How Do Business Elites Respond to Social Protests?

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Abstract

Economic elites concede to democracy to prevent social unrest. Yet, social uprisings are increasing in democracies. Existing research mainly focuses on the impact of protests on political elites and public opinion but overlooks their effect on economic elites. I argue that violent protests driven by economic discontent signal diminished state capacity and increased economic hardship. Violence creates fear and costs to elites, who lean on the signaling effect of protesters' extreme behavior, coordinate their response through business associations, and decide to concede by creating jobs because they fear further unrest and future changes in the distribution of political power. I test this theory in the Colombian context using a differencein-difference design and over nine million records on job vacancies at the municipal-month level. I find that job vacancies increase in municipalities exposed to violent protests but not in those exposed to nonviolent protests. Qualitative interviews with business elites and text analysis of business statements validate the theorized mechanism. Results demonstrate that economic elites are responsive to redistributive demands expressed through nonelectoral means.

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1 Introduction

Seminal theories of democratization argue that economic elites¹ concede and accept democracy to prevent social unrest (Boix, 2003; Acemoglu and Robinson, 2006). Yet, democracies are experiencing a rising tide of social unrest, mainly expressed through protests. According to the Global Protest Tracker, between 2018 and 2022, protests in democratic countries increased 286%.². While some protests are nonviolent, others involve violent methods such as looting and vandalism. The latter has adverse effects on economic activity by creating uncertainty and losses (DeNardo, 1985; Hadzi-Vaskov, Pienknagura and Ricci, 2021). How do economic elites respond to social unrest in democracies? Do they concede to the social demands?

Despite the growing scholarship in social protests, existing research focuses on the impact of protests on political elites and public opinion (Madestam et al., 2013; Mazumder, 2018; Enos, Kaufman and Sands, 2019; Wasow, 2020; Reny and Newman, 2021; Eady, Hjorth and Dinesen, 2022), but pays less attention to business elites. This lack of research is surprising given the significant political influence of business elites (Dahl, 1961; Flores-Macias, 2019), and their vulnerability to violent protests (Collins et al., 2004).

Here, I propose a theory about when, why, and how business elites respond to social protests in developing democracies. I focus on elites who own firms with physical assets (rather than mere holders of financial capital) and protests motivated by economic deprivation, one of the main drivers of social unrest in these contexts (Ortiz et al., 2022). Importantly, I distinguish between violent and nonviolent protests. I build on work studying the signaling effect of violence (see Auyero, 2001, 2003; Machado, Scartascini and Tommasi, 2011; Sullivan, 2019) and argue that violent protests signal *diminished* state capacity and *increased* economic hardship to elites. I assume that people

¹Throughout the paper, I use economic and business elites interchangeably.

 $^{^{2}}$ https://carnegieendowment.org/publications/interactive/protest-tracker.

who engage in violent protests driven by economic hardship are more likely to be lower class; violent protests are costly signals, and only those with low opportunity costs join them. I posit that the destruction of physical capital and disruption of economic activities that violent protests entail create economic costs to elites. Given the diminished state capacity and increased economic hardship, elites fear further violence and changes in the distribution of political power because the Left might have a more fertile ground to advance radical policies. Because the state is limited to addressing social unrest, I argue that elites lean on the signaling effect of protesters' extreme behavior, coordinate their response through business associations, and decide to concede to the social unrest by investing in human capital and creating jobs, thus addressing one of the main motivations of protests (i.e., lack of economic opportunities) and lessening social unrest. I assume that creating jobs is less costly than enduring violent unrest because violent protesters are likely to be low-skilled.

I test my theory in Colombia, a developing democracy that experienced an unprecedented wave of violent and nonviolent protests in April 2021, which were motivated by increasing poverty and inequality. Moreover, given the salient Left-Right cleavage in Colombian politics, this case provides a useful setting to explore whether the partian dimension of a protest is a real concern to business elites.

Using a difference-in-difference (DD) research design and administrative data on over nine million records of job vacancies, I find that municipalities exposed to violent protests experience a 0.2 standard deviation increase in vacancies per capita, roughly 50% of the vacancies created at baseline. However, the effect of nonviolent protests is negligible. I employ event studies, placebo tests, and a synthetic control to demonstrate the robustness of my findings. Furthermore, I conduct interviews with business elites and use firm-level data from Cali, Colombia, the epicenter of the violent unrest, to confirm my theoretical mechanism and provide examples of how the partisan dimension of social discontent concerns elites.

My article makes several contributions to the study of economic elites and contentious politics in developing democracies. First, I explore an understudied but influential actor in developing democracies: business elites. My results demonstrate that elites are sensitive to social discontent driven by economic hardship and compensate for the limited state capacity. Importantly, I show that elites are aware of the potential political consequences of unaddressed economic demands. Second, I provide a novel theory that accounts for the distinct effects of violent and nonviolent protests on support for protesters' demands. Extant empirical research arrives at opposing findings regarding the effect of violent protests (e.g., Enos, Kaufman and Sands, 2019; Wasow, 2020). I demonstrate that violent protests lead to concessions when the state is limited to addressing social unrest and the motivation of the protest creates empathy. Finally, my findings raise the question of whether economic elites' concessions are pivotal to reaching social stability in contexts where states have limited capacity to address social demands.

2 The Effects of Protests

Protests happen when people face relative deprivation (Gurr, 1970) or have a political opportunity to advance their demands (Tilly, 1978) and constitute a political resource to further or condition policies through nonelectoral means (Lipsky, 1968).

Empirical research demonstrates that nonviolent protests affect political attitudes. Protests can shift elites' and public's stances in favor of protesters' demands (McAdam and Su, 2002; Madestam et al., 2013; Gillion and Soule, 2018; Mazumder, 2018), amplify the attention of legislative agendas to existing public priorities (Bernardi, Bischof and Wouters, 2021) or polarize opinions around the object of the protest (Reny and Newman, 2021). Protests can affect attitudes by signaling previously unrevealed policy preferences (Lohmann, 1993, 1994), transmitting political views (Madestam et al., 2013), priming national identity or persuading the public (Mazumder, 2018). Moreover, exposure to news about protests, physical proximity to events, and cohesive crowds of protesters also explain why protests impact attitudes (Wallace, Zepeda-Millán and Jones-Correa, 2014; Branton et al., 2015; Wasow, 2020; Reny and Newman, 2021; Mueller, 2022). Protests also affect market outcomes. Acemoglu, Hassan and Tahoun (2018) demonstrate that during Egypt's Arab Spring, protests decreased the stock market valuations of firms connected to Mubarak's regime. The authors suggest that protests worked as checks on the rent-seeking activities of the regime. El-Mallakh, Maurel and Speciale (2018) focus on the same case and find that protests increased female labor force participation; to cope with economic uncertainty, men allowed women to join the labor market despite the male-dominated environment.

Research exploring the effect of violent protests finds mixed results³. Violent protests can negatively affect public opinion (Chenoweth, Stephan and Stephan, 2011; Wasow, 2020), partisan loyalty (Eady, Hjorth and Dinesen, 2022), and economic activity (Collins and Margo, 2007). However, violent protests can also prompt support for protesters' demands (Enos, Kaufman and Sands, 2019). Investigating the effect of violent protests, Collins and Margo (2007) show that riots disrupt economic activity due to the destruction of physical capital and decrease the demand for housing due to perceptions of security and risk. More recently, Wasow (2020) finds that violence increases support for social control rather than policy concessions to protesters due to media framing effects. When protests are violent, the media rise concerns about social disorder and the need to protect the status quo, thus creating a hostile public opinion toward protesters' demands. Yet, Enos, Kaufman and Sands (2019) show that violent protests have positive effects on support for policies

³I focus on violence by rather than against demonstrators. See the literature on protest policing for the implications of violence against protesters (Hibbs et al., 1973; McAdam and Su, 2002; Lawrence, 2017)

related to rioters' demands. The authors argue that, at the local level, riots generate sympathy toward rioters because the public shares locals' identity, and exposure to violence updates the public's knowledge of the needs protesters face.

Despite the growing academic attention to protests, existing research has mainly focused on the impact of protests on political elites and public opinion. However, we still have limited knowledge about the effect of violent and nonviolent protests on business elites. This gap in research is particularly important given the significant political influence of business elites (Dahl, 1961; Flores-Macias, 2019), and their potential vulnerability to the effects of protests, especially violent ones. For example, violent protests may lead business elites to disinvest in response to the destruction of public goods and capital. Similarly, such protests may increase the operating costs of businesses by raising insurance premiums for physical capital. This article aims to address this gap in research by developing a theory that accounts for the distinct effects of violent and nonviolent protests on business elites. Likewise, the theory considers the partisan dimension of protests by distinguishing the different implications of protests leveraged by the Left or the Right.

2.1 Theory

Protests tend to occur when people face relative deprivation and economic hardship (Gurr, 1970; Kurer et al., 2019; Ponticelli and Voth, 2020). At the same time, the Left has been the political force historically linked to ideals of equality and welfare (Graeber and Wengrow, 2021). In fact, protests are usually associated with the Left (Bernhagen and Marsh, 2007; Torcal, Rodon and Hierro, 2016)⁴. Here, I posit that protests driven by economic adversity favor the electoral prospects of the left-wing. The left-wing can leverage social discontent by promoting policies to improve the

⁴While recent research and events demonstrate that engagement in protests is not limited to left-wingers (see Kostelka and Rovny (2019) and Eady, Hjorth and Dinesen (2022)), my theory focuses on protests that advocate for the demands associated with the Left.

economic conditions of the less well-off.

Importantly, protests work as mechanisms to obtain attention and concessions (Lipsky, 1968; Piven and Cloward, 2012) and can be violent or nonviolent⁵. The literature demonstrates that violent protests signal low state capacity (Auyero, 2001, 2003; Machado, Scartascini and Tommasi, 2011; Sullivan, 2019); they are more likely to happen when the state lacks authority, is distant, and is useless to address social demands: violence sparks when there is low state capacity. Moreover, violent protests signal extreme preferences and beliefs among participants (Lohmann, 1993). At the same time, violent protests are disruptive events that might involve the destruction of property and looting (Collins and Margo, 2007; Enos, Kaufman and Sands, 2019) and get more media coverage relative to nonviolent protests (Myers and Caniglia, 2004; Roberts and Klibanoff, 2007; Castelli Gattinara and Froio, 2023); the media highlights the disorder and threat of violence created by these types of protests (Wasow, 2020).

I build on this literature and claim that in contexts of typical low state capacity and economic adversity (i.e., developing democracies), violent protests signal *diminished* state capacity and *increased* economic hardship. Specifically, violent protests indicate that the state is more limited in channeling social demands peacefully, and its responsiveness is lower than it used to be. They also show that impoverished individuals are more prone to violence due to low opportunity costs (see Chassang and i Miquel, 2009; Blattman and Miguel, 2010; Dube and Vargas, 2013); while protesting is costly in terms of time and resources, impoverished individuals have less to give up (e.g., labor income) by participating in violent protests.

I posit that, in these contexts, violent protests alarm business elites. I assume that business elites own firms with physical assets and are different from mere holders of financial capital. This

 $^{{}^{5}}$ I focus on violence by rather than against demonstrators. See McAdam and Su (2002) for the implications of violence against protesters.

difference is conceptually relevant because the latter hold mobile capital and can prevent the negative effects of social unrest on their wealth by moving it abroad (see Boix, 2003). However, business elites, as I characterize them, face sunk costs; firms are less mobile than financial capital, and moving their production abroad takes time. Given these characteristics of business elites, there is a fear that ongoing violence and destruction may escalate due to the diminished state capacity to attenuate social discontent. This could lead to safety concerns, additional economic losses for firms, and potential bankruptcies; firms struggle to operate amid uncertainty and turmoil (Bloom, 2009; Jurado, Ludvigson and Ng, 2015; Baker, Bloom and Davis, 2016). Likewise, elites fear future changes in the distribution of political power because left-wing parties can more easily appeal to a mass contesting poverty and inequality and advance radical policies. I posit that media coverage of the threatening character of social unrest reinforces such fears.

I argue that the economic costs and fear created by the violence make elites search for autonomous solutions to the social unrest; they do not rely on the state due to its diminished capacity to address the crisis. Elites inform their solutions with the signals sent by the extreme behavior of violent protests. Because violent protests signal economic despair and severe needs, business elites make concessions to encourage people to drop out and prevent further unrest. Business elites control material resources and have market positions that allow them to affect the labor market via wages, human capital investment, and labor demand. Therefore, they decide to bear the cost of the violent unrest by increasing human capital investment and labor demand. Specifically, I argue that business elites concede to violent protests by creating training programs for low-income people and jobs. In doing so, elites can directly address one of the main motivations of protests (i.e., lack of economic opportunities) and lessen social unrest. While elites could invest in state capacity (e.g., paying more taxes) to let the state address the social unrest, they prefer to directly address economic demands because possible policy reforms to meet economic hardship might take months. However, elites can respond faster and more credibly by creating jobs.

Although elites' concessions are economically costly, the costs of keeping firms closed or operating at reduced capacity might be higher than the costs of conceding to participants' demands through investing in human capital and increasing employment, especially if protesters are lowskilled and the cost of hiring them is small⁶.

Likewise, collective action problems might prevent elites from conceding. However, business elites are a small group by definition and can solve collective action problems easier than larger groups (Olson Jr, 1971), especially when they face violent threats (Acemoglu and Robinson, 2006; Slater, 2010; Rodríguez-Franco, 2016)⁷. Moreover, business elites have homogeneous economic preferences (i.e., profit-maximization), which favor collective action by making individuals more inclined to interact with each other (Barbera and Jackson, 2020). Another feature that promotes collective action among business elites is the protest itself. A protest is a signal that facilitates coordination among elites by providing them with aggregated information about individuals' demands (Casper and Tyson, 2014). Importantly, business elites usually belong to associations (e.g., federations, chambers of commerce, etc.), which promotes coordination (Swank and Martin, 2001; Castañeda, 2017). I argue that these associations are a necessary condition for elites to concede. Specifically, I posit that these collective environments allow elites to exchange information among themselves, validate the signals they get from protests, evaluate possible concessions, and produce a consistent response to social unrest. I assert that when protests are nonviolent, the dynamic just described does not hold. Nonviolent protests do not have the same signaling effect as violent ones on business elites. Therefore, I hypothesize that

⁶While civic protests are considered as a middle-class phenomenon (Welzel, 2013), I assume that people who engage in violent protests driven by economic hardship are more likely to be lower class; violent protests are costly signals, and only those with low opportunity costs participate in them.

⁷Existing experimental research finds that fear prevents collective action due to increases in pessimism and risk aversion (Lerner and Keltner, 2001; Lerner et al., 2003; Young, 2019). However, these studies do not focus on elites, who might still coordinate under threatening events due to their socioeconomic position, as I explain here.

H1: Business elites concede to violent protests by increasing labor demand.

H2: Business elites are unresponsive to nonviolent protests.

An important part of my theory is the connection between economic hardship and partisanship. I maintain that the left-wing rather than the right-wing can more credibly exploit the discontent and social unrest in economic-driven protests given its historical commitment to the less well-off⁸. In contrast, right-wing protests tend to be related to immigration issues (Castelli Gattinara and Froio, 2023). Indeed, the right-wing has a relative electoral advantage over the left-wing in protests driven by issues such as immigration and liberal policies like abortion or LGTB rights (Hutter, 2014). I posit that business elites are unresponsive to violent or nonviolent protests driven by non-economic issues due to a mismatch between their material resources and the motivations of the protests. Business elites have limited capacity to address these demands. In addition, possible right-wing radical policies triggered by these protests are unlikely to become redistributive threats to elites.

3 Context

While the Colombian Constitution of 1991 guarantees the right to protest, social protests in Colombia have been rare. In fact, the first salient protest was the National Agrarian Strike in 2013. Here, the main actors were farmers, who demanded investment in rural areas, land ownership, and government measures to reduce production costs (Acemoglu and Robinson, 2019). Mobilizations before the 2013 protest were limited to local or regional strikes and focused on demands related to the armed conflict (Archila, 2006; Archila et al., 2020). In fact, before the peace agreement between

⁸Another literature shows that economic dissatisfaction among the have-nots increases support for the radical right (see Norris and Inglehart, 2019; Kurer and Van Staalduinen, 2022). However, these studies center on wealthy democracies and pay less attention to the effect of protests.

the Colombian government and the FARC-EP guerrilla group in 2016, actors demanding redistribution used to be stigmatized and excluded from the political arena through violence. However, after the 2016 agreement, social protests started raising redistributive demands (García-Montoya, Güiza-Gómez and Saffon, 2023). Indeed, at the end of 2019, Colombia experienced unprecedented waves of national protests led by labor unions and university students and motivated by social discontent with Duque's right-wing government. Specifically, protesters opposed economic and social policies that Duque's government was planning to implement (e.g., eliminating the minimum wage, increasing taxes on labor, privatizing pensions and health). Additionally, protesters raised demands related to police violence, corruption, gender discrimination, and the implementation of the peace agreement signed in 2016. At the beginning of 2020, protests stopped due to COVID-19 restrictions.

In 2021, there was a new wave of protests. The demonstrations were organized by the National Strike Committee (CNP in Spanish), a civil organization formed by students and unions from different sectors across the country. Although strikes are usually organized by committees, the CNP was a nationwide organization recognized by the government and media as the main interlocutor in the 2021 protests. These protests sparked with a tax reform proposal that leaned on the middle class and generated outrage among the population, which had been enduring the economic burden of the pandemic. The CNP retook the unaddressed demands raised in 2019 and emphasized the economic distress and inequality the pandemic had aggravated. Moreover, the CNP demanded universal basic income and free university tuition, among other demands. Many people joined the protests organized by the CNP due to the shared discontent created by increasing poverty, unemployment, and inflation rates. Besides the motivations and prominent role of the CNP, the 2021 protests had other unprecedented features. There were intense and frequent violent protests that led to the destruction of private property and public goods, as well as clashes between police,

protesters, and civilians (BBC, 2021)⁹. Moreover, a nationwide wave of roadblocks caused economic damage and a shortage of food and fuel in several cities. Finally, the 2021 protests had a salient partisan dimension, with the leftist ideological position of the CNP and the upcoming presidential election in May 2022. The left-wing used the 2021 protests to cultivate its electoral strength, which was ultimately reflected in the election of Gustavo Petro as the first left-wing president of Colombia. Notably, Petro's vote share increased by 2.64 percentage points (p-value < 0.01) between the 2018 and 2022 presidential elections in municipalities that experienced either violent or nonviolent protests.

4 Research Design

4.1 Data

I constructed the independent variable using data from the Armed Conflict Location and Event Data Project (ACLED) (Raleigh et al., 2010). ACLED provides daily counts of protests and riots based on local, regional, and national newspapers. Both types of events are classified separately, with riots including violence perpetrated by participants. I use this categorization to create my *Nonviolent Protest* and *Violent Protest* variables, respectively. ACLED identifies the actors involved in each event, allowing me to focus on violent and nonviolent protests where the CNP participated, either alone or with other actors (e.g., farmers and ethnic groups). With a high level of disaggregation, ACLED's data enable me to measure the occurrence of these events across 1,101 municipalities and over time, with daily data since 2018. I use the data to construct discrete treatment variables¹⁰. The discrete treatment variable equals 1 when a municipality reports a violent

⁹According to ACLED data, the number of violent events in the first month of protests was 250, while in the 2019 protests, it was 24.

¹⁰In the Appendix, I use continuous treatment variables to check the robustness of the results. The continuous version of the treatment measures the number of violent/nonviolent protests reported in each municipality during

protest involving the CNP and 0 when it does not report a violent protest involving the CNP.

One important limitation of ACLED's data is the lack of information about the size of the demonstrations. However, as ACLED relies on newspaper reports, I assume, based on existing evidence (e.g., McCarthy, McPhail and Smith, 1996; McPhail and McCarthy, 2004), that the size of registered demonstrations in the database was significant enough to draw media attention. For example, the Global Protest Tracker by the Carnegie Endowment for International Peace reports that, at the country level, more than 10,000 people participated in the 2021 protests, roughly ten times more than the number of people who joined the 2020 protest contesting police brutality. Consistently, Figure 6 shows a higher media coverage of the 2021 protest compared to the 2020 one.

I use publicly available administrative data from the Employment Service Unit (ESU) at the Ministry of Labor in Colombia to build my dependent variable: job vacancies per capita. ESU reports the number of vacancies created by municipality and month since January 2015¹¹. Given ACLED's data time coverage, I have employed ESU's data since 2018. I divide these data by population at the municipal-year level. Additionally, I construct a similar variable by dividing vacancies by the working-age population (15 to 64). Although the level of disaggregation in the data provides significant statistical power, ESU does not report the type of occupations demanded, economic sectors where vacancies are produced, required job experience, or wages at this level of disaggregation. ESU registers these features in data aggregated at the department level (n = 33), which I employ in additional analyses.

Since the municipal-level data do not specify whether the employer is public or private, there may be validity concerns with my dependent variable. It could capture not only the response

the national strike.

¹¹Currently, the database goes until November 2022.

of business elites but also the response of the government through the creation of public jobs. However, according to information provided privately by the Special Administrative Unit of the Public Employment Service, 97.8% of employers registering vacancies on the ESU platform are private firms, 1.4% are public firms, and 0.8% are public-private companies. Another concern might be that employers posting vacancies could be systematically different from those not reporting them. However, existing law requires all employers to post vacancies on the ESU platform. One important caveat with the labor demand data is that listed vacancies exclude the informal sector, which employs 58% of people in Colombia.

I use a set of control variables to investigate the robustness of my findings¹². I employ municipality-year level data published by the National Department for Planning (DNP) on (logged) urban population, high-school education coverage, central transfers per capita, homicide rate per 100,000 inhabitants, share of Venezuelan migrants in the population, value added per capita as a percentage of the national average, and (logged) number of people classified as poor by the System for the Identification of Potential Beneficiaries of Social Programs (SISBEN). I also include as covariates the (logged) number of Covid-19 cases registered by the National Institute of Health in Colombia, the number of police stations (per capita) reported by the National Police of Colombia, the left-wing vote share in the 2018 presidential elections, available in the National Civil Registry, and the labor supply (per working age population) reported by the ESU. I measure these covariates at baseline, i.e, before the national strike, to prevent post-treatment bias. I interact these variables with a dummy that takes on 1 after the event to allow their effects to change over time.



Figure 1: This figure shows the proportion of municipalities that experienced violent and nonviolent protests after the national strike in April 2021.

4.2 Empirical Strategy

To test the effect of violent and nonviolent protests on private labor demand, I exploit the fact that the CNP called for a national strike on a specific date: April 28, 2021. As Figures 1, 2, and 3 illustrate, no protest involving the CNP occurred before this date, and there was no staggered treatment. Because of this particular setting, I employ a DD research design using municipal-month variation. This empirical strategy allows me to compare the change in the outcome of interest before and after the national strike between treated and untreated municipalities. Given that some municipalities were exposed to violent protests (6.1% municipalities), others to nonviolent protests (17.2% municipalities), and others remained untreated (76.7% municipalities), I estimate two different models to ensure that I compare treated units with violent/nonviolent units against untreated units. Otherwise, I would be comparing municipalities exposed to violent/nonviolent protests against municipalities exposed to nonviolent/violent protests and untreated ones, which would prevent the analyses from having pure control groups. The main models are as follows:

$$y_{it} = \beta_1 [\text{Violent Protest}_i \times \mathbb{I}(\text{PostUnrest})_t] + \sum_{c \in Z} [c_i \times \mathbb{I}(\text{PostUnrest})_t] + \alpha_i + \lambda_t + \epsilon_{it}, \quad (1)$$

 $^{^{12}}$ I log variables that are not in rates or normalized by population (e.g., per capita) to correct the skewness of the data



Figure 2: Municipalities Exposed to Nonviolent Protests.

Note. This map shows municipalities exposed and nonexposed to nonviolent protests before and after the national strike (April 2021). Only protests where the CNP participated are considered.

$$y_{it} = \gamma_1 [\text{Nonviolent Protest}_i \times \mathbb{I}(\text{PostUnrest})_t] + \sum_{c \in Z} [c_i \times \mathbb{I}(\text{PostUnrest})_t] + \alpha_i + \lambda_t + \epsilon_{it}, \quad (2)$$

where y is number of vacancies created per capita in municipality i and month t. Violent Protest_i and Nonviolent Protest_i are discrete variables equal 1 when a municipality reports a violent protest involving the CNP and 0 when it does not report a violent protest.¹³ c is a vector of time-unvarying baseline controls. I interact these measures with $\mathbb{I}(\text{PostUnrest})_t$, an indicator equal to one for all months after the national strike. α_i are municipality fixed effects, λ_t are month fixed effects. I follow Cameron, Gelbach and Miller (2011) and cluster the error term ϵ_{it} two-way by municipality and department-month. In this way, I allow for autocorrelation of the error term within each

¹³I use the discrete rather than continuous treatment variable in the main analyses because the latter requires a stronger parallel trends assumption (see Callaway, Goodman-Bacon and Sant'Anna, 2021).



Figure 3: Municipalities Exposed to Violent Protests.

Note. This map shows municipalities exposed and nonexposed to violent protests before and after the national strike (April 2021). Only protests where the CNP participated are considered.

municipality and spatial correlation within the same department and month. The coefficients of interest are β_1 and γ_1 . These coefficients capture the effect of protests on labor demand. The hypotheses are that $\beta_1 > 0$ and $\gamma_1 = 0$.

The identifying assumption in equations 1 and 2 is that absent the national strike, the difference in outcomes between treated and untreated units, i.e., municipalities exposed to violent/nonviolent protests and unexposed to either, would not have changed after the national strike, conditional on baseline controls and fixed effects. I estimate event study versions of the main models to address concerns about possible violations of the parallel trends assumption:

$$y_{it} = \alpha_i + \lambda_t + \sum_{\tau = -k}^k \beta_\tau [\text{Violent Protest}_i] + \sum_{\tau = -k}^k \eta_\tau [Z_i] + \epsilon_{it}, \qquad (3)$$

$$y_{it} = \alpha_i + \lambda_t + \sum_{\tau = -k}^k \gamma_{\tau} [\text{Nonviolent Protest}_i] + \sum_{\tau = -k}^k \eta_{\tau} [Z_i] + \epsilon_{it}, \qquad (4)$$

In this model, τ ranges from 39 months away from the national strike to 18 months after this event. If the parallel trend assumption holds, I should observe that the coefficients β_{τ} before the event are statistically indistinguishable from 0.

5 Results

Overall, I find results consistent with my theory. Table 1 reports the estimates of equations 1 and 2. Column 1 presents estimates without control variables and shows a positive and significant effect of violent protests on vacancies per capita. The second column reports results with control variables and shows a similar finding. Specifically, the second column shows that municipalities exposed to violent protests experience a 0.2 standard deviation increase in vacancies per capita; this is approximately 50% of the vacancies created at baseline. Columns 3 and 4 report the effect of nonviolent protests on vacancies per capita. Column 3 shows the hypothesized null effect. Although the fourth column shows a negative and statistically significant coefficient, the effect is small; municipalities exposed to nonviolent protests experience a 0.08 standard deviation decrease in vacancies per capita.

The event study plots in panels (A) and (B) of Figure 4 show point estimates and 95% confidence intervals for β_{τ} in equation 3 and γ_{τ} in equation 4, respectively. Panel (A) shows that, before the event (April 2021), the difference in vacancies per capita between municipalities treated and untreated with violent protests was close to 0, which satisfies the parallel trends assumption. Moreover, panel (A) shows a clear increase in vacancies per capita after the event. Panel (B) also meets the parallel trends assumption between municipalities treated and untreated with nonviolent protests. However, after the event, the point estimates are close to 0.

	Vacancies per capita			
	1	2	3	4
Violent Protest x $\mathbb{I}(\text{PostUnrest})_t$	$\begin{array}{c} 0.00092^{***} \\ (0.00020) \end{array}$	0.00034^{*} (0.00017)		
Nonviolent Protest x $\mathbb{I}(\text{PostUnrest})_t$			$\begin{array}{c} 0.00014 \\ (0.00010) \end{array}$	-0.00014^{*} (0.00007)
Baseline Controls x $\mathbb{I}(\text{PostUnrest})_t$	No	Yes	No	Yes
Municipality FE	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes
Mean baseline	0.00066	0.00066	0.00066	0.00066
SD baseline	0.00173	0.00173	0.00173	0.00173
Num. obs.	62757	62415	62757	62415
Num. groups: codmun	1101	1095	1101	1095
Num. groups: month	12	12	12	12

Table 1: Effect of Protests

***p < 0.001; **p < 0.01; *p < 0.05. OLS difference-in-differences models interacting violent or nonviolent protest and baseline controls with the Post Unrest dummy. Models include municipality FEs and month FEs. Standard errors clustered by municipality and department-month.

5.1 Robustness

In the Appendix, I present additional tests to demonstrate the robustness of my findings. Table A3 shows that results hold when I focus on protests where only the CNP participated, i.e., results are not driven by actors unrelated to economic demands. Table A4 demonstrates that results are virtually the same when I exclude the municipality considered the epicenter of the violent protests from the regression analysis. Table A5 shows that results are unchanged when using vacancies per working age population rather than per capita as the outcome variable. Tables A6 and A7 show that results are similar when I use a continuous DD design and when I include the continuous versions of the treatment in the same regression (Table A8). Finally, I use a synthetic control method that reduces the risk of overfitting and provides reliable estimates when there are unobserved time-varying confounders. This approach shows highly similar results (Figure A2)



Figure 4: Estimated Effect of Violent/Nonviolent Protests on Job Vacancies Per Capita. *Note.* Estimated effect of event (violent or nonviolent protest) on job vacancies per capita. Regressions include municipality and month fixed effects as well as baseline controls interacted with time. Standard errors clustered by municipality and department-month. Confidence intervals: 95%

5.2 Placebo Tests

To further validate my findings, I conduct two types of placebo tests (see Eggers, Tuñón and Dafoe, 2023). Specifically, I estimate the effect of the national protest of November 2019 on vacancies per capita (placebo treatment test) and the effect of the national protest of April 2021 on the creation of public jobs (placebo outcome test). In both tests, I use the event study design specified in equations 3 and 4, thus keeping the key features of the analyses to avoid violating the core assumptions of the research design.¹⁴

As explained in the Context section, the 2019 and 2021 protests had related social demands. However, the latter had higher levels of violence and media coverage. Panel A in Figure 6 shows

¹⁴I adjust the vector of controls in the placebo treatment test to account for the different year and avoid controlling for post-treatment variables like the number of Covid-19 cases.

that the number of newspaper articles that includes the word protest and its variations (e.g., protesters) was higher in April 2021 than in November 2019. Importantly, Panel B illustrates that the word 'violence' becomes a more distinctive feature in the 2021 articles relative to other years, keeping constant newspaper outlets and number of words per article.¹⁵ Moreover, compared to the 2021 protest, the 2019 one was farther from the 2022 presidential election. This different political landscape made less salient the partisan dimension of the protest. Therefore, the 2019 protest did not have the signaling effect that would make business elites concede. In fact, Figure 5 shows that, while the effect of the 2019 violent protest on vacancies per capita has a positive direction, it does not reach statistical significance. Likewise, Figure 5 shows a null effect of nonviolent protests.



Figure 5: Estimated Effect of the 2019 Violent/Nonviolent Protests on Job Vacancies Per Capita. *Note.* Estimated effect of 2019 event (violent or nonviolent protest) on job vacancies per capita. Regressions include municipality and month fixed effects as well as baseline controls interacted with time. Standard errors clustered by municipality and department-month. Confidence intervals: 95%

¹⁵I apply a recent method developed by Rodriguez, Spirling and Stewart (2023) to understand what a word means in different contexts. Here, I utilize this method to identify changes in the understanding of protests in the Colombian context across the years. In the Appendix, I detail the application of this method.



Figure 6: Media Coverage of Protests.

Note. Panel (A) shows the number of articles that include words starting with protest^{*} published in printed national newspapers between January 2018 and December 2022. Panel (B) plots the scalars (Norm of $\hat{\beta}$ s) obtained from an embedding regression with their bootstrapped 95% CIs. Higher values mean the word 'violence' is more embedded in newspaper articles.

My theory contends that violent protests signal diminished state capacity to business elites and hypothesizes concessions by them. If my theory correctly predicts that business elites rather than the state bear the cost of the unrest, I should observe a null effect of violent protests on creation of jobs by the state. At the same time, if business elites get the theorized diminished state capacity signal, they should not rely on state institutions to channel their concessions. Since my theory makes no predictions about the state response to social discontent expressed through nonviolent protests, I am agnostic about the effect of nonviolent protests on creation of jobs by the state.

To conduct the placebo outcome test, I collected administrative data from the ESU to build the placebo outcome: government job vacancies per capita. Due to data availability, I restrict the analysis to 2020-2022. Given that the data is disaggregated at the municipality-month level, the restricted period I analyze does not undermine the statistical power of the analysis. In line with my theory, Figure 7 shows null effects of violent/nonviolent protests on government job vacancies per capita.



Figure 7: Estimated Effect of Violent/Nonviolent Protests on Government Job Vacancies Per Capita.

Note. Estimated effect of event (violent or nonviolent protest) on government job vacancies per capita. Regressions include municipality and month fixed effects as well as baseline controls interacted with time. Standard errors clustered by municipality and department-month. Confidence intervals: 95%

6 Mechanism

Why do violent protests increase labor demand? In my argument, I proposed a causal mechanism that implies a positive effect of violent protests on labor demand: violence creates fear and costs to elites, who lean on the signaling effect of protesters' extreme behavior, coordinate their response through business associations, and decide to concede by increasing human capital investment and labor demand. To validate this mechanism and illustrate my theory, I conducted 20 semistructured interviews with business elites situated in treated and untreated Colombian municipalities, as defined in my database. Elites were selected utilizing non-probability sampling methods in municipalities that are capital cities and have business associations. To complement the qualitative evidence, I collected 50 business statements from 13 business associations (I provide details on the data collection in the Appendix).

Interviews conducted in Cali, Colombia lay out the effects of violent protests. Cali is one of Colombia's four major cities. It is located between the western and central cordilleras. This particular location has isolated Cali from other urban centers like Bogotá, the capital of Colombia. Given the political centralism of the Colombian state, Cali's development has historically relied on business elites, who have usually acted as local technocrats and excluded popular sectors from economic growth (Offner, 2019). During the national strike of April 2021, Cali became the epicenter of the social unrest¹⁶, which was the main concern for firms, as Figure 8 shows. Anecdotal evidence suggests that poverty and inequality, exacerbated by the Covid-19 pandemic, played a crucial role in making Cali the epicenter of the violent protests (Chang and García-Montoya, 2021). In fact, between 2019 and 2020, the population of Cali living in poverty increased by 67.3%, and the level of inequality increased by 12.5% (DANE, 2022). Moreover, with the reconfiguration of the armed conflict after the 2016 peace agreement between the Colombian government and the FARC-EP. Cali experienced an inflow of internally displaced population that aggravated previous levels of crime and discrimination. The lack of government responsiveness to such dynamics and increasing social demands resulted in a *diminished* state capacity. Overall, the intense violent protests, vandalism, and looting that Cali experienced signaled *diminished* state capacity and *increased* economic hardship.

6.1 Fears and Costs

In my theory, I posit that violent protests create costs and fear. They also signal diminished state capacity and increased economic hardship to business elites. In fact, during the social unrest,

¹⁶https://www.aljazeera.com/news/2021/5/11/cali-emerges-as-epicentre-of-colombias-ongoing-unrest



Figure 8: This figure shows the proportion of firms in Cali, Colombia reporting protests as the main problem. Biannual data from 2014-1 to 2022-1.

Esteban Piedrahita, the then Cali Chamber of Commerce (CCC) president warned that the region would lose the equivalent of 4% of its GDP due to the violent protests. He also alerted that 47% of firms were operating at reduced capacity (García Sierra, 2021). In my own interviews, several respondents confirmed that fear was a prevalent emotion during the protests and that the state was insufficient to address the unrest. One businessman, for example, recalls that "we were afraid for our integrity [...] Feeling deprived of our freedom in our own neighborhoods was something we had never experienced before." (Online interview, June 23, 2023). Likewise, the CEO of a large firm in Cali said that "there was a feeling of fear, even at the personal level. We fear for our personal safety because of the magnitude of the situation [...] We had a mayor completely disconnected from the city [...], and the president never connected with the country. President Duque never managed to connect with the needs of the country; we did not feel him close." (Online interview, June 28, 2023). In fact, after applying natural language processing to the business statements, I found that the most salient emotion revealed in the context of protest-related terms is "fear" (see Appendix A3.2).

In addition to the signal of limited state capacity, violent protests indicated economic hardship

among protesters. One interviewee said that "businessmen used to live isolated in their own world. Once we started learning about the life of other people, we realized there were several unsatisfied needs." (Online interview, June 23, 2023). One entrepreneur put it this way: "The unrest alerted [me] that something was not working well. I believe that without that unrest, many of us could have gone on thinking that those problems did not touch us [...] The unrest was an eye-opening mechanism." (Online interview, May 24, 2023).

6.2 Coordination among Elites

In the theoretical section, I posit that elites can more easily solve collective action problems when they face violent threats. Indeed, as one interviewee stated, "no businessman could ignore the situation because everyone was being affected." (Online interview, May 24, 2023). Importantly, my theory explains that business associations are a necessary condition for elites to concede. Business associations allow elites to overcome collective action problems and coordinate a response. Several interviews illustrate this point. One business elite recounted that a group of businessmen was concerned about the interrupted economic activity caused by the violent protests. The group decided to meet to discuss the situation and join efforts to overcome it. Another businessman explained that after the meeting, they decided to get help from Propacífico¹⁷ to appeal to more businessmen. Indeed, the Executive Director of Propacífico explained that elites approached them to coordinate the response because they understood that they needed to have a sizeable impact: "If they had gone their separate ways, they would not have been able to add up and make an impact." (Online interview, July 5, 2023). As Table A10 shows, the hypothesized effect of violent protests fades once I control for the presence of business associations.

¹⁷Propacífico is an association that articulates business elites operating in Cali.

6.3 Elites' Concessions

Did violence cause elites' concessions? My theoretical prediction is that the violent unrest leads elites to concede by increasing human capital investment and labor demand. One of the CEOs I interviewed explicitly stated that the violent dimension of the protests motivated their response: "It was the violence what made us respond. When you see deaths and that even the upper classes get armed, you realize it is some sort of civil war. We hit rock bottom and realized that we had to do something different [...] Had we not done anything, the violence would have escalated." (Online interview, June 23, 2023). Similarly, another interviewee stated that "lots of protesters demanded employment, and amid despair, business elites decided to open job vacancies." (Online interview, May 16, 2023). Although some business owners declared that creating more jobs was unfeasible due to the limited operation capacity, and others had to reduce the number of workers, a common opinion among the interviewees was that elites must address violent social unrest by creating jobs. As the CEO of a firm that has been operating for 48 years put it, "the social unrest is solved by creating jobs." (Online interview, September 20, 2023). To validate the collected qualitative evidence suggesting that business elites concede to violent protests, I use two publicly available sources of information. First, I use survey data at the firm-level provided by the CCC and estimate a repeated cross-section model. The CCC is the only chamber of commerce in Colombia with biannual measures of expected increase in workers, main problem faced by the firm, previous investment in fixed capital, and firm's economic sector from 2014 to 2022.¹⁸ I use these data to estimate the association between the 2021 violent protests and expected increase in workers. Second, I collect data reported by *Compromiso Valle* (Valley Commitment), an NGO created to respond to the 2021 social unrest in Cali. This NGO relies on private donations to run social

¹⁸Although the dataset includes additional variables that could work as controls, they are not measured in all years I use in the analyses. Therefore, I exclude such variables from the analyses. In the Appendix, I specify the model and variables I employ in the reported analyses.

programs focused on low-income populations.

Figure 9 shows that when firms consider protests their main problem, they are less likely to increase the number of employees. While the association before the 2021 national strike event is negative but imprecisely estimated, the association is positive and statistically significant after this event, which was particularly violent in Cali. Figure 10 illustrates the increasing private donation to *Compromiso Valle*. Indeed, as of May 2023, more than 400 firms contribute to *Compromiso Valle*, whose ongoing programs include food security, employment, and education. In an interview with *Compromiso Valle*'s director, she explained the reasoning behind this initiative: "What Cali experienced was so strong and intense that elites understood they had to do things different [...] Firms cannot do well in an environment that is not well [...] We are all responsible." (Online interview, May 16, 2023).



Figure 9: Salience of Protest and Likelihood of Increasing Number of Employees. *Note.* This figure uses CCC firm-level data and shows the moderator effect of the 2021 National Strike on the association between the salience of protests and the probability that firms increase the number of employees. Event equals 0 for semesters before 2021-1 and 1 otherwise. The OLS model includes control variables. Robust standard errors are clustered at the sector-semester level. Confidence intervals: 95%. Regression reported in table A11 in SI.

My theory claims that while increasing employment is costly to elites, this cost might be bearable because rioters might be low-skilled, i.e., the hiring cost is low. I employ administrative data from the Employment Service Unit (ESU) reported at the department level for Valle del



Figure 10: This figure shows the cumulative private donations in billions (COP) made to the NGO Compromiso Valle and the cumulative number of corporate donors.

Cauca, Cali's department, to observe the type of labor demanded after the 2021 strike. Figure 11 plots the monthly variation of labor demand in Valle del Cauca and shows that most jobs created after the 2021 protest in Cali's department were low-paid and required low experience and education (Figure 11). The descriptive analysis is consistent with what two interviewees from well-known companies explained: Due to security concerns, firms used to have a hiring protocol that excluded people from specific neighborhoods from the recruitment process. However, after the social unrest in 2021, firms relaxed this protocol: "Senior management reached out to human resources departments to make the selection process more flexible and provide opportunities to this population." (Online interview, July 7, 2023).



Figure 11: Monthly Variation in Labor Demand in Valle del Cauca.

Note. This figure plots the monthly variation in vacancies posted by firms in Valle del Cauca, Cali's department. Panels A, B, and C show the variation in vacancies by salary offered, required experience, and required level of education, respectively. April 2021 marked the beginning of the protests.

6.4 The Leftist Threat

In the theoretical section, I argue that elites fear that violent social unrest driven by economic hardship might lead to the election of a radical left-wing government. Several elites feared that the left-wing could benefit from the economic discontent of the masses. In fact, the left-wing vote share in Cali increased by 27% percentage points between the 2018 and 2022 presidential elections. One businessman explained that Petro, the left-wing presidential candidate who would win the 2022 elections, took advantage of the social unrest and capitalized on the resentment and dissatisfaction of protesters. In his words, "[Petro,] the person who currently governs the country took advantage of the dissatisfaction and hopelessness [...] to create the governmental radicalization that exists and that we are already beginning to see with the reforms." (Online interview, May 24, 2023).

6.5 Untreated Elites

In the theoretical section, I claim that elites exposed to nonviolent protests are unresponsive to social unrest. Importantly, my theory states that violence signals a variation in the level of state capacity and economic hardship. This variation is theoretically relevant because the signaling effect of violence is about *diminished* state capacity (rather than low state capacity) and *increased* economic hardship in the population (rather than constant hardship). This point is well illustrated by the CEO of a firm located in Riohacha, La Guajira, a municipality that experienced nonviolent protests: "We have been a territory forever abandoned by the state. We have learned to survive as we can." (Online interview, September 11, 2023).

Since violence is what drives elites' concessions, nonviolent protests should not make elites concede. Indeed, elites whose businesses are in untreated municipalities consistently stated that they did not get involved in the issue because they were not affected. Moreover, virtually all elites claim that the government should invest in education and welfare to prevent social unrest. This opinion contrasts with elites in municipalities affected by violent protests, who believe they must create jobs to deter future social unrest.

7 Scope Conditions

8 Conclusion

How do economic elites respond to social unrest in democracies? Do they concede to the social demands? In this paper, I have proposed a theory of elites' concessions to violent unrest in

developing democracies. Drawing on quantitative and qualitative data from Colombia, I showed that *violent* social unrest driven by economic discontent generates costs and fear to business elites, who read the violent uprising as a signal of diminished state capacity and increased economic hardship and decide to concede to the social unrest by creating jobs. My argument states that this response is driven by elites' fear of further violence and concerns about future changes in the distribution of political power.

This paper has important implications for the literature on political economy since it demonstrates that business elites in developing democracies might compensate for the diminished state capacity to address social demands related to their realm, i.e., the economy. At the same time, my work shows that the social unrest driven by economic concerns has a partisan dimension that is salient to elites. Relatedly, my article implies that economic elites not only give concessions when they face the democratization threat (see Boix, 2003; Acemoglu and Robinson, 2006); they also concede when, in democracy, the social unrest can be capitalized on by the Left, economic elites' historical antagonist.

While this paper focuses on protests as a widespread expression of social unrest, it provides evidence for a single country. Future research could revisit my argument by exploring business elites' concessions to violent social unrest across other developing democracies. Such research could complement my evidence and, perhaps, uncover new causal mechanisms. Finally, future scholarship should explore whether elites prefer to address social threats in democratic contexts or return to a nondemocratic context where they might have other instruments to address such threats.

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Online Appendix *

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September 21, 2023

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^{*}All replication materials, including R code and data, will be made available via Harvard University's Dataverse. †PhD Student, Department of Political Science, University of British Columbia, daniel.rojaslozano@ubc.ca

A1 Descriptive Statistics

Statistic	Ν	Mean	St. Dev.
Labor Demand (vacancies)	64,959	143.8	$2,\!425.9$
Violent Protests (discrete)	64,959	0.02	0.1
Violent Protests (continuous)	64,959	0.1	1.1
Nonviolent Protests (discrete)	64,959	0.1	0.2
Nonviolent Protests (continuous)	64,959	0.3	4.0
Population (urban)	64,900	33,062.7	$253,\!486.2$
Labor Supply	64,959	70.4	651.0
Education Coverage (high school)	64,900	0.7	0.2
Venezuelan Migrants (share)	64,900	0.02	0.03
Crime Rate (per 100,000)	64,900	25.6	35.6
Sisben (individuals)	64,900	32,800.3	152,896.2
Left-Wing Vote Share (2018)	$64,\!959$	0.2	0.2
Added Value per capita (national share)	64,664	1.0	0.8
Gov. Transfers per capita (COP)	64,900	814,460.9	355, 186.2
Covid-19 (deaths)	64,959	4,271.7	44,756.5
Police Stations	64,959	1.1	1.1

Table A1: Summary Statistics - Municipalities

Table A2: Summary Statistics - Firms

Statistic	Ν	Mean	St. Dev.
Expect Increase in Workers (share)	8,297	0.2	0.4
Main Problem = Protests	8,297	0.04	0.2
Invested in Fixed Capital (share)	8,297	0.3	0.5
Economic Sector = Tertiary	8,297	0.2	0.4

Note: Share refers to the proportion of firms.

A2 Robustness

A2.1 Subset of Protests

In the main text, I used a treatment variable that measures the occurrence of violent/nonviolent protests where the National Strike Committee (CNP) and other actors participated. Table A3 reports results using a treatment variable that measures the occurrence of violent/nonviolent protests where *only* the CNP was involved, thus demonstrating that the effect I found is not driven by actors unrelated to economic demands. In fact, results show the hypothesized effect.

	Vacancies per capita			
	1	2	3	4
Violent Protest x $\mathbb{I}(\text{PostUnrest})_t$	0.00100^{***} (0.00021)	0.00043^{*} (0.00019)		
Nonviolent Protest x $\mathbb{I}(\text{PostUnrest})_t$			$\begin{array}{c} 0.00019 \\ (0.00012) \end{array}$	-0.00011 (0.00008)
Baseline Controls x $\mathbb{I}(\text{PostUnrest})_t$	No	Yes	No	Yes
Municipality FE	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes
Mean baseline	0.00066	0.00066	0.00066	0.00066
SD baseline	0.00173	0.00173	0.00173	0.00173
Num. obs.	62757	62415	62757	62415
Num. groups: codmun	1101	1095	1101	1095
Num. groups: month	12	12	12	12

Table A3: Effect of CNP Protests

***p < 0.001; **p < 0.01; *p < 0.05. OLS difference-in-differences models interacting violent or nonviolent protest and baseline controls with the Post Unrest dummy. Models include municipality FEs and month FEs. Standard errors clustered by municipality and department-month.

		Vacancies	per capita	
	1	2	3	4
Violent Protest x $\mathbb{I}(\text{PostUnrest})_t$	$\begin{array}{c} 0.00090^{***} \\ (0.00020) \end{array}$	0.00034^{*} (0.00017)		
Nonviolent Protest x $\mathbb{I}(\text{PostUnrest})_t$			$\begin{array}{c} 0.00014 \\ (0.00010) \end{array}$	-0.00014^{*} (0.00007)
Baseline Controls x $\mathbb{I}(\text{PostUnrest})_t$	No	Yes	No	Yes
Municipality FE	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes
Mean baseline	0.00066	0.00066	0.00066	0.00066
SD baseline	0.00173	0.00173	0.00173	0.00173
Num. obs.	62700	62358	62700	62358
Num. groups: codmun	1100	1094	1100	1094
Num. groups: month	12	12	12	12

Table A4: Effect of Protests (excluding Cali)

***p < 0.001; **p < 0.01; *p < 0.05. OLS difference-in-differences models interacting violent or nonviolent protest and baseline controls with the Post Unrest dummy. Models include municipality FEs and month FEs. Standard errors clustered by municipality and department-month.

A2.2 Alternative Outcome Variable

The outcome variable I employed in the main analyses is job vacancies per capita. However, results hold when I use job vacancies per working age population (15 - 64 years old)–PWAP as the outcome variable.

	Vac	Vacancies per working age pop.			
	1	2	3	4	
Violent Protest x $\mathbb{I}(\text{PostUnrest})_t$	$\begin{array}{c} 0.00132^{***} \\ (0.00028) \end{array}$	0.00049^{*} (0.00024)			
Nonviolent Protest x $\mathbb{I}(\text{PostUnrest})_t$			$\begin{array}{c} 0.00019 \\ (0.00015) \end{array}$	-0.00021^{*} (0.00010)	
Baseline Controls x $\mathbb{I}(\text{PostUnrest})_t$	No	Yes	No	Yes	
Municipality FE	Yes	Yes	Yes	Yes	
Month FE	Yes	Yes	Yes	Yes	
Mean baseline	0.00101	0.00101	0.00101	0.00101	
SD baseline	0.0026	0.0026	0.0026	0.0026	
Num. obs.	62757	62415	62757	62415	
Num. groups: codmun	1101	1095	1101	1095	
Num. groups: month	12	12	12	12	

Table A5: Effect of Protests

p = 0.001; p < 0.001; p < 0.01; p < 0.05. OLS difference-in-differences models interacting violent or nonviolent protest and baseline controls with the Post Unrest dummy. Models include municipality FEs and month FEs. Standard errors clustered by municipality and department-month.



Figure A1: Estimated Effect of Violent/Nonviolent Protests on Job Vacancies per working age pop. *Note.* Estimated effect of event (violent or nonviolent protest) on job vacancies per working age population. Regressions include municipality and month fixed effects as well as baseline controls interacted with time. Standard errors clustered by municipality and department-month. Confidence intervals: 95%

A2.3 Continuous Treatment

I estimate the same models specified in equations 1 and 2, but with continuous treatment variables. Columns 1 and 2 in Table A6 show the expected positive and significant effect of violent protests on vacancies per capita. Although columns 3 and 4 show positive and statistically significant effects of nonviolent protests on vacancies per capita, the effects are close to 0. In fact, the fourth column shows that municipalities exposed to 1 nonviolent protest experience a 0.06 standard deviation increase in vacancies per capita; this is approximately 1.5% of the vacancies created at baseline. Table A7 reports a similar finding. Importantly, these estimates are less reliable for several reasons. A continuous difference-in-difference (DD) requires a more powerful parallel trend assumption (see Callaway, Goodman-Bacon and Sant'Anna, 2021). Moreover, the same municipality could have experienced both violent and nonviolent protests, which is a setting that departs from the canonical DD setting. Therefore, by estimating the effect of violent and nonviolent protests in different equations, I do not remove the confounding effect that nonviolent protests might have on violent protests and vacancies per capita.

	Vacancies per capita				
	1	2	3	4	
Violent Protest x $\mathbb{I}(\text{PostUnrest})_t$	0.00011^{*} (0.00004)	0.00006^{*} (0.00003)			
Nonviolent Protest x $\mathbb{I}(\text{PostUnrest})_t$. ,	· · ·	0.00003^{*} (0.00001)	0.00001^{*} (0.00000)	
Baseline Controls x $\mathbb{I}(\text{PostUnrest})_t$	No	Yes	No	Yes	
Municipality FE	Yes	Yes	Yes	Yes	
Month FE	Yes	Yes	Yes	Yes	
Mean baseline	0.00066	0.00066	0.00066	0.00066	
SD baseline	0.00173	0.00173	0.00173	0.00173	
Num. obs.	62757	62415	62757	62415	
Num. groups: codmun	1101	1095	1101	1095	
Num. groups: month	12	12	12	12	

Table A6: Effect of Protests - Continuous Treatment Variable

 $^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. OLS difference-in-differences models interacting violent or nonviolent protest and baseline controls with the Post Unrest dummy. Models include municipality FEs and month FEs. Standard errors clustered by municipality and department-month.

A2.4 Joint Events

Next, to overcome the issues with the continuous DD, I estimate a single model with both violent and nonviolent protests as regressors. While this specification deviates from a pure DD design, it allows me to control for the confounding effect that violent/nonviolent protests might have on nonviolent/violent protests. The model is as follows:

$$y_{it} = \beta_1 [\text{Violent Protest}_i \times \mathbb{I}(\text{PostUnrest})_t] + \beta_2 [\text{Nonviolent Protest}_i \times \mathbb{I}(\text{PostUnrest})_t] + \sum_{c \in \mathbb{Z}} [c_i \times \mathbb{I}(\text{PostUnrest})_t] + \alpha_i + \lambda_t + \epsilon_{it},$$
(1)

The coefficients of interest are β_1 and β_2 . These coefficients capture the effect of protests on vacancies per capita. The hypotheses are that $\beta_1 > 0$ and $\beta_2 = 0$. Although municipalities with violent protests also experienced nonviolent protests, I theorized a distinct effect of violent protests. Therefore, I should observe that $\beta_1 \neq \beta_2$.

	Vacancies per working age pop.			
	1	2	3	4
Violent Protest x $\mathbb{I}(\text{PostUnrest})_t$	0.00016^{*} (0.00007)	0.00008^{*} (0.00004)		
Nonviolent Protest x $\mathbb{I}(\text{PostUnrest})_t$			$\begin{array}{c} 0.00004^* \\ (0.00002) \end{array}$	0.00001^{*} (0.00001)
Baseline Controls x $\mathbb{I}(\text{PostUnrest})_t$	No	Yes	No	Yes
Municipality FE	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes
Mean baseline	0.00101	0.00101	0.00101	0.00101
SD baseline	0.0026	0.0026	0.0026	0.0026
Num. obs.	62757	62415	62757	62415
Num. groups: codmun	1101	1095	1101	1095
Num. groups: month	12	12	12	12

Table A7: Effect of Protests - Continuous Treatment Variable

***p < 0.001; **p < 0.01; *p < 0.05. OLS difference-in-differences models interacting violent or nonviolent protest and baseline controls with the Post Unrest dummy. Models include municipality FEs and month FEs. Standard errors clustered by municipality and department-month.

	Vacancies	per capita	Vacancies p	er working age pop.
	1	2	3	4
Violent Protest x $\mathbb{I}(\text{PostUnrest})_t$	0.00018**	0.00014^{**}	0.00027**	0.00020**
	(0.00007)	(0.00005)	(0.00010)	(0.00007)
Nonviolent Protest x $\mathbb{I}(\text{PostUnrest})_t$	-0.00002	-0.00002	-0.00003	-0.00003
	(0.00002)	(0.00001)	(0.00003)	(0.00002)
p -value, $\beta_1 = \beta_2$	0.01811	0.01573	0.01382	0.01096
Baseline Controls x $\mathbb{I}(\text{PostUnrest})_t$	No	Yes	No	Yes
Municipality FE	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes
Mean baseline	0.00066	0.00066	0.00101	0.00101
SD baseline	0.00173	0.00173	0.0026	0.0026
Num. obs.	62757	62415	62757	62415
Num. groups: codmun	1101	1095	1101	1095
Num. groups: month	12	12	12	12

Table A8: Effect of Protests - Continuous Treatment Variable

***p < 0.001; **p < 0.01; *p < 0.05. OLS difference-in-differences models interacting violent or nonviolent protest and baseline controls with the Post Unrest dummy. Models include municipality FEs and month FEs. Standard errors clustered by municipality and department-month.

Table A8 shows that violent protests have the expected positive and statistically significant effect on vacancies per capita and per working age population. Moreover, the effect of nonviolent protests on vacancies is statistically indistinguishable from 0. The *p*-value of the difference between β_1 and β_2 show that this difference is statistically significant.

A2.5 Synthetic Control

I demonstrate the robustness of my results by using the gsynth algorithm developed by Xu (2017) and implementing a synthetic control method to estimate the effect of violent/nonviolent protests on vacancies per capita. This algorithm has two advantages. First, it includes a cross-validation procedure that reduces the risk of overfitting. Second, the algorithm allows me to employ a matrix completion (MC) estimator. This estimator addresses potential outcomes as a missing data problem (Athey et al., 2021) and imputes counterfactuals for each treated unit using information from the control group. This approach provides more reliable estimates when there are unobserved time-varying confounders (Liu, Wang and Xu, 2022).

Consistently with my main results, Figure A2 shows that violent protests have the expected positive impact on vacancies per capita while nonviolent protests have a null effect.



Time relative to Treatment

Figure A2: Effect of Violent/Nonviolent Protests - A Synthetic Control Approach.

Note. This figure presents the effect of violent/nonviolent protests on job vacancies per capita. The effects are estimated using a synthetic control method with a matrix completion estimator. Period equals 0 for the event (April 2021). Standard errors are based on nonparametric bootstraps (blocked at the municipality and department-month level) of 1,000 times.

A3 Quantitative Text Analysis

A3.1 News Articles

In the paper, I applied a novel natural language processing (NLP) method developed by Rodriguez, Spirling and Stewart (2023) that allows me to identify the embeddedness of the word 'violence' in news articles in Colombia from 2018 to 2022 applying the regression machinery, i.e., I can test the hypotheses that the distinctiveness o 'violence' is systematically different in 2021 relative to other years. I used the database Factiva to collect printed articles that included words starting with *protest*^{*}. After collecting the articles, I created a corpus using the R package **quanteda** (Benoit et al., 2018). In this corpus, I trained a set of word embeddings¹ using the Word2Vec algorithm and the R package **text2vec** (Röder, Both and Hinneburg, 2015). I followed the standard practice and set vector dimensionality to length 300, used a window size of 6, and set the maximum number of iterations for training the embedding layer to 100. I trained the embedding layer in words that appear at least 5 times across all the documents. I then computed the transformation matrix to run the embedding regression using the R package **conText** (Rodriguez, Spirling and Stewart, 2023). This matrix reweighs words that appear with high frequency

¹Word-embedding techniques keep the context and order of the text, thus allowing the exploration of semantic associations between words. Table A9 gives the 5 nearest neighbors of $protest^*$ in 2019 and 2021. As I would expect, this term is mentioned in the context of protest-related words.

in the corpus. I then ran an embedding regression using conText to compare the embeddedness of the word 'violence' in news articles across years, keeping constant the number of words per article and the newspaper outlet. In the regression, I used permutation for hypothesis testing and obtained bootstrapped 95% CIs. As Rodriguez, Spirling and Stewart (2023) explain, this regression produces norms of $\hat{\beta}$ s, i.e., the regression coefficients are scalars (distances) between groups (e.g., years).

Table A9: 7	Top 5	Nearest	Neighbors	for	'protest*'
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Year	
2019	protesta, pacífica, marchas, ciudadanos,
	calles (ENG: protest, peaceful, demonstrations, citizens, streets)
2021	protesta, manifestaciones, protestas, marchas,
	violencia (ENG: protest, rallies, protests, demonstrations, violence)

A3.2 Business Statements

To collect the 50 business statements I used in the text data analysis, I searched the websites of all Colombian chambers of commerce (n = 47) and other well-known business associations (n = 8) located in treated municipalities. I scraped statements related to the 2021 protest produced by the business associations. Specifically, I scraped documents that included protest-related words (protests, strikes, demonstrations, mobilizations, marches, blockades) and posted in 2021. I omitted statements with unavailable publication dates.

I analyzed the 50 statements using natural language processing to identify salient emotions in the statements. To do so, I followed the standard procedure in text analysis: I defined a list of stemmed terms related to protests, removed stop words, and extracted protest terms and their textual context using a window size of ten. I then applied a dictionary of sentiments to the specified context and estimated the term frequency using a boolean weighting scheme. Here, I depart from the commonly utilized tf-idf weighting (see Grimmer, Roberts and Stewart, 2022). The tf-idf weighting down weights frequent emotions across documents, which is what I want to capture. As expected, the most salient emotion is "fear".

A4 Mechanism

A4.1 Business Associations

Table A10 shows that the effect of violent protests on job creation fades once I control for the presence of business associations. Business associations is a binary variable that equals 1 if a municipality has a chamber of commerce or one of the six pro-association (e.g., ProPacífico) and 0 otherwise.

A4.2 Firm-level Data

In the main text, I presented a repeated cross-section model with firm-level data from the Chamber of Commerce of Cali (CCC). Here, I specify the variables I use and the model I estimate (see summary statistics in Table A2).

To build the treatment variable I use the following survey question: What was your company's main problem during the semester for the normal development of its activities? I coded answers related to protests (e.g., "strikes and protests" and "public order problems during the national strike") as 1 and 0 otherwise, thus creating a discrete variable. I build the outcome variable *Expected Increase in Employees* as a binary variable that takes on 1 when the employer states that *The number of employees in his/her company will increase in the next six months compared to the current semester* and 0 otherwise. Because the CCC only repeats a subset of questions across survey waves, I control for previous investment in fixed capital and year. With these variables, I estimate the following model:

$$y_i = \alpha + \beta_1 D_i + \zeta_1 Z_i + \gamma_1 Event_i + \delta_1 D_i \times Event_i + \delta_2 Z_i \times Event_i + year_i + \epsilon_i, \tag{2}$$

where y is a binary variable that equals 1 if firm i expects to increase the labor force in the following semester. D_i and Z_i are the treatment and control variables, respectively. I interact these variables with $Event_i$, an indicator equal to one for all semesters since 2021-1. I also include $year_i$ in the estimation to control for time trends. I cluster the errors by sector-semester. This clustering prevents me from creating a few clusters, which would generate unreliable estimates. Moreover, it allows autocorrelation of the error term within the economic sector and semester.

	Vacancies per capita			
	1	2	3	4
Violent Protest x $\mathbb{I}(\text{PostUnrest})_t$	$\begin{array}{c} 0.00092^{***} \\ (0.00020) \end{array}$	0.00022 (0.00015)		
Nonviolent Protest x $\mathbb{I}(\text{PostUnrest})_t$			$\begin{array}{c} 0.00014 \\ (0.00010) \end{array}$	-0.00015^{*} (0.00007)
Baseline Controls x $\mathbb{I}(\text{PostUnrest})_t$	No	Yes	No	Yes
Municipality FE	Yes	Yes	Yes	Yes
Month FE	Yes	Yes	Yes	Yes
Mean baseline	0.00066	0.00066	0.00066	0.00066
SD baseline	0.00173	0.00173	0.00173	0.00173
Num. obs.	62757	62415	62757	62415
Num. groups: codmun	1101	1095	1101	1095
Num. groups: month	12	12	12	12

Table A10: Effect of Protests (controlling for business association)

***p < 0.001; **p < 0.01; *p < 0.05. OLS difference-in-differences models interacting violent or nonviolent protest and baseline controls with the Post Unrest dummy. Models include municipality FEs and month FEs. Standard errors clustered by municipality and department-month.

The coefficient of interest is δ_1 , which captures the effect of protests on expectations of an increase labor force before and after the April 2021 national strike.

Expected Increase in Employees		
1	2	
-0.117	-0.105	
(0.058)	(0.054)	
0.180^{*}	0.170^{*}	
(0.061)	(0.058)	
No	Yes	
8297	8297	
34	34	
	Expected In 1 -0.117 (0.058) 0.180^{*} (0.061) No 8297 34	

Table A11: Salience of Protest and Expected Increase in Employees

 $^{***}p < 0.001; \,^{**}p < 0.01; \,\,^*p < 0.05.$ OLS models interacting main problem (protest) and controls with the Period dummy (0 for semesters before 2021-1 and 1 otherwise). Robust standard errors clustered by economic sector-semester.

Table A11 shows the expected positive and statistically significant effect. These results suggest that the effect of protests on firms' expectations of expanding the labor force increases after firms are exposed to the April 2021 protest.

A4.3 Interviews

The interviewees include business owners, chief executive officers, managers, NGO directors, executive directors of business associations, and presidents of chambers of commerce. Interviews followed specific questions designed to probe the theorized mechanism. All interviews were conducted remotely, either via Zoom or phone. All interviewees granted their informed consent. The data collection received institutional review board (IRB) approval from the University of British Columbia.

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