moreover, while unobserved violence may occur right at the boundaries, we find that results hold when we exclude areas close to the rebel border and use the largest possible bandwidths. Second, we find that results are robust to controlling for disputed areas, where most war events could be concentrated. Third, effects are also present for young individuals not exposed to potential violence in the 1980s.

We also rule out other alternative mechanisms. First, our results do not seem to stem from selective migration from guerrilla-controlled areas relative to nearby areas. In particular, we find that education effects are not driven by individuals who had finished their education by the time guerrillas gained territorial control, ruling out that effects are driven by selective migration or changes in population composition due to guerrilla control.[9] These results are consistent with the fact that most elites left during the 1970s in all the region and not differentially from rebel-controlled areas. Moreover, we find that the negative effects on development are also observed in regions where elites were less likely to be present such as areas with no suitability for commercial crops. Second, effects do not seem to be driven by greater disruption of pre-war landholdings leading to postwar uncertainty about property rights. We find no differences in land ownership, size or expropriation risk across areas, ruling out that differences in property rights or land inequality could drive the results. Third, the effects are not driven by ideology-based policy changes in the post-conflict period. Our results suggest that independent of the political party affiliation of the government in charge, there are still negative effects on development outcomes in former guerrilla areas in the

[9] Indeed, the effects are robust to estimating a difference-in-differences strategy that exploits variation across cohorts and places of birth.

postwar period when the left-wing party was in charge. Hence, these results provide evidence that the main effects are not influenced by postwar right-wing administrations that might not emphasize investing in building human skills or delivering public goods and services in formerly guerrilla areas. Indeed, we find that, if anything, public investments increased in these locations immediately after the end of territorial control.[10] Finally, it is unlikely that the effects emerge from forced child recruitment or coercion by guerrilla groups. Qualitative evidence suggests the Salvadoran Army extensively recruited children by force, but the guerrillas did not.[11]

Our findings add a novel instance to the extensive literature that studies the role of historical institutions in shaping long-term development (e.g., Acemoglu, Johnson and Robinson, 2001; Acemoglu and Robinson, 2012; Dell, 2010; Dell, Lane and Querubin, 2018; Acemoglu et al., 2019; Nunn, 2020; Dell and Olken, 2020; Lowes and Montero, 2021) and the persistence of cultural values (e.g., Nunn and Wantchekon, 2011; Alesina and Giuliano, 2015; Cantoni, Hagemeister and Westcott, 2019). Our evidence closely relates to Dell, Lane and Querubin (2018), who show how village governance in Vietnam increased social capital and development by crowding in cooperation with the government. We complement this work by substantiating how local governance by rebels can hinder long-term development when it is developed in parallel and as an alternative to the state. The fact that rebel governance is, in general, promoted as a substitute for the state is particularly important to understand the negative economic consequences since it reduces cooperation with outsiders due to enduring norms of distrust. These results also shed light on the effects that other non-state actors may have on communities since, in general, rebels promote institutions and act in opposition to the state or status quo.

Our results also add to a rich literature that underscores the role of social capital as a determinant of economic growth (Leonardi, Nanetti and Putnam, 2001; Guiso, Sapienza and Zingales, 2004), providing evidence that the relationship between civic capital and development may be more complex and depends on how social capital originates. In line with theoretical models highlight-

[10]The negative development effects could also be explained by the fact that the FMLN had an extreme left-wing ideology, which could have persisted among the individuals living in the area leading to underdevelopment caused by a prevailing communist ideology. However, we do not see any differences in political preferences in the post-conflict period as measured by vote choice. These patterns are consistent with the fact that during its territorial control, the FMLN taught these communities to be autonomous and independent from the prevailing state and elites and from the FMLN itself.

[11]It is estimated that of 60,000 Salvadoran Army combatants, about 48,000 (or 80 percent) were under 18 years of age, while only 2,000 of the 9,000 FMLN members (or 20 percent) were under 18 (Courtney, 2010). Moreover, a survey of child soldiers by UNICEF at the end of the war showed that while 91.7 percent of FMLN recruits had joined voluntarily, close to 53 percent of underage Salvadoran Army soldiers were forcibly recruited (Courtney, 2010).

ing how localized norms of reciprocity can lead to neglect and mistrust of outsiders (Tabellini, 2008), we find that individuals living in guerrilla areas are less likely to trust and engage with outgroups while also showing higher levels of solidarity towards fellow community members– with significant persistence. Indeed, we show that this relationship can be particularly prevalent during rebel governance since rebels develop alternative forms of governance, such as participatory institutions, to gain independence from the state and economic groups. This resembles the description of *collectivist* cultures in seminal work that argues for a negative correlation of these traits with long-run development (Greif, 1994; Gorodnichenko and Roland, 2011, 2017). This paper provides novel evidence on the causal effect of these types of cultures on long-run development.

This paper provides new insights into the developmental consequences of conflict and its effect on social norms.[12] We complement previous work by showing that the economic legacies of war and their effects on social norms are not only by-products of violence or the destruction of factors of production but also a consequence of institutions left by rebels. This distinction is necessary to understand the lasting effects of conflict. If the destruction of physical capital or the temporary reduction of human capital due to violence could explain all the effects, negative development impacts could be mitigated in the short-to-medium term (Miguel and Roland, 2011). However, if effects on development emerge from structural changes in the economy and social norms, they will be more persistent and difficult to change.

In addition, we contribute to a growing literature on rebel governance by considering the effects on development in areas that have experienced control by insurgents. Scholars have recently shown that non-state actors can govern the political, economic, and social lives of residents in an orderly fashion and establish institutions that regulate civilian behaviors (Arjona, 2016; Breslawski, 2021; Loyle et al., 2021; Stewart, 2018; Sánchez De La Sierra, 2020; Grasse, Sexton and Wright, 2021; Ibáñez et al., 2023). Most previous work focuses on factors that produce rebel governance. However, little is known about how these changes affect development outcomes or whether any effects remain after rebels relinquish control. Moreover, there is less understanding of the deep and long-term effects of rebels on social equilibria and norms and on the creation of mechanisms for independent governance of the economy in these contexts.

[12] See the works of Collier (2008); Blattman and Miguel (2010); Bauer et al. (2016); León (2012); Fergusson, Ibáñez and Riaño (2020); Riaño and Valencia Caicedo (2020); Gilligan, Pasquale and Samii (2014); Liu (2022). While there is agreement on the negative economic impacts of conflict in the short run, there is no consensus on long-term effects (Riaño and Valencia Caicedo, 2020).

Closely related, recent work studies the effect of territorial control of organized criminal groups on economic outcomes in the region (Melnikov, Schmidt-Padilla and Sviatschi, 2020; Blattman et al., 2021). We complement this work by examining the effects of an insurgency, which has different objectives and a fundamentally different relationship with civilians. For example, the effects of guerrillas on development should not necessarily be conveyed through coercion, as with many criminal organizations. However, the results on long-term development may be similar to those in areas controlled by criminal organizations since the presence of these groups could undermine trust toward rival outgroups. Lastly, we complement this literature by looking at the long-term effects of the territorial control of non-state actors that are no longer present.

## II HISTORICAL BACKGROUND

### II.A The origin of Salvadoran guerrillas: The FMLN

The leading causes of the Civil War and the motivation for the creation of the FMLN originated in the country's long history of authoritarian rule, political exclusion, and economic inequality. As early as the 1930s, most agricultural lands were owned by a small group of coffee plantation owners who met their demand for workers through a mostly unfree labor force that lived in harsh conditions. Economic modernization after the Second World War led to the expansion of commercial crops but did little to diversify the elites who controlled crop cultivation and exports as well as the incipient financial and manufacturing sectors (Colindres, 1976; Sevilla, 1985). Years of military rule helped forge an alliance between these elites and politicians that was based on the maintenance of class structures and the exclusion of peasants and workers from the political system (Wood, 2003). As a result, rural labor unions remained illegal, labor practices continued to be coercive, and the land was unequally distributed.

Although such political exclusion has characterized most of El Salvador's history, the military regime allowed some level of political competition in the 1960s. This process halted in 1972 after the mayor of San Salvador, José Napoleón Duarte—a popular opposition candidate—was allowed to run for president. Duarte won, but the military quickly overruled the results. This decision sparked protests and mass mobilization that met with brutal repression. Many civilians responded with outrage to the assassinations of students, teachers, and social leaders during these years (Wood, 2003). Security forces machine-gunned several marches, and state resources flowed to paramilitary organizations and "death squads" as well. By 1980, more than one thousand people were killed each month for political reasons.

By the mid-1970s, several guerrilla groups were operating in the San Salvador area. By the late 1970s, five major guerrilla organizations recruited supporters among students and workers. Confronted with the growth of the guerrilla movement, divisions within the oligarchic alliance began to deepen; in October 1979, a group of reformist military officers overthrew the president and installed a new junta. Yet, instead of changing strategy, these new leaders tightened their repression of guerrilla groups (Wood, 2003). Intense and indiscriminate state violence in cities and some rural areas after the war's onset caused the insurgent ranks to grow and motivated many individuals to fight against the state.

As El Salvador spiraled towards civil war, the five biggest guerrilla groups founded the FMLN in November 1980. In January 1981, they launched their first major operation, usually known as the "final offensive." Although this failed to unseat the government, it consolidated the FMLN as the major fighting force against the Salvadoran state and provoked a change in strategy as the guerrillas moved away from major cities and retreated to rural areas to regroup and prepare for a longer fight.

The change in FMLN strategy was based on the establishment of *zonas liberadas* (liberated zones) in the countryside, which is described in detail in Section II.B. At the peak of the war in 1984, the FMLN had an estimated 8,000 to 15,000 combatants (Doyle, Johnstone and Orr, 1997) and ran operations in 30 percent of the country (70 municipalities out of 262). Most analysts argue that by 1985, the war had reached a stalemate, and the FMLN's hold on these areas was stable and undisputed. By 1989, the FMLN was strong enough to plan and launch a massive offensive in several urban areas. This led to the 1990 formal negotiations mediated by the United Nations, ultimately ending the war on January 16, 1992.

### II.B Boundaries of FMLN territorial control

The treatment of interest is the territorial control of *zonas liberadas* by insurgents between 1981 and 1992. The boundaries that define assignment to treatment are shown in Figure 1.[13] Areas inside these boundaries were under guerrilla control, while areas outside were controlled by the Salvadoran Armed Forces or disputed by both parties. Evidence suggests that military and geographic considerations, such as protection offered by mountains and hills explain the formation of these areas of control (Álvarez, 2011). Indeed, as shown below, the rebels did not select areas based on

[13] As mentioned in the introduction, this map was used in the peace accord meetings between the Salvadoran government and the FMLN from April 1990 to January 1992. It is typically viewed as recognition by the state of the magnitude of the insurgent territorial presence (Chávez, 2011).

preexisting economic conditions. As one FMLN commander (1984, p. 2) wrote in his memoir: *"The domain of most of the strategic elevations and the northern mountain range gives the FMLN a total topographical advantage over the army."* Likewise, when we asked Mario Chocho, founder of the Perkin Museum and former military instructor for the guerrillas, why the ERP settled in Morazán, he answered: *"The strategic vision of Rafael Artesana, secretary-general at the time. His vision was to look for areas that would allow the conditions for war: call it the ruggedness or altitude of the terrain."*

Initially, the Salvadoran state entirely controlled the regions under analysis. In 1981, the guerrillas conducted a countrywide offensive against 12 main military bases to promote an insurrection (MINED, 2009). Although this failed, it prompted a change in military strategy and thus the group's geographic dispersion to establish a presence on all fronts through the aforementioned *liberated zones*. The first was organized as early as 1981 (Castañeda, 2016). *Liberated zones* are a key guerrilla warfare tactic. The concept dates back to Mao Zedong's military strategy in which *base areas* proved a winning tactic against a conventional army. They consisted of local strongholds in (preferably) mountainous areas where insurgents could elicit popular support by creating systems of governance (Mao, 1966). As this idea evolved, the strategic location of these zones in higher-altitude areas remained important and has been adopted by non-state armed actors ranging from communist guerrillas in Guatemala in the 1980s (Moran, 1985) to armed organizations in Burma in 2021.

In El Salvador, the weakness of the army, which relied mostly on terrorizing the civilian population, contributed to the success of this strategy (Bonner and Bonner, 1984; Pearce, 1986). By 1984, the FMLN established a presence throughout the country despite occasional attempts by the Salvadoran army to regain territory. In particular, the guerrillas controlled 30% of the Salvadoran territory, with an equal amount being under dispute (Pearce, 1986). As a response to the success of guerrillas, during the early 1980s, the US escalated its military assistance, which led to aerial bombardments throughout the entire country. [14] However, the election of a civilian into the presidency in El Salvador in 1984 and increasing reports of human rights violations by US-trained Salvadoran battalions led to the depletion of foreign assistance in subsequent years.

Historical evidence and FMLN documents suggest that the boundaries of FMLN-controlled areas were stable for several reasons. First, by 1984, the FMLN controlled most of the territory they considered strategic (FMLN, 1984). Second, more than 80 percent of the Salvadoran Army's of-

[14] Map 7 shows that the bombings were scattered and occurred mostly outside the regions of guerrilla control.

fensive capacity was in permanent use by that same year and was mostly focused on repression against civilians (Pearce, 1986). As mentioned above, although the US increased its military assistance in the early years of the war, the US administration was compelled to curb its support after human rights violations by the Salvadoran Army became widely known abroad. Hence by 1984, the conflict had effectively entered a virtual stalemate (Castañeda, 2016). The stability of the borders reported in historical accounts is consistent with testimonies from former FMLN military commanders that we obtained through our qualitative work, which report the stalemate further stabilized these boundaries. It should be noted that a precise definition of the boundaries of the control areas was necessary, as some of the points of the peace agreement included the recognition by the state of the property rights of individuals living in occupied territory inside areas controlled by the rebels. Nevertheless, in Appendix F, we do several robustness checks to account for the potential flexibility of these boundaries during the early years of territorial control.

### II.C Rebel governance in FMLN-controlled areas

Upon their arrival, rebel groups eliminated the state's local and judicial administrations in the areas they controlled (Álvarez, 2010), which created a pressing need for new institutions. The rebels conceived areas under their control as spaces where civilians could work collectively to solve problems and satisfy their needs independently from the military command of the FMLN, the state, and prewar elites (Pearce, 1986; FMLN, 1984). We confirmed this in several interviews with former FMLN military commanders.[15] To promote self-sufficiency, the FMLN assisted in forming autonomous governing structures, first the *Poderes Populares Locales* (PPL) and later the "dual powers" (*Poderes de Doble Cara*), to substitute for formal state authorities (FMLN, 1984; Pearce, 1986; Binford, 1997). These new institutions administered and organized the local population; their main purpose was to procure public goods and resolve community issues. Although they existed in various forms, all fostered democratic activity by residents. Citizens participated in their own government and largely viewed these local powers as legitimate (Pearce, 1986). Some groups had popular assemblies, and sometimes they held elections for positions.[16] These organizations addressed issues ranging from water provision to establishing community legal codes.

Due to these initiatives, the guerrilla-controlled areas witnessed the emergence of diverse and

[15] Further details on this qualitative work are presented in Section III.

[16] Each PPL group, for example, was democratically elected, and the president governed 400–500 people. They also had a vice president and secretaries of social affairs, production, defense, political education, and legal affairs (Pearce, 1986).

plentiful civil society institutions to organize peasants and handle development issues (Álvarez, 2013; Velado, 1993). The FMLN supported these community-based groups and viewed them as a way to organize the population independently of the state and the guerrillas (FMLN, 1984). The autonomy of these institutions meant residents did not fear being labeled as insurgents by the government, and they were also protected by the FMLN (Binford, 1997). Despite overwhelming support for the FMLN, neutrality was possible and common inside FMLN areas because the guerrillas were highly restrained in their use of violence and promoted autonomy as a policy (Wood, 2008).

The promotion of autonomous self-governance institutions led to a change in social norms in these areas (Wood, 2008; Pearce, 1986; Binford, 1997). The prevailing view in these communities during the rebel period was that self-governance would allow citizens to defend their way of life from external threats once the war had ended (Pearce, 1986). In particular, the fact that these communities could govern themselves for the first time independently of the state and elites led to a new culture based on a network of civic organizations, social capital, and distrust towards the prevailing state and economic actors (Wood, 2008; Pearce, 1986; Binford, 1997).

### II.D Post-conflict

After the government and the FMLN jointly approved the Chapultepec Peace Accords on January 16, 1992, the Salvadoran Civil War ended. The Catholic Church and the United Nations were the mediators of the peace talks that culminated in a final agreement regarding five main areas (United Nations, 1992).

First, the armed forces were modified, and the FMLN was demobilized.[17] Second, the National Civil Police (PNC, for its initials in Spanish) was created. In particular, the PNC replaced the old security forces with a civil and democratic doctrine, quotas were established for the new personnel in which demobilized elements of the FMLN, and former National Police would participate, and a National Academy of Public Security was created to train the agents of the PNC with an emphasis on respect for Human Rights. Third, there were modifications to the judicial system and the defense of human rights.[18] Fourth, the electoral system was modified to create the Supreme

[17] According to the agreement, the armed forces' sole objective would be to defend the sovereignty of the State while remaining apolitical and respecting human rights.

[18] Measures included the creation of the Judicial Training School to train judges and magistrates to adjust to the country's new reality, a reform of the National Council of the Judiciary (which appoints and evaluates judges) to give it greater independence, and a reform of the election process and terms of the magistrates of the Supreme Court of Justice.

Electoral Tribunal, the highest administrative and jurisdictional authority on elections. At the political level, the measures sought to guarantee FMLN leaders and their members the full exercise of their civil and political rights within a framework of absolute legality. Finally, measures were also imposed in both the economic and social fields. The main ones included land distribution to ex-combatants from the Salvadoran military and guerrilla groups. Moreover, the agreement established that land tenure inside conflict-affected areas was to be honored.[19]

During this period, it was also stipulated raising international funds to increase investments in education and infrastructure, particularly in areas formerly controlled by guerrillas. According to our qualitative interviews with donors and private investors in El Salvador, there was a large increase in investment in these areas during the post-period. However, many of our interviews highlighted how households in formerly guerrilla areas were resistant to interacting with outsiders, preferring an economy based on communal arrangements even though the economy moved away from an extremely concentrated model of agricultural production to an economy open to international markets (Boyce, 1995).

## III DATA

This section describes the primary sources of data used in the study. Appendix A presents a detailed account of the database construction, and Appendix B presents summary statistics of all variables employed in the analysis.

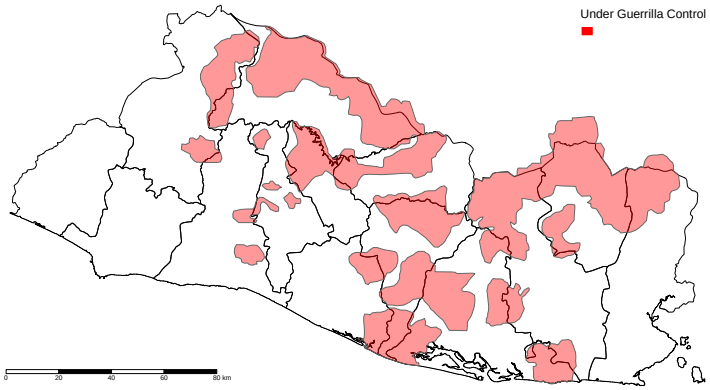
### III.A Guerrilla-controlled territories

To analyze the role of guerrilla territorial control in long-term development, we geocoded the map that depicts FMLN-controlled areas (Figure 1). It shows areas the FMLN controlled during the conflict, areas controlled by the state, and disputed ones. As Figure 2 illustrates, no boundaries of the guerrilla-controlled areas coincide with the administrative departments and municipal boundaries of El Salvador today. Therefore, our estimated treatment effects are unlikely to be contaminated by a compound treatment comprised of guerrilla control and changes in administrative boundaries. In Section IV.B, we provide further evidence that the identification strategy isolates the effects of guerrilla control from other potential confounders by looking at baseline characteristics.

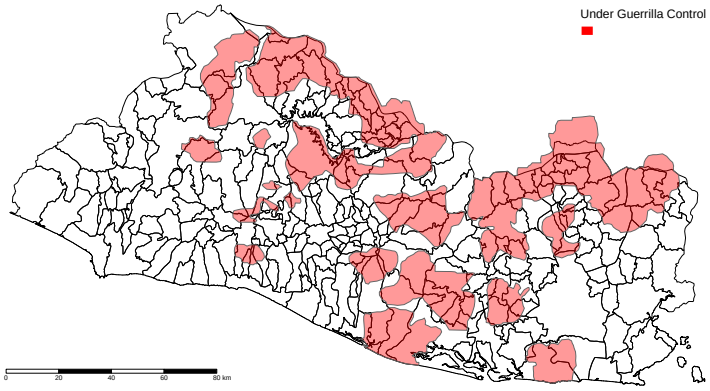
[19] In Section VI.G, we analyze whether these changes could explain the negative effects on development and we find no evidence of it. This result is consistent with the fact that landless peasants and ex-combatants outside of guerrilla-controlled areas also had access to land after the civil conflict.

Figure 2. Guerrilla-Controlled Territories and Administrative Boundaries

(a) Departmental Boundaries




(b) Municipal Boundaries




*Notes:* The figure presents the areas under guerrilla control in red and shows these areas do not coincide with the administrative departments (Panel A) and municipal boundaries (Panel B) of El Salvador today.

### III.B Geospatial variables

We use geospatial data to test the validity of the local continuity assumption around the boundaries of guerrilla-controlled areas. Elevation was obtained from NASA's Shuttle Radar Topography Mission (SRTM). Information on surface water bodies comes from the MERIT Hydro dataset.

Figure C.1 in Appendix C maps guerrilla-controlled territories, altitude, and main rivers in El Salvador. It illustrates that the rebels located in high altitudes as part of their war strategy (FMLN, 1984) and that rivers often marked the boundaries of their territories.

### III.C Development outcomes

The long-term development impacts of guerrilla territorial control are measured using 1992-2013 night light luminosity (as a proxy for local economic activity) and 2007 population and household census data.

*Night light luminosity*. Data on night light luminosity comes from the Defense Meteorological Satellite Program Operational Linescan System. This data was obtained from the US National Oceanic and Atmospheric Administration (NOAA) web page. It has a resolution of 30 arc-seconds $\times$ 30 arc-seconds (i.e., approximately 1 km $\times$ 1 km) and spans 1992 to 2013.[20] The main results use data for 2013 as it is the last year available from the Operational Linescan System (OLS) flown by the US Air Force Defense Meteorological Satellite Program (DMSP). To study the durability of effects, we also used individual years between 1992 and 2013.

*2007 Population and Household Census*. Anonymized microdata from the Population and Household Census of 2007 was provided by the General Directorate of Statistics and Censuses (*Dirección General de Estadísticas y Censos*, DIGESTYC) in El Salvador. The 2007 census data includes socioeconomic characteristics of all households and individuals in El Salvador, such as educational attainment; asset ownership; use of public services (water, electricity, sewerage, and others); labor market outcomes; migration; and other characteristics.

*2007 Census Cartography*. We obtained maps of the tracts (small areas with specific geographic boundaries) for the 2007 census from DIGESTYC. In 2007, the average tract in our estimation sample included 110 households and 458 individuals. The advantage of using census tract units is that it improves the accurate identification of guerrilla territorial control. We use the geographic coordinates of the tract as a proxy for our measure of territorial control.

In sum, we explore the effects of FMLN control via night light luminosity, human capital (measured as years of education and literacy rates), and a wealth index (constructed as suggested by the Demographic and Health Surveys program). [21] The wealth index is the first factor from the principal component analysis of a household's cumulative living standard, which includes household

[20] Unfortunately, luminosity data is not available for years prior to 1992.

[21] The challenge of night light luminosity data is the significant fraction of observations that take the value of zero and also the existence of extreme values in the right tail of the distribution (Michalopoulos and Papaioannou, 2013; Pinkovskiy and Sala-i Martin, 2016). To account for this concern, the outcome is transformed using the inverse hyperbolic sine transformation, which can be interpreted as a logarithmic dependent variable (Pence, 2006). Moreover, as robustness, we exclude from the sample urban centers.

characteristics such as asset ownership (e.g., bicycles and television); materials used for housing construction; types of water access; and sanitation facilities. The estimates use the average index of all households in each census tract.

*2022 Geocoded Survey*. To test and validate the mechanisms that explain the main results, we conducted a household-level, self-reported survey with a representative sample of about 4,000 households in July–August 2022 in eastern El Salvador (namely, the departments of La Unión, Morazán, San Miguel, and Usulután). This allowed us to inspect differences in preferences for land tenure, trust in in- and out-groups, and measures of prosocial behaviors between the treated and control units. In Appendix D, we describe the sampling procedure, recruitment activities, survey instruments, and data collected.

*Other data*. We also use information on attitudes towards the government, engagement with the state, conflict, election results, quality of school teachers, crop yields, and alternative data sources related to individuals' current and past years of education. These come from the Latin American Public Opinion Project (LAPOP), El Salvador's registry of victims and incarcerations, the 2013 teacher census from the Ministry of Education, the Agricultural National Census of 2007, election results from the Tribunal Supremo Electoral of El Salvador, El Salvador's Households and Multipurpose surveys (EHPM), and the Population and Household Census of 1992. See Appendix A for further details.

*Qualitative data*. We conducted focus groups and in-depth interviews with guerrilla leaders and people who were prominent in the operational-military arena, religious and community leaders, and residents of areas controlled by the guerrillas during the Civil War. In Appendix E, we describe the sampling and recruitment activities, survey instruments, approach, and main results.

## IV EMPIRICAL STRATEGY

### IV.A Spatial regression discontinuity design

We estimate the long-term development impacts of rebel territorial control using a spatial regression discontinuity design around the boundaries illustrated in Figure 1. The specification is:

$$y_s = \beta_1 T_s + \beta_2 f(\overline{d_s}) + \beta_3 T_s \times f(\overline{d_s}) + \sum_{i=1}^{400} \alpha_s^i + \varepsilon_s \tag{1}$$

where $y_s$ represents the contemporaneous economic and social development outcomes of interest

observed at the census tract unit $s$. $T_s$ is a treatment indicator equal to one if the census tract is on the guerrilla side of the boundaries and zero otherwise. $\overline{d_s}$ is the minimum normalized perpendicular distance from each census tract to the guerrilla-controlled boundary.[22] $f(\overline{d_s})$ is a polynomial function of the distance to the boundary which, interacted with $T_s$, controls for smoothness in the geographic location at each side of the boundary. Finally, since we want to compare treatment and control census tracts that are geographically proximate, the indicator $\alpha_s^i$ splits the boundary into four km segments and equals one if census tract $s$ is closest to segment $i$ and zero otherwise. We include 400 fixed effects for the minimum distance from each point in a tract's boundary to each of the 400 segments of the guerrilla-controlled boundary.[23] Standard errors are adjusted for heteroskedasticity. As a robustness check, we also estimate Conley standard errors to account for spatial correlation in the data (Conley, 1999). The baseline results use a local linear polynomial of the normalized dista nce and limit the sample to tracts within the distance suggested by the optimal bandwidth algorithm of Calonico, Cattaneo and Titiunik (2014) when using night light luminosity as an outcome (which represents approximately 2.26 km), and triangular weighting kernel. We also present the results under a variety of different bandwidths to check the robustness of the main findings. All robustness checks are summarized in Appendix F.

### IV.B Validation of the local continuity assumption

To ensure census tracts outside the boundary are an appropriate counterfactual for guerrilla-held ones, we first test for preexisting differences in geographic and socioeconomic characteristics before the guerrillas consolidated their control. For this purpose, we estimated equation 1 to test for discontinuities related to geographic characteristics, state capacity, norms, and some socioeconomic characteristics. Table 1 shows that 27 of 28 baseline covariates are statistically similar across the boundary.[24]

*Baseline state capacity*— Panel A in Table 1 shows that infrastructure and the presence of the state before rebel control were similar across guerrillas' boundaries. In particular, we find no differences in terms of the location of the army, state administration (which includes the mayor's office,

[22] As a result of the distance normalization, tracts touching the guerrilla-controlled boundary get the value of zero in their distance variable; tracts outside the guerrilla-controlled area get a negative value; tracts fully inside the boundary get a positive value.

[23] The choice of 400 breaks is to account for enough spatial variation without compromising the variation we are exploiting.

[24] Unfortunately, we cannot use the census that took place in 1971 to check for balance at baseline because the data is only available at the municipality level, which impedes showing balance at the level of disaggregation we use in our main specification, which is substantially smaller.

municipal council, and notary), public schools, and churches in 1979 and 1980. Moreover, we find no differences in telecommunication density, roads and railway density, or the presence of a city or village in 1945. These results provide evidence that guerrillas did not establish their boundaries to fill in the void of the state.

*Baseline socioeconomic characteristics*— Panel B shows no differences in 1980 in terms of population, education, and migration shares across the boundaries before rebels consolidated its control, providing evidence that guerrillas did not choose the location of the boundaries based on the socioeconomic characteristics of the population. In particular, these results show that guerrilla-controlled territories were not less developed than nearby areas before the arrival of guerrillas.

*Baseline norms and land concentration*— To measure inequality at baseline, we use as a proxy the probability of being part of the 1980 Land Reform and the presence of ecclesial base communities. In particular, the Land Reform redistributed large haciendas to peasants in 1980 in an attempt to palliate increasing levels of mobilization by the peasantry (Wood, 2003). We also use the presence of ecclesial base communities in 1974 as a proxy for the support of the guerrilla movement. These religious communities were heavily influenced by liberation theology, which spoke against economic elites and land concentration and in favor of peasants. We also use the presence and distance of parishes as a proxy of baseline social capital. Panel C shows that all four variables were similar across the boundaries before the FMLN consolidated their control, providing further evidence that boundaries were not defined based on initial levels of trust from the communities towards the state or guerrillas.

*Baseline violence*— Panel D shows no differences in the number of war events and victims across the boundary, yielding further evidence that guerrillas did not establish territorial control according to levels of distrust of the state that are generally associated with historical repression.

*Geographic characteristics and crops' suitability*— Panel E shows no differences in terms of slope, rivers, ruggedness, and crop suitability. The only exception is altitude. However, the difference in mean altitude is very small (17.13 m from a dependent mean of 502.7) and aligns with the observation that the guerrillas occupied higher territories as a military strategy. As a robustness exercise, we will include altitude as a control variable in the main specification (see Table F.1).[25] In

[25]The specification that controls for altitude is not used to report main estimates as it may result in biased coefficients. The estimate that can be identified when adjusting for imbalanced covariates in RD designs is a weighted average of the treatment effects where the weights depend on the conditional distribution of the imbalanced covariate on the treatment, which is not our estimate of interest. See Calonico et al. (2019) for a discussion.

Appendix F, we also conduct a placebo analysis where we study whether the small difference in altitude can explain development outcomes in areas with no guerrilla presence.

Table 1. Smooth Condition Test

| Variable (Year) | Coefficient | SE | Dependent Mean | Obs |
|---|---|---|---|---|
| *Panel A: Baseline State Capacity (Before 1980)* | | | | |
| Had a Military Base (1980) | -0.001 | 0.002 | 0.001 | 3,652 |
| Distance to Military Base (1980) | 68.19 | 76.51 | 10,702 | 3,652 |
| State Administration (1980) | -0.000 | 0.009 | 0.011 | 3,652 |
| Distance to School (1980) | 0.078 | 0.079 | 12.108 | 3,652 |
| Distance to Telecommunications (1945) | 0.064 | 0.050 | 0.904 | 3,652 |
| Telecommunications Density (1945) | -0.053 | 0.060 | 0.429 | 3,652 |
| Had a City or Village (1945) | 0.014 | 0.022 | 0.096 | 3,652 |
| Distance to City or Village (1945) | -0.053 | 0.046 | 0.999 | 3,652 |
| Roads and Railway (1980) | 0.020 | 0.028 | 0.375 | 3,652 |
| *Panel B: Baseline Socio-Demographic Characteristics (Before 1980)* | | | | |
| Total Population (1980) | 3.010 | 4.085 | 162.043 | 3,636 |
| Years of Education (1980) | -0.0349 | 0.144 | 4.412 | 3,635 |
| In-migration Share (1980) | -0.011 | 0.008 | 0.140 | 3,605 |
| Out-migration Share (1980) | 0.000 | 0.001 | 0.006 | 3,410 |
| *Panel C: Baseline Norms and Land Concentration (Before 1980)* | | | | |
| Part of Land Reform (1980) | -0.014 | 0.016 | 0.063 | 3,652 |
| Had a Ecclesial Base Community (1974) | 0.001 | 0.004 | 0.002 | 3,652 |
| Had a Parish (1979) | -0.004 | 0.006 | 0.013 | 3,652 |
| Distance to Parish (1979) | 0.053 | 0.070 | 3.421 | 3,652 |
| *Panel D: Violence (1980–1985)* | | | | |
| Number of War Events (1981) | 0.007 | 0.089 | 0.041 | 3,652 |
| Number of War Victims (1981) | -0.258 | 0.490 | 0.213 | 3,652 |
| Number of Incarcerations (1980-1985) | 0.008 | 0.007 | 0.021 | 3,652 |
| *Panel E: Geographic Characteristics and Crops' Suitability (Before 1980)* | | | | |
| Altitude (1980) | 17.132*** | 5.679 | 502.728 | 3,652 |
| Slope (1980) | 0.352 | 0.222 | 7.158 | 3,652 |
| Ruggedness (1980) | 0.440 | 0.321 | 10.277 | 3,652 |
| Hydrography (1980) | 0.026 | 0.025 | 0.232 | 3,652 |
| Bean High Suitability (1961-1990) | -0.015 | 0.011 | 0.931 | 3,652 |
| Coffee High Suitability (1961-1990) | -0.015 | 0.012 | 0.146 | 3,652 |
| Maize High Suitability (1961-1990) | 0.002 | 0.005 | 0.992 | 3,652 |
| Sugarcane High Suitability (1961-1990) | -0.015 | 0.013 | 0.180 | 3,652 |
| Land Hydrometrics (1974) | 0.003 | 0.003 | 0.002 | 3,652 |
| Land use: Permanent Crops (1980) | -0.017 | 0.017 | 0.198 | 3,652 |

*Notes:* The table presents the results of estimating equation (1) for a variety of geographic characteristics, road and infrastructure availability, demographic characteristics, indicators for crop suitability, and outcomes related to conflict at baseline and during the first few years of the war. The information was gathered from diverse sources (see Appendix A for more details). Crops were selected according to their relevance for domestic consumption and exports. The unit of observation is the census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth, and the estimates were weighted using a triangular kernel. The dependent mean corresponds to the mean outside the territories of guerrilla control but within the area of analysis. We report robust standard errors. *** p<0.01, ** p<0.05, * p<0.1.

# V LONG RUN EFFECTS ON DEVELOPMENT

## V.A Contemporary economic outcomes

Table 2 presents formal estimates of equation 1 for the main outcomes of interest. All estimates suggest strong negative impacts of guerrilla territorial control on development outcomes. First, the results show that locations within former guerrilla territories had lower night light luminosity in 2013, relative to places outside these areas. The effects are sizable. Approximately 20 years after the end of the Civil War—and about 30 years after guerrillas first controlled these areas—lands that were once under FMLN rule experienced nearly 18.6 percent lower night light luminosity than places with no guerrilla control (see Column 1). These results are robust to different transformations of the dependent variable (see Appendix Table F.2). Considering that a one percentage point (pp) change in luminosity corresponds to a 0.28 pp change in GDP (Henderson, Storeygard and Weil, 2012), areas that had been under guerrilla control had approximately 5.2 percent lower GDP ($18.6 \times 0.28 = 5.2$) than areas that had not.

Second, we also document using the 2007 census that areas once controlled by guerrillas are less wealthy almost two decades after the end of the Civil War. Column 2 shows that residents of areas close to the border but still under guerrilla control had a wealth index 0.121 sd lower than areas never controlled by the guerrillas by 2007. We also look at human capital since it is an important direct cause of the differences we observe in economic development. Column 3 shows that individuals living in formerly guerrilla territories had 0.28 fewer years of education, on average, by 2007 than those in areas not under guerrilla control. In Table F.2 in the Appendix, we also study literacy rates. We find individuals in former guerrilla areas had 2.1 percent lower literacy rates than people living outside these areas.

Figure 3 shows a graphical representation of these results. We estimate equation 1 for our main RD-sample and use the estimated coefficients to predict the outcomes for each census tract up to 15 km from the guerrilla boundaries. In all panels, darker colors indicate lower values. Panels A, B, and C show the results for our main outcomes, night light luminosity, wealth index, and years of education; respectively. We can observe a jump across the guerrilla boundaries.

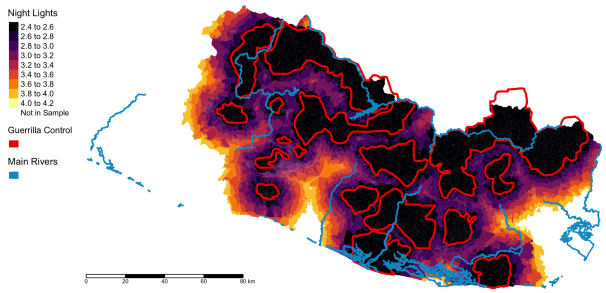
Table 2. Effects of Guerrilla Territorial Control on
Night Light Luminosity, Human Capital, and Wealth

| | Night Light Luminosity | Wealth Index | Years of Education |
|---|---|---|---|
| | (2013) | (2007) | (2007) |
| | (1) | (2) | (3) |
| Guerrilla control | -0.186*** | -0.121*** | -0.279** |
| | (0.0247) | (0.0355) | (0.109) |
| Observations | 3,652 | 3,630 | 3,637 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 |
| Dependent mean | 3.536 | -0.0160 | 6.573 |

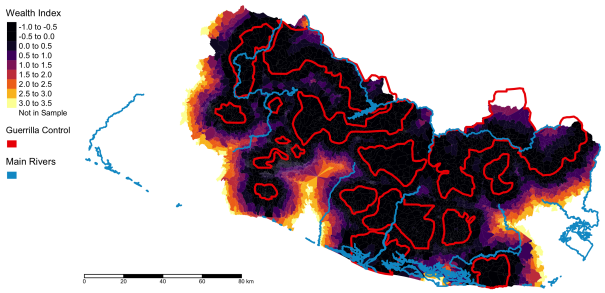
*Notes:* The table presents the results of estimating equation 1 for the main outcomes. Column 1 shows the effect of whether a census tract was under guerrilla control on the arcsine of night light luminosity from NOAA. Column 2 uses the standardized score of household wealth as the dependent variable in the same estimation. Column 3 shows as dependent variable years of education of the population older than 18 years. The unit of observation in all columns is the census tract. Information from Columns 2 and 3 was obtained from the Population and Household Census of 2007. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with an indicator of whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth, and the estimates use triangular kernel weights. Robust standard errors are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Figure 3. Effects of Guerrilla Control on Main Outcomes: RD Graphs

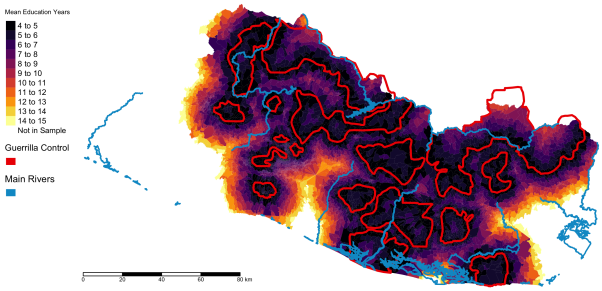
(a) Night Light Luminosity (2013)




(b) Wealth Index (2007)




(c) Years of Education (2007)




*Notes:* The figure shows the predicted values for all main outcomes based on estimating equation 1 on our main RD-sample at the census tract level. That is, we extrapolate the results from Table 2 to form distance-based predictions for all census tracts within 15 km of the discontinuity border. Darker colors indicate lower values. Data for night light luminosity comes from NOAA; education and wealth data come from the Population and Household Census of 2007.

Next, in Appendix F we present several approaches to test the robustness of our results: (i) the estimation of Conley standard errors, (ii) the use of different bandwidths, and donut hole analysis; (iii) the use of alternative RD specifications and Ordinary Least Squares (OLS) specifications, (iv) a placebo test that uses the difference in altitude to define artificial boundaries, (v) a restriction in population sorting across boundaries, and (vi) a difference-in-differences estimation that exploits variation across cohorts and place of birth.

*Spatial correlation*— To account for spatial correlation in our data, we estimate Conley standard errors following Conley (1999). As we show in Table F.3 in the Appendix, the statistical significance of the estimated effects remains the same.

*Alternative bandwidths and donut hole analysis*— Two important concerns for the main results pre-

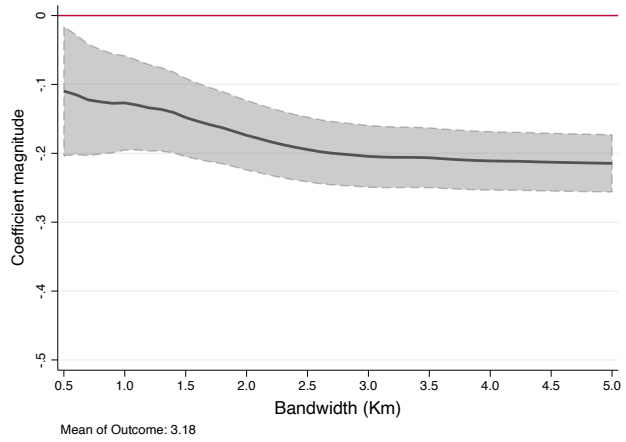
sented in Table 2 are, first, measurement error in the location of the border and, second, the possibility that the results are border-specific. The first concern arises from the fact that we are digitizing a historical map, and thus, we may not be pinning down the precise location at which the border intersects census tracts. The second concern is related to the idea that either the state or guerrillas may have deployed specific actions along the border, or the border may have been flexible during the first period of the war, with these tracts driving our results. We address these concerns using different bandwidths to include observations further away from the boundary and estimate our regression discontinuity results using several different "donut holes" to remove observations right on and proximate to the boundary.

Figure 4 illustrates that the effects of FMLN territorial control on the main outcomes are robust to different choices of bandwidths between 0.5 and 5 km. In the Appendix, Tables F.4- F.6 show that results are robust to larger bandwidths and donut holes analysis, excluding observations close to the boundaries. In particular, Table F.4 shows the results using a 5 km bandwidth and 0 to 600 mts donut holes; Table F.5 shows the results using a 9 km bandwidth and 0 to 2 km donut holes; and Table F.6 shows the results using a 17.95 km bandwidth – the largest possible boundary considering the proximity of treated areas and the size of El Salvador – and 0 to 4 km donut holes.[26] The results are robust to all of these specifications, providing evidence that effects are not driven by observations right at the boundary. Moreover, they also show that our estimated effects are robust to strictly using observations further away from our border, which cannot have been miss-assigned to treatments or control due to imprecisions during the map digitization.

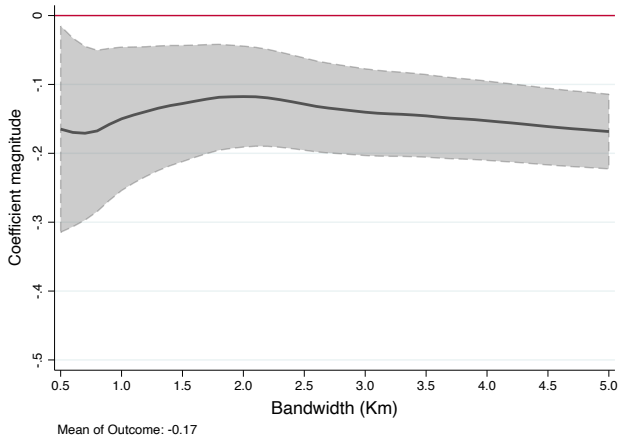
[26]Unfortunately, we cannot use larger bandwidths, as those used in other work that looks at the effects of historical institutions on development (e.g., Dell, Lane and Querubin, 2018; Lowes and Montero, 2021). El Salvador is a relatively small country– the smallest in Central America– and some treated areas are very close to each other, which prevents us from enlarging the bandwidths. To put it in perspective, its land area is only 84% of the area of the State of Maryland in the US.

Figure 4. Effects of Guerrilla Control on Main Outcomes under Different Bandwidths

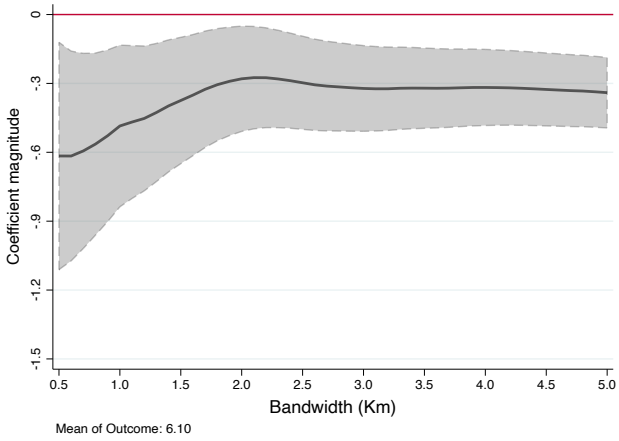
(a) Night Light Luminosity (2013)




(b) Wealth Index (2007)




(c) Years of Education (2007)




*Notes:* The results follow the specification of equation 1. The estimates shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The figure illustrates the coefficients for 50 individual estimations, one for each of the different bandwidths around the discontinuity. The gray color illustrates 95% confidence intervals. Data for night light luminosity comes from NOAA; education and wealth data come from the Population and Household Census of 2007.

*Alternative specifications*— In Tables F.7 – F.9 in the Appendix, the main results are presented using alternative RD polynomials (constant, linear, and quadratic); and varying the kernel choice. Additionally, in Table F.10, we re-estimate equation 1 and replace the distance variable and its interaction with the treatment dummy for the latitude and longitude coordinates of each tract's centroid. Overall, the results are robust to all these alternative specifications. Finally, to address

the fact that some census tracts could be partially treated, in Table F.11 in the Appendix, we use the main specification controlling by the share of the census tract that is under guerrilla control.

*The use of altitude to define borders*— One relevant concern regarding our empirical strategy is that since guerrilla territories were defined using altitude as a geographic feature, the results may reflect some socioeconomic characteristics associated with higher-altitude areas rather than rebel control. As shown in Table 1, there are no statistical differences in variables that measure economic productivity and state capacity at baseline across areas later controlled by the FMLN.

Nevertheless, we conducted a placebo exercise by selecting pairs of neighboring census tracts in areas that were never under guerrilla control but which have the same difference in altitude as tracts inside FMLN areas. The intuition here is that if negative effects on development outcomes stemmed from significant altitude differences, there would be similar effects on outcomes in areas with the same altitude differences that were not under FMLN control. Results are in Table F.12 in the Appendix. The effects on development are mixed, with some positive and others negative, but they are of a smaller magnitude than the estimated effects for FMLN control. Moreover, we repeat the same exercise with tracts outside guerrilla areas that have larger altitude differences. Even in this extreme case (that comprises a small percentage of tracts in our sample), the effects are small.

As a further robustness check, Table F.13 shows the estimates of the main effects when we restrict the sample to census segments without a sudden change in altitude relative to their immediate neighbors. Results do not change. We also estimate the main model and include altitude as a control in the main specification. The results are stable to the inclusion of this *bad control*, suggesting that higher altitude could not drive the results (see Table F.1). Overall, these findings provide evidence that the main effects are not the by-product of higher altitudes but rather the consequence of guerrilla control.

*Population sorting*— One potential concern is that individuals in guerrilla areas may have moved to nearby areas (our control group) by the time the boundaries formed. Although rates of migration across the boundaries are very low (less than one percent), we still address this concern in a number of ways.

First, we evaluate the effects for individuals who never moved ("stayers.") Table 3 shows that results are of similar magnitude and significance as for the whole sample, suggesting that in-sample migration may not be a concern.

Second, we explore whether recent and selective migration at the time of the boundary could explain differences in economic development across the boundary, but we find no evidence of it. In particular, we trimmed the sample in two ways. First, we omitted the 10.4 percent of the control-group sample with the highest education and wealth, as contemporaneous in-migration to the control group was 10.4 percent. Second, we omitted the 3.3 percent of the guerrilla sample with the lowest education and wealth, as in-migration to guerrilla areas was 3.3 percent. The estimates based on the trimmed samples remain similar (see Table 3). Moreover, we take advantage of the fact that the census contains information on the year individuals arrived in each location to account for in-sample migration in 1980 and 1985 in Columns 3–4 and 5–6. Overall, our main estimations do not change.

Table 3. Effects of Guerrilla Territorial Control on Main Outcomes Controlling for Selective In-migration

| | Non-Mover Sample | | Trimming using the | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | All-Time In-migration Rate | | 1980 In-migration Rate | | 1985 In-migration Rate | |
| | Wealth Index | Years of Education | Wealth Index | Years of Education | Wealth Index | Years of Education | Wealth Index | Years of Education |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Guerrilla control | -0.132*** | -0.402*** | -0.101*** | -0.260** | -0.121*** | -0.277** | -0.121*** | -0.274** |
| | (0.0356) | (0.112) | (0.0353) | (0.107) | (0.0358) | (0.109) | (0.0358) | (0.109) |
| Observations | 3621 | 3633 | 3630 | 3637 | 3630 | 3637 | 3630 | 3637 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | -0.0280 | 6.785 | -0.0330 | 6.538 | -0.0280 | 6.570 | -0.0280 | 6.565 |

*Notes:* The results follow the specification of equation 1 for the Years of Education and Wealth Index outcomes. However, in columns 1 and 2 we only include individuals who have always lived in the same place in the analysis. Next, we trim the dependent variables by using different in-migration rates. In Columns 3 and 4, we use the all-time in-migration rate to trim the 10.4 percent most educated and wealthy people and the 3.3 percent least educated and wealthy from the treated and control groups' respective distributions. In Columns 5 and 6, we use the in-migration rate from 1975 to 1980 to trim the 0.4 percent most educated and wealthy people and the 0.6 percent least educated and wealthy from the treated and control group's respective distributions. In Columns 7 and 8, we use the in-migration rate from 1979 to 1985 to trim the 0.7 percent most educated and wealthy people and the 0.8 percent least educated and wealthy from the treated and control group's respective distributions. The unit of observation in all columns is the census tract. Information from all columns was obtained from the Population and Household Census of 2007. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The estimates use triangular kernel weights. Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Third, in the next section, we study the effects on education by cohort. We find no differences among those individuals who completed their education before the territorial control (see Columns 3-4 in Table 4). The fact that we observe no effects on education among older individuals high-

lights that changes in the population composition could not be driving the effects on development. Indeed, the effects are robust to estimating a difference-in-differences strategy that exploits variation across cohorts and places of birth. This allows us to include fixed effects by cohort and place of birth (see Table F.14).

Overall, these results align with qualitative evidence that shows the guerrillas provided key defense functions for peasants in their areas during territorial control (Pearce, 1986), suggesting we should not expect out-sorting to areas controlled by the Salvadoran state. Moreover, qualitative evidence from our focus groups in these communities suggests that even today residents of former guerrilla areas still do not migrate to nearby areas due to the strong sense of belonging to their local community and distrust of out-groups. We explain this mechanism in detail in Section VI.D.

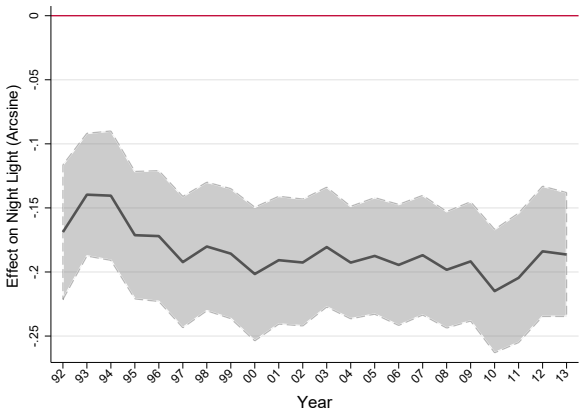
*External validity*— We conducted further analyses to rule out that the results are specific to our RD-sample. First, we show that at baseline, the RD-sample is similar in characteristics to the rest of the country (see Table F.15). Second, we show how the main results change when moving outside the two km bandwidth. An important concern is that our results may be the product of border dynamics we cannot observe– like more investment on the side controlled by the state. Besides showing robustness to using a bandwidth of up to 17.95 km wide above (See Table F.6 in the Appendix), Figure F.1 shows that the outcome means up to almost 18 km outside the boundary clearly exhibits the same negative relationship. This rules out the idea that the results are specifically driven by clusters right along the border. Lastly, we estimate the effect of being controlled by the guerrilla using an OLS in the entire country and observe similar negative effects on economic outcomes (see Table F.16).

### V.B Economic effects during guerrilla control and persistence

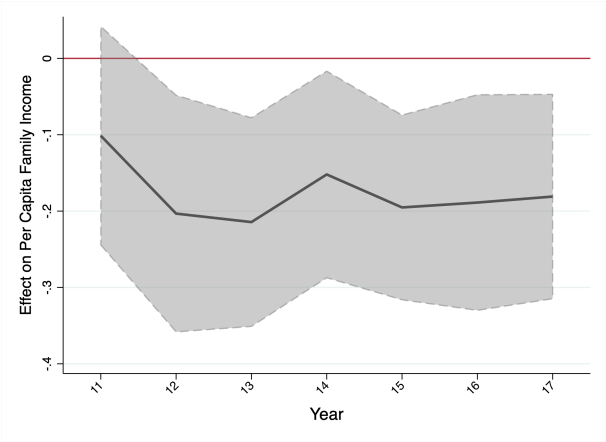
While information is not available during guerrilla territorial control, as the state was unable to collect any local level data, we look at night light density in the last year of territorial control and post-period, as well as the years of education for different cohorts (individuals that decided their education before 1980, those that decided their education during guerrilla control, and those that mostly decided their education in the post period). In addition, we use data from the 1992 population census which has data on the same economic outcomes at the canton level (which includes on average 3 census tracks). We also use household surveys during 2011-2018 to show persistent negative effects on earnings.

Figure 5. Effects of Guerrilla Control on the Arcsine of Night Light Luminosity and per Capita Family Earnings Over Time

(a) Arcsine of Night Light Luminosity




(b) Per Capita Family Earnings




*Notes:* This figure shows the coefficients obtained from the estimation of equation 1 for each year between 1992 and 2013 for night light luminosity and each year between 2011 to 2017 for per capita family earnings. The gray color illustrates 95 percent confidence intervals. The estimates shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary.

Figure 5 presents effects on night light luminosity for all years of data from 1992 to 2013 to test whether effects endure over the years. The results suggest that not only did negative effects persist since 1992, but also the magnitudes barely changed over the years. Panel B also shows persistent effects on earnings using household surveys from 2011-2018.

Similarly, Table 4 shows that the negative effects on years of education are very similar for cohorts that decided their education during the territorial control (Column 2) and cohorts that decided after it (Column 1). The fact that effects are sustained for cohorts that mostly decided their education after territorial control provides further evidence of the persistent effects of guerrilla control on human capital accumulation.

Finally, we also replicate Table 2 using the 1992 census in Table 5 and the results are very similar to those using the 2007 census. These results provide further evidence of the persistence of guerrilla effects.

### V.C Post-conflict period, and public investment

Could a lack of state investment in the post-conflict period explain these persistent effects? One possibility is that the state refrained from investing in these areas because they used to be rebel

Table 4. Effects of Guerrilla Control on Years of Education by Cohort

| | Years of Education (2007) | | | |
|---|---|---|---|---|
| Decided Schooling | After | During | Just Before | Before |
| | (1) | (2) | (3) | (4) |
| Guerrilla control | -0.240** | -0.321** | -0.145 | -0.128 |
| | (0.0947) | (0.132) | (0.121) | (0.0921) |
| Observations | 3,635 | 3,636 | 3,632 | 3,631 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | 8.271 | 7.139 | 5.051 | 2.680 |

*Note:* The table presents the results of equation 1 for average years of education for different age cohorts in 2007. Data come from the Population and Household Census of 2007. The unit of observation is a census tract-cohort combination. We define the cohorts as follows, based on their age in 2007. Those who defined their education "after" are those aged 15-29 in 2007. Those in the "during", "just before", and "before" are those aged 30-44, 45-60, and 60+ in 2007. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and the social desirability index. As for our main outcomes, we use a bandwidth of 2.266 km and the estimates use triangular kernel weights. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 5. Effects of Guerrilla Control on Main Outcomes in 1992

| | Night Light Luminosity (1992) | Wealth Index (1992) | Years of Education (1992) |
|---|---|---|---|
| | (1) | (2) | (3) |
| Guerrilla control | -0.272*** | -0.164*** | -0.483*** |
| | (0.0699) | (0.0486) | (0.127) |
| Observations | 1,102 | 994 | 992 |
| Bandwidth (Km) | 3.384 | 3.384 | 3.384 |
| Dependent mean | 1.510 | -0.749 | 5.355 |

*Note:* The table presents the results of estimating equation 1 for the main outcomes in 1992. Column 1 shows the effect of whether a canton was under guerrilla control on the arcsine of night light luminosity from NOAA. Column 2 uses the standardized score of household wealth as the dependent variable in the same estimation. Column 3 shows as dependent variable years of education of the population older than 18 years. The unit of observation in all columns is the canton. Information from Columns 2 and 3 was obtained from the Population and Household Census of 1992. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with an indicator of whether the canton was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth, and the estimates use triangular kernel weights. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

territory. While this could explain the effects in the following years, it is less likely to explain the immediate effects in 1992. Nevertheless, to examine this possibility, we look at the effects of guerrilla control on public investment after the end of territorial control. In particular, we analyze whether there are any differences in the number of schools and state investment in infrastructure since 1995 (measured as any government expenditures in projects related to infrastructure in sec-

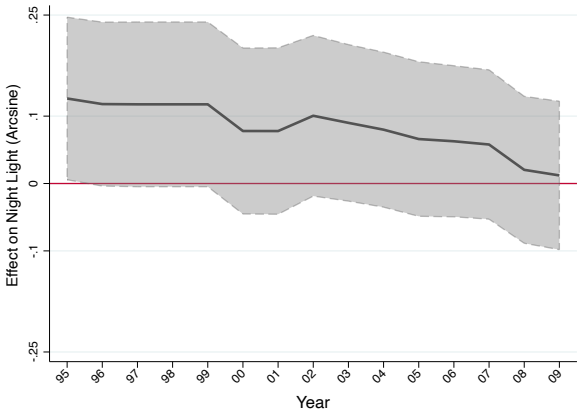
tors such as electricity, water and sewerage, and education). When looking at these outcomes, we find that areas controlled by guerrillas have more schools and investment in the post-period (see Figure 6). These results are consistent with the Peace Agreement, which stipulated an increase in public investment in these areas.

We also examine whether there are contemporaneous differences in state presence by looking at the number of public hospitals, state buildings per 100k inhabitants, and road density. Table F.17 shows more public investment, schools, and road density, and no differences in hospitals and public buildings.

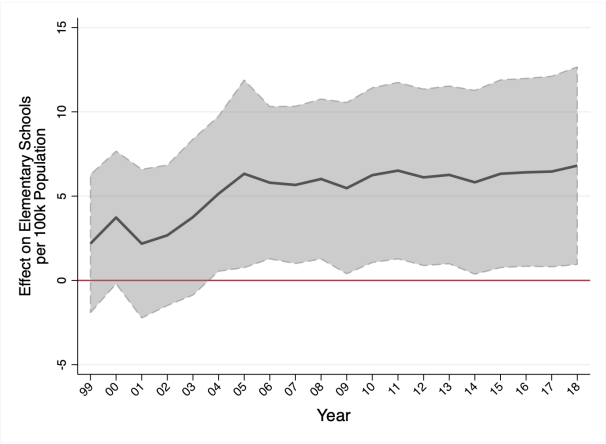
These results raise the question of why rebel governance could be so persistent despite the end of territorial control in 1992 and the increase in public investment that followed. In Section VI, we explore potential mechanisms that explain this persistence.

Figure 6. Effects of Guerrilla Control on Government Expenditure Projects and Number of Schools

(a) Government Expenditure Projects




(b) Number of Schools per 100k Population Over Time




*Notes:* This figure shows the coefficients obtained from the estimation of equation 1 for each year. In panel A, the outcome is the number of government projects related to infrastructure in sectors such as electricity, water and sewerage, and education started after each year. The regressions are at the canton level. In panel B, the outcome is the number of of schools per 100k population. Data for public investment come from comes from the registries of the Fund for Social Investment in Local Development (FISDL is its Spanish acronym). Data for the number of schools comes from the list of schools that took the national standardized test of student achievement between 1999 and 2018. The gray color illustrates 95% confidence intervals. The estimates shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary.

## VI MECHANISMS

Why would the rebel's influence endure so many years after its territorial control ended? As discussed in Section II.C, one explanation concerns the reshaping of local governance that led to a change in social norms that persists today. The fact that rebel governance developed as an alternative to the state and out-groups could have affected the views towards these actors. In particular, we argue that a lifestyle that promoted autonomy from outsiders and the state could have depressed living standards in the long run through lasting disengagement and distrust of the state and outsiders.

While we do not claim that a change in norms is the only mechanism connecting rebel governance and long-run development, we find substantial qualitative and empirical evidence showing that self-governance norms play an important role. First, we show that while citizens in former guerrilla areas have more social capital, they are also less engaged with politicians and outsiders and have lower trust in the state. Second, we show evidence that the negative effects on development are larger in areas where self-governance was presumably stronger, as suggested by the early presence of two specific guerrilla factions and ecclesial communities promoting norms of self-sufficiency. Third, consistent with the lack of engagement with the state, although former guerrilla areas today have more state investment, access to and utilization of some public services are still lower than in the control group. Moreover, we find that a larger share of individuals works in subsistence agriculture in former guerrilla areas, a pattern that could be explained by an unwillingness to engage socially and economically with outsiders. In our fieldwork and survey, we learned that although commercially oriented producers and entrepreneurs would like to invest in these areas, residents are reluctant to let them due to high distrust of out-groups. In this section, we also rule out alternative mechanisms, such as an increase in violence, land tenure, selective migration, and child recruitment.

### VI.A Rebel governance and the transformation of social norms

Both FMLN documents and scholarly work suggest that the organization of the rural population was a key rebel strategy (FMLN, 1983, 1984; Binford, 1997; Pearce, 1986). In guerrilla areas, the FMLN's social base set up participatory institutions to replace the state institutions. As noted above, they eliminated state and judicial authorities and established community-based organizations to represent citizens and address key development issues (Binford, 1997; FMLN, 1984).

These institutional arrangements are created by many rebel organizations worldwide to promote forms of organizations that are long-lived and encourage local cooperation through norms of trust. Despite the resulting increase in social capital at the community level, these arrangements tend to foster distrust of outgroups, particularly the state and elites (Keister and Slantchev, 2014; Kubota, 2017). The fact that rebel governance presents an alternative to state institutions may reduce engagement with the state and the government even when the state regains control. Local norms of cooperation and solidarity can reinforce distrust of external authorities if the state is negatively viewed by individuals in the postwar era relative to local alternatives. Indeed, there is plenty of evidence of inter-group distrust across territories controlled by the state and rebels in the aftermath of conflict, provoked by disruptions in ordinary interactions, to legitimize the rebels' cause or due to security concerns (Kubota, 2017; Martin, Piccolino and Speight, 2022). Norms of distrust can have significant long-term effects, including precluding economic cooperation among groups. In this section, we study the validity of this mechanism by examining contemporary attitudes toward outsiders.

Table 6 presents the estimates of equation (1) for contemporary outcomes related to trust and engagement, including political participation, engagement with politicians, nondemocratic engagement, and trust in institutions. We find that although individuals living in former guerrilla areas are not less likely to participate or engage non-democratically in politics (Columns 1 and 3), they exhibit less engagement with politicians and less trust in institutions (Columns 2 and 4). We also find evidence of more trust towards community members in these areas (Column 5), providing further evidence on how former guerrilla governance may have reinforced social capital within the community and distrust in the state.[27]

[27] As we show in Table F.18, results are robust when we use the inverse covariance index instead of the simple sum of questions related to each outcome using data from LAPOP as in Table 6.

Table 6. Guerrilla Territorial Control and Political Attitudes

| | *Total Sum of Questions per Item/Scope* | | | | |
|---|---|---|---|---|---|
| | Political Participation | Engagement with Politicians | Non-Democratic Engagement | Trust in Institutions | Distrust of Members of the Community (Share) |
| | (1) | (2) | (3) | (4) | (5) |
| Guerrilla control | 1.449 | -0.380** | 0.804 | -4.112*** | -0.161** |
| | (1.098) | (0.184) | (1.922) | (1.403) | (0.0704) |
| Observations | 242 | 248 | 172 | 241 | 268 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | 12.96 | 0.383 | 10.69 | 11.72 | 0.122 |

*Note:* The table presents the results of equation 1 for our outcomes related to political discontent and distrust. Column 1 shows the political participation scope, which includes questions that measure whether the citizen votes, attends protests, and attends government meetings. Column 2 reports the engagement with politicians' scope, which measures the extent to which citizens contact state authorities and/or bureaucracies to solve issues and attend government/political meetings. Column 3 shows the nondemocratic engagement scope, which measures the extent to which citizens approve the use of alternative or violent means to engage in politics. Column 4 reports the trust in institutions item, which measures the extent to which citizens trust different types of Salvadoran institutions, including the police, the powers of state, and local government. Column 5 reports the share of individuals who report believing their community members are not trustworthy. The table uses the simple sum of questions by each item as dependent variables, except in column 5 which is a share. The unit of observation in all columns is the census tract. The information was obtained from the Latin American Public Opinion Project survey (LAPOP) between 2004 and 2016. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates weight using a triangular kernel. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

We also examine attitudes towards the community and out-groups using our 2022 geocoded survey. First, we make citizens play a dictator game where they split one dollar phone recharge among the community, outsiders, and themselves. Table 7, panel A, shows that individuals in formerly guerrilla areas are more likely to donate within the community and less likely to donate to out-groups or themselves. Second, we exploit the presence of local development councils that hat experienced significant growth during the 1990s to analyze whether individuals are more likely to participate in civil society organizations and attend these local development councils.[28] Panel B in Table 7 shows individuals are more likely to interact with members of their own community, be a member of civil society organizations, and the local development council meets more often.

[28]In El Salvador, local development councils– commonly known as ADESCO– grew during the 1990s amid the increasing popularity of decentralized governance. These organizations are community-based participatory councils, legally recognized by the Salvadoran state, in which at least 25 community members meet to discuss local development projects, the needs of the community, and cultural events, among others. There are approximately 6000 community development councils throughout the entire country (Pogrebinschi, 2017).

Table 8 also shows that individuals living in formerly guerrilla-controlled areas are less willing to sell their land to outsiders than are their counterparts in the untreated group (Column 2), even though they claim it would not be difficult to sell if they wanted to (Column 1).

These findings are consistent with qualitative evidence that suggests that rebel governance increased altruistic solidarity in controlled areas (Wood, 2003), as well as with testimonies obtained during our focus groups of key actors in the agricultural and private sectors in former guerrilla communities. The repeatedly notable pattern is that residents of former guerrilla areas are more likely to distrust external actors. As one farmer stated: *"There is a lot of prejudice towards large landowners and outsiders, they are not welcomed in the area since they are not part of the community and want to change the way the community works."* Citizens living in the community also supported this view. One said: *"Here we all know each other and rely a lot on family networks."* However, as one private investor noted: *"This model of family networks and distrust towards outsiders did not work since these areas are poorer today as they do not interact with rest of the economy."* Overall, distrust of out-groups still exists in these areas even though rebel governance ended decades ago. This was probably reinforced by residents' reliance on and trust in their neighbors, making outsiders unnecessary for subsistence.

Although we argue that social norms reinforce the negative effects of rebel governance and explain its persistence, a relevant concern is that norms are the by-product of differences in development. In the Appendix, to rule out that the differences in the level of trust are driven by differences in wealth between former guerrilla territories and others, we perform two tests using the different datasets. First, we perform a placebo test as follows. We compare the same outcomes as in Table 6 between neighboring pairs of census tracts that were not under guerrilla control but show the same difference in night light intensity and wealth as tracts around the FMLN boundary (Table 2). This is a placebo test in the spirit of Table F.12. As we show in Tables F.19 and F.20, neither developmental differences (measured by night light intensity) nor wealth differences replicate the results in Table 6. This argues for a causal effect on trust driven by guerrilla control, not by differences in wealth or development.

Second, using our household survey that has information on the age of individuals and whether they have lived in the sample place since the conflict, we test whether the effects on norms differ based on the age the individual had at the time of arrival of guerrillas (See Table F.21). we show that "old stayers", those who have lived several years in guerrilla areas before the establishment of

their control, exhibit lower levels of mistrust of outsiders and social capital compared to "stayers" who were born or lived through guerrilla territorial control.

Table 7. Guerrilla Territorial Control and Trust Towards In- and Out-groups and Community Engagement.

| *Panel A: Trust Towards In- and Out-groups. Dictator Game* | | | | |
|---|---|---|---|---|
| | | Donation to Family Inside the Community (0 - 1 Scale) | Donation to Family Outside the Community (0 - 1 Scale) | Donation to Yourself (0 - 1 Scale) |
| | | (1) | (2) | (3) |
| Guerrilla control | | 0.0528** | -0.0256* | -0.0276 |
| | | (0.0224) | (0.0152) | (0.0267) |
| Observations | | 4,749 | 4,749 | 4,749 |
| Dependent mean | | 0.313 | 0.138 | 0.547 |
| *Panel B: Community Engagement* | | | | |
| | Interaction with Community (Likert Scale) | Member of Civil Society Organization | Presence of Local Development Council | Frequency Local Development Council Meeting |
| | (4) | (5) | (6) | (7) |
| Guerrilla control | 0.102* | 0.0220* | 0.0223 | 0.0709** |
| | (0.0560) | (0.0133) | (0.0153) | (0.0311) |
| Observations | 4,748 | 4,747 | 4,741 | 3,666 |
| Dependent mean | 0.000 | 0.0520 | 0.0860 | 0.391 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 |

*Note:* The table presents the results of equation 1 for two sets of outcomes. First, in panel A, we report the results for a dictator game in which survey respondents are asked to split a $US 1 phone recharge between a family in their community, a vulnerable Salvadoran family outside their community, and themselves. In panel B, we do the same for a series of measures of community engagement. Namely, the outcome in Column 4 measures how often an individual interacts with community members outside of their family on a Likert Scale (standardized) where higher values represent higher frequency. In Columns 5 and 6, the outcomes are dummies indicating whenever the respondent was a member of a non-religious community association, such as a neighborhood club, and whether there is a local development council in her community. In Column 7, the outcome is a dummy variable indicating whether the local development council meets. The unit of observation is a household. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and the social desirability index. As for our main outcomes, we use a bandwidth of 2.266 km and the estimates use triangular kernel weights. Robust standard errors are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 8. Guerrilla Territorial Control and Self-Reported Difficulty of Selling Land

| | Difficulty of Selling Land (Likert Scale) | Would Sell Land (Dummy) |
|---|---|---|
| | (1) | (2) |
| Guerrilla control | -0.174*** | -0.0392* |
| | (0.0535) | (0.0232) |
| Observations | 4,672 | 4,718 |
| Bandwidth (Km) | 2.266 | 2.266 |
| Dependent mean | 0 | 0.271 |

*Note:* The table presents the results of equation 1 for a measure of how difficult respondents feel it is to sell their land. The outcome is on a Likert Scale, with higher values indicating that respondents believe it is more difficult to sell land. The unit of observation is a household. In Column 2, the outcome is a dummy variable that indicates if a respondent would be willing to sell their land to a member outside their community. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and the social desirability index. As for our main outcomes, we use a bandwidth of 2.266 km and the estimates use triangular kernel weights. Robust standard errors are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Next, we analyze to what extent these changes in norms could explain the persistent effects on development outcomes. To do so, we exploit spatial heterogeneities based on the intensity of rebel governance and variation in local norms.

First, we analyze whether there are heterogeneous effects across regions where base ecclesial communities were present in 1974 as a proxy for stronger self-governance. Most of these communities during the 70s followed a progressive catholic doctrine (liberation theology) that emphasized the power of the individual to solve social and economic injustices. In particular, these institutions that belonged to the Catholic church served as a base to promote ideas akin to those of the FMLN, which were popular among the Catholic church in the 1970s and 1980s. As we have shown in Table 1, these base ecclesial communities were as likely to be present in control and treated areas. Yet, if they served as a platform to reinforce the narrative of oppression of elites that required the emancipation and self-sufficiency of peasants, we should expect those areas with more base ecclesial communities to have stronger effects due to the existence of a platform to reinforce these ideas.

Second, we study whether effects differ by regions controlled by factions where self-governance

was more intensively promoted. Participatory institutions figured more prominently in places where the two main factions of the FMLN, the ERP, and FPL, had a more significant presence. In these areas, for example, these two factions were able to broadcast their ideas through two popular radios – Radio Venceremos and Radio Farabundo Martí –and implemented early on the types of self-governing institutions that were crucial in the organization of peasants, the *poderes populares* and *poder de doble cara*. In addition, we also examine the heterogeneity of these effects by proximity to a guerrilla base, where presumably the guerrilla settled, as opposed to places that are far away, and presumably the guerrilla had less influence over.

Third, we analyze how the expansion of new base ecclesial communities in the post-war period could potentially mitigate the effects by reducing norms of distrust towards outgroups. Base ecclesial communities significantly changed in the post-war period, in El Salvador and elsewhere in Latin America, after the Catholic Church moved away from Liberation Theology. In particular, these bases no longer preached on the liberation of the oppressed, distrust of elites, and bottom-up power. Rather, the new base communities promoted the integration of all peoples in the novel postwar democratic period.

Table 9 presents the results. Panel A, B, and C show that effects are exacerbated in regions that had stronger norms of self-reliance at baseline and where rebel governance was stronger. In contrast, Panel D shows that, in places where the new ecclesial communities are based in the post-war period, the effects on development are mitigated. These results help to rule out that effects are driven by other potential factors associated with guerrillas apart from self-governance norms. Moreover, the results suggest that new norms of integration are key to reversing the negative effects caused by the self-sufficiency adopted during rebel governance.

Table 9. Heterogeneity by Presence of Base Ecclesial Communities and Areas with Strong Self-Governance

| | Night Light Luminosity | Wealth Index | Years of Education |
|---|---|---|---|
| | (2013) | (2007) | (2007) |
| | (1) | (2) | (3) |
| *Panel A: Heterogeneous Effects on Regions with Base Ecclesial Communities in 1974* | | | |
| Guerrilla control | -0.174*** | -0.110*** | -0.210* |
| | (0.0266) | (0.0368) | (0.114) |
| Guerrila control × Had BEC in 1974 | -0.0672* | -0.0521 | -0.387*** |
| | (0.0388) | (0.0578) | (0.150) |
| *Panel B: Heterogeneous Effects on Regions with Strong Self-Governance Promotion* | | | |
| Guerrilla control | -0.113*** | -0.0514 | 0.0618 |
| | (0.0427) | (0.0500) | (0.138) |
| Guerrilla control × Strong Rebel Governance | -0.112** | -0.107** | -0.517*** |
| | (0.0437) | (0.0530) | (0.141) |
| *Panel C: Heterogeneous Effects on Regions Closer to FMLN* | | | |
| Guerrilla control | -0.165*** | -0.057 | -0.047 |
| | (0.0282) | (0.0368) | (0.106) |
| Guerrilla control × Close to FMLN | -0.063** | -0.189*** | -0.687*** |
| | (0.030) | (0.043) | (0.116) |
| *Panel D: Heterogeneous Effects on Regions with Base Ecclesial Communities in 2007* | | | |
| Guerrilla control | -0.221*** | -0.118*** | -0.296*** |
| | (0.0257) | (0.0351) | (0.110) |
| Guerrilla control × Had BEC in 2007 | 0.239*** | 0.111* | 0.383** |
| | (0.0473) | (0.0676) | (0.175) |
| Observations | 3,652 | 3,630 | 3,637 |
| Dependent mean | 3.536 | -0.0160 | 6.573 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 |

*Note:* The table provides the results of equation 1 alongside four heterogeneity analyses. Panel A showcases the heterogeneous effects on areas that had Base Ecclesial Communities in 1974, while panel B examines regions with stronger self-governance promotion. Panel C presents the results for areas closer to FMLN bases in areas with strong rebel governance. And Panel D presents the findings for areas that had Base Ecclesial Communities in 2007. The unit of observation in all columns is the census tract. Data for night light luminosity come from NOAA, while wealth and education data, from the Population and Household Census of 2007. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. We also include the un-interacted dummy variables for the corresponding interaction terms in panels A, B, and D. We use the algorithm of Calonico, Cattaneo and Titiunik (2014) to set the bandwidth and weight using a triangular kernel. Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

### VI.B Public goods

Less political engagement and less trust in institutions may complicate the provision of public goods by the state and affect demand for state-provided services. As shown earlier, these areas

are populated by individuals who deeply distrust the state and show high levels of trust in their own community relative to the control group. Even though the state is present in these areas today, these norms may lead them to refrain from paying taxes, as well as demanding public goods from the state or having inadequate access.

We explore the validity of these arguments in Table F.22. Column 1 shows that residents of former guerrilla areas deem the state as less capable or are more isolated from it since they perceive less tax collection in these areas. Moreover, Column 2 also shows that they are less likely to report that individuals in their communities pay taxes. We also find some evidence that individuals a less likely to recall having a government agency in their community (Column 3). Consistent with these results, we find less access and usage of state services in these areas (see Columns 4-7).[29] Although these results suggest that individuals perceive a weaker state presence, lower tax collection in these areas is unlikely to explain our results. First, both treated and control areas are contained in administrative units (municipalities). Moreover, more than half of municipalities' expenditures are financed by transfers from the central government according to criteria established in a national law (commonly known as FODES). The amount of the transfers is set to be a percentage of the total national income and is distributed to municipalities according to a series of criteria, including the population level, poverty, and area size.

Importantly, we find less access to services that experienced an expansion in investment in the post-war period. We also show that access to and utilization of public services is not affected by the quality of these services. In particular, we find no differences in reported daily water frequency across the boundaries.[30]

All in all, residents of formerly guerrilla areas are less likely to pay taxes and report less access to and utilization of public services relative to people in control areas. Low levels of institutional trust and political engagement may partly explain these effects: if citizens do not trust the state or engage with local representatives, they will demand fewer public goods or lack adequate access; plus, they will be less willing to pay taxes even though the state is present in these areas today.

[29] To measure access to and utilization of public goods by citizens in former guerrilla areas, we estimate equation (1) using rates of access/usage of sewerage service, potable water, electricity, and garbage collection service from the 2007 census as outcomes of interest. These rates were estimated as the number of households with access to each public service relative to the total number of households in each census tract. See Appendix A for details on the construction of these measures.

[30] In Table F.23, we also analyze whether the quality of education, measured by teachers' education level and the number of teachers, is lower in former guerrilla areas than in others. We do not find evidence of significant differences in either of these variables.

This shows that although the state made more investments in the post-conflict period, individuals in these areas still perceive it as more distant and seek to disengage.

### VI.C Employment, land inequality, and productivity

While territorial control by rebels or post-conflict policies may have initially affected land tenure and distribution in these areas, the persistent effects of rebel governance on development do not seem to be driven by land inequality.

We examine contemporaneous agricultural and land outcomes. First, we explore differences in the occupations of employed individuals currently living in former guerrilla areas relative to other areas. Using data from the 2007 census, consistent with the economic effects discussed earlier, we find that individuals in these areas work disproportionately in agriculture (specifically subsistence agriculture) and less on industries and services (see Table 10). Moreover, the same pattern is observed using the 1992 census and our 2022 survey (Table F.24 and Table F.25), providing evidence that even 30 years after guerrillas relinquished control, individuals in these areas are still more likely to keep working in agriculture relative to individuals located just 2 km away. This pattern could also be explained by present distrust in former guerrilla areas, which could prevent the entry of large landowners and outsiders in general.[31] Indeed, as discussed above, we find that individuals in these areas are less likely to sell their land to individuals outside their community, even though they perceive external demand for their land.

Second, we look at the effects on the size of the land and the probability of ownership. Using the Agriculture Census, we do not observe differences between treatment and control areas in land ownership or land property rights. The results are presented in Table F.26, showing that effects are not only non-significant but also very small in magnitude relative to the mean.[32] These results are consistent with qualitative data stating that land tenure was not only respected in guerrilla control areas but in areas affected by conflict. We also show that our results do not vary according to the distance of households from the road network or the main city (see Table F.27), providing evidence that effects are not driven by physical isolation from large markets.

[31] These occupational differences between treated and control areas are maintained even as we increase the bandwidth around the discontinuity from two to 18 km, suggesting these differences are not affected by the location or creation of urban centers close to the discontinuity (see Figure F.2).

[32] We also find similar effects using our own survey in 2022. Results are available upon request.

Table 10. Workers by Economic Activity

| | Share of Workers by Economic Activity | | | Share of Agricultural Workers |
|---|---|---|---|---|
| | Agriculture | Industry | Services | Growing Subsistence Crops |
| | (1) | (2) | (3) | (4) |
| Guerrilla control | 0.0465*** | -0.0261*** | -0.0203** | 0.0456*** |
| | (0.00985) | (0.00559) | (0.00878) | (0.00944) |
| Observations | 3,636 | 3,636 | 3,636 | 3,636 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | 0.194 | 0.227 | 0.579 | 0.160 |

*Note:* The table presents the results of equation 1 for the share of workers in each economic activity. The information was calculated from the Population and Household Census of 2007 and using ISIC v4 to classify each occupation. The unit of observation is the census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The estimates use triangular kernel weights. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1, † p<0.15.

Finally, we also analyze the effects on agriculture productivity in the Appendix. Since guerrillas promoted autonomous communities, this could affect productivity if distrust towards out-groups prevented interactions with the state and outsiders that could bring new knowledge and skills. Table F.28 presents the results of the spatial RD analysis for the total extension of land cropped (panel A), the share of the land harvested (panel B), and the actual crop yield in 2005 (panel C). These results should be interpreted with caution since productivity could be explained by the fact that individuals living in these areas are selecting into subsistence farming. Yet, consistent with qualitative evidence, we find that the production of export crops, such as sugarcane, dropped significantly. Moreover, the measures of productivity (harvest and yield) for almost all crop types are much lower in former guerrilla areas.

### VI.D Migration and elites displacement

Migration and displacement of elites could be another mechanism behind the persistent negative effects on development. However, it is unlikely to be the case since, as we mentioned in the background, most of the elites left the region in the 1970s. Moreover, it is unlikely to be an omitted variable factor since we show at baseline that control and treated locations were similar in terms of inequality and economic conditions.

Nevertheless, it is possible that guerrillas promoted changes that might have induced different patterns of worker selection. For example, high-ability workers could have migrated from these areas (out-migration). But there could have been an adverse selection of workers if guerrilla-held areas attracted less-productive peasants or individuals with more egalitarian preferences (in-migration).

We explore these migration patterns empirically in Table F.29, using data from the 2007 census. Columns 1–5 examine the impacts on international migration. In particular, we estimate equation (1) for the share of international emigrants during the period of guerrilla territorial control and afterward, the number of years since the international emigrant left the household and the share of households receiving remittances. Unfortunately, the 2007 census does not include questions related to internal migration. However, international migration is significant in El Salvador.

The results suggest that residents of former guerrilla areas were not more likely to migrate abroad or to receive remittances than those in nearby locations and that—if anything—migration abroad seems more recent. The coefficients are also negative, indicating that people were less likely to migrate internationally. These results provide evidence that former guerrilla areas did not experience more "brain drain."

Moreover, to explore if the effects are driven by the migration of elites who were mostly investing in cash crops such as coffee and sugar, we test the robustness of the results when considering plots with low suitability for coffee and sugar. We find that effects hold even for this subsample, providing evidence that effects are not entirely driven by the absence of historically large landowners (See Table F.30). These results are consistent with the fact that many elites left the entire region before the territorial control, affecting our treated and control areas equally.[33]

We examine in-migration outcomes in Columns 6–9 using data from the 2007 census. To evaluate if there was more migration into rebel areas, we estimate equation (1) for the share of individuals who always lived in the same location, the share of individuals who lived in the same location as their mothers, in-migration during the Civil War, and years since arrival. There is no evidence of large differences in migration patterns for areas under guerrilla control. Importantly, the magnitude of the estimated coefficients is small and close to zero for all these outcomes.

[33] Furthermore, Table 1 shows that guerrillas did not target areas where elites were disproportionately present as we find that the agrarian reform implemented by the state before the territorial control was equally distributed among control and treated areas. Finally, there is no anecdotal evidence that elites moved from guerrilla-controlled territory to nearby areas controlled by the state.

To further examine if there was more migration from FMLN areas by highly educated people, we examine the same outcomes in Columns 6–9 of Table F.31 using the sample of individuals who had finished at least high school by the time the conflict started. The magnitude of all the coefficients in Table F.31 is close to zero and not significant, implying that migration of highly educated individuals may not underpin the effects. Moreover, the sign of the coefficients in Columns 6–8 highlights that, if anything, more in-migration of highly selected individuals occurred.

Finally, we also looked at temporal migration for work by analyzing whether individuals work, across the boundaries, in a different census tract or municipality from where they live (Table F.32). We do not find that residents of former guerrilla areas are more likely to work outside their community, providing further evidence that out-migration may not drive the results. It is possible they prefer not to leave their village due to strong social ties, more "rootedness," and because they do not trust outsiders. This idea aligns with previous results that residents of former guerrilla areas are more likely to trust members of their community than they trust residents of nearby areas.[34] We test this possibility using data from the survey in 2022 in Table F.33 and find that residents in former guerrilla areas are more likely to report the presence of social ties and distrust to outsiders as the main reason for living in the community rather than economic opportunities relative to individuals in nearby areas that were never under guerrilla control.

### VI.E Conflict and persistent violence

The civil conflict was a key event in the history of El Salvador, and thus, exposure to violence and insurgency could represent a different channel of persistence. In this section, we show that is unlikely to be the case since both areas were equally affected by violence during the period of territorial control and in the post-period.

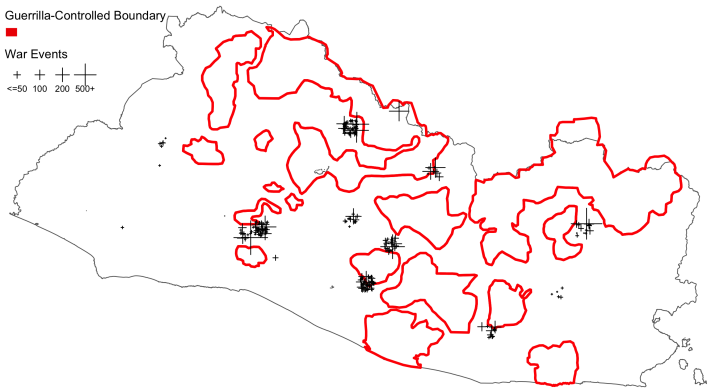
We test this mechanism in several ways. First, in Figure 7, we show on a map the location of geocoded war crimes, including the number of deaths, disappearances, and other conflict-related crimes as reported by the Truth Commission. Most of them are in areas outside of our study sample. We estimate the main equation using these variables as outcomes. Results in Table F.34 support the idea that areas under guerrilla control did not experience disproportionately higher war crimes relative to other areas. If anything, the negative coefficient associated with the war crime estimates suggests that former guerrilla areas experienced fewer violent events, leading to

[34] Using the Agriculture Census, we also do not find differences in the probability of producers owning a plot outside the segment they live.

lower-bound estimates of our primary outcomes.

Figure 7. Guerrilla-Controlled Territories and War Crimes

(a)




*Notes:* The figure depicts areas under guerrilla control in red, which do not overlap with the locations of war events (represented by crosses) or the locations of individual victims (represented by empty squares). War events encompass incidents such as massacres, abductions, bombings, and others, where multiple casualties were documented. The size of the crosses indicates the number of casualties. The data used in the figure come from the Registry of War Victims.

Second, we estimate equation (1), controlling for whether a segment belonged to a disputed area, where the Salvadoran government and the guerrillas usually fought. Results for the main outcomes of interest from these exercises are in Table F.35. In general, the coefficients are negative, statistically significant, and similar in size. This suggests conflict is not the main factor behind the negative effects. Moreover, as explained above, we use a donut-hole approach to exclude all observations that lie within different bandwidths from the boundary of guerrilla-held territories where conflict may have been more intense and present the results in Appendix F, which show that our estimates are robust to excluding up to 5 km of potentially more violent segments.

Finally, we appraise the role of guerrilla control in contemporaneous measures of crime to judge whether the historical presence of guerrillas prevented or fostered the development of criminal actors such as gangs which grew in the aftermath of the civil war (Sviatschi, 2022); tightly knit communities with strong social ties can better prevent crime because they raise detection probabilities and attach shame to criminal behaviors (Buonanno, Montolio and Vanin, 2009). If social capital lasts, we expect fewer crimes linked to non-state armed actors, which are pervasive in El Salvador. But if our results stemmed from violence during or after guerrilla control of these areas, we should expect more violence today. To test these hypotheses, we considered homicide rates

during 2017 using police data and victimization rates from 2004 to 2016 provided by LAPOP surveys. Table F.36 in the Appendix presents the results. Consistent with the finding that violence during the conflict was not greater in guerrilla-controlled areas, the results largely suggest no differences in homicide rates between areas once under and outside FMLN control. If anything, the estimates are negative, which suggests the documented differences in long-term development did not arise from increases in conflict or violence.

Additionally, there is evidence that residents of areas once under guerrilla control are less likely to be victims of violent crime or extortion related to gang activity. This aligns with enduring norms of cooperation and higher levels of social capital as well as with qualitative evidence gathered from interviews with locals and former guerrilla commanders, who repeatedly expressed thoughts such as: *"The fact that the maras (gangs) are barely present in these areas reflects that the self-organization of the people worked."* (Joaquín Villalobos, FMLN Military Commander, interview conducted on March 23, 2022).

### VI.F Peace agreement, ideology, and post-conflict policies

One potential concern is the role of post-conflict policies in driving the results. However, we find no evidence of it. As we note in Appendix II.D, all reforms of the peace agreement (e.g., the reform of the judicial system) were implemented at the national level and may not prompt our effects. For example, although the agreement created a national police force, we find no differences in law enforcement (see Table F.37) or the number of state institutions across areas. Moreover, as shown in the previous section, the results do not arise from differences in the postwar land redistribution.

The post-conflict political environment also does not seem to explain the results. First, the right-wing government elected after the agreement did not reduce public investment to punish guerrilla areas, as shown in Table F.17. Second, evidence from the 2014 and 2015 elections shows that these areas did not favor a specific party (see Table F.38).[35] These patterns could also be explained by the fact that during its territorial control, the FMLN not only taught these communities to be autonomous and independent from the prevailing state and elites but also from the FMLN itself, further ensuring their autonomy. Moreover, consistent with the lack of trust in politicians and the state, Column 3 in Table F.38 shows that residents of former FMLN areas were more likely to cast blank votes in the 2014 presidential elections and the 2015 municipal elections. Third, we find that

[35] If anything, there was a small and negative effect on the vote share for the leftist party. However, these votes did not seem to benefit the right. For example, in the 2015 municipal elections, the share of blank votes increased at the expense of both the left and the right.

effects on development were still negative when the FMLN won elections in 2009 and 2014 (as shown previously in Figure 5), and when former guerrilla areas received more investment (not less) related to infrastructure reconstruction efforts such as roads and schools. Finally, we do not find evidence that fear of expropriation in former guerrilla areas explains the results. We observe that residents of these areas are as likely as those in the control group to believe it is acceptable to invade private property or engage in violent forms of political participation or anti-democratic behavior (see Table F.40).

### VI.G Other mechanisms

Other potential mechanisms such as post-conflict policies, disproportionate improvements in control areas, changes in beliefs toward expropriation, or child recruitment, could not account for our results.

*Threat of urban development around main cities in 1980s*— One potential mechanism is that cities located in state-controlled areas were not very developed by 1980s but urbanized during guerrilla territorial control. In Table F.39, we test this hypothesis by analyzing if urban areas at baseline could be driving the results. We find that effects are robust when we exclude urban centers at baseline using different variables, providing evidence that urban development in the control group may not be explaining the negative main effects. These results are consistent with the heterogeneity results based on baseline development using the road network in 1980 where we see similar effects on economic outcomes independently of whether these areas were isolated or not (see Table F.27).

*Recruitment*— Coercive recruitment has figured prominently in work that ties civil conflict to lower levels of education. Early military experience is a bad substitute for education and labor market experience, and child soldiers lose key formative years of schooling (Blattman and Miguel, 2010). Nonetheless, coercive recruitment is unlikely to be the force behind our results. First, child soldiers were not prominent in the FMLN. Estimates suggest that of the 9,000–12,000 FMLN members, only 2,000 (about 20 percent) were under age 18, while the percentage of underage combatants in the Salvadoran Army was 80 percent (48,000 of 60,000 combatants) (Courtney, 2010). Likewise, most historical studies conclude that FMLN recruitment was mostly voluntary. A UNICEF study shows that while 91.7 percent of FMLN recruits had joined voluntarily, close to 53 percent of underage Salvadoran Army soldiers were forcibly recruited (Courtney, 2010).

## VII DISCUSSION

This paper explores the long-term development impacts of rebel governance. Our results show that guerrilla control in El Salvador had sizable negative and enduring consequences for development. We argue that our main results arise from the guerrilla-directed transformation of local governance structures and associated norms. In these areas, norms of self-sufficiency and distrust of outsiders led to lasting changes in economic structures and relations with the state.

We expect the persistent distrust of outsiders motivated by alternative forms of governance to matter in several different contexts. Qualitative and quantitative evidence suggests civilians have lived under the control of non-state armed groups in countries with civil war. These cases span the globe and include highly developed governance systems like that of the Liberation Tigers of Tamil Eelam in Sri Lanka (Kubota, 2017), mixtures of direct and local power-sharing in Côte d'Ivoire (Martin, Piccolino and Speight, 2022), and centralized, hierarchical governmental structures under communist rebel control during the Greek Civil War (Kalyvas et al., 2015). In most of these territories, rebels create autonomous governing institutions that seek to emancipate civilians from the state and out-groups. In such cases, differences in institutional trust and reliance on self-sufficient economic production may depress economic growth in these territories.

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**Contents (Appendix)**

## A Data Sources and Variable Definitions

### A.A *Guerrilla territories*

- **Territories under guerrilla control:** Following Castañeda (2016), this study uses the maps that document FMLN-held areas as submitted to the United Nations and approved by the State and FMLN in El Salvador during the cease-fire process (1990-1992). Since the map originally had an image format, we used ArcMap to digitize it by hand and convert it to a shapefile format.

### A.B *Geospatial variables*

- **Night light luminosity:** Data on night light luminosity comes from the Defense Meteorological Satellite Program Operational Linescan System (DMSP-OLS). This data was obtained from the US National Oceanic and Atmospheric Administration (NOAA) at https://ngdc.noaa.gov/eog/download.html. This data has a resolution of 30 arc-seconds (1 $km^2$) and spans 1992 to 2013. The challenge with night light luminosity data is the significant fraction of observations that take the value of zero and the existence of extreme values in the right tail of the distribution (Michalopoulos and Papaioannou, 2013; Pinkovskiy and Sala-i Martin, 2016). To account for this potential concern, we adjust the outcome of interest using the logarithm and the inverse hyperbolic sine transformation.[36]

- **Elevation:** Elevation was obtained from the Google Earth Engine Data Catalog and is available at https://developers.google.com/earth-engine/datasets/catalog/USGS_SRTMGL1_003. This data provides elevation information in meters at the 3 arc-seconds spatial resolution (90 $mts^2$). The digital elevation model (DEM) was created based on the images of the Shuttle Radar Topography Mission (SRTM) of NASA. In this study, we calculated the average elevation for each census tract.

- **Slope:** this study uses the terrain() function in R to compute the slope from the elevation data accordingly with Ritter (1987).[37] The algorithm uses four neighboring pixels to compute each pixel's slope in degrees. Thus, higher values represent steeper terrain. Our study uses the average of the slope at the census tract level.

[36] The inverse hyperbolic sine transformation is defined as $log(y_i + (y_i^2 + 1)^{1/2})$ and can be interpreted as a logarithmic dependent variable (Pence, 2006).

[37] Documentation of the R tool can be found at https://www.rdocumentation.org/packages/raster/versions/3.4-10/topics/terrain

- **Ruggedness:** This study implements the terrain ruggedness index of Riley, DeGloria and Elliot (1999) using the tri() function in R.[38] The algorithm uses five neighboring pixels to calculate each pixel's index from the elevation data. Our study uses the average of the ruggedness index at the census tract level.

- **Rivers and lakes:** Information on surface water bodies comes from the Google Earth Engine Data Catalog and is available at https://developers.google.com/earth-engine/datasets/catalog/MERIT_Hydro_v1_0_1. The data comes from the MERIT Hydro dataset with a 3 arc-seconds spatial resolution (90 $mts^2$). Our variables take the value of one if a river or lake passes by a census tract.

- **Historical crop yield and suitability:** Agro-climatic yield rasters were obtained from the Global Agro-Ecological Zones version 3.0 (GAEZ v 3.0) project and are available at https://www.gaez.iiasa.ac.at. The data has a spatial resolution of 5 arc-minutes (9 $km^2$) and a yearly periodicity. We used the 30-year average (starting in 1961) of the most relevant crops in terms of consumption and exports for 1990 (i.e., coffee, cotton, rice, beans, and sugarcane).

- **Roads and railways in 1980:** the map outlining the road and railway network in 1980 for El Salvador was obtained from the United States Library of Congress and is available at https://www.loc.gov/resource/g4840.ct000627/. This map was made by the Central Intelligence Agency. Since the map originally had an image format, we used ArcMap to digitize it by hand and convert it to a shapefile format. Our variable takes the value of one if a census tract contains part of a road or railway.

- **Number of hospitals per 100k population:** El Salvador's Ministry of Health provided the location of all hospitals in El Salvador in 2015. The variable we use is the number of hospitals by 100k population in each census tract.

- **Number of schools by 100k population:** El Salvador's Ministry of Education provided us with the location of all schools in El Salvador in 2007. The variable we use is the total number of schools in each census tract.

- **Telecommunications:** data for telecommunications in 1945 come from https://catalog.lib.uchicago.edu/vufind/Record/4060833#details. It was digitized by hand.

[38] Documentation of the R tool can be found at https://www.rdocumentation.org/packages/spatialEco/versions/1.3-7/topics/tri

- **State Administration:** we obtained these data by digitizing by hand a map featuring all Municipal Seats in El Salvador in 1982. The original map can be accessed at https://digital.library.cornell.edu/catalog/ss:3293985.
- **Land Reform Status:** data for Land Reform status come from Montero (2022).
- **Ecclesial Base Communities:** we obtained the list of municipalities in which there where Ecclesial Base Communities in 1974 and 2007. In the 1970s, the majority of these communities adhered to a progressive Catholic doctrine known as liberation theology. This theological approach emphasized empowering individuals to address social and economic injustices by fostering social capital within their communities. In the post-war they moved away from liberation theology. The maps, including their locations, were retrieved from https://ri.ues.edu.sv/id/eprint/9750/1/14101572.pdf and digitized by hand.
- **Land Hydrometrics:** This study uses the location of hydrometric stations that were contained within a census tract. It excludes hydrometric stations that were located in a water body. These locations were manually digitized from Departamento de Desarrollo Regional and Consejo Nacional de Planificación y Coordinación Económica (1974).
- **Land use for Permanent Crops:** This variable represents the proportion of land in each census tract, measured during 1980, that was allocated for permanent crops. The map with this information was extracted from Méndez et al. (2012) and digitized by hand.

### A.C *Population and Household Census of 2007 (PHC)*

The PHC of 2007 is available at http://www.censos.gob.sv/censo/Default.aspx.

- **Census cartography:** DIGESTYC provided maps of the 12,435 census tracts (*segmentos censales*) in the 2007 census. Each census tract represents a small area with a fixed geographic perimeter. On average, they have an area of 1.7 $km^2$, a perimeter of 5.5 $km$, 113 households, and 463 individuals. Our estimation sample consists of 3,678 census tracts, which have on average 110 households and 458 individuals.
- **Wealth score:** we built a wealth score that represents the living conditions of each household using characteristics and asset ownership such as the type of roof, access to water, television, etc. To construct the score, we used a principal component analysis following the steps recommended by the Demographic and Health Surveys program (DHS). Step-by-step in-

structions for constructing the wealth index are available at https://dhsprogram.com/topics/wealth-index/Wealth-Index-Construction.cfm. We calculate the average of this measure for each census tract.

- **Years of education:** The PHC asks each individual the total number of years of education in single years. However, our variable only takes into account individuals older than 18 years since most of this population already finished secondary school. We calculate the average of this variable for each census tract.
- **Literacy rate:** The PHC asks each individual if they can read and write. Thus, our literacy rate variable is the number of individuals older than 18 years who can read in each tract over the total population in the same age range in the same tract.
- **Public goods provision rates:** The PHC asks each household if they have water access, sewerage, electricity, and garbage services. Our rates are calculated as the total number of households that report having the service in each tract over the total households in the same tract.
- **International migrants:** This is the total number of people who are reported by their households to be outside El Salvador in 2007 for each census tract.
- **International migrants in the war period:** This is the total number of people who left El Salvador between 1979 and 1990 and who are reported by their households to be outside El Salvador in 2007 for each census tract.
- **In-migration during the war period:** This is the total number of individuals who reported in 2007 that they arrived in a given census tract between 1979 and 1990.
- **Out-migration share:** This is the share of individuals of each census tract who migrated permanently out of the country.
- **Moving population:** This is calculated as the number of people in a given census tract who reported in 2007 any relocation in their entire life.
- **Moving population share:** This is calculated as the moving population in each census tract over the total population in the same tract.
- **Economic activity:** Respondents report their main economic activity (i.e., their occupation), which we classify into agriculture, industry, and services using the ISIC v4.

- **Population in 1980:** count of individuals born in or before 1980 in each census tract.

### A.D *Population and Household Census of 1992 (PHC)*

The PHC of 1992 is available upon request to DIGESTYC.

- **Census cartography:** DIGESTYC provided information on 2,287 cantons (known as 'cantones censales') in the 1992 census. In contrast to the 2007 PHC, the canton served as the smaller administrative unit in the 1992 PHC. On average, each canton contains five rural 2007 census tracts. However, cantons in major cities may encompass as many as 56 of the 2007 census tracts. Our estimation sample consists of approximately 990 cantons, each with an average of 498 households and 2,309 individuals.

- **Wealth score:** we built a wealth score that represents the living conditions of each household using characteristics and asset ownership such as the type of roof, access to water, television, etc. To construct the score, we used a principal component analysis following the steps recommended by the Demographic and Health Surveys program (DHS). Step-by-step instructions for constructing the wealth index are available at https://dhsprogram.com/topics/wealth-index/Wealth-Index-Construction.cfm. We calculate the average of this measure for each canton tract.

- **Years of education:** The PHC asks each individual the total number of years of education in single years. However, our variable only takes into account individuals older than 18 years since most of this population already finished secondary school. We calculate the average of this variable for each canton.

- **Economic activity:** Respondents report their main economic activity (i.e., their occupation), which we classify into agriculture, industry, and services using the ISIC v3. Then, we use the correspondence table between ISIC v3 and ISIC v4 to make sure we correctly classify the economic activities in accordance with the codes of the PHC of 2007.[39]

### A.E *Presidential election results*

All data related to elections came from the Tribunal Supremo Electoral of El Salvador and included results and coordinates for each polling station.

- **Left voting share:** This is calculated as the total votes for the FMLN party over the total

[39] The correspondence table used is available at https://unstats.un.org/unsd/classifications/Econ

valid votes for each polling station in El Salvador.

- **Right voting share:** This is calculated as the total votes for the ARENA party over the total valid votes for each polling station in El Salvador.
- **Blank voting share:** This is calculated as the total blank votes over the total valid votes for each polling station in El Salvador.
- **Turnout share:** This is calculated as the total valid votes over the total number of people registered to vote in each polling station in El Salvador.

### A.F *2013 teacher census*

- **Total teachers:** total number of teachers at each school.
- **Certified teachers:** number of teachers who have received a formal accreditation in pedagogy from the Ministry of Education.
- **Teachers with high school:** number of teachers who have a high school degree.
- **Certified teachers with high school:** number of teachers who have received a formal accreditation in pedagogy from the Ministry of Education and who have a high school degree.

### A.G *Registry of war victims*

The following variables come from El Salvador's registry of war victims, or *Registro de Víctimas de Graves Violaciones a los Derechos Humanos Ocurridas en el Contexto del Conflicto Armado Interno*; in Spanish. This registry was assembled by El Salvador's Human Rights Institution in 2013.

- **Total number of war events:** This includes all war events such as massacres, abductions, and destruction of property either by El Salvador's army or guerrilla groups.
- **Has a war events:** Dummy variable that equals 1 whenever an event such as a massacre, an abduction, or a destruction of property either by El Salvador's army or guerrilla groups occurred during the war period.
- **Total number of war victims:** This is a registry of all victims that features information on the year they were murdered or reported as disappeared, their name, and their geocoded location.
- **Has a war victim:** Dummy variable that equals 1 whenever a casualty was registered in a census tract during the war.

### A.H *Registry of incarcerations*

- **Number of incarcerations:** This includes all incarcerations in El Salvador between 1980 and 1999. Data comes from the universe of individuals who entered prison from 1980 to 1985 obtained from the *Dirección General de Centros Penales* in El Salvador.

### A.I *Attitudes towards the government and victimization*

All data regarding attitudes toward the government comes from the Latin American Public Opinion Project (LAPOP) survey. LAPOP conducts surveys of public opinion throughout the Western Hemisphere, including North, Central, and South America and the Caribbean. LAPOP's core project is the AmericasBarometer, a rigorous comparative survey of political and social attitudes and demographic and economic characteristics. We compute the mean for each of the following variables at the census tract level. LAPOP further inquieres on individual victimization experiences.

- **Political participation:** This is a summary index using the standardized inverse-covariance weighted average of indicators of whether the citizen votes, attends protests, and attends government meetings.
- **Engagement with politicians:** This is a summary index using the standardized inverse-covariance weighted average of indicators of whether the citizen contacts state authorities and/or bureaucracies to solve issues and attend government/ political meetings.
- **Non-democratic engagement:** This is a summary index using the standardized inverse-covariance weighted average of indicators of whether the citizen approves the use of alternative or violent means to engage in politics.
- **Trust in institutions:** This is a summary index using the standardized inverse-covariance weighted average of indicators of whether the citizen trusts different types of Salvadoran institutions, including the police, the powers of state, and local government.
- **Distrust of members of the community:** An indicator for when a citizen believes the members of their community are not trustworthy.
- **Victimization:** we record the number of homicides reported to police, the share of people within a census tract who reported being a victim of any type of crime, and the share of people within a census tract who reported being a victim of extortion.

### A.J *Government expenditure projects and public buildings*

- **Government expenditure projects:** This variable comes from the registries of the Fund for Social Investment in Local Development (FISDL is its Spanish acronym) and is the number of government projects related to infrastructure in sectors such as electricity, water and sewerage, and education started after each year. .
- **Public buildings per 100k population:** This variable comes from Google maps. The following buildings are considered government buildings: local government offices, city halls, schools, courthouses, embassies, fire stations, hospitals, museums, police stations, post offices, secondary schools, transit stations, and bus stations.
- **Distance to Police Stations:** This variable comes from web-scraping the coordinates of every police station in El Salvador and then computing the minimum distance between each census tract boundary and the closes police station.

### A.K *Agricultural National Census of 2007*

For the analysis we use census-tract level means for each of these variables:

- **Owned area:** This is the size of the land the producer owns in hectares.
- **Crop production:** This is a measure of crop production in 1,000 tons.
- **Share of harvest:** Crop harvest as a share of the total area of a census tract.
- **Actual crop yield:** This is the total production over the total of cultivated land for each crop.

### A.L *Household and Multipurpose Survey (EHPM)*

For the analysis, we employed each of these variables:

- **Years of education:** The EHPM asks each individual the total number of years of education in single years.
- **Per capita family income:** Logarithmically transformed real per capita family income in 2011 monetary units.

### A.M *Standardized Test of Student Achievement*

For the analysis, we employed the following variable:

- **Number of Schools per 100k Population:** We retrieve this variable from the list of schools

that took the Standardized Test of Student Achievement, or PAES (for its Spanish acronym), between 1999 and 2018. This test evaluates high school graduates' knowledge of mathematics, social studies, natural sciences, Spanish, and literature.

## B Descriptive Statistics

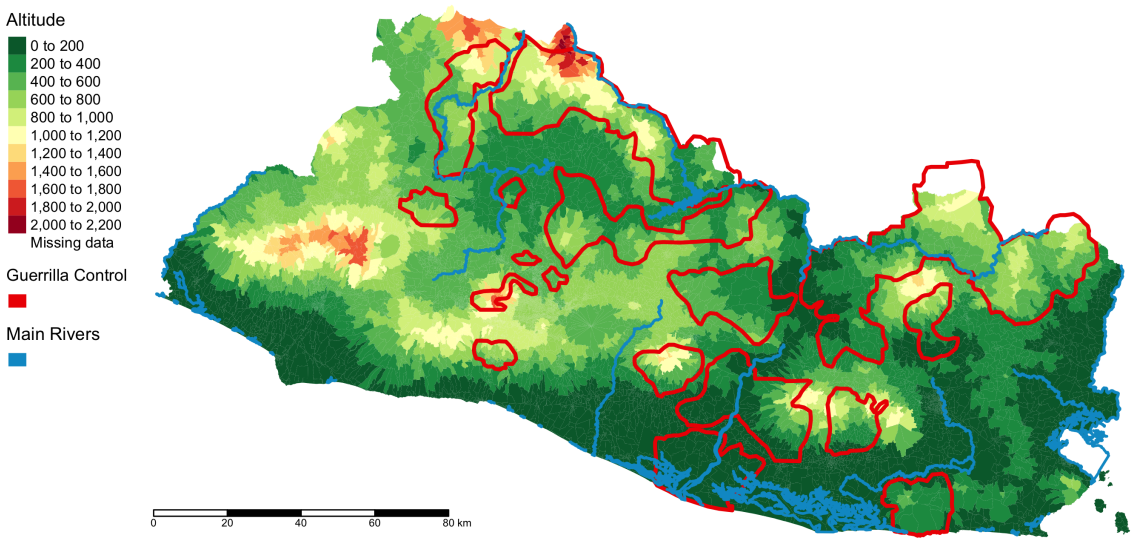
Table B.1. Summary Statistics of the Variables Used in the Estimation

| | Mean | SD | Min | Max | Obs |
|---|---|---|---|---|---|
| *Panel A: Ceasefire map of 1991* | | | | | |
| Segment under guerrilla control | 0.167 | 0.373 | 0.000 | 1.000 | 12,435 |
| Distance to nearest controlled area | -8.647 | 12.243 | -67.010 | 17.955 | 12,435 |
| *Panel B: Geographic characteristics* | | | | | |
| Night Light Luminosity (2013) | 3.181 | 1.471 | 0.000 | 4.825 | 12,432 |
| Altitude (1980) | 496.403 | 287.500 | 0.000 | 2,185.623 | 12,433 |
| Slope (1980) | 7.458 | 5.153 | 0.000 | 30.127 | 12,432 |
| Ruggedness (1980) | 10.916 | 8.274 | 0.000 | 184.795 | 12,432 |
| Hydrography (1980) | 0.282 | 0.450 | 0.000 | 1.000 | 12,435 |
| Roads and Railway (1980) | 0.376 | 0.484 | 0.000 | 1.000 | 12,435 |
| *Panel C: Socioeconomic characteristics* | | | | | |
| Wealth Index (2007) | -0.168 | 0.890 | -2.336 | 1.723 | 12,393 |
| Hospitals per 100k Population (2007) | 15.637 | 62.482 | 0.000 | 787.402 | 12,406 |
| Schools per 100k Population (2007) | 112.544 | 219.692 | 0.000 | 11,111.111 | 12,406 |
| Sewerage Service Rate (2007) | 0.352 | 0.428 | 0.000 | 1.000 | 12,406 |
| Garbage Rate (2007) | 0.439 | 0.441 | 0.000 | 1.000 | 12,406 |
| Water Access Rate (2007) | 0.744 | 0.323 | 0.000 | 1.000 | 12,406 |
| Electricity Rate (2007) | 0.865 | 0.186 | 0.000 | 1.000 | 12,406 |
| Daily Water Rate (2007) | 0.713 | 0.359 | 0.000 | 1.000 | 12,276 |
| Total Population (2007) | 463.011 | 137.741 | 2.000 | 3,462.000 | 12,406 |
| Years of Education (2007) | 6.098 | 2.759 | 0.000 | 15.272 | 12,406 |
| Literacy Rate (2007) | 0.787 | 0.139 | 0.000 | 1.000 | 12,406 |
| International Migrants (2007) | 22.310 | 21.781 | 1.000 | 182.000 | 11,725 |
| *Panel D: Economic activity* | | | | | |
| Agriculture (2007) | 0.245 | 0.263 | 0.000 | 1.000 | 12,403 |
| Industry (2007) | 0.218 | 0.116 | 0.000 | 0.786 | 12,403 |
| Services(2007) | 0.536 | 0.223 | 0.000 | 1.000 | 12,403 |
| Share of Agricultural Workers Growing Subsistence Crops (2007) | 0.198 | 0.239 | 0.000 | 1.000 | 12,403 |
| *Panel E: Attitudes towards the Government* | | | | | |
| Political Paticipation ICW (2004–2016) | 0.133 | 0.960 | -2.370 | 2.377 | 270 |
| Engagement with Politicians ICW (2004–2016) | 0.022 | 0.959 | -0.661 | 5.115 | 275 |
| Non-Democratic Engagement ICW (2004–2016) | 0.105 | 1.016 | -1.104 | 3.933 | 199 |
| Trust in Institutions ICW (2004–2016) | 0.114 | 0.990 | -3.608 | 2.272 | 273 |
| Distrust of Members of the Community Share (2004–2016) | 0.095 | 0.215 | 0.000 | 1.000 | 818 |
| *Panel F: Agricultural Productivity* | | | | | |
| Bean Production (2005) | 0.095 | 0.061 | 0.000 | 0.266 | 12,427 |
| Maize Production (2005) | 1.822 | 1.323 | 0.000 | 6.631 | 12,427 |
| Coffee Production (2005) | 0.416 | 0.303 | 0.000 | 2.817 | 12,427 |
| Sugarcane Production (2005) | 22.415 | 46.151 | 0.000 | 426.958 | 12,427 |
| Share of Bean Harvest (2005) | 0.023 | 0.047 | 0.000 | 0.969 | 12,426 |
| Share of Maize Harvest (2005) | 0.070 | 0.148 | 0.000 | 3.376 | 12,426 |
| Share of Coffee Harvest (2005) | 0.046 | 0.091 | 0.000 | 1.189 | 12,426 |
| Share of Sugarcane Harvest (2005) | 0.027 | 0.091 | 0.000 | 1.456 | 12,426 |
| Bean Yield (2005) | 0.387 | 0.099 | 0.000 | 0.481 | 12,427 |
| Maize Yield (2005) | 2.174 | 0.549 | 0.000 | 2.777 | 12,427 |
| Coffee Yield (2005) | 0.824 | 0.164 | 0.000 | 1.249 | 12,427 |
| Sugarcane Yield (2005) | 62.632 | 19.224 | 0.000 | 115.003 | 12,427 |

*Notes:* This table presents summary statistics of most raw variables used in the analysis. The information was gathered from diverse sources. See Appendix A for more details.

## C Maps

Figure C.1. Mapping of Altitude, Main Rivers, and Guerrilla-Controlled Territories




*Notes:* The figure maps the guerrilla-controlled areas, main rivers, and the variation in altitude for El Salvador. The latter is at a resolution of 3 arc-seconds and based on the DEM model of NASA's SRTM.

## D Complementary Survey Appendix

### D.A Survey

To collect information on additional mechanisms of the results obtained from administrative datasets, we conducted a household-level, self-reported survey in July–August 2022. The survey allows us to evaluate differences between individuals living in areas that were controlled (or not) by guerrillas regarding preferences for land tenure, trust in in-groups and out-groups, perceptions of local institutions, and measures of prosocial behaviors.

### D.B Sampling and recruitment

#### D.B.1 Power calculations

To determine the sample size, we estimated statistical power assuming an $\alpha$ of 0.05 and statistical power of $80\%$. Using household-level data on land tenure from the household survey and defining census tracts as our cluster of interest, we estimate an intracluster correlation of 0.24 and use it for our statistical power estimations. From the household survey, we also estimate an average census tract size of 8 households. Using these parameters, we are able to identify effects between 0.1–0.165 standard deviations with a sample size of 4,000 individuals from 600 census tracts equally distributed between areas controlled (or not) by guerrillas during the war.

#### D.B.2 Sampling

The sample for the survey was determined following two steps. First, we selected the 1,056 census tracts that were part of the sample used for the main estimation (equation 1). Second, we randomly selected 603 census tracts (305 in controlled areas and 298 in non-controlled areas). To account for differences in the number of households within each census tract, and since there is no updated sampling frame at the household level, we conducted the following procedure to determine the number of surveys in each census tract. First, we used information from the Population and Household Census of 2007 to estimate the number of households that had at least an adult between 30 and 70 years of age within each census tract.[40] Then, assuming there were no important changes in the distribution of the number of households within each census tract over time, we distribute the 4,809 surveys among each census tract based on the size of each tract in 2007.

[40] This age range is relevant because that would allow us to interview individuals at different ages during the war, including some who were not even born by then.

### D.B.3 Recruitment

To conduct the survey, we implemented an adaptation of Melnikov, Schmidt-Padilla and Sviatschi (2020). First, in coordination with the survey firm, we identified the different entry points to each census tract and randomly selected one of these points. Enumerators started by interviewing the closest household to the randomly selected entry point. Then, following a clockwise direction, the next surveyed household was the closest to the first one, and so on until the required number of households were interviewed for each census tract. We made sure that only households within the relevant census tracts and boundaries of our RD design were included. We imposed two restrictions on the eligibility of each household. First, we only administered the survey to household heads between 30 and 70 years of age.[41] Second, we only interviewed household heads who had been living in the same place since the period of guerrilla territorial control (1981–1992). Moreover, we only surveyed household heads who consented to be interviewed by the enumerators and who lived within the boundaries of our RD design. Our final sample consisted of 4,809 individuals, 2,345 living in territories controlled by the guerrilla and 2,464 in non-controlled territories.

## D.C Survey instrument

After verifying the eligibility of a household head and obtaining their informed consent for the survey, we began the survey. We collected information related to the location and sociodemographic profile of the participants, their employment status and economic activity, their land tenure and use, their trust in different institutions, measures of prosocial behavior, and their perceptions about economic inequality.

1. **Screening:** we asked potential respondents to express their informed consent to be part of the survey and to indicate whether they lived in the same place as today during the 1981–1992 period. We then geocoded the place of current residence for all household heads who were eligible to participate in the survey and who expressed their desire to do so.

2. **Sociodemographic characteristics:** we asked the respondents about their sex, age, highest level of education, number of household members, and the reasons why they live in, or moved to, the current place of residence.

3. **Pro-social behaviors (community engagement):** we asked survey participants how much they interacted with their community, if they engaged in civil society initiatives such as local

[41] Note that we have 5 individuals who are older than 70.

development councils or Community Development Associations (ADESCO for its Spanish acronym), and about the frequency of attendance to development council meetings. We also asked them to play a dictator game in which they were asked to split US $1 between themselves, a vulnerable family in their community, and another vulnerable Salvadoran family outside their community.

4. **State-individual interactions:** We also included questions related to tax collection, willingness to pay taxes to the government, and if they were aware of any local government agency in their community.

5. **Economic activity and land-sale preference:** we registered respondents' main occupation. Moreover, we asked them if they could consider selling their land to another member of the community, and how hard they think it would be.

6. **Social desirability:** To account for social desirability bias in the self-report of some questions, such as trust and pro-social behaviors, we included the four items related to social desirability from the Crowne and Marlowe (1960) scale. It includes questions such as if they sometimes feel like they lack persistence, if they feel jealousy towards other people's good luck, and if they ever say things to hurt other people on purpose, among others.

### D.D Data description

In this section, we describe the variables in our analysis and how we constructed them:

- Donation to family in the community, vulnerable family outside the community in El Salvador, and to yourself: we asked respondents to split a US $1 phone recharge between themselves, a vulnerable family in their community, and a vulnerable Salvadoran family outside their community. We use the monetary values reported by the respondents as the main outcome for each category. These outcomes take a value between 0 and 1.

- Interactions with other community members: We used the question about the frequency of interaction with other members in the community in some events, such as meetings, parties, religious festivities, and local markets, among others. The response option for this question was on a 1 to 5-point Likert scale, where a higher score indicates a more frequent interaction. To construct the outcome variables, we standardized the respondent's answer using the mean and standard deviation of the control group.

- Member of civil society organization: this consists of a dummy variable that equals 1 whenever a respondent reported being a member of an organization such as a workers' cooperative or another non-religious organization.
- Presence of Local Development Council: this is a dummy indicator that equals one whenever an individual reported being a member of a Local Development Association –ADESCO for its initials in Spanish– or participating in a community improvement project.
- Frequency of Local Development Council meetings: respondents report the frequency of their local Development Council meetings. We created a dummy variable to capture this information. Namely, we coded each of the following as 1: less than monthly, monthly, and more than monthly frequency. We coded the dummy variable as 0 when respondents reported their local Development Council never held meetings.
- Government collects taxes: we created a dummy variable equal to 1 if the respondent reported being aware of the government collecting taxes in their community.
- People pay taxes: this is a dummy variable indicating if the respondent thought the average community member paid taxes.
- Government agency in the community: this is a dummy variable that equals 1 if a respondent reported there was a local government office in their community from which they could get information or help with a problem.
- Difficulty selling land: respondents rated the difficulty of selling their land on a 1 to 5 scale, where higher values imply more difficulty. To construct the outcome, we standardized the respondent's answer using the mean and standard deviation of the control group.
- Would sell land to member outside the community: this is a dummy variable that takes the value of 1 for respondents who reported willingness to sell their land to a member outside the community.
- Reason for not moving out (migrating) from their community: We asked participants why they had been living in their community since the peak of the civil conflict. We presented the following response options: economic opportunity, social ties (i.e., friends and family live here), inability to leave for lack of money, land ownership, and others. We created a dummy for each category of analysis.

- Occupational choice: we asked respondents to choose which of these options best described their main occupation: agriculture, sales, own household work, working as an employee, or other. We created a dummy for each category of analysis.
- Years of education: To estimate a proxy for the number of years of education, we used the education level question. That is, we assumed that respondents with no formal schooling had zero years of education, those who completed elementary school had six years, and those who completed middle school had nine. High school graduates had 13 while college graduates and holders of a postgraduate degree had 21 and 24 years of education, respectively. In this sense, this variable has a value between zero and 24 for each respondent.
- Social Desirability Index: we construct a social desirability index using the four statements included in the survey:"It is sometimes difficult for me to work without being told to," "I have stopped doing an activity because I have felt unable to succeed," "I have felt jealous of other people's good luck," and "I have done or said things to hurt other people on purpose." We asked participants if they agreed or not with each statement. If the respondent disagreed with any statement, we coded the response to that statement as a 1, and zero otherwise. Then we added all the responses; thus, the raw outcome can take a value between 1 and 4; the higher the score, the higher the social desirability bias. Then we created a standardized index for each respondent using the mean and standard deviation of the index for the control group.

In Table D.1, we summarize the data. We report the means and number of observations of the key variables for the subsample that was under guerrilla control and the control group comprised of households in areas that were never under guerrilla control.

Table D.1. Summary Statistics by Group

| | In-Boundary Sample | | Out of Boundary Sample | |
|---|---|---|---|---|
| | Mean | Obs | Mean | Obs |
| *Demographics:* | | | | |
| Years of Education | 7.069 | 2,334 | 8.085 | 2,447 |
| Age | 50.299 | 2,345 | 50.880 | 2,457 |
| *Social Desirability:* | | | | |
| Difficult to Work Without Being Told to | 0.168 | 2,331 | 0.201 | 2,444 |
| Lacks Persistence | 0.237 | 2,343 | 0.267 | 2,456 |
| Jealousy | 0.099 | 2,344 | 0.132 | 2,456 |
| Hurts Others on Purpose | 0.244 | 2,336 | 0.326 | 2,446 |
| *Donation to: (0-1 Scale)* | | | | |
| Community Member | 0.304 | 2,345 | 0.312 | 2,456 |
| Vulnerable Family in El Salvador | 0.105 | 2,345 | 0.139 | 2,456 |
| Yourself | 0.590 | 2,345 | 0.547 | 2,456 |
| *Community Engagement:* | | | | |
| Interaction with Community | 0.110 | 2,317 | 0.000 | 2,431 |
| Member of Civil Society Organization | 0.071 | 2,343 | 0.052 | 2,456 |
| Presence of Development Council | 0.109 | 2,339 | 0.087 | 2,454 |
| Attends Development Council Meeting | 0.496 | 1,832 | 0.393 | 1,868 |
| *State-Individual Interactions:* | | | | |
| Government Collects Taxes | 0.560 | 2,303 | 0.663 | 2,419 |
| People Pay Taxes | 0.393 | 1,667 | 0.458 | 1,527 |
| Government Agency in Community | 0.138 | 2,309 | 0.173 | 2,404 |
| *Land Tenure Perceptions:* | | | | |
| Difficulty of Selling Land | -0.010 | 2,300 | 0.000 | 2,372 |
| Would Sell Land to Community Member | 0.170 | 2,327 | 0.272 | 2,442 |
| *Reason for Staying in the Current Place of Residence:* | | | | |
| Economic Opportunity | 0.018 | 2,342 | 0.029 | 2,449 |
| Social Ties | 0.648 | 2,342 | 0.624 | 2,449 |
| Inability to Leave | 0.016 | 2,342 | 0.018 | 2,449 |
| Owns Land | 0.310 | 2,342 | 0.317 | 2,449 |
| Other | 0.008 | 2,342 | 0.013 | 2,449 |
| *Occupational Choice:* | | | | |
| Agriculture | 0.591 | 2,342 | 0.377 | 2,453 |
| Sales | 0.161 | 2,342 | 0.227 | 2,453 |
| Works in Own Household | 0.105 | 2,342 | 0.177 | 2,453 |
| Works as an Employee | 0.131 | 2,342 | 0.193 | 2,453 |
| Other | 0.012 | 2,342 | 0.025 | 2,453 |

*Notes:* This table presents summary statistics of all variables from our 2022 survey used in the analysis. See Appendix D for more details on the survey and the power calculations, sampling, and recruitment procedures.

## E Qualitative Study

This Appendix provides further information on the methods used in the qualitative component of the study and their main results.

### E.A Sample definition and recruitment of participants

The qualitative study aims to complement the quantitative results by gathering information to understand the dynamics that occurred within territory controlled by Salvadoran guerrillas, the stability of the borders, and changes in the economic, social, and political structures, among other potential mechanisms that could underpin the main findings in this study.

The target groups were: (i) political-military leaders of the guerrillas, who designed and implemented military strategy and policies with a broad knowledge of the grassroots social movement; (ii) religious and community leaders with in-depth knowledge of the armed conflict; (iii) residents of areas controlled by the guerrillas during the Civil War; and (iv) former guerrilla members who were prominent in the operational-military arena.

Given the diversity of these groups, we collected information using in-depth interviews and focus groups. Groups (i) and (ii) were invited to join individual in-depth interviews and focus groups, while (iii) and (iv) were invited to participate in focus groups. A total of three focus groups and eight in-depth interviews occurred in June 2022. Focus groups took place in three municipalities: one in Chalatenango and two in Morazán. These municipalities were selected based on the intensity of guerrilla presence during the Civil War.[42]

### E.B Instruments

Three instruments were developed: (i) for in-depth interviews (with religious or community leaders and political-military leaders), (ii) for focus groups of citizens who lived in former guerrilla areas, and (iii) for interviews with former guerrillas.

All three instruments included two components. First, there were questions related to the economic and social dynamics of guerrilla-controlled areas before and during the war: for example, questions about the main local economic activity before the arrival of the specific guerrilla group in charge of the area or about the form of government in place during the conflict. Second, there were questions concerning participants' perceptions of changes in social and economic factors af-

[42]Since Morazán was a crucial department for the FMLN during the Civil War, two focus groups were conducted there.

ter the war's end: for example, whether they perceived that the presence of guerrillas affected social and community ties in the area to the present day.

Instruments (i) and (ii) also included questions related to characterizing the geographic space controlled by the guerrillas. For example, the instruments asked whether and how the borders of the controlled territories changed during the conflict, when these borders became more stable, or the reasons why guerrillas chose these areas.

### E.C Approach

For the qualitative study, interviewers used a narrative technique that employed a semi-structured approach of open-ended questions to permit more variation in responses. These interviews and focus groups create a natural in-depth discussion that yields specific details on the different components included in the instruments.

Interviews lasted 60 to 70 minutes, and focus group discussions lasted up to one hour. A local consultant with expertise in qualitative research and knowledge of the guerrilla movement conducted the interviews. She was responsible for recruiting participants who met the eligibility criteria, obtaining their informed consent, conducting the interviews, and producing their transcripts. Special care was taken to preserve participant anonymity and freedom to consent. Indeed, the strategy for maintaining trust and safety was to be extremely clear to all participants that the purpose of the survey was purely academic.

### E.D Main results

The main messages of the qualitative analysis are summarized below.

*Establishment of self-governance institutions to promote social capital*

Our interviews with FMLN commanders show that consolidating self-governance institutions in controlled areas was a key strategy. From 1982 onwards, the state—in terms of its traditional institutional framework—disappeared. For example, municipal authorities ceased to function; local judges stopped providing their services, etc. In the words of one FMLN military commander: *"Mayors, judges, security posts, everything disappears, (...), practically the state disappears, and the state was us [the FMLN]."* (Joaquín Villalobos, FMLN Military Commander, interview conducted on March 23, 2022). As a substitute for power, popular power emerged; that is, power determined by the people. When asked about FMLN-controlled areas, an influential religious leader who lived in these areas said: *"the project of structural change in control areas was always present. (...). Starting*

*in 1982–1983, these places become controlled territories, the institutions disappear, and the popular powers emerge (...).*" (Religious leader, interview conducted on March 25, 2022). In these new institutions, the key principle was the organization of local communities: "*the individual that lives in a controlled area has a clear consciousness that what prevails in these areas are values. (...) what was consolidated was an idea of social co-responsibility.*" (Religious leader, interview conducted on March 25, 2022). This strategy was not a by-product of the elimination of state authorities but rather a deliberate plan to promote the autonomy of peasants from traditional government institutions. The change in military strategy—from a regular to an irregular war— was linked to the conviction that civilians had the right to direct their own lives. Marisol Galindo, an FMLN commander, explained: the locals "*had a right to be on their own land, the right to harvest, to not be treated as armed population,(...), that is, we*" [the guerrillas] "*made a clear distinction between guerrilla members and civilian population. (...). We wanted to rescue organizational forms of what today we call the Civil Society (...).*" (Marisol Galindo, FMLN military commander, interview conducted January 28, 2022). When the state disappeared, peasants took charge of these informal institutions, like the 'poder de doble cara' (or double-faced power), which was the "*self-governance of civilians, to solve their own needs (...), and it had to be done in confrontation with the state.*" (Joaquín Villalobos, FMLN Military Commander, interview conducted on March 23, 2022). This organization of citizens in the communities made it possible to guarantee social cohesion or the "*tejido social.*"

Our interviews revealed powerful evidence of the enduring social capital these institutions generated. In several instances, individuals reflected upon the fact that, although these areas seem to be less developed, they are extremely secure. When the interviewer noted that the zones of former guerrilla presence don't have any gang presence, one of the former combatants said: "*Yes [they are the most secure], and where judges die of boredom.*" She later added, "*I relate this to the level of organization that the community achieved. I am going to give you an example; in San José de las Flores there is a river and thermal waters, and there is a little hotel. If you go there and say you want to stay there for 10 days, they will ask you, who are you? Who sent you? Once a fugitive gangster (marero) came who believed he could stay. It is impossible. They investigate who sent you, your references.*" (Lorena G., FMLN military commander, interviewed on January 28, 2022). The same point was made in other interviews, where an ex-combatant said "*the fact that the maras (gangs) are barely present in these areas reflects that the self-organization of the population worked.*" (Joaquín Villalobos, FMLN Military Commander, interview conducted on March 23, 2022).

The organization of the communities was promoted by local leadership groups such as the Organization of the Comadres and the Sisters of the Assumption. One of the paradigmatic civil society organizations that developed and still exists today is the *Patronato para el Desarrollo de las Comunidades de Morazán y el Norte de San Miguel (PADECOMSM)*. This organization is based on a framework of participatory democracy and self-management with local, zonal, and regional councils that identify problems and devise solutions. The PADECOMSM emerged as a consequence of autonomous space that was granted to civilians in guerrilla-controlled areas.

*Migration decisions*

Participants reported various reasons for not migrating from controlled areas. These interviews reflected a sense of rootedness in the communities and attachment to their limited economic resources. One guerrilla commander said: *"there were many families, that is why some schools for children emerge [in the controlled zones], because many of these families wanted to stay. (...) What the stories from those years reflect is that there was an important population that did not want to leave."* (Marisol Galindo, FMLN military commander, interview conducted January 28, 2022).

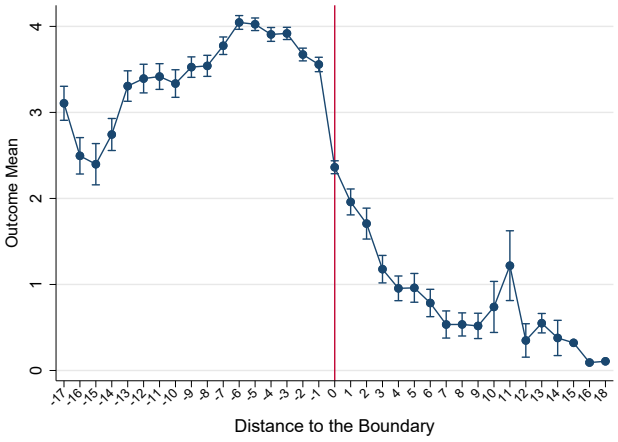
*Stability of boundaries*

Ex-guerrilla leaders confirmed that the boundaries between controlled and non-controlled territories were stable. A potential explanation is that both the guerrillas and the Salvadoran army changed their military strategy. After the failed military offensive in 1981, the FMLN decided to switch to an irregular strategy based on the control of liberated zones and lengthy irregular war. The state's response was focused on bombarding the country, which did not affect the boundaries of guerrilla territory. Joaquín Villalobos, one of the most important FMLN military commanders, also mentioned that the state made a crucial mistake in underestimating their capacity and practically gave them territory: *"after they left us our territory, we moved to a superior level of organization and consolidation of power (...)."* (Joaquín Villalobos, FMLN Military Commander, interview conducted on March 23, 2022). All the military commanders we interviewed agreed that, especially after the war reached a stalemate, the boundaries of the controlled areas were extremely stable. They also confirmed that the map we used to identify control areas was the map used and approved by all parties during the peace talks sponsored by the UN.

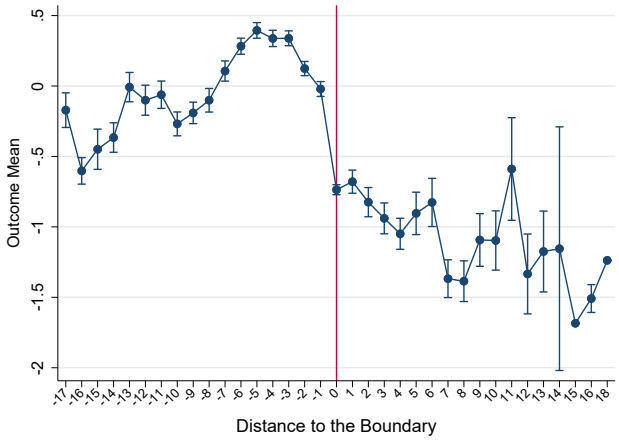
## F Robustness Tests

Figure F.1. External Validity for Main Outcomes

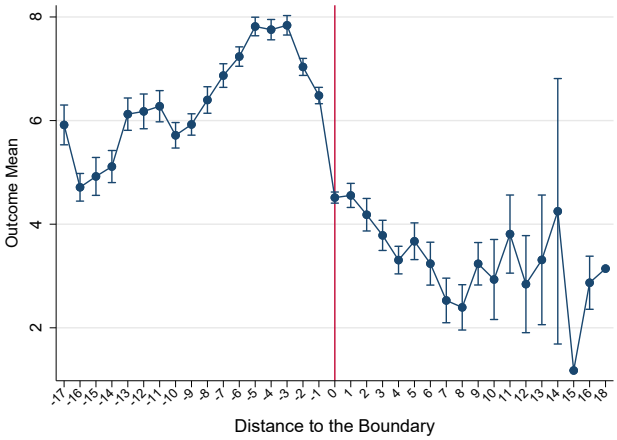
(a) Night Light Luminosity (2013)




(b) Wealth Index (2007)



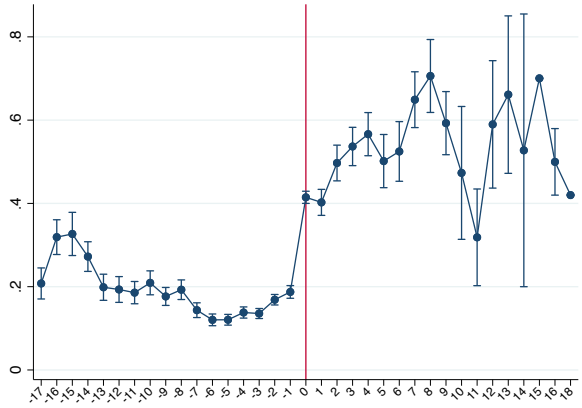

(c) Years of Education (2007)



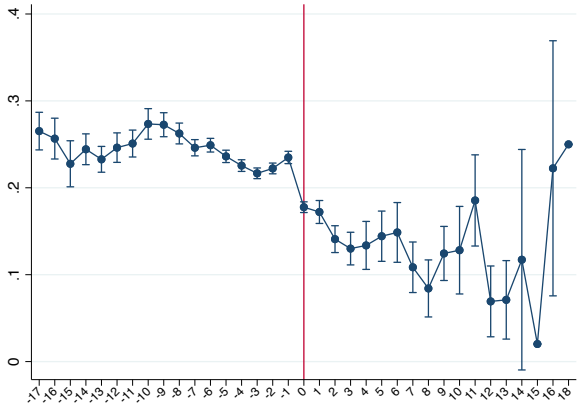

*Notes:* The figure shows the raw mean of each outcome by bin. Each bin corresponds to the distance to the boundary in km, which ranges from 17 km outside the guerrilla-controlled boundary to 18 km within the boundary. Negative values signal being outside the boundary and positive values mean being inside the boundary. Data for night light luminosity comes from NOAA; wealth and education data come from the Population and Household Census of 2007.

Figure F.2. Share of Workers by Economic Activity and Distance to the Boundary

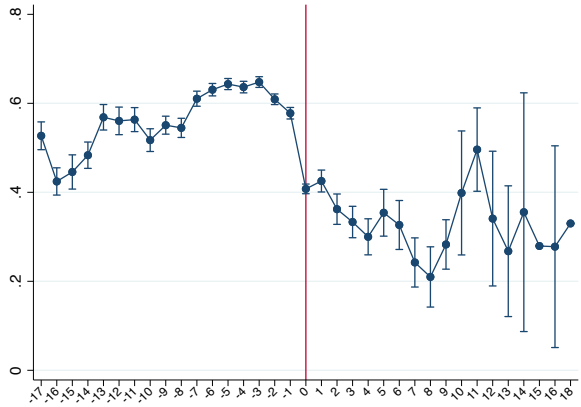
(a) Agriculture



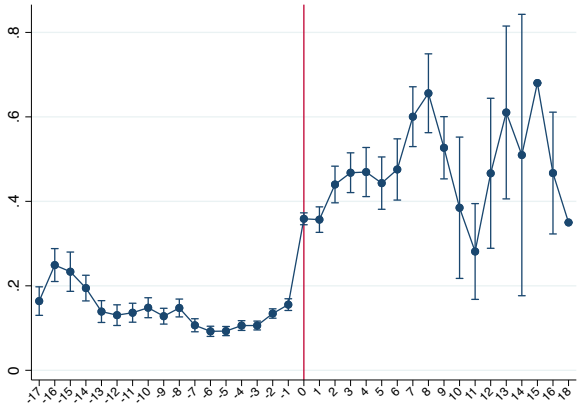
(b) Industry



(c) Services



(d) Share of Agricultural Workers Growing Subsistence Crops



*Notes:* The figure shows the raw mean of each outcome by bin. Each bin corresponds to the distance to the boundary in km, which ranges from 17 km outside the guerrilla-controlled boundary to 18 km within the boundary. Negative values signal being outside the boundary and positive values mean being inside the boundary. Data come from the Population and Household Census of 2007.

Table F.1. Effects of Guerrilla Territorial Control on Night Light Luminosity, Human Capital, and Wealth Controlling for Altitude

| | Night Light Luminosity | Wealth Index | Years of Education |
|---|---|---|---|
| | (2013) | (2007) | (2007) |
| | (1) | (2) | (3) |
| Guerrilla control | -0.182*** | -0.113*** | -0.264** |
| | (0.0244) | (0.0356) | (0.110) |
| Observations | 3,652 | 3,630 | 3,637 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 |
| Dependent mean | 3.536 | -0.0160 | 6.573 |

*Notes:* The table presents the results of estimating equation 1 for the main outcomes. Column 1 shows the effect of whether a census tract was under guerrilla control on the arcsine of night light luminosity from NOAA. Column 2 uses the standardized score of household wealth as the dependent variable in the same estimation. Column 3 shows as dependent variable years of education of the population older than 18 years. The unit of observation in all columns is the census tract. Information from Columns 2 and 3 was obtained from the Population and Household Census of 2007. Controls not shown include altitude, a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with an indicator of whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates use triangular kernel weights. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.2. Effects of Guerrilla Territorial Control on Other Transformations of Night Light Luminosity and Literacy Rate

| | Transformations of Night Light Luminosity (2013) | | | Literacy Rate |
|---|---|---|---|---|
| | Logarithm | Level (Raw) | Weighted by Pixel Area | (2007) |
| | (1) | (2) | (3) | (4) |
| Guerrilla control | -0.218*** | -1.710*** | -1.710*** | -0.0212*** |
| | (0.0294) | (0.339) | (0.339) | (0.00501) |
| Observations | 3,652 | 3,652 | 3,652 | 3,637 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | 2.810 | 30.725 | 30.725 | 0.810 |

*Note:* The table presents the results of equation 1 using different transformations of night light luminosity in Columns 1–3. Column 4 shows the results for the effect of guerrilla control on literacy rates. The unit of observation in all columns is the census tract. Data for night light luminosity comes from NOAA, while literacy rates come from the Population and Household Census of 2007. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. We use the algorithm of Calonico, Cattaneo and Titiunik (2014) to set the bandwidth and weight using a triangular kernel. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.3. Effects of Guerrilla Territorial Control on Main Outcomes Using Conley Standard Errors

| *Panel A: Conley Standard Errors (0.5 Km)* | | | |
|---|---|---|---|
| | Night Light Luminosity | Wealth Index | Years of Education |
| | (2013) | (2007) | (2007) |
| | (1) | (3) | (2) |
| Guerrilla control | -0.186*** | -0.121*** | -0.279*** |
| | (0.0242) | (0.0343) | (0.103) |
| Observations | 3,652 | 3,630 | 3,637 |
| *Panel B: Conley Standard Errors (2 Km)* | | | |
| Guerrilla control | -0.186*** | -0.121** | -0.279** |
| | (0.0278) | (0.0482) | (0.129) |
| Observations | 3,652 | 3,630 | 3,637 |
| *Panel C: Conley Standard Errors (4 Km)* | | | |
| Guerrilla control | -0.186*** | -0.121** | -0.279** |
| | (0.0344) | (0.0566) | (0.142) |
| Observations | 3,652 | 3,630 | 3,637 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 |

*Note:* The table presents the results of equation 1 using Conley standard errors. The unit of observation in all columns is the census tract. Data for night light luminosity come from NOAA, while wealth and education data, from the Population and Household Census of 2007. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. We use the algorithm of Calonico, Cattaneo and Titiunik (2014) to set the bandwidth and weight using a triangular kernel. Conley standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.4. Effects of Guerrilla Territorial Control on Main Outcomes Using a 5 Km bandwidth and Different Donut Hole Sizes.

| | | | | | |
|---|---|---|---|---|---|
| *Panel A: Night Light Luminosity (2013)* | | | | | |
| Guerrilla control | -0.215*** | -0.240*** | -0.262*** | -0.288*** | -0.326*** |
| | (0.0212) | (0.0232) | (0.0256) | (0.0280) | (0.0295) |
| Observations | 6,517 | 6,345 | 6,172 | 6,005 | 5,831 |
| Dependent mean | 3.738 | 3.738 | 3.735 | 3.731 | 3.726 |
| *Panel B: Wealth Index (2007)* | | | | | |
| Guerrilla control | -0.168*** | -0.175*** | -0.165*** | -0.144*** | -0.124*** |
| | (0.0276) | (0.0291) | (0.0305) | (0.0316) | (0.0328) |
| Observations | 6,481 | 6,311 | 6,140 | 5,973 | 5,799 |
| Dependent mean | 0.171 | 0.171 | 0.168 | 0.167 | 0.166 |
| *Panel C: Years of Education (2007)* | | | | | |
| Guerrilla control | -0.340*** | -0.312*** | -0.238*** | -0.214** | -0.174** |
| | (0.0783) | (0.0798) | (0.0823) | (0.0842) | (0.0881) |
| Observations | 6,491 | 6,321 | 6,148 | 5,981 | 5,807 |
| Dependent mean | 7.210 | 7.208 | 7.203 | 7.201 | 7.201 |
| Bandwidth (Km) | 5 | 5 | 5 | 5 | 5 |
| Donut Hole (Km) | 0 | 0.150 | 0.300 | 0.450 | 0.600 |

*Note:* The table presents results for the main outcomes but under different specifications that help discard the hypothesis that effects were driven by conflict. In particular, we show results using a larger bandwidth of 5km and a donut-hole methodology with a hole sizes that vary from 0 to 600 m. The unit of observation in all columns is the census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates weight using a triangular kernel. Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.5. Effects of Guerrilla Territorial Control on Main Outcomes Using a 9 Km bandwidth and Different Donut Hole Sizes.

| | | | | | |
|---|---|---|---|---|---|
| *Panel A: Night Light Luminosity (2013)* | | | | | |
| Guerrilla control | -0.273*** | -0.344*** | -0.380*** | -0.417*** | -0.504*** |
| | (0.0220) | (0.0290) | (0.0379) | (0.0492) | (0.0628) |
| Observations | 8,742 | 8,178 | 7,569 | 6,903 | 6,163 |
| Dependent mean | 3.782 | 3.776 | 3.769 | 3.771 | 3.770 |
| *Panel B: Wealth Index (2007)* | | | | | |
| Guerrilla control | -0.255*** | -0.234*** | -0.163*** | -0.163*** | -0.194*** |
| | (0.0250) | (0.0295) | (0.0333) | (0.0407) | (0.0516) |
| Observations | 8,703 | 8,143 | 7,539 | 6,876 | 6,137 |
| Dependent mean | 0.175 | 0.172 | 0.172 | 0.176 | 0.178 |
| *Panel C: Years of Education (2007)* | | | | | |
| Guerrilla control | -0.662*** | -0.555*** | -0.407*** | -0.476*** | -0.601*** |
| | (0.0699) | (0.0797) | (0.0919) | (0.110) | (0.142) |
| Observations | 8,715 | 8,153 | 7,549 | 6,886 | 6,147 |
| Dependent mean | 7.166 | 7.159 | 7.167 | 7.192 | 7.197 |
| Bandwidth (Km) | 9 | 9 | 9 | 9 | 9 |
| Donut Hole (Km) | 0 | 0.500 | 1 | 1.500 | 2 |

*Note:* The table presents results for the main outcomes but under different specifications that help discard the hypothesis that effects were driven by conflict. In particular, we show results using a larger bandwidth of 9km and a donut-hole methodology with a hole sizes that vary from 0 to 2000 m. The unit of observation in all columns is the census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates weight using a triangular kernel. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.6. Effects of Guerrilla Territorial Control on Main Outcomes Using a 17.95 Km bandwidth and Different Donut Hole Sizes.

| | | | | | |
|---|---|---|---|---|---|
| *Panel A: Night Light Luminosity (2013)* | | | | | |
| Guerrilla control | -0.391*** | -0.494*** | -0.646*** | -0.818*** | -0.920*** |
| | (0.0244) | (0.0407) | (0.0646) | (0.0940) | (0.140) |
| Observations | 10,496 | 9,323 | 7,917 | 6,585 | 5,430 |
| Dependent mean | 3.659 | 3.644 | 3.628 | 3.617 | 3.571 |
| *Panel B: Wealth Index (2007)* | | | | | |
| Guerrilla control | -0.363*** | -0.280*** | -0.330*** | -0.460*** | -0.455*** |
| | (0.0237) | (0.0325) | (0.0495) | (0.0653) | (0.110) |
| Observations | 10,456 | 9,292 | 7,890 | 6,561 | 5,418 |
| Dependent mean | 0.0960 | 0.0900 | 0.0830 | 0.0740 | 0.0320 |
| *Panel C: Years of Education (2007)* | | | | | |
| Guerrilla control | -0.952*** | -0.698*** | -0.890*** | -1.278*** | -1.126*** |
| | (0.0651) | (0.0890) | (0.138) | (0.165) | (0.226) |
| Observations | 10,468 | 9,302 | 7,900 | 6,567 | 5,420 |
| Dependent mean | 6.883 | 6.872 | 6.855 | 6.811 | 6.627 |
| Bandwidth (Km) | 17.95 | 17.95 | 17.95 | 17.95 | 17.95 |
| Donut Hole (Km) | 0 | 1 | 2 | 3 | 4 |

*Note:* The table presents results for the main outcomes but under different specifications that help discard the hypothesis that effects were driven by conflict. In particular, we show results using a larger bandwidth of 17.95 km and a donut-hole methodology with a hole sizes that vary from 0 to 4000 m. The unit of observation in all columns is the census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates weight using a triangular kernel. Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.7. Robustness Analysis for the Night Light Luminosity Outcome

| | *Night Light Luminosity (2013)* | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| *Panel A: Polynomial of order zero* | | | | | | | | | | | | |
| Guerrilla control | -0.153*** | -0.160*** | -0.153*** | -0.147*** | -0.346*** | -0.153*** | -0.153*** | -0.160*** | -0.153*** | -0.147*** | -0.346*** | -0.153*** |
| | (0.0278) | (0.0278) | (0.0277) | (0.0295) | (0.0220) | (0.0278) | (0.0278) | (0.0278) | (0.0277) | (0.0295) | (0.0220) | (0.0278) |
| Observations | 1,494 | 1,344 | 1,443 | 1,406 | 4,946 | 1,442 | 1,494 | 1,344 | 1,443 | 1,406 | 4,946 | 1,442 |
| Bandwidth type | mserd | mserd | mserd | msetwo | msetwo | msetwo | cerrd | cerrd | cerrd | certwo | certwo | certwo |
| Kernel | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov |
| Bandwidth (Km) | 0.588 | 0.441 | 0.538 | 0.510 | 3.388 | 0.535 | 0.588 | 0.441 | 0.538 | 0.510 | 3.388 | 0.535 |
| Dependent mean | 3.247 | 3.201 | 3.205 | 3.183 | 3.666 | 3.200 | 3.247 | 3.201 | 3.205 | 3.183 | 3.666 | 3.200 |
| *Panel B: Polynomial of first order* | | | | | | | | | | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| Guerrilla control | -0.186*** | -0.215*** | -0.198*** | -0.201*** | -0.232*** | -0.211*** | -0.142*** | -0.153*** | -0.147*** | -0.159*** | -0.188*** | -0.165*** |
| | (0.0247) | (0.0252) | (0.0248) | (0.0233) | (0.0238) | (0.0237) | (0.0298) | (0.0298) | (0.0295) | (0.0273) | (0.0272) | (0.0275) |
| Observations | 3,652 | 3,373 | 3,619 | 4,221 | 4,019 | 4,092 | 2,542 | 2,342 | 2,514 | 2,953 | 2,808 | 2,851 |
| Bandwidth type | mserd | mserd | mserd | msetwo | msetwo | msetwo | cerrd | cerrd | cerrd | certwo | certwo | certwo |
| Kernel | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov |
| Bandwidth (Km) | 2.266 | 2.040 | 2.235 | 2.750 | 2.571 | 2.630 | 1.414 | 1.273 | 1.395 | 1.717 | 1.605 | 1.641 |
| Dependent mean | 3.536 | 3.517 | 3.537 | 3.594 | 3.568 | 3.578 | 3.453 | 3.440 | 3.452 | 3.506 | 3.497 | 3.498 |
| *Panel C: Polynomial of second order* | | | | | | | | | | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| Guerrilla control | -0.205*** | -0.252*** | -0.220*** | -0.231*** | -0.239*** | -0.235*** | -0.140*** | -0.147*** | -0.146*** | -0.225*** | -0.234*** | -0.235*** |
| | (0.0274) | (0.0286) | (0.0277) | (0.0243) | (0.0269) | (0.0252) | (0.0336) | (0.0338) | (0.0334) | (0.0257) | (0.0282) | (0.0263) |
| Observations | 4,851 | 4,834 | 4,842 | 8,244 | 7,595 | 8,096 | 3,232 | 3,212 | 3,220 | 5,962 | 5,282 | 5,824 |
| Bandwidth type | mserd | mserd | mserd | msetwo | msetwo | msetwo | cerrd | cerrd | cerrd | certwo | certwo | certwo |
| Kernel | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov |
| Bandwidth (Km) | 3.303 | 3.284 | 3.292 | 7.583 | 6.353 | 7.296 | 1.927 | 1.916 | 1.921 | 4.424 | 3.707 | 4.257 |
| Dependent mean | 3.665 | 3.663 | 3.664 | 3.802 | 3.800 | 3.807 | 3.496 | 3.497 | 3.498 | 3.712 | 3.681 | 3.706 |

*Note:* The table presents the robustness of the effects of guerrilla control on night light intensity using different polynomial orders. Data come from NOAA. Panel A shows results for a constant polynomial. Panels B and C present the results using a first- and second-order polynomial, respectively. Estimations across columns show different bandwidth and kernel types and different bandwidth size. Robust standard errors in parentheses. "mserd" and "msetwo" specify one and two common MSE-optimal bandwidth selectors for the RD treatment effect estimator, respectively. "cerrd" and "certwo" indicate one or two common CER-optimal bandwidth selectors for the RD treatment effect estimator, respectively. The kernel row indicates the type of kernel used: triangular, uniform, or epanechnikov. Differences in the number of observations are due to the selection of different bandwidths across specifications. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.8. Robustness Analysis for the Wealth Index Outcome

| | *Wealth Index (2007)* | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| *Panel A: Polynomial of order zero* | | | | | | | | | | | | |
| Guerrilla control | -0.213*** | -0.220*** | -0.208*** | -0.211*** | -0.210*** | -0.208*** | -0.213*** | -0.220*** | -0.208*** | -0.211*** | -0.210*** | -0.208*** |
| | (0.0506) | (0.0552) | (0.0503) | (0.0517) | (0.0486) | (0.0507) | (0.0506) | (0.0552) | (0.0503) | (0.0517) | (0.0486) | (0.0507) |
| Observations | 1,258 | 1,124 | 1,221 | 1,240 | 1,173 | 1,216 | 1,258 | 1,124 | 1,221 | 1,240 | 1,173 | 1,216 |
| Bandwidth type | mserd | mserd | mserd | msetwo | msetwo | msetwo | cerrd | cerrd | cerrd | certwo | certwo | certwo |
| Kernel | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov |
| Bandwidth (Km) | 0.391 | 0.274 | 0.358 | 0.374 | 0.315 | 0.354 | 0.391 | 0.274 | 0.358 | 0.374 | 0.315 | 0.354 |
| Dependent mean | -0.327 | -0.317 | -0.331 | -0.326 | -0.361 | -0.332 | -0.327 | -0.317 | -0.331 | -0.326 | -0.361 | -0.332 |
| *Panel B: Polynomial of first order* | | | | | | | | | | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| Guerrilla control | -0.120*** | -0.100*** | -0.109*** | -0.118*** | -0.103*** | -0.107*** | -0.144*** | -0.118** | -0.133*** | -0.137*** | -0.111** | -0.127*** |
| | (0.0397) | (0.0367) | (0.0392) | (0.0374) | (0.0365) | (0.0374) | (0.0504) | (0.0461) | (0.0498) | (0.0471) | (0.0457) | (0.0471) |
| Observations | 2,987 | 3,066 | 2,933 | 3,298 | 3,104 | 3,179 | 2,088 | 2,125 | 2,057 | 2,289 | 2,164 | 2,204 |
| Bandwidth type | mserd | mserd | mserd | msetwo | msetwo | msetwo | cerrd | cerrd | cerrd | certwo | certwo | certwo |
| Kernel | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov |
| Bandwidth (Km) | 1.756 | 1.809 | 1.718 | 2 | 1.846 | 1.901 | 1.096 | 1.129 | 1.072 | 1.248 | 1.152 | 1.186 |
| Dependent mean | -0.0530 | -0.0510 | -0.0570 | -0.0350 | -0.0500 | -0.0470 | -0.168 | -0.169 | -0.176 | -0.136 | -0.153 | -0.145 |
| *Panel C: Polynomial of second order* | | | | | | | | | | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| Guerrilla control | -0.104** | -0.107** | -0.101** | -0.140*** | -0.136*** | -0.142*** | -0.139** | -0.128** | -0.126** | -0.125*** | -0.145*** | -0.120*** |
| | (0.0436) | (0.0428) | (0.0424) | (0.0337) | (0.0340) | (0.0339) | (0.0561) | (0.0542) | (0.0540) | (0.0404) | (0.0403) | (0.0406) |
| Observations | 4,308 | 4,218 | 4,460 | 7,227 | 6,909 | 7,052 | 2,861 | 2,801 | 2,959 | 5,001 | 4,740 | 4,841 |
| Bandwidth type | mserd | mserd | mserd | msetwo | msetwo | msetwo | cerrd | cerrd | cerrd | certwo | certwo | certwo |
| Kernel | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov |
| Bandwidth (Km) | 2.852 | 2.768 | 2.978 | 5.915 | 5.514 | 5.685 | 1.664 | 1.615 | 1.738 | 3.452 | 3.218 | 3.318 |
| Dependent mean | 0.0460 | 0.0360 | 0.0580 | 0.201 | 0.194 | 0.197 | -0.0690 | -0.0670 | -0.0590 | 0.104 | 0.0920 | 0.0950 |

*Note:* The table presents the robustness of the effects of guerrilla control on the wealth index using different polynomial orders. Data come from the Population and Household Census of 2007. Panel A shows results for a constant polynomial. Panels B and C present the results using a first- and second-order polynomial, respectively. Estimations across columns show different bandwidth and kernel types and different bandwidth size. "mserd" and "msetwo" specify one and two common MSE-optimal bandwidth selectors for the RD treatment effect estimator, respectively. "cerrd" and "certwo" indicate one or two common CER-optimal bandwidth selectors for the RD treatment effect estimator, respectively. The kernel row indicates the type of kernel used: triangular, uniform, or epanechnikov. Robust standard errors in parentheses. Differences in the number of observations are due to the selection of different bandwidths across specifications. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.9. Robustness Analysis for the Years of Education Outcome

| | *Years of Education (2007)* | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| *Panel A: Polynomial of order zero* | | | | | | | | | | | | |
| Guerrilla control | -0.648*** | -0.658*** | -0.650*** | -0.654*** | -0.637*** | -0.592*** | -0.648*** | -0.658*** | -0.650*** | -0.654*** | -0.637*** | -0.592*** |
| | (0.154) | (0.170) | (0.157) | (0.172) | (0.140) | (0.111) | (0.154) | (0.170) | (0.157) | (0.172) | (0.140) | (0.111) |
| Observations | 1,348 | 1,154 | 1,289 | 1,249 | 1,289 | 1,669 | 1,348 | 1,154 | 1,289 | 1,249 | 1,289 | 1,669 |
| Bandwidth type | mserd | mserd | mserd | msetwo | msetwo | msetwo | cerrd | cerrd | cerrd | certwo | certwo | certwo |
| Kernel | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov |
| Bandwidth (Km) | 0.458 | 0.298 | 0.409 | 0.378 | 0.409 | 0.746 | 0.458 | 0.298 | 0.409 | 0.378 | 0.409 | 0.746 |
| Dependent mean | 5.761 | 5.849 | 5.834 | 5.843 | 5.834 | 5.867 | 5.761 | 5.849 | 5.834 | 5.843 | 5.834 | 5.867 |
| *Panel B: Polynomial of first order* | | | | | | | | | | | | |
| Guerrilla control | -0.280** | -0.197 | -0.230** | -0.277** | -0.145 | -0.236** | -0.441*** | -0.331** | -0.409*** | -0.433*** | -0.361** | -0.422*** |
| | (0.117) | (0.121) | (0.114) | (0.115) | (0.119) | (0.117) | (0.157) | (0.167) | (0.154) | (0.155) | (0.164) | (0.159) |
| Observations | 3,308 | 2,755 | 3,238 | 3,369 | 2,808 | 3,140 | 2,297 | 1,950 | 2,247 | 2,336 | 1,987 | 2,188 |
| Bandwidth type | mserd | mserd | mserd | msetwo | msetwo | msetwo | cerrd | cerrd | cerrd | certwo | certwo | certwo |
| Kernel | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov |
| Bandwidth (Km) | 2.001 | 1.572 | 1.942 | 2.051 | 1.615 | 1.868 | 1.249 | 0.981 | 1.212 | 1.280 | 1.008 | 1.166 |
| Dependent mean | 6.510 | 6.358 | 6.477 | 6.514 | 6.399 | 6.463 | 6.168 | 6.015 | 6.143 | 6.192 | 6.030 | 6.135 |
| *Panel C: Polynomial of second order* | | | | | | | | | | | | |
| Guerrilla control | -0.283** | -0.260* | -0.229* | -0.281*** | -0.305*** | -0.290*** | -0.484** | -0.374** | -0.466** | -0.328** | -0.263** | -0.285** |
| | (0.139) | (0.133) | (0.139) | (0.102) | (0.108) | (0.103) | (0.188) | (0.178) | (0.189) | (0.129) | (0.134) | (0.130) |
| Observations | 4,441 | 4,357 | 4,296 | 7,167 | 6,274 | 6,902 | 2,951 | 2,892 | 2,852 | 4,934 | 4,265 | 4,731 |
| Bandwidth type | mserd | mserd | mserd | msetwo | msetwo | msetwo | cerrd | cerrd | cerrd | certwo | certwo | certwo |
| Kernel | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov | triangular | uniform | epanechnikov |
| Bandwidth (Km) | 2.956 | 2.884 | 2.834 | 5.815 | 4.796 | 5.488 | 1.725 | 1.683 | 1.654 | 3.394 | 2.799 | 3.202 |
| Dependent mean | 6.828 | 6.791 | 6.776 | 7.270 | 7.178 | 7.269 | 6.425 | 6.402 | 6.398 | 6.984 | 6.767 | 6.949 |

*Note:* The table presents the robustness of the effects of guerrilla control on the number of years of education using different polynomial orders. Data come from the Population and Household Census of 2007. Panel A shows results for a constant polynomial. Panels B and C present the results using a first- and second-order polynomial, respectively. "mserd" and "msetwo" specify one and two common MSE-optimal bandwidth selectors for the RD treatment effect estimator, respectively. "cerrd" and "certwo" indicate one or two common CER-optimal bandwidth selectors for the RD treatment effect estimator, respectively. The kernel row indicates the type of kernel used: triangular, uniform, or epanechnikov. Estimations across columns show different bandwidth and kernel types and different bandwidth size. Robust standard errors in parentheses. Differences in the number of observations are due to the selection of different bandwidths across specifications. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.10. Effects of Guerrilla Territorial Control on Main Outcomes Latitude-Longitude Specification

| | Night Light Luminosity | Wealth Index | Years of Education |
|---|---|---|---|
| | (2013) | (2007) | (2007) |
| | (1) | (2) | (3) |
| Guerrilla control | -0.255*** | -0.322*** | -0.755*** |
| | (0.0191) | (0.0259) | (0.0694) |
| Observations | 3,652 | 3,630 | 3,637 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 |
| Dependent mean | 3.536 | -0.016 | 6.573 |

*Note:* The table presents the results of equation 1 via Ordinary Least Squares using a latitude-longitude specification. Data for night light luminosity come from NOAA; wealth and education data come from the Population and Household Census of 2007. The unit of observation in all columns is the census tract. Controls not shown include the latitude and longitude coordinates of each census tract's centroid, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.11. Effects of Guerrilla Territorial Control on Night Light Luminosity, Human Capital, and Wealth. Controls for the Share of the Tract that is Within the Guerrilla-Controlled Zones.

| | Night Light Luminosity | Wealth Index | Years of Education |
|---|---|---|---|
| | (2013) | (2007) | (2007) |
| | (1) | (2) | (3) |
| Guerrilla control | -0.125*** | -0.146*** | -0.336*** |
| | (0.0253) | (0.0393) | (0.122) |
| Observations | 3,652 | 3,630 | 3,637 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 |
| Dependent mean | 3.536 | -0.016 | 6.573 |

*Notes:* The table presents the results of estimating equation 1 for the main outcomes. Column 1 shows the effect of whether a census tract was under guerrilla control on the arcsine of night light luminosity from NOAA. Column 2 uses the standardized score of household wealth as the dependent variable in the same estimation. Column 3 shows as dependent variable years of education of the population older than 18 years. The unit of observation in all columns is the census tract. Information from Columns 2 and 3 was obtained from the Population and Household Census of 2007. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with an indicator of whether the tract was under guerrilla control or not, the share of the census tract that is contained within the guerrilla-controlled territory, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates use triangular kernel weights. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.12. Placebo Test for All Pairs of Neighbors Whose Difference in Altitude is between the Following Thresholds

| | *Altitude difference between 15 and 20 masl* | | | *Altitude difference between 20 and 100 masl* | | |
|---|---|---|---|---|---|---|
| | Altitude | Night Light Luminosity (2013) | | Altitude | Night Light Luminosity (2013) | |
| | Any neighbor pair | Any neighbor pair | Both neighbors outside guerrilla area | Any neighbor pair | Any neighbor pair | Both neighbors outside guerrilla area |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Difference | 17.83*** | 0.0206*** | 0.0239*** | 47.71*** | -0.0114*** | -0.0172*** |
| | (0.0322) | (0.00521) | (0.00525) | (0.201) | (0.00384) | (0.00430) |
| Neighbor pairs | 2,914 | 2,914 | 2,515 | 11,811 | 11,811 | 8,742 |
| | | *Wealth Index (2007)* | | | *Wealth Index (2007)* | |
| | | (7) | (8) | | (9) | (10) |
| Difference | - | 0.0149 | 0.0202** | - | -0.0456*** | -0.0468*** |
| | - | (0.00921) | (0.00980) | - | (0.00501) | (0.00583) |
| Neighbor pairs | - | 2,910 | 2,513 | - | 11,729 | 8,733 |
| | | *Years of Education (2007)* | | | *Years of Education (2007)* | |
| | | (11) | (12) | | (13) | (14) |
| Difference | - | 0.0818*** | 0.0964*** | - | -0.0540*** | -0.0513*** |
| | - | (0.0307) | (0.0336) | - | (0.0144) | (0.0172) |
| Neighbor pairs | - | 2,911 | 2,513 | - | 11,758 | 8,734 |

*Note:* The table presents the placebo test results. Data for night light luminosity comes from NOAA; wealth and education data come from the Population and Household Census of 2007. The unit of observation in Columns 1–3 is the pair of neighboring census tracts conditional on having a difference in altitude between 15 and 20 masl. The unit of observation in Columns 4 and 5 is the pair of neighboring census tracts conditional on having a difference in altitude between 20 and 100 masl. Columns 1, 2, 4, and 5 show the mean difference for all neighbor pairs in the sample. Columns 3 and 6 do the same for pairs in which both neighboring tracts are outside the guerrilla-controlled area. Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.13. Main Results Restricting the Sample to Tracts without Sudden Altitude Changes with Respect to Their Neighbors

| | Night Light Luminosity | Wealth Index | Years of Education |
|---|---|---|---|
| | (2013) | (2007) | (2007) |
| | (1) | (3) | (2) |
| Guerrilla control | -0.146*** | -0.120*** | -0.309** |
| | (0.0240) | (0.0439) | (0.137) |
| Observations | 2,572 | 2,561 | 2,562 |
| Bandwidth (Km) | 2.103 | 2.103 | 2.103 |
| Dependent mean | 3.743 | 0.118 | 6.924 |

*Note:* The table presents main results without considering segments that have a difference in altitude of more than 100 masl with respect to their neighbors. Column 1 shows the effect of whether a census tract was under guerrilla control on the arcsine of night light luminosity from NOAA. Column 2 shows as dependent variable a standardized score of household wealth. Column 3 does the same but uses as dependent variable years of education of the population older than 18 years. The unit of observation in all columns is the census tract. Information from Columns 2 and 3 was obtained from the Population and Household Census of 2007. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates use triangular kernel weights. Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.14. Effect on Years of Education– RD-Differences-in-Differences Estimation

| | Years of Education |
|---|---|
| | (2007) |
| | (1) |
| Guerrilla control | -0.0349 |
| | (0.144) |
| Guerrilla control × School age at war | -0.457*** |
| | (0.0421) |
| Observations | 7,332 |
| Bandwidth (Km) | 2.266 |
| Dependent mean | 6.132 |

*Notes:* The table presents the results of estimating equation 1 for years of education, including a second difference based on birth-cohort. We separate individuals who were of school age during the war, between 1982–1992, from those who were not. Then, we compute the average years of education for each group. Thus, each observation is a combination of a census tract and an age group. School-age in war is a dummy variable indicating that the information comes from the subsample of individuals who were of school age in wartime. Data comes from the 2007 census. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with an indicator of whether the tract was under guerrilla control or not, an indicator of school age during the war, census tract fixed effects, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates use triangular kernel weights. Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.15. Comparison of Baseline Characteristics Between Census Tracts In and Outside the RD-sample

| | In RD-Sample | | Out of RD-Sample | |
|---|---|---|---|---|
| *Baseline Characteristics* | Mean | Obs | Mean | Obs |
| *Panel A: Baseline State Capacity (Before 1980)* | | | | |
| Had a Military Base (1980) | 0.001 | 36,81 | 0.001 | 8,753 |
| Distance to Military Base (1980) | 12,807.32 | 3,681 | 11,296.12 | 8,753 |
| State Administration (1980) | 0.018 | 3,681 | 0.013 | 8,753 |
| Distance to School (1980) | 16.980 | 3,681 | 21.771 | 8,754 |
| Had a Parish (1979) | 0.011 | 3,681 | 0.011 | 8,754 |
| Distance to Parish (1979) | 4.309 | 3,681 | 4.055 | 8,754 |
| Distance to Communications (1945) | 1.199 | 3,681 | 1.257 | 8,754 |
| Communications Density (1945) | 0.328 | 3,681 | 0.334 | 8,754 |
| Had a City or Village (1945) | 0.128 | 3,681 | 0.073 | 8,754 |
| Distance to City or Village (1945) | 1.024 | 3,681 | 1.285 | 8,754 |
| *Panel B: Baseline Socioeconomic Characteristics (Before 1980)* | | | | |
| Roads and Railway (1980) | 0.401 | 3,681 | 0.366 | 8,754 |
| Total Population (1980) | 158.233 | 3,667 | 161.574 | 8,735 |
| Years of Education (1980) | 3.493 | 3,666 | 4.227 | 8,737 |
| In-migration Share (1980) | 0.108 | 3,636 | 0.147 | 8,646 |
| Out-migration Share (1980) | 0.006 | 3,446 | 0.008 | 8,272 |
| *Panel C: Baseline Norms and Land Concentration (Before 1980)* | | | | |
| Part of Land Reform (1980) | 0.081 | 3,681 | 0.112 | 8,754 |
| Had a Ecclesial Base Community (1974) | 0.002 | 3,681 | 0.003 | 8,759 |
| *Panel D: Violence (1980–1985)* | | | | |
| Number of War Events (1981) | 0.037 | 3,681 | 0.018 | 8,754 |
| Number of War Victims (1981) | 0.155 | 3,681 | 0.056 | 8,754 |
| Number of Incarcerations (1980–85) | 0.013 | 3,681 | 0.103 | 8,754 |
| *Panel E: Geographic Characteristics and Crops' Suitability (Before 1980)* | | | | |
| Altitude (1980) | 488.319 | 3,681 | 499.802 | 8,752 |
| Slope (1980) | 8.624 | 3,681 | 6.968 | 8,751 |
| Ruggedness (1980) | 12.381 | 3,681 | 10.300 | 8,751 |
| Hydrography (1980) | 0.320 | 3,681 | 0.266 | 8,754 |
| Bean High Suitability (1961–90) | 0.858 | 3,691 | 0.942 | 8,736 |
| Coffee High Suitability (1961–90) | 0.086 | 3,691 | 0.146 | 8,736 |
| Maize High Suitability (1961–90) | 0.980 | 3,691 | 0.983 | 8,736 |
| Sugarcane High Suitability (1961–90) | 0.108 | 3,691 | 0.194 | 8,736 |

*Note:* The table compares the mean and number of observations of outcomes in Table 1 between census tracts in the RD-sample and census tracts outside the sample. The information was gathered from diverse sources (See Appendix A for more details).

Table F.16. Effects of Guerrilla Territorial Control on Main Outcomes Using Ordinary Least Squares

| | Night Light Luminosity | Wealth Index | Years of Education |
|---|---|---|---|
| | (2013) | (2007) | (2007) |
| | (1) | (2) | (3) |
| Guerrilla control | -0.477*** | -0.471*** | -1.100*** |
| | (0.0257) | (0.0221) | (0.0607) |
| Observations | 12,411 | 12,370 | 12,384 |
| Dependent mean | 3.457 | -0.0310 | 6.505 |

*Note:* The table presents the results of equation 1 via Ordinary Least Squares using the whole sample. Data for night light luminosity come from NOAA; wealth and education data come from the Population and Household Census of 2007. The unit of observation in all columns is the census tract. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.17. Effects of Guerrilla Control on Public Investment

| | Public Investment | Schools per 100k | Road Density | Hospitals per 100k | Public Buildings |
|---|---|---|---|---|---|
| | (1995-2015) | Population (2007) | (2014) | Population (2015) | per 100k Population (2020) |
| | (1) | (2) | (3) | (4) | (5) |
| Guerrilla control | 0.127** | 27.76*** | 0.246* | -2.938 | -6.131 |
| | (0.0614) | (10.03) | (0.127) | (4.607) | (139.2) |
| Observations | 1,068 | 3,637 | 3,652 | 3,637 | 3,265 |
| Dependent mean | 0.318 | 96.52 | 1.196 | 15.22 | 1934 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 |

*Note:* The table presents the results of estimating equation 1 for our outcomes related to public goods provision. The outcome in Column 1 is an indicator for whether the canton has received public investment for any social project (FISDL), mostly related to construction or infrastructure updates. Outcomes in Columns 2 and 3 are the number of schools per 100k inhabitants and the road density per census tract, measured as the length of all roads in the unit divided by their area. In Columns 4 and 5 the outcomes are the number of hospital and public buildings per 100k inhabitants, respectively. The unit of observation in Column 1 is the canton, but for the rest of the columns, it is the census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects that represent the closest evenly spaced break in the guerrilla-controlled boundary. The estimates use triangular kernel weights. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.18. Effects of Guerrilla Territorial Control on Trust and Engagement with the State and Elites

| | *Inverse Covariance Index (ICW)* | | | |
|---|---|---|---|---|
| | Political Participation | Engagement with Politicians | Non-Democratic Engagement | Trust in Institutions |
| | (1) | (2) | (3) | (4) |
| Guerrilla control | 0.166 | -0.663* | -0.180 | -0.734** |
| | (0.218) | (0.349) | (0.370) | (0.335) |
| Observations | 270 | 275 | 199 | 273 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | 0.000 | 0.000 | 0.000 | 0.000 |

*Note:* The table presents the results of estimating equation 1 for our outcomes related to engagement with politicians and trust. Outcomes were obtained from the 2004–2016 Latin American Public Opinion Project (LAPOP) surveys. Column 1 shows the political participation scope that includes questions regarding whether the citizen votes, attends protests, and joins government meetings. Column 2 measures the extent to which citizens contact state authorities and/or bureaucracies to solve issues and attend government/political meetings. Column 3 measures the extent to which citizens approve the use of alternative or violent means to engage in politics. Column 4 reports the extent to which citizens trust different Salvadoran institutions. The table reports the inverse-covariance weighted average index as dependent variables. Details on outcome definitions are in Appendix A. Individual data for all years are pooled at the census tract level; thus, this is the unit of observation in all columns. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates weight using a triangular kernel. Robust standard errors are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.19. Placebo Test for All Pairs of Neighbors Whose Difference in Wealth is between the Following Thresholds

| | *Wealth difference between 0 and 0.5 sd* | | *Wealth difference between 0.5 and 2 sd* | |
|---|---|---|---|---|
| | Political Participation | | Political Participation | |
| | Any neighbor pair | Both neighbors outside | Any neighbor pair | Both neighbors outside |
| | (1) | (2) | (3) | (4) |
| Difference | 0.0244 | 0.0294 | 0.0853 | 0.191 |
| | (0.0650) | (0.0761) | (0.111) | (0.136) |
| Observations | 266 | 199 | 74 | 56 |
| | Engagement with Politicians | | Engagement with Politicians | |
| | (5) | (6) | (7) | (8) |
| Difference | 0.104* | 0.104 | 0.0937 | -0.000181 |
| | (0.0589) | (0.0675) | (0.0942) | (0.0799) |
| Observations | 277 | 206 | 75 | 56 |
| | Non-Democratic Engagement | | Non-Democratic Engagement | |
| | (9) | (10) | (11) | (12) |
| Difference | -0.0386 | -0.0935 | -0.142 | -0.174 |
| | (0.0976) | (0.124) | (0.154) | (0.203) |
| Observations | 129 | 69 | 31 | 12 |
| | Trust in Institutions | | Trust in Institutions | |
| | (13) | (14) | (15) | (16) |
| Difference | 0.0547 | 0.0767 | -0.0125 | -0.0668 |
| | (0.0694) | (0.0763) | (0.0978) | (0.114) |
| Observations | 299 | 236 | 78 | 62 |
| | Distrust in Members of the Community (Share) | | Distrust in Members of the Community (Share) | |
| | (17) | (18) | (19) | (20) |
| Difference | 0.0169 | 0.0154 | 0.00583 | 0.000695 |
| | (0.0124) | (0.0135) | (0.0210) | (0.0227) |
| Observations | 873 | 774 | 242 | 215 |

*Note:* The table presents the placebo test results. The information was obtained from the Latin American Public Opinion Project survey (LAPOP) between 2004 and 2016. The unit of observation in Columns 1–2 is the pair of neighboring census tracts conditional on having a difference in wealth between 0 and 0.5 standard deviations. The unit of observation in Columns 4 and 5 is the pair of neighboring census tracts conditional on having a difference in wealth between 0.5 and 2 standard deviations. Columns 1 and 3 show the mean difference for all neighbor pairs in the sample. Columns 2 and 4 do the same for pairs in which both neighboring tracts are outside the guerrilla-controlled area. Robust standard errors are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.20. Placebo Test for All Pairs of Neighbors Whose Difference in Night Light Luminosity is Within Specific Thresholds

| | *Nightlight difference between 0 and 0.1 sd* | | *Nightlight difference between 0.1 and 1 sd* | |
|---|---|---|---|---|
| | Political Participation | | Political Participation | |
| | Any neighbor pair | Both neighbors outside | Any neighbor pair | Both neighbors outside |
| | (1) | (2) | (3) | (4) |
| Difference | -0.0997 | -0.0874 | 0.0685 | 0.269 |
| | (0.0784) | (0.0845) | (0.123) | (0.243) |
| Neighbor pairs | 191 | 167 | 88 | 33 |
| | Engagement with Politicians | | Engagement with Politicians | |
| | (5) | (6) | (7) | (8) |
| Difference | -0.0587 | -0.0757 | 0.0268 | -0.0486 |
| | (0.0537) | (0.0546) | (0.142) | (0.288) |
| Neighbor pairs | 195 | 170 | 96 | 37 |
| | Non-Democratic Engagement | | Non-Democratic Engagement | |
| | (9) | (10) | (11) | (12) |
| Difference | -0.0991 | 0.00835 | -0.100 | 0.0142 |
| | (0.116) | (0.104) | (0.132) | (0.279) |
| Neighbor pairs | 67 | 47 | 80 | 26 |
| | Trust in Institutions | | Trust in Institutions | |
| | (13) | (14) | (15) | (16) |
| Difference | -0.0153 | -0.00115 | -0.205 | -0.265 |
| | (0.0725) | (0.0782) | (0.144) | (0.231) |
| Neighbor pairs | 228 | 201 | 86 | 38 |
| | Distrust in Members of the Community (Share) | | Distrust in Members of the Community (Share) | |
| | (17) | (18) | (19) | (20) |
| Difference | -0.00121 | 0.00490 | 0.0199 | 0.00724 |
| | (0.0150) | (0.0156) | (0.0178) | (0.0205) |
| Neighbor pairs | 535 | 493 | 438 | 362 |

*Note:* The table presents the placebo test results. The information was obtained from the Latin American Public Opinion Project survey (LAPOP) between 2004 and 2016. The unit of observation in Columns 1–2 is the pair of neighboring census tracts conditional on having a difference in night lights between 0 and 0.1 standard deviations. The unit of observation in Columns 3 and 4 is the pair of neighboring census tracts conditional on having a difference in night lights between 0.1 and 1 standard deviation. Columns 1 and 3 show the mean difference for all neighbor pairs in the sample. Columns 2 and 4 do the same for pairs in which both neighboring tracts are outside the guerrilla-controlled area. Robust standard errors are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.21. Guerrilla Territorial Control and Trust Towards In- and Out-groups and Community Engagement. Heterogeneity by Age Group.

| *Panel A: Trust Towards In- and Out-groups. Dictator Game* | | | | |
|---|---|---|---|---|
| | Donation to Family Inside the Community (0 - 1 Scale) | Donation to Family Outside the Community (0 - 1 Scale) | Donation to Yourself (0 - 1 Scale) | |
| | (1) | (2) | (3) | |
| Guerrilla control | 0.053** | -0.046*** | -0.008 | |
| | (0.0256) | (0.0172) | (0.0306) | |
| Guerrilla control × Old Stayer | -0.001 | 0.043** | -0.042 | |
| | (0.0266) | (0.017) | (0.031) | |
| Joint | 0.052 | -0.003 | -0.049 | |
| P-value | 0.050 | 0.882 | 0.114 | |
| Observations | 4,749 | 4,749 | 4,749 | |
| Dependent mean | 0.313 | 0.138 | 0.547 | |
| *Panel B: Community Engagement* | | | | |
| | Interaction with Community (Likert Scale) | Member of Civil Society Organization | Presence of Local Development Council | Frequency Local Development Council Meeting |
| | (4) | (5) | (6) | (7) |
| Guerrilla control | 0.145** | 0.025* | 0.020 | 0.055 |
| | (0.065) | (0.015) | (0.018) | (0.035) |
| Guerrilla control × Old Stayer | -0.093 | -0.006 | 0.004 | 0.035 |
| | (0.064) | (0.016) | (0.019) | (0.036) |
| Joint | 0.051 | 0.019 | 0.025 | 0.091 |
| P-value | 0.426 | 0.247 | 0.171 | 0.0133 |
| Observations | 4,748 | 4,747 | 4,741 | 3,666 |
| Dependent mean | 0.000 | 0.052 | 0.086 | 0.391 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 |

*Note:* The table presents the results of equation 1 for two sets of outcomes. First, in panel A, we report the results for a dictator game in which survey respondents are asked to split a $US 1 phone recharge between a family in their community, a vulnerable Salvadoran family outside their community, and themselves. In panel B, we do the same for a series of measures of community engagement. Namely, the outcome in Column 4 measures how often an individual interacts with community members outside of their family on a Likert Scale (standardized) where higher values represent higher frequency. In Columns 5 and 6, the outcomes are dummies indicating whenever the respondent was a member of a non-religious community association, such as a neighborhood club, and whether there is a local development council in her community. In Column 7, the outcome is a dummy variable indicating whether the local development council meets. The unit of observation is a household. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and the social desirability index. We include a dummy variable indicating individuals who were at least 10 years of age when the conflict started (Old Stayer) and its interaction with the treatment variable. Note that all individuals have lived in their current residence since the civil conflict. "Joint" is the sum of both shown coefficients and indicates the total effect of guerrilla control on "old stayers", "P-value" is the correspondent p-value. As for our main outcomes, we use a bandwidth of 2.266 km and the estimates use triangular kernel weights. Robust standard errors are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.22. Guerrilla Territorial Control and State-Individual Interactions

| *Panel A: Share of Households in 2022 that Believe that* | | | | |
|---|---|---|---|---|
| | | Government Collects Taxes | People Pay Taxes | Government Agency in Community |
| | | (1) | (2) | (3) |
| Guerrilla control | | -0.0966*** | -0.0714** | -0.0211 |
| | | (0.0275) | (0.0339) | (0.0208) |
| Observations | | 4,672 | 3,159 | 4,664 |
| Dependent mean | | 0.662 | 0.460 | 0.173 |
| *Panel B: Share of Households in 2007 that Report Using* | | | | |
| | Sewerage | Garbage | Water | Electricity |
| | (4) | (5) | (6) | (7) |
| Guerrilla control | -0.0255 | -0.0523*** | -0.0392** | -0.0290*** |
| | (0.0179) | (0.0184) | (0.0192) | (0.00858) |
| Observations | 3,637 | 3,637 | 3,637 | 3,637 |
| Dependent mean | 0.403 | 0.506 | 0.782 | 0.907 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 |

*Note:* The table presents the results of equation 1 for a series of measures of state presence. In Panel A, data come from our 2022 survey. Namely, the outcomes are dummies that indicate if survey respondents believe the government collects taxes, if the representative inhabitant of the community pays taxes, and if there is a government agency in the community they can go to for information or assistance. The unit of observation is a household. In Panel B, we report the effect on the share of households with any of the marked services within each census tract. Data for this panel come from the Population and Household Census of 2007, and the unit of observation is a census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and the social desirability index (just for panel A). Panel B also features up to 400 fixed effects representing the closest evenly spaced break in the guerrilla- controlled boundary. As for our main outcomes, we use a bandwidth of 2.266 km and the estimates use triangular kernel weights. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.23. Quality of School Teachers and Water Provision

| | Total Teachers | Certified Teachers | Certified Teachers with High School | Teachers with High School | Daily Water Frequency |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| Guerrilla control | 0.519 | 0.320 | 0.350 | 0.452 | 0.00071 |
| | (1.155) | (1.123) | (0.969) | (0.991) | (0.0196) |
| Observations | 1,522 | 1,522 | 1,522 | 1,522 | 3,582 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | 13.42 | 12.78 | 11.51 | 11.88 | 0.745 |

*Notes:* This table shows the effects of guerrilla control on school size (Columns 1) and education quality measured using accreditation of teachers (Columns 2–4). Data were obtained from the 2013 teacher census provided by the Ministry of Education."Total teachers" refer to the total number of teachers at the school level, respectively. "Certified teachers" refers to teachers who have received formal accreditation in pedagogy from the Ministry of Education. Column 5 reports the results for a dummy variable indicating the share of households in a census tract that have daily water access. These data come from the Population and Household Census of 2007. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla- controlled boundary. *** p<0.01, ** p<0.05, * p<0.1.

Table F.24. Workers by Economic Activity in 1992

| | Share of Workers by Economic Activity (1992) | | | Share of Agricultural Workers (1992) |
|---|---|---|---|---|
| | Agriculture | Industry | Services | Growing Subsistence Crops |
| | (1) | (2) | (3) | (4) |
| Guerrilla control | 0.0252** | -0.0112*** | -0.00402 | 0.0242** |
| | (0.0102) | (0.00284) | (0.00986) | (0.0105) |
| Observations | 965 | 965 | 965 | 965 |
| Bandwidth (Km) | 3.134 | 3.134 | 3.134 | 3.134 |
| Dependent mean | 0.198 | 0.0310 | 0.0600 | 0.192 |

*Note:* The table presents the results of equation 1 for the share of workers in each economic activity by 1992. The information was calculated from the Population and Household Census of 1992 and using ISIC v3 to classify each economic activity. The unit of observation is the canton. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the canton was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The estimates use triangular kernel weights. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1, † p<0.15.

Table F.25. Guerrilla Territorial Control and Occupational Choice

| | Agriculture | Sales | Works in Own Household | Works as an Employee | Other |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| Guerrilla control | 0.141*** | -0.0229 | -0.0436** | -0.0477** | -0.0269*** |
| | (0.0283) | (0.0214) | (0.0197) | (0.0212) | (0.00918) |
| Observations | 4,743 | 4,743 | 4,743 | 4,743 | 4,743 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | 0.375 | 0.228 | 0.178 | 0.193 | 0.0250 |

*Note:* The table presents the results of equation 1 for a series of dummy variables indicating that the respondents' main occupation. The unit of observation is a household. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and the social desirability index. As for our main outcomes, we use a bandwidth of 2.266 km and the estimates use triangular kernel weights. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.26. Guerrilla Territorial Control and Land Ownership

| | Land Ownership Rate | Size of Owned Land (Ha) |
|---|---|---|
| | (1) | (2) |
| Guerrilla control | 0.0300 | 0.273 |
| | (0.0189) | (0.613) |
| Observations | 2,385 | 2,385 |
| Bandwidth (Km) | 2.266 | 2.266 |
| Dependent mean | 0.550 | 4.270 |

*Note:* The table presents the results of equation 1 for outcomes related to land ownership. Information was obtained from the Agricultural National Census of 2007. The unit of observation is at the census tract level. The dependent variable in Column 1 is the share of agricultural producers with positive land holding. In Column 2, the outcome is the average plot size managed by producers measured in hectares. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The estimates use triangular kernel weights. Robust standard errors in parentheses.*** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.27. Heterogeneity by Baseline Distances to Road Network (1980) and Nearest City (1945)

| | Night Light Luminosity | Wealth Index | Years of Education |
|---|---|---|---|
| | (2013) | (2007) | (2007) |
| | (1) | (2) | (3) |
| *Panel A: Heterogeneity by Distance to Road Network in 1980* | | | |
| Guerrilla control | -0.177*** | -0.0953** | -0.272** |
| | (0.0272) | (0.0399) | (0.125) |
| Control × Distance to Road | 0.00503 | -0.0267 | 0.0410 |
| | (0.0212) | (0.0230) | (0.0737) |
| *Panel B: Heterogeneity by Distance to Nearest City in 1945* | | | |
| Guerrilla control | -0.225*** | -0.109*** | -0.295** |
| | (0.0307) | (0.0412) | (0.116) |
| Control × Distance to City | 0.0375** | -0.00881 | 0.0187 |
| | (0.0149) | (0.0223) | (0.0642) |
| Dependent mean | 3.536 | -0.0160 | 6.573 |
| Observations | 3,652 | 3,630 | 3,637 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 |

*Note:* The table presents the results from the heterogeneity analysis at baseline for the main outcomes. Panel A shows how the main results vary by distance to a road network in 1980. Panel B presents heterogeneity of results by distance to the nearest city in 1945. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates weight using a triangular kernel. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.28. Guerrilla Territorial Control and Agricultural Productivity

| | Subsistence crops | | Cash crops | |
|---|---|---|---|---|
| | Bean | Maize | Coffee | Sugarcane |
| | (1) | (2) | (3) | (4) |
| *Panel A: Crop Production in 2005 (1,000 Tons)* | | | | |
| Guerrilla control | -0.00167 | -0.0110 | -0.00540 | -1.829*** |
| | (0.00161) | (0.0324) | (0.00789) | (0.529) |
| Observations | 3,652 | 3,652 | 3,652 | 3,652 |
| Dependent mean | 0.102 | 1.914 | 0.458 | 15.46 |
| *Panel B: Share of harvest in 2005 (Has)* | | | | |
| Guerrilla control | -0.0112*** | -0.0310*** | -0.0202*** | -0.00357 |
| | (0.00356) | (0.0109) | (0.00753) | (0.00230) |
| Observations | 3,651 | 3,651 | 3,651 | 3,651 |
| Dependent mean | 0.0360 | 0.113 | 0.0780 | 0.0260 |
| *Panel C: Actual Crops' Yield in 2005* | | | | |
| Guerrilla control | -0.00471*** | -0.0161*** | -0.00622** | -1.078*** |
| | (0.00126) | (0.00586) | (0.00242) | (0.241) |
| Observations | 3,566 | 3,550 | 3,649 | 3,649 |
| Dependent mean | 0.400 | 2.254 | 0.835 | 61.22 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 |

*Notes:* The table presents the results of estimating equation (1) for outcomes related to agriculture. Panel A shows results using as dependent variable each crop's production in 1,000 tons. Panel B uses the share of harvested land of each crop from the total area of each census tract as outcomes. Panel C uses the actual yield of each crop, which is measured as the total production over the total of cultivated land for each crop. The unit of observation in all columns is the census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates use triangular kernel weights. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.29. Guerrilla Territorial Control and Migration Outcomes

| | International Migrants | | | | | Always Lived in | Same Location | People who Arrived | Years since |
|---|---|---|---|---|---|---|---|---|---|
| | During Control | At any Time | Years since | Households that Received | Received Remittance from | Same Location | as the Mother | During Control | Arrival |
| | (Share) | (Share) | Departure | Remittances (Share) | War Migrant (Share) | (Share) | (Share) | (Share) | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Guerrilla control | -0.00219 | -0.00221 | -0.341 | -0.00674 | -0.00194 | 0.00788 | 0.00648 | -0.00452 | -0.218 |
| | (0.00171) | (0.00498) | (0.27700) | (0.00427) | (0.00126) | (0.00956) | (0.00978) | (0.00321) | (0.41100) |
| Observations | 3,637 | 3,637 | 3,396 | 3,637 | 3,637 | 3,637 | 3,637 | 3,637 | 3,524 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | 0.0230 | 0.112 | 7.416 | 0.103 | 0.0140 | 0.766 | 0.730 | 0.0620 | 16.470 |

*Note:* The table presents the results of equation 1 for our outcomes related to migration. Columns 1–5 focus on outcomes for international migrants. Columns 6–9 focus on internal in-migration flows. All information was obtained from the Population and Household Census of 2007. The unit of observation in all columns is the census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates use triangular kernel weights. Robust standard errors are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.30. Effects of Guerrilla Control on Main Outcomes in Areas with Low Crop Suitability of Cash Crops

| | Night Light Luminosity | Wealth Index | Years of Education |
|---|---|---|---|
| | (2013) | (2007) | (2007) |
| | (1) | (2) | (3) |
| *Panel A: Areas with low suitability for coffee* | | | |
| Guerrilla control | -0.184*** | -0.107*** | -0.185* |
| | (0.0268) | (0.0358) | (0.0967) |
| Observations | 3,335 | 3,313 | 3,320 |
| Dependent mean | 3.318 | -0.164 | 6.015 |
| *Panel B: Areas with low suitability for sugar* | | | |
| Guerrilla control | -0.186*** | -0.108*** | -0.181* |
| | (0.0273) | (0.0364) | (0.0983) |
| Observations | 3,254 | 3,232 | 3,239 |
| Dependent mean | 3.290 | -0.170 | 6.001 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 |

*Notes:* The table presents the results of estimating equation 1 for the main outcomes in areas with low crop suitability. Column 1 shows the effect of whether a census tract is under guerrilla control on the arcsine of night light luminosity from NOAA. Column 2 uses the standardized score of household wealth as dependent variable in the same estimation. Column 3 shows as dependent variable years of education of the population older than 18 years. The unit of observation in all columns is the census tract. Information in Columns 2 and 3 was obtained from the Population and Household Census of 2007. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with an indicator of whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates use triangular kernel weights. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.31. Guerrilla Territorial Control and Migration Outcomes for the Highly Educated Population

| | International Migrants | | | | | Always Lived in | Same Location | People who Arrived | Years since |
|---|---|---|---|---|---|---|---|---|---|
| | During Control | At any Time | Years since | Households that Received | Received Remittance from | Same Location | as the Mother | During Control | Arrival |
| | (Share) | (Share) | Departure | Remittances (Share) | War Migrant (Share) | (Share) | (Share) | (Share) | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Guerrilla control | 0.00151 | 0.00343 | 0.226 | -0.00573 | -0.00112 | -0.00376 | -0.00713 | -0.00491 | -0.469 |
| | (0.00452) | (0.00927) | (0.540) | (0.00463) | (0.00416) | (0.0127) | (0.0132) | (0.00535) | (0.531) |
| Observations | 3,325 | 3,325 | 1,907 | 3,636 | 3,325 | 3,602 | 3,602 | 3,602 | 3,441 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | 0.0200 | 0.100 | 6.220 | 0.110 | 0.0100 | 0.730 | 0.700 | 0.0800 | 17.68 |

*Note:* The table presents the results of equation 1 for our outcomes related to migration. Columns 1–5 focus on outcomes for international migrants. All information was obtained from the subsample of individuals in the Population and Household Census of 2007 who had finished at least high school by the time the conflict started. The unit of observation in all columns is the census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates use triangular kernel weights. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.32. Share of Individuals who Work in the Same Place as their Residence

| | Work in the Same Place as Residence |
|---|---|
| | (Share) |
| | (1) |
| Guerrilla control | 0.00333 |
| | (0.00320) |
| Observations | 3,636 |
| Bandwidth (Km) | 2.266 |
| Dependent mean | 1.000 |

*Note:* The table presents the results of equation 1 for individuals who work in the same place as their residence. All information was obtained from the Population and Household Census of 2007. The unit of observation in all columns is the census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates use triangular kernel weights. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.33. Guerrilla Territorial Control and Self-Reported Reasons for Living in Their Current Residence

| | Economic Opportunity (Dummy) | Social Ties (Dummy) | Inability to Leave (Dummy) | Owns Land (Dummy) |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Guerrilla control | -0.009* | 0.029* | -0.002 | -0.010 |
| | (0.005) | (0.016) | (0.004) | (0.015) |
| Observations | 4,791 | 4,791 | 4,791 | 4,791 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | 0.029 | 0.624 | 0.018 | 0.317 |

The table presents the results of regressing a series of dummies that indicate the reason why the respondents have lived in their current place of residence since the peak of the civil conflict on the treatment dummy. As for our main outcomes, we use a bandwidth of 2.266 km and the estimates use triangular kernel weights. Robust standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.34. Guerrilla Territorial Control and Crimes during the War Period

| | Total War Events | Total War Victims | Has a War Event | Has War Victims |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Guerrilla control | 0.007 | -0.258 | 0.002 | 0.003 |
| | (0.089) | (0.490) | (0.003) | (0.003) |
| Observations | 3,652 | 3,652 | 3,652 | 3,652 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | 0.041 | 0.213 | 0.001 | 0.002 |

*Note:* The table presents the results of estimating equation 1 for our outcomes related to crimes committed in the war period. Columns 1 and 3 report the total events related to war and their probabilities, respectively. A war event can be a massacre, combat, bombing, or any other event that produced victims. Columns 2 and 4 show the total number of victims and the probability of the census tract to have war victims. The unit of observation in all columns is the canton level. The information was obtained from the registry of victims. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates weight using a triangular kernel. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.35. Effects of Guerrilla Territorial Control on Main Outcomes, Controlling for Conflict

| | Night Light Luminosity | Wealth Index | Years of Education |
|---|---|---|---|
| | (2013) | (2007) | (2007) |
| | (1) | (3) | (2) |
| Guerrilla control | -0.127*** | -0.170*** | -0.438** |
| | (0.0314) | (0.0587) | (0.188) |
| Disputed area | 0.0851* | -0.0670 | -0.230 |
| | (0.0473) | (0.0678) | (0.207) |
| Observations | 3,652 | 3,630 | 3,637 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 |
| Dependent mean | 3.536 | -0.0160 | 6.573 |

*Note:* The table presents results for the main outcomes but under different specifications that help discard the hypothesis that effects were driven by conflict. Panel A shows results when separating the control group between government-controlled areas and areas disputed by guerrillas. Notice that in panel A, the omitted category concerns segments under pure governmental dominance. Panel B shows results using a donut-hole methodology with a hole of 400 m. The unit of observation in all columns is the census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates weight using a triangular kernel. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.36. Guerrilla Territorial Control and Homicide and Victimization

| | Homicides | Victim of Any Crime | Victim of Gang Extortion |
|---|---|---|---|
| | (2017) | (2004-2016) | (2004-2016) |
| | (1) | (2) | (3) |
| Guerrilla control | -0.011 | -0.210*** | -0.193*** |
| | (0.056) | (0.055) | (0.064) |
| Observations | 3,652 | 94 | 94 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 |
| Dependent mean | 0.314 | 0.688 | 0.042 |

*Note:* The table presents the results of equation 1 for our outcomes related to current crime. Column 1 shows the number of homicides reported to police for each census tract in 2017. Column 2 shows the share of people within a census tract who reported being a victim of any type of crime in the LAPOP survey. Column 3 shows the share of people within a census tract who reported being a victim of extortion in the LAPOP survey. The unit of observation in all columns is the census tract. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. We use the algorithm of Calonico, Cattaneo and Titiunik (2014) to set the bandwidth and weight using a triangular kernel. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.37. Guerrilla Territorial Control and Distance to Police Stations and Incarcerations

| | Distance to Police Stations (1) | Incarcerations (1992-1999) (2) |
|---|---|---|
| Guerrilla control | 0.020 | 0.019 |
| | (0.061) | (0.014) |
| Observations | 3,652 | 3,652 |
| Bandwidth (Km) | 2.266 | 2.266 |
| Dependent mean | 1.850 | 0.060 |

*Notes:* This table shows the effects of guerrilla control on the distance to the closest local police station (Column 1) and the number of incarcerations per segment between 1992 and 1999 (Column 2). Data from distance to police stations and data for incarcerations, comes from administrative records of the universe of incarcerated individuals in El Salvador. Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.38. Guerrilla Territorial Control and the Elections of 2014 and 2015

| *Panel A: 2014 Presidential elections - Guerrillas' Party won* | | | | |
|---|---|---|---|---|
| | Left Voting Share | Right Voting Share | Blank Voting Share | Turnout Share |
| | (1) | (2) | (3) | (4) |
| Guerrilla control | -0.0350* | 0.0341 | 0.00387*** | 0.0166 |
| | (0.0199) | (0.0221) | (0.00131) | (0.0103) |
| Observations | 416 | 416 | 416 | 416 |
| Bandwidth (Km) | 2.930 | 2.930 | 2.930 | 2.930 |
| Dependent mean | 0.483 | 0.395 | 0.007 | 0.565 |
| *Panel B: 2015 Municipal elections* | | | | |
| Guerrilla control | -0.0152 | -0.00723 | 0.00207** | 0.0300 |
| | (0.0278) | (0.0259) | (0.000905) | (0.0219) |
| Observations | 434 | 434 | 434 | 434 |
| Bandwidth (Km) | 3.239 | 3.239 | 3.239 | 3.239 |
| Dependent mean | 0.411 | 0.629 | 0.007 | 0.513 |

*Note:* The table presents the results of equation 1 for our outcomes related to electoral results. The unit of observation in all columns is the polling station. Panel A shows the results for the presidential elections of 2014 and Panel B does the same for the municipal elections of 2015. The information was obtained from the Salvadoran Electoral Court. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates weight using a triangular kernel. Clustered errors at the Canton level are reported in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table F.39. Impacts of Guerrilla's Territorial Control Excluding Urban Areas at Baseline

| *Panel A: Had a City or Village in 1945* | | | |
|---|---|---|---|
| | Night Light Luminosity | Wealth Index | Years of Education |
| | (2013) | (2007) | (2007) |
| | (1) | (2) | (3) |
| Guerrilla control | -0.176*** | -0.120*** | -0.242* |
| | (0.0254) | (0.0402) | (0.126) |
| Observations | 3,161 | 3,148 | 3,150 |
| Dependent mean | 3.647 | 0.0670 | 6.787 |
| *Panel B: Population Density in 1980 Above the Median* | | | |
| Guerrilla control | -0.167*** | -0.104*** | -0.301** |
| | (0.0392) | (0.0374) | (0.119) |
| Observations | 2,110 | 2,104 | 2,110 |
| Dependent mean | 2.492 | -0.773 | 4.613 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 |

*Note:* The table presents the results of estimating equation 1 for our main outcomes. The unit of observation in all Columns is the census tract. In each panel we exclude areas that were likely to be urban at baseline. We vary the definition of urbanization in each panel. Namely, in panel A we assume that a census tract was urban when it had a city or village in 1945. In panel B, we exclude tracts whose population in 1980 was above the national median. Data for night light luminosity come from NOAA, while wealth and education data, from the Population and Household Census of 2007. Not shown controls include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract is under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates weight using a triangular kernel. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table F.40. Guerrilla Territorial Control and Expropriation, Invasion, and Non-democratic Beliefs

| | Invading Property | Occupying Buildings | Overturn the Government | Taking Law in Own Hands | Non-Democratic Engagement (sum) |
|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) |
| Guerrilla control | -0.110* | 0.062 | -0.003 | -0.073 | 0.804 |
| | (0.061) | (0.081) | (0.072) | (0.136) | (1.922) |
| Observations | 248 | 175 | 248 | 245 | 172 |
| Bandwidth (Km) | 2.266 | 2.266 | 2.266 | 2.266 | 2.266 |
| Dependent mean | 0.058 | 0.109 | 0.074 | 0.245 | 10.69 |

*Note:* The table presents the results of estimating equation 1 for our outcomes related to beliefs regarding how acceptable it is to engage in certain actions against private property or the government. These are measured on a 1–10 scale; thus, we assume that individuals support these behaviors whenever their agreement level is above 5. Columns 1–4 show the share of individuals who think that invading property, occupying buildings, overthrowing the government, and taking the law into their own hands are acceptable. Column 5 shows the effects of guerrilla control on an index comprised of the sum of the raw scores. The information was obtained from the LAPOP Survey between 2004 and 2016. Controls not shown include a linear polynomial of the distance to the boundary of guerrilla territory, its interaction with whether the tract was under guerrilla control or not, and up to 400 fixed effects representing the closest evenly spaced break in the guerrilla-controlled boundary. The algorithm of Calonico, Cattaneo and Titiunik (2014) was used to set the bandwidth and the estimates weight using a triangular kernel. Robust standard errors are in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.