Pontifícia Universidade Católica
do Rio de Janeiro

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Echoes of Terrorism: Examining the Effects of Siren Alerts Timing on Voter Preferences in Israel

Dissertação de Mestrado

Masters dissertation presented to the Programa de Pós–graduação em Economia, do Departamento de Economia da PUC-Rio in partial fulfillment of the requirements for the degree of Mestre em Economia.

Advisor : Prof. Juliano Junqueira Assunção
Co-advisor: Prof. Ricardo Dahis

Rio de Janeiro
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Abstract

Bines, Luiz; Assunção, Juliano (Advisor); Dahis, Ricardo (Co-Advisor). **Echoes of Terrorism: Examining the Effects of Siren Alerts Timing on Voter Preferences in Israel**. Rio de Janeiro, 2025. 46p. Dissertação de Mestrado – Departamento de Economia, Pontifícia Universidade Católica do Rio de Janeiro.

This study documents how electoral behavior changes based on the salience of national security threats. Using novel data on the timing and location of "Red Alerts" — siren warnings of rocket threats — I employ a difference-in-differences approach to analyze voting patterns in Israeli areas newly exposed to Hamas rocket fire in 2014. While almost all rockets from that period were intercepted by the Iron Dome defense system, the analysis shows that Red Alerts on the days immediately before the election boosted Likud's vote share by 2.9 percentage points, while earlier alerts had no effect. Polarization increases as the effects are larger where Likud support was already higher.

Keywords

Terrorism; Conflict; Electoral Behavior; Israel.

Resumo

Bines, Luiz; Assunção, Juliano; Dahis, Ricardo. **Ecos do Terrorismo: Examinando os Efeitos do Timing dos Alertas de Sirene nas Preferências Eleitorais em Israel**. Rio de Janeiro, 2025. 46p. Dissertação de Mestrado – Departamento de Economia, Pontifícia Universidade Católica do Rio de Janeiro.

Esse estudo documenta como o comportamento eleitoral muda com base na saliência das ameaças à segurança nacional. Usando dados inéditos sobre o momento e a localização dos "Red Alerts" — avisos de sirene sobre ameaças de foguetes —, aplico uma abordagem de diferença-em-diferenças para analisar os padrões de votação em áreas israelenses recém-expostas aos ataques de foguetes do Hamas em 2014. Embora quase todos os foguetes desse período tenham sido interceptados pelo sistema de defesa Iron Dome, a análise mostra que os Red Alerts nos dias imediatamente anteriores à eleição aumentaram a participação de votos do Likud em 2,9 pontos percentuais, enquanto alertas anteriores não tiveram efeito. A polarização aumenta, pois os efeitos são maiores onde o apoio ao Likud já era mais elevado.

Palavras-chave

Terrorismo; Conflito; Comportamento Eleitoral; Israel.

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If a trumpet is blown in a city, will not the people be afraid?

Amos 3:6.

1
Introduction

Can terror threats shape voting behavior even when the terror act does not materialize? Does the heightened salience of national security in the days leading up to an election shift voter preferences toward parties perceived as strong on defense? Addressing these questions rigorously requires a setting in which national security concerns vary across time and space while holding constant the actual damage from terrorist attacks. To date, the literature has not identified such a setting.

This paper provides new empirical evidence on this question by quantifying how the salience of terror threats affects voting behavior in the context of the Israel-Hamas conflict. Since Hamas took control of the Gaza Strip in 2007, Israel has faced recurring rocket attacks from Gaza. In response, the Israeli government has developed multiple defense mechanisms, most notably the Iron Dome, a missile defense system that intercepts over 90% of incoming rockets (KATTAN, 2018). Complementing this system, Israel has implemented an extensive siren alert network, hereafter referred to as "Red Alerts," which provides immediate warnings of incoming rocket fire at a locality level. These sirens give residents crucial seconds to seek shelter before the Iron Dome intercepts the rockets, making them an integral component of Israel's civilian defense. This study introduces a novel dataset that tracks the timing and location of Red Alerts since 2014.

I examine whether exposure to Red Alerts before elections influences voting behavior, specifically focusing on the vote share of the right-wing Likud party, which was the incumbent during the conflict. Using a difference-in-differences approach, I compare voting patterns in newly in-range localities that experienced Red Alerts shortly before an election to those that did not.

Results reveal a significant behavioral effect: exposure to Red Alerts in the days immediately preceding an election increases Likud's vote share by approximately 2.9 percentage points, or about 17.5% of the average. This effect is short-lived, as localities that experienced alerts further in advance of the election did not exhibit significant changes in voting behavior. Moreover, the findings indicate growing polarization: the electoral impact of Red Alerts is more pronounced in areas with historically higher Likud support.

To investigate the transmission mechanism, I use Google Trends data to assess whether Red Alerts increase public interest in security-related top-

ics or actually shift ideological preferences toward Likud. By analyzing search trends for security-related terms and politics-related terms following alerts, I distinguish between a general increase in security salience and a broader ideological shift. Results indicate that the electoral impact of Red Alerts is driven by heightened security concerns rather than a rightward shift in ideological orientation, reinforcing the notion that voters respond to immediate threats rather than changing their long-term political preferences.

The remainder of this paper is structured as follows. Chapter 2 outlines the political context of Israel during the 2014 war and describes the country's defensive measures, including the operation of the Red Alert siren system. Chapter 3 reviews the relevant literature on the impact of rocket attacks on Israeli voting behavior and the broader framework of salience theory. Chapter 4 introduces the dataset employed in this study. Chapter 5 details the empirical strategy. Chapter 6 presents descriptive statistics. Chapter 7 discusses the main findings and their implications. Chapter 8 explores the mechanisms through which terror threats influence voting behavior. Finally, Chapter 9 concludes with a summary of key results and their broader significance.

2
Context

Since Hamas assumed control of the Gaza Strip in 2007, Israel has imposed a blockade on the region.[1] The ongoing threat of rocket strikes from Gaza has led Israel to heavily invest in defense, including the Iron Dome, an advanced aerial defense system with an intercept success rate around 90% (KATTAN, 2018).[2]

Israel also employs a siren system, hereafter referred to as "Red Alerts", to warn localities of incoming rockets. These alerts lead residents to seek shelter while the Iron Dome attempts to intercept the rockets.[3] A single alert can cover multiple localities, and multiple rockets can trigger one alert, so alerts do not always correlate with the number of rockets fired.

The 2014 Israel-Hamas war, known as Operation Protective Edge, marked a significant escalation in hostilities between Israel and Hamas. The escalation began with the abduction and killing of three Israeli teenagers by Hamas members, followed by a period of intense rocket fire from Gaza into Israel. In response, Israel launched airstrikes targeting Hamas infrastructure, which eventually escalated into a full-scale ground operation aimed at dismantling Hamas' military capabilities.

During the 2014 Israel-Hamas war, the range of rockets fired from Gaza expanded from 75 km to 150 km, endangering Israeli localities previously considered out of reach.

Localities within 75 km of the Gaza Strip were already within Hamas' rocket range before 2014, while those beyond 150 km remained out of reach during the 2014 conflict. As a result, only localities situated between 75 and 150 km were newly exposed to rocket fire - and Red Alerts - for the first time during the 2014 war.

[1] The broader Israel-Hamas conflict has significantly impacted Palestinian society, particularly in Gaza and the West Bank. During the Second Intifada (2000-2006), adverse effects included increased child labor, reduced school attendance (MAIO; NANDI, 2013; MAIO; NISTICÒ, 2019), lower birth weight (MANSOUR; REES, 2012), labor market challenges (MAIO; SCIABOLAZZA, 2023), and deteriorating health indicators (MAIO; SCIABOLAZZA, 2021).

[2] Israel's current defense infrastructure includes advanced missile defense systems like David's Sling, designed for medium-range threats, and the Arrow System, which targets long-range ballistic missiles. However, during the 2013-2015 period, David's Sling was not yet operational, and the Arrow System was not required for the types of threats Israel faced. The Iron Dome was the only one used in this context.

[3] "Locality" refers to any municipal unit recognized by the Israeli Ministry of Interior, including urban, rural, and local councils.

Figure 2.1 illustrates Hamas' rocket range evolution. The area shaded in red could be targeted by rockets fired from the Gaza Strip for the first time during the 2014 war.

My analysis focuses on localities situated within the 75-150 km range, concentrating on those newly exposed to rocket fire during this period. I assume that all rocket fire directed at those localities originated from Gaza. The conducted research found no reports of attacks from other regions affecting this range, indicating that Red Alerts within this area were exclusively triggered by rockets from Gaza.[4]

Despite extensive rocket attacks, only two Israeli civilians were killed during the 2014 war. This low Israeli casualty count is largely attributed to the success of the Iron Dome and Red Alert systems (KURZ; BROM, 2014).

On the political front, the right-wing Likud party, led by Benjamin Netanyahu, held power from 2009 to 2021 and regained it in December 2022. This study focuses on Likud's vote share, as its uninterrupted time in office under Netanyahu makes it a crucial indicator of political sentiment.

During the 2014 conflict, Netanyahu's popularity surged, with his approval rating climbing from below 50% to nearly 80% (FEINSTEIN, 2018). I argue that exposure to Red Alerts significantly influenced voting behavior, resulting in higher support for Netanyahu and Likud in affected localities.

Israel, a parliamentary state, requires a coalition of 61 seats out of 120 to form a government. In the 2013 elections, Likud's coalition was formed with 68 seats, which included a centrist party with 19 chairs. Likud's coalition held exactly 61 chairs in the 2015 election. This means that, if Red Alerts had an effect on voters' preferences, it could have been decisive towards the formation of Likud's coalition.[5]

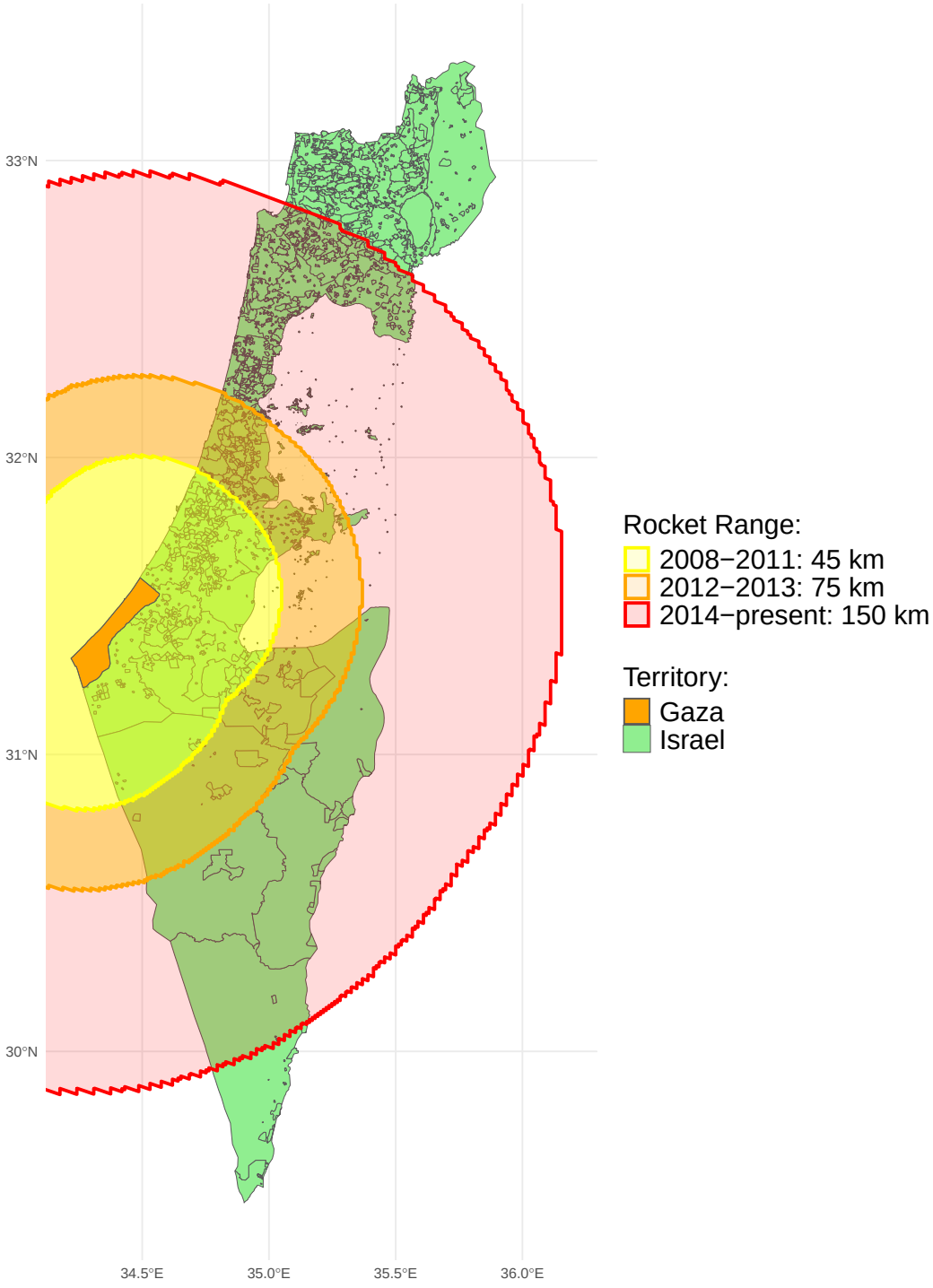
With such a narrow margin, even a slight shift in voter preferences could have prevented Likud from forming a government. In that case,

[4]While Hamas is the primary group launching rockets from Gaza, other organizations like Islamic Jihad also contribute to these attacks. Although Hezbollah (operating from Lebanon) and Iran have played roles in regional conflicts, my focus is solely on rockets fired from Gaza. There is no evidence to suggest that rockets from Lebanon, the West Bank, or other regions reached the 75-150 km range between 2013 and 2015. A thorough review of Israeli news reports revealed no incidents of rocket fire from these areas affecting localities within this range during this period. For example, Hezbollah typically targets northern Israel, beyond the 150 km distance from Gaza. While it is possible, though unlikely, that localities within the 75-150 km range could have been targeted before 2014, the available data does not support this. Even if such events occurred, civilians would have experienced the same Red Alert warnings, making the impact consistent.

[5]In Israel's parliamentary system, municipal elections are held separately from national legislative elections. While legislative elections took place in 2013 and 2015, local elections were held in 2013 and 2018. As a result, the analysis focuses solely on legislative elections, as local elections were not concurrent.

alternative coalitions involving other parties would have been possible, potentially changing the direction of Israeli policy.

Figure 2.1: Rocket Range Evolution from the Gaza Strip: 2008-Present



Source: Israeli Ministry of Foreign Affairs.

3
Related Literature

The growing literature on salience theory provides a valuable framework for understanding how highly salient stimuli can distort decision-making by shifting attention to specific issues at the expense of others. As Bordalo, Gennaioli e Shleifer (2020), Bordalo, Gennaioli e Shleifer (2022) demonstrate, salient factors may lead voters to over-prioritize certain issues. Considering the election setting, Webster e Albertson (2022) show that emotional responses to political events can polarize voter preferences and influence information processing. In this study, Red Alerts serve as the salient stimuli, potentially distorting voter preferences by overemphasizing security concerns and encouraging political shifts toward parties promising tougher stances on national security. Ajzenman e Durante (2023) demonstrate how salient contextual factors - in their case, the quality of school infrastructure at polling places — can shape electoral outcomes. In their study, they find that voters assigned to deteriorated public school buildings were less likely to support the incumbent mayor, suggesting that immediate environmental cues can activate issue-based accountability.

In Israel, studies examining the impact of terror attacks on voting patterns consistently find that targeted localities tend to shift politically to the right. The emphasis has been on the physical effects of rocket attacks, as opposed to my focus on *perceived* security threats. Although the relationship between rocket attacks and electoral outcomes is well documented, prior studies typically either include untargeted localities or exclude areas that suffered direct attacks. For instance, Getmansky e Zeitzoff (2014) use advancements in rocket technology to estimate the effect of being within rocket range on right-wing voting. However, Red Alert data shows that only about half of the localities within range in 2014 were actually targeted by the 2015 election, indicating that simply being within range may not fully capture the effect of the threat.

On the other hand, Elster (2019) exclusively assesses the impact of direct rocket fire, through property damage claims, finding that affected areas tend to favor right-wing parties. Yet, as 90% of rockets are intercepted by the Iron Dome, focusing on material damage excludes many localities that endure the psychological threat of Red Alerts without experiencing physical harm. Likewise, Berrebi e Klor (2006), Berrebi e Klor (2008) find that terrorist attacks increase support for right-wing parties, especially when

incidents occur close to election dates or in right-leaning areas. Both studies prioritize actual attacks rather than the perceived threat or psychological impact of Red Alerts, an element central to my analysis.

Considering the psychological effects of terrorism, the potential impact of perceived threats is explored by Amarasinghe (2023), who highlights that even unsuccessful terror attacks can heighten public discontent. Notably, countries with higher counter-terrorism action, like Israel, demonstrate less voter backlash, underscoring the importance of perceived government effectiveness in mitigating voter discontent, a concept that aligns with my focus on how Red Alerts influence electoral behavior through perceived threats. Balcells e Torrats-Espinosa (2018) demonstrate that both lethal and nonlethal terrorist attacks have a significant impact on voter behavior. In a related context, Hintson e Vaishnav (2023) examine how national security crises impact elections in India, revealing complex effects on nationalist parties.

This paper contributes to the existing literature by focusing on Red Alerts as a key factor influencing voting behavior, rather than just the physical impact of rocket attacks. By analyzing the effects of perceived threat through alerts, I provide a more nuanced understanding of how exposure to terror influences electoral decisions, addressing the gap left by studies focused solely on direct attacks. In contrast to isolated attacks, this study considers the long-term exposure to security threats through frequent Red Alerts, enabling a deeper understanding of their psychological and electoral impacts by analyzing precise geographic and temporal variations in exposure to rocket fire. Additionally, by applying insights from salience theory, I demonstrate how nonmaterial, psychological exposure to terror can distort voter preferences, broadening the scope of behavioral political economy in conflict settings.

4
Data

I use a novel dataset consisting of Red Alert warnings issued by Israel's military authority responsible for civil protection, the Home Front Command. When a rocket threat is detected, the Home Front Command not only activates sirens in the targeted areas, but also issues an online alert on their official website.[1] Through web scraping, I have compiled a comprehensive dataset of these alerts, spanning from July 2014 (the earliest available records) to the present. Each entry in the dataset contains the date of the alert and the locality or cluster of localities targeted. Alerts that are not rocket-related, such as test alarms, were filtered out to focus solely on actual rocket warnings.

Information on the evolving range of rockets fired from the Gaza Strip was obtained from the Israeli Ministry of Foreign Affairs.[2]

Locality-level demographic information was sourced from the Israeli Central Bureau of Statistics, capturing variables such as total area, population size and primary religion. Additionally, I use harmonized nighttime luminosity as a proxy to the level of economic development (HENDERSON; STOREYGARD; WEIL, 2012; LI et al., 2020).

Lastly, the number of votes per party for each locality was extracted from the records of the Israeli Central Elections Committee.

In Chapter 8, I utilize data scraped from Google Trends concerning the evolution of certain keywords from 2014 to 2022.

I exclude Arab localities from the main analysis. These areas are rarely targeted, resulting in the virtual absence of Red Alerts. Furthermore, their voting patterns differ significantly from those of other localities, making them unsuitable for inclusion in the control group. These localities account for only 14% of the areas located between 75 and 150 km from the Gaza Strip.[3]

[1] Link: https://www.oref.org.il. Website only available for those located in Israel or via Virtual Private Nets (VPN).

[2] Link: https://www.gov.il/en/pages/range-of-fire-from-gaza.

[3] In the Appendix, I perform the analysis without excluding Arab localities. Results are similar in both magnitude and statistical significance.

5
Empirical Strategy

I classify Israeli localities between 75 and 150 km from the Gaza Strip into categories: a control group and two treatment groups.[1] The control group consists of localities that did not experience Red Alerts between the 2013 and 2015 legislative elections. The first treatment group includes localities exposed to Red Alerts 149-250 days before the 2015 election, while the second treatment group consists of localities last exposed to Red Alerts within the six days leading up to the election. It should be noted that no alerts were issued in this range during the period between these two time windows. Figure 5.1 maps this classification.

Using a *difference-in-differences* approach, I analyze voting patterns in the Israeli Legislative Election in treated and untreated localities across multiple election cycles: 2006, 2009, and 2013 serve as the pre-treatment periods, occurring before these localities entered the range of rocket attacks from Gaza, while the 2015 election represents the post-treatment period, when they were within range.[2]

I exclude elections held after 2015 to maintain the clarity and consistency of the definition of treatment. In subsequent elections, both treated and untreated localities may experience additional Red Alerts at varying intervals, which would complicate the classification of the status and timing of treatment. For example, localities initially classified as untreated may become exposed to attacks closer to subsequent elections, thereby introducing new treatment instances that differ in timing. Similarly, previously treated localities may experience additional rounds of Red Alerts, with varying temporal proximity to each election. This variation in exposure over time makes it challenging to isolate a single treatment effect, as the influence of these alerts would likely differ according to how close to each election they occurred. By focusing exclusively on elections up to 2015, I ensure a consistent and interpretable comparison between the baseline (never having experienced Red Alerts) and the initial exposure to rocket alerts, allowing for a clearer assessment of their impact on voting behavior.[3]

[1] In section A.1, I conduct the same analysis using only localities located between 85 and 140 km from the Gaza Strip. This restriction aims to control for potential spillover effects from localities that may have been targeted prior to 2014.

[2] Since Israel is a parliamentary state, the Prime Minister is the head of state, and is indirectly decided as a result of the legislative election.

[3] In the Appendix, I perform the analysis including all elections from 2006 to 2022. Results are qualitatively unchanged.

The *difference-in-differences* analysis is estimated using a two-way fixed effects approach, in an event-study framework, formulated as follows:

$$Likud_{i,t} = \sum_{k \neq 2013} \beta_k \cdot RedAlert_i \cdot \mathbb{1}(Election_t = k) + \gamma_i + \delta_t + \mathbf{X}_{i,t} + \varepsilon_{i,t}$$

where $Likud_{i,t}$ represents the Likud vote share in locality i during election t; $RedAlert_i$ is a categorical variable indicating whether locality i didn't experience Red Alerts, experienced Red Alerts more than 149 days prior to the 2015 election, or experienced Red Alerts 6 days before the 2015 election; β_k represents the coefficients associated with the interaction between the Red Alert variable and election years (excluding 2013, which is treated as the baseline period); γ_i represents the locality-level fixed-effects; δ_t is the election fixed-effects; $X_{i,t}$ is a vector containing control variables for locality i during election t; and $\epsilon_{i,t}$ is the standard error term. The adopted control variables are demographic density, population size, and nighttime luminosity level (as a proxy of economic development).

Each β_k quantifies the effect of experiencing a Red Alert during election year k relative to the voting behavior observed in 2013. Specifically, I want to examine whether β_{2015} is statistically significant: a significant difference for β_{2015} would imply that localities experiencing Red Alerts between 2013 and 2015 voted in a manner that was markedly different from the remaining localities only in the 2015 election. At the same time, β_{2006} and β_{2009} must not be significantly different from zero: this would indicate parallel trends in voting behavior prior to the treatment, suggesting that localities with Red Alerts did not exhibit distinct voting patterns prior to 2015.

In addition to using Likud's vote share as a dependent variable, I extend the analysis to include the combined vote share of all Israeli right-wing parties excluding Likud.[4] This broader measure allows us to capture any general changes in voter preferences towards right-wing parties in response to Red Alerts. By examining the right-wing bloc, I can assess whether the impact of Red Alerts is specific to Likud or reflects a wider ideological shift toward right-wing parties.

I also analyze voter turnout as a dependent variable to determine whether Red Alerts not only shape voter preferences but also influence electoral participation.[5] This is key to understanding the broader political

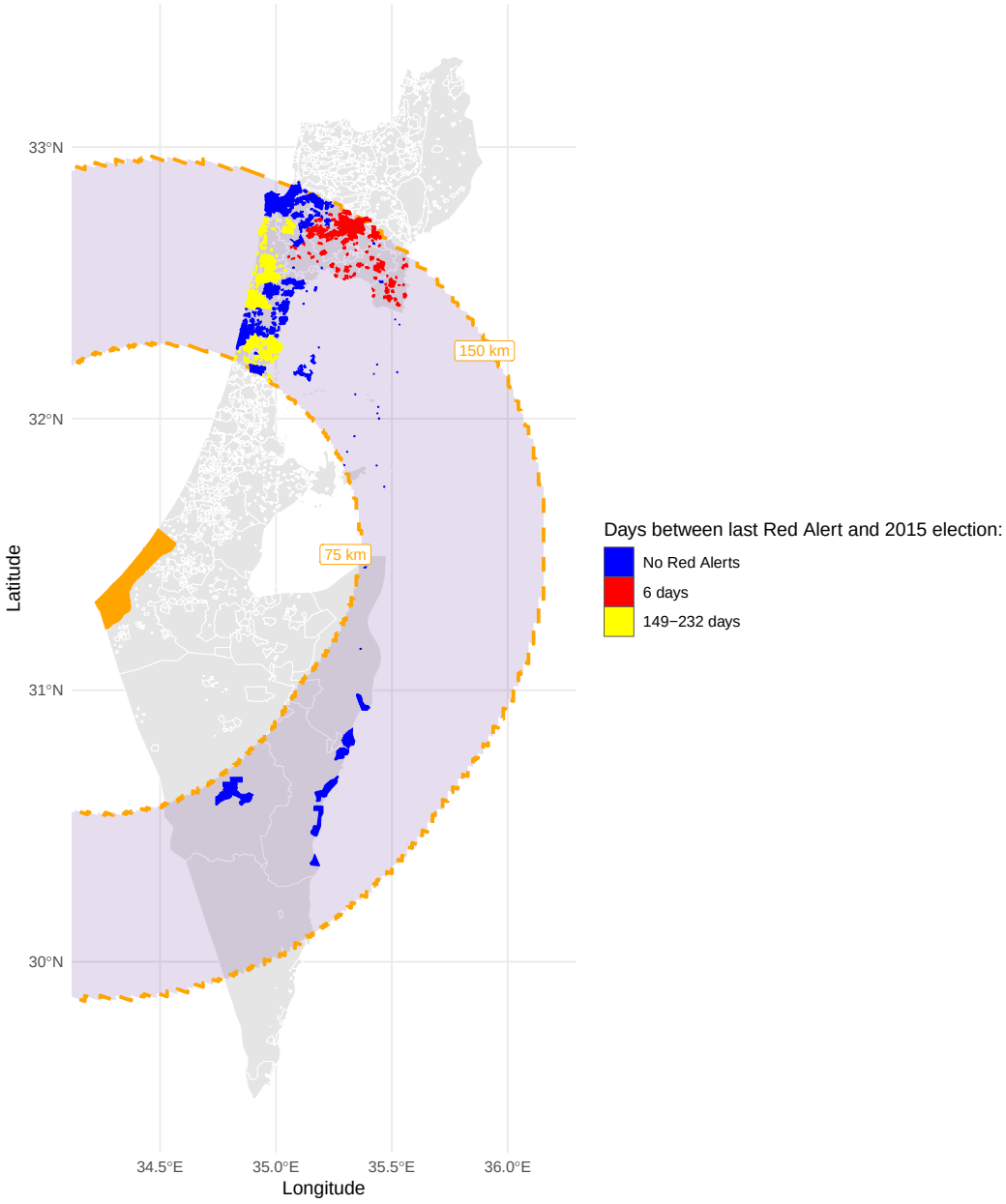
[4] I follow established classifications in the literature (ARIAN; SHAMIR, 2008; GETMANSKY; ZEITZOFF, 2014) to determine which parties are considered right-wing, applying consistent criteria to newer parties as well.

[5] Due to the unavailability of the number of registered voters by locality for the 2006 elections, I estimate this figure using the median percentage of registered voters from the

implications of security threats. An increase in turnout could suggest that Red Alerts not only shift the preferences of existing voters, but also mobilize previously disengaged individuals, particularly those who feel more compelled to vote due to heightened security concerns. Conversely, if there is no effect on turnout but a change in vote shares, it would indicate that Red Alerts primarily sway the choices of those already inclined to vote, rather than expanding the pool of voters. By examining both vote shares and turnout, my aim is to provide a more complete understanding of how security threats shape electoral outcomes.

elections held between 2009 and 2013.

Figure 5.1: Red Alerts in Israel based on Distance to 2015's Election: 75-150km from the Gaza Strip



Notes: The map displays Red Alerts in Israel, highlighting only alerts occurring between 75-150 km from the Gaza Strip (shown in orange). The different colors indicate the temporal distance between the last Red Alert experienced by each locality and the 2015 Legislative Election. Gray areas within the 75-150 km range are either partially out of range, Arab localities, or non-jurisdictional areas. *Source*: Israel's Home Front Command.

6
Descriptive Statistics

Following the empirical strategy detailed in Chapter 5, I am able to examine the voting pattern evolution for each group, as well as their demographic variables. Table 6.1 presents the relevant descriptive statistics for each group.

Table 6.1: Descriptive Statistics by Groups of Interest for 2013

	No Red Alerts	**Last Red Alert 149+ Days Before**		**Last Red Alert 6 Days Before**	
	(1)	(2)	(3)	(4)	(5)
Statistic	2013	2013	Diff (vs No Red Alerts)	2013	Diff (vs No Red Alerts)
Likud's Vote Share (%)	15.59	15.49	-0.10	16.59	1.00
	(11.85)	(9.87)	(1.55)	(13.42)	(1.71)
Right Wing Vote Share (%)	14.56	11.06	-3.49	16.52	1.96
	(19.40)	(12.85)	(2.24)	(19.89)	(2.62)
Turnout (%)	73.46	74.18	0.72	72.53	-0.93
	(9.88)	(9.27)	(1.39)	(7.49)	(1.13)
Night Lights (0-63)	52.30	55.51	3.22	43.99	-8.31***
	(16.68)	(11.52	(1.97)	(14.64)	(2.06)
Population Size	7324.06	3793.48	-3530.58	2155.16	-5168.89*
	(30027.60)	(10931.97)	(2835.01)	(6658.12)	(2604.22)
Population Density (per km^2)	1787.55	3991.05	2203.50	1098.71	-688.84***
	(1853.478)	(20309.42)	(2449.87)	(988.70)	(185.83)
Area (km^2)	3.76	3.05	-0.70	2.20	-1.56
	(9.70)	(7.70)	(1.23)	(4.85)	(0.95)
Distance to Gaza (km)	107.30	97.95	-9.35**	135.02	27.72***
	(20.96)	(19.28)	(2.91)	(6.79)	(1.89)
Observations	143	69		93	

Notes: Statistical significance is reported for columns (3) and (5), which represent the differences between each treatment group and the No Red Alerts control group. The symbols denote significance levels as follows: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. "No Red Alerts" comprises the localities that experienced no Red Alerts between the 2013 and 2015 Legislative Elections. "Last Red Alert 149+ Days Before" comprises the localities that experienced their last Red Alert 149+ days before the 2015 Legislative Election. "Last Red Alert 6 Days Before" comprises the localities that experienced their last Red Alerts 6 days before the 2015 Legislative Election. Standard errors are reported in parentheses.

It is clear that the three groups presented similar voting patterns in 2013, concerning Likud's vote share, the right-wing block's vote share, and the population turnout. In addition, they are typically small in terms of area, and, although the mean distance to the Gaza Strip varies between groups, the average time to seek shelter after a Red Alert is virtually the same for all localities.

Notably, the group of localities experiencing Red Alerts 6 days before the 2015 election differs significantly from the other two groups in population size and density. These localities tend to be smaller, less densely pop-

ulated, and exhibit lower night light intensity, indicating a lower level of economic development.

6.1 Exogeneity

The characteristics from Table 6.1 support the argument for the exogeneity of Red Alerts in this context. Smaller, less densely populated localities are not particularly attractive targets if Hamas sought to maximize impact or casualties, as more densely populated areas would present more significant opportunities for damage. Additionally, voting patterns were nearly identical across groups in 2013, indicating no systematic pre-existing political differences among these localities. This suggests that Red Alerts are unlikely to be strategically directed based on local socioeconomic or political factors, strengthening the case for treating the alerts as a random shock in assessing their impact on voting behavior.

Additionally, until 2019, the Red Alert system operated in a way that, when a rocket was fired toward a specific locality, sirens were activated across an entire cluster of nearby localities. As a result, many of the alerted areas were not actually being targeted at that moment. This means that, to a large extent, the exposure of a given locality to Red Alerts was quasi-random, as it depended not only on whether it was the actual target but also on the broader alert system's design. Because sirens were triggered in clusters rather than in direct response to a precise threat, the alerts introduced exogenous variation in exposure to security threats. This feature strengthens the causal interpretation of the impact of Red Alerts, as individuals in many alerted localities experienced heightened salience of insecurity without necessarily facing an actual attack.

However, it is also crucial to determine whether the probability of a Red Alert occurring in a given locality is higher depending on whether the locality was targeted in the past. If localities that were previously targeted were more likely to get targeted again in the future, then the population would be correct to change their preferences after their first Red Alert experience, since it would mean that they would be more targeted in the future.

To address that, I estimate a logit model where, for each day between 07-24-2014 (the first available Red Alert record) and 2022, the occurrence of a future Red Alert is regressed on the number of Red Alerts the locality has previously experienced, as follows. Specifically, for each locality, I know the number of Red Alerts it has experienced up to the current date, and whether

the locality will experience at least one Red Alert in the future (up to 2022). The model allows me to assess how previous events influence the likelihood of future occurrences, as follows:

$$\text{logit}(P(\text{Future Red Alert} = 1)) = \beta_0 + \beta_1 \cdot \text{quantity of Red Alerts} + \epsilon$$

In this setup, the dependent variable is whether or not the locality will experience a future Red Alert (coded as 0 for no or 1 for yes), and the independent variable is the cumulative number of Red Alerts experienced by the locality up to the given date. The model thus helps estimate the effect of past exposure on the probability of future occurrences, accounting for the temporal structure of the data.

Given that my dataset is limited between 2014 and 2022, as time passes, there is less remaining time for new Red Alerts to occur, which naturally impacts the distribution of events. Essentially, in the later years of the dataset, the possibility of observing new Red Alerts decreases, not necessarily because Red Alerts are less likely to occur, but simply because the data has fewer opportunities to capture future events due to its time constraints. Additionally, for localities with a high number of past Red Alerts, the probability of observing a future Red Alert may approach zero, not because future alerts are impossible, but because there is simply not enough time remaining in the dataset to capture those events. This time limitation affects the model's ability to predict future Red Alerts for such localities, as the window for observation has already closed.

To address the time constraints in my dataset, I apply three alternative specifications. First, I filter the data to focus only on the years 2014-2021. By excluding the final year of the dataset (2022), I reduce the impact of the limited observation window on the model's ability to predict future Red Alerts. This approach ensures that the model is not artificially constrained by the lack of future events in the later years of the data, allowing for a more accurate representation of how past Red Alerts influence future occurrences within the period when sufficient data is available.

Second, I introduce an interaction between yearly dummies and the quantity of past Red Alerts to account for time-varying effects. This specification allows the relationship between the number of past Red Alerts and the probability of future Red Alerts to change across different years. By interacting the year fixed effects with the number of Red Alerts, the model adjusts for the fact that the impact of past Red Alerts may not be constant

over time, particularly as I approach the later years in the dataset. This interaction helps capture potential variations in the effect of past alerts due to the decreasing likelihood of observing future events as time progresses.

Third, I modify the dependent variable in the logit model to indicate whether a Red Alert occurs within one year after the observation, rather than at any point in the future. In this case, I exclude observations from 2022, since I have no data concerning Red Alerts in the following year (2023). This alternative specification ensures that the prediction window remains consistent across all periods, preventing bias from variations in data availability over time. By focusing on a fixed one-year horizon, the model better captures the short-term relationship between past and future Red Alerts while mitigating distortions caused by the dataset's limited temporal scope.

Table 6.2 presents the logit estimates for all specifications.

Table 6.2: Logit Estimates: Quantity of Past Red Alerts Impact on Future Red Alerts

	(1)	(2)	(3)	(4)
Quantity of Previous Red Alerts	−1.011***	−0.920***	12.913	−0.259***
	(0.002)	(0.002)	(33.473)	(0.003)
Quantity of Previous Red Alerts * 2015			0.498	
			(36.729)	
Quantity of Previous Red Alerts * 2016			−14.286	
			(33.473)	
Quantity of Previous Red Alerts * 2017			−13.060	
			(33.473)	
Quantity of Previous Red Alerts * 2018			−12.995	
			(33.473)	
Quantity of Previous Red Alerts * 2019			−12.547	
			(33.473)	
Quantity of Previous Red Alerts * 2020			−12.384	
			(33.473)	
Quantity of Previous Red Alerts * 2021			−12.679	
			(33.473)	
Quantity of Previous Red Alerts * 2022			−12.932	
			(33.473)	
Period	2014-2022	2014-2021	2014-2022	2014-2021
Year Fixed Effects	No	No	Yes	Yes
Observations	1100631	970326	1100631	970326

Notes: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
Standard errors are reported in parentheses.
Column (1) estimates the probability of a future Red Alert using only the quantity of previous red alerts. Column (2) excludes data from 2022. Column (3) introduces interaction terms with year to explore whether the effect of previous red alerts varies across years. Column (4) models the probability of a Red Alert within one year, again excluding 2022.

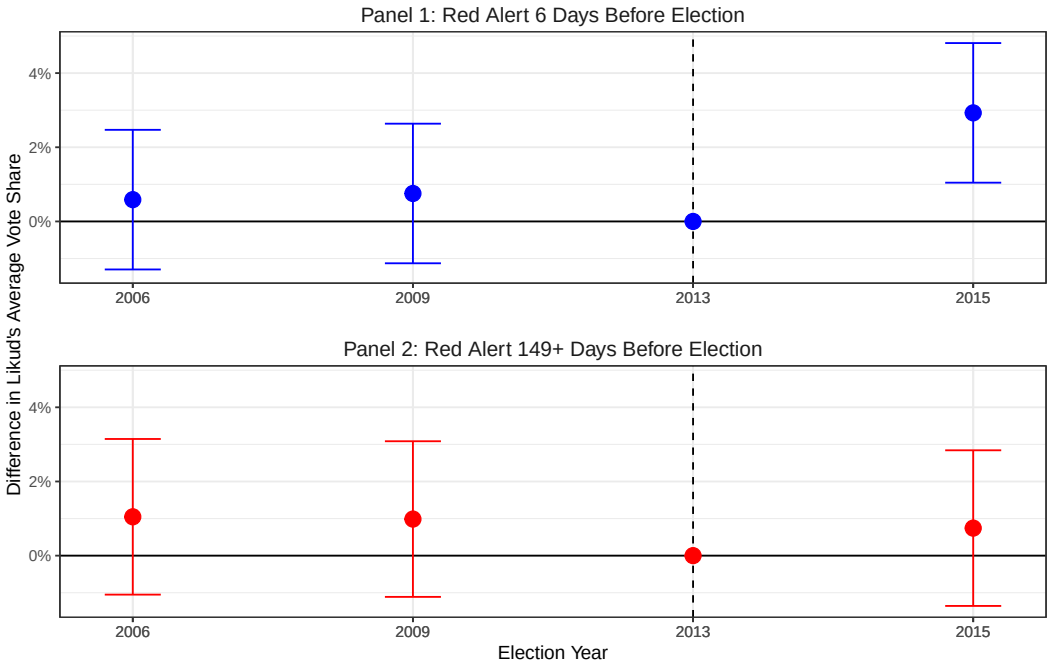
From Table 6.2, it is evident that the occurrence of Red Alerts in a specific locality does not increase the likelihood of that locality being

targeted again in the future. In fact, the results from columns (1), (2), and (4) suggest that the more frequently a locality has experienced Red Alerts, the less likely it is to experience another one, while column (3) shows no significant effect. This finding implies that if being targeted by a Red Alert reduces the probability of future alerts, citizens should not alter their behavior based on anticipation of future events. Therefore, I can isolate the immediate salience of Red Alerts on electoral preferences.

7
Results

Figure 7.1 compares the share of Likud votes between the three groups over time. Before the 2015 election, the three groups presented parallel trends. However, in 2015, the localities that experienced Red Alerts 6 days before the election presented, on average, a significantly higher average vote share for Likud.[1] Figure 7.2 presents the same plot, but for the Right Wing's vote share, and Figure 7.3 for the Turnout.

Figure 7.1: Difference in Likud's Vote Share Over Time

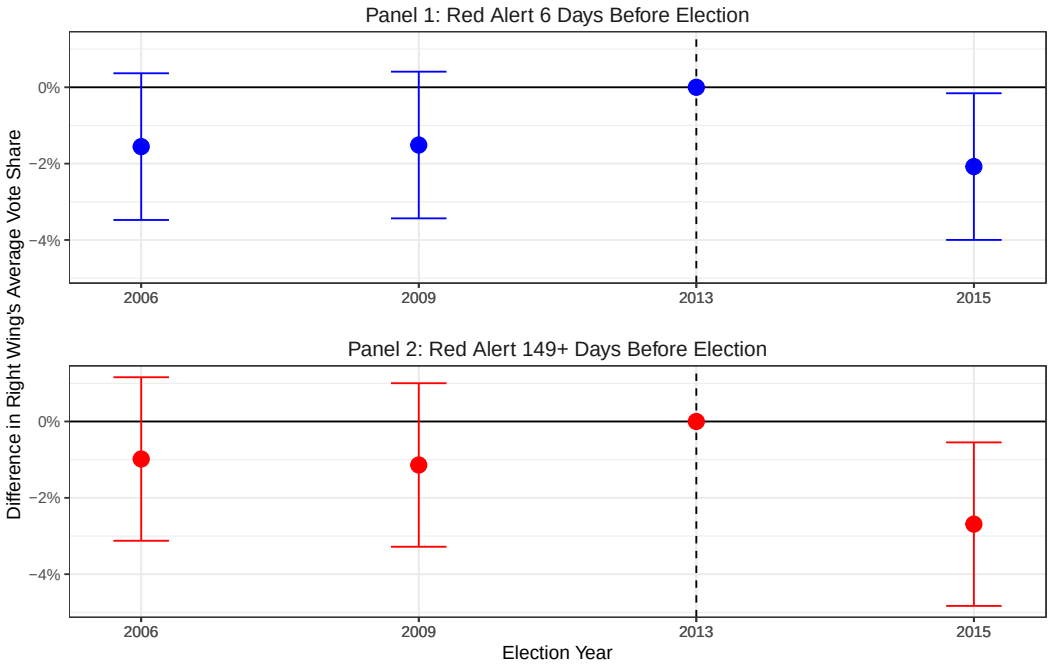


Notes: Error bars represent 95% confidence intervals. Panel 1 compares Likud's average vote share between localities with a Red Alert 6 days before the 2015 election and those with no alerts leading up to the election. Panel 2 presents the differences in Likud's vote share between localities that experienced a Red Alert 149 days or more before the 2015 election and those with no alerts. For both panels, the 2013 election serves as the reference period, normalizing the differences in vote share to zero in 2013.

I present the regression results of the difference-in-differences estimator in Table 7.1. The first line measures the effect of Red Alerts occurring six days before the 2015 election, while the second line assesses the impact of alerts issued more than 149 days before the election.

[1]In the SI Appendix, I present similar figures that compare the share of Right Wing parties' (excluding Likud) vote share and turnout between these groups.

Figure 7.2: Difference in Right Wing bloc's Vote Share Over Time



Notes: Error bars represent 95% confidence intervals. Panel 1 compares the Right Wing Bloc's average vote share (excluding Likud) between localities with a Red Alert 6 days before the 2015 election and those with no alerts leading up to the election. Panel 2 presents the differences in the Right Wing Bloc's vote share (excluding Likud) between localities that experienced a Red Alert 149 days or more before the 2015 election and those with no alerts. For both panels, the 2013 election serves as the reference period, normalizing the differences in vote share to zero in 2013.

Columns (1) and (2) analyze Likud's vote share, columns (3) and (4) focus on the right-wing vote share, and columns (5) and (6) evaluate voter turnout. The analysis reveals that Red Alerts occurring six days before the election have a statistically significant positive effect on Likud's vote share in the post-election period, with coefficients of 2.9% and 3.0% in columns (1) and (2), both significant at the 1% level. Experiencing a Red Alert 6 days before the 2015 election led to an additional 2.9 percentage points for Likud, on average.

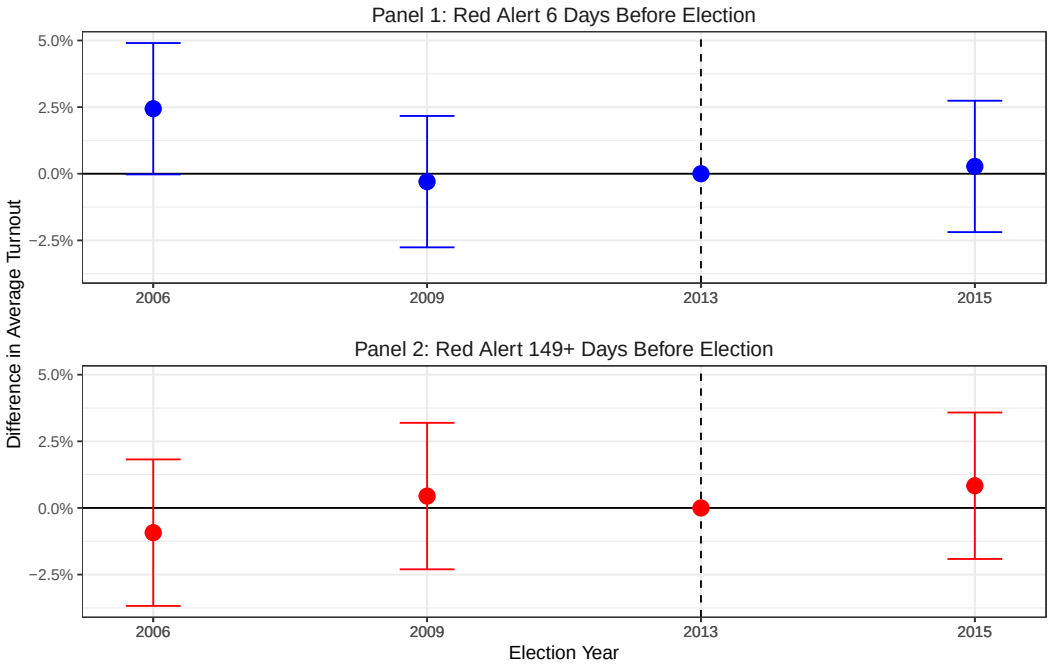
For localities treated 6 days before the election, where Likud's average vote share in 2013 was 16.59%, the impact of Red Alerts reflects a relative increase of 17.5% in vote share.[2]

Since the Israeli parliament has 120 chairs, an additional 2.9 percentage points would translate to about 3.5 seats if linearly extrapolated. In contrast, Red Alerts occurring more than 149 days before the 2015 election do not significantly affect Likud's vote share.

These patterns suggest that in times of security threats, Likud is

[2]Notice that 2.9% / 16.59% $\approx$ 17.5%.

Figure 7.3: Difference in Turnout Over Time



Notes: Error bars represent 95% confidence intervals. Panel 1 compares the average Turnout between localities with a Red Alert 6 days before the 2015 election and those with no alerts leading up to the election. Panel 2 presents the differences in Turnout between localities that experienced a Red Alert 149 days or more before the 2015 election and those with no alerts. For both panels, the 2013 election serves as the reference period, normalizing the differences in vote share to zero in 2013.

uniquely positioned to capture and even expand its voter base, possibly at the expense of its smaller right-wing counterparts. This dynamic underscores Likud's advantage in an electoral landscape marked by security concerns.

The results in Table 7.1 suggest that the impact of Red Alerts on the incumbent's vote share is short-term. The significant effect of alerts just six days before the election on Likud's vote share indicates that these alerts raise security concerns, pushing voters to favor the incumbent. However, I cannot determine the origin of Likud's new votes, i.e., whether they came from voters that previously supported right-wing or left-wing parties.

Additionally, a key limitation in interpreting these results is the challenge in separating the incumbency effect (rally-around-the-flag) from the salience effect. In the rally-around-the-flag phenomenon, external threats lead voters to support the incumbent government, simply because it is in power during the crisis. In the 2015 election, Likud was the incumbent, so

Table 7.1: Differences-in-Differences Estimates: Red Alert Impact on Likud's vote share, Right Wing's vote share and Turnout

	(1)	(2)	(3)	(4)	(5)	(6)
Red Alert 6 Days Before * 2015 Election	0.029**	0.030**	−0.021*	−0.021*	0.003	0.002
	(0.010)	(0.010)	(0.010)	(0.010)	(0.013)	(0.013)
Red Alert 149+ Days Before * 2015 Election	0.007	0.009	−0.027*	−0.026*	0.008	0.009
	(0.011)	(0.011)	(0.011)	(0.011)	(0.014)	(0.014)
Red Alert 6 Days Before * 2009 Election	0.008	0.006	−0.015	−0.014	−0.003	−0.003
	(0.010)	(0.010)	(0.010)	(0.010)	(0.013)	(0.013)
Red Alert 149+ Days Before * 2009 Election	0.010	0.009	−0.011	−0.013	0.004	0.004
	(0.011)	(0.011)	(0.011)	(0.011)	(0.014)	(0.014)
Red Alert 6 Days Before * 2006 Election	0.006	0.004	−0.016	−0.015	0.024+	0.025+
	(0.010)	(0.010)	(0.010)	(0.010)	(0.013)	(0.013)
Red Alert 149+ Days Before * 2006 Election	0.010	0.009	−0.010	−0.013	−0.009	−0.010
	(0.011)	(0.011)	(0.011)	(0.011)	(0.014)	(0.014)
Dependent Variable	Likud	Likud	Right Wing (excluding Likud)	Right Wing (excluding Likud)	Turnout	Turnout
Control Variables	No	Yes	No	Yes	No	Yes
Locality Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Control Group	NRA 2015	NRA 2015	NRA 2015	NRA 2015	NRA 2015	NRA 2015
Observations	1180	1180	1180	1180	1180	1180

Notes: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
Standard errors are reported in parentheses.
NRA 2015 stands for No Red Alerts until the 2015 Election.
Columns (1) and (2) estimate the impact of Red Alerts on Likud's vote share, columns (3) and (4) estimate the impact on Right-Wing parties' vote share (excluding Likud), and columns (5) and (6) estimate the impact on voter turnout.
"Red Alert 6 Days Before" indicates localities that experienced their last Red Alert 6 days before the 2015 Legislative Election.
"Red Alert 149+ Days Before" indicates localities that experienced their last Red Alert 149+ days before the 2015 Legislative Election.
Control variables: demographic density, population size and nighttime luminosity level (as a proxy to economic development).

heightened security concerns from Red Alerts may have triggered this response. At the same time, the salience effect could be at play, where voters prioritize security issues, favoring Likud for its strong defense policies. As a result, I cannot empirically determine whether the shift in support was due to voters rallying around the incumbent or due to a genuine increase in the salience of security concerns.

Conversely, the remaining right-wing parties are negatively affected by the Red Alerts, as shown in columns (3) and (4). This supports the argument that Likud's electoral gains may stem more from heightened security concerns than from a genuine ideological shift among voters. In fact, localities exposed to Red Alerts, both six days and over 149 days before the 2015 election, show significantly lower support for other right-wing parties.

As Likud was in power during the alerts, voters may associate the party with the handling of security threats like rocket attacks, the effectiveness of the Iron Dome system, and the use of sirens. These factors, rather

than purely political ideology, may explain the increased support for Likud during periods of heightened security concerns.

This heightened security concern likely fades over time, as evidenced by the lack of a significant effect of the Red Alerts that occurred more than 149 days before the election. The lack of a long-term impact suggests voters' responses are driven by recent experiences, not past events, even if similarly threatening. At the same time, the negative long-term impact on other right-wing parties may stem from voter perceptions that these parties lack the same level of competence or decisiveness in crisis situation. Additionally, as the immediate security concerns fade, voters might become disillusioned with the broader right-wing agenda if they feel that other parties are not effectively contributing to national security discussions. chapter 8 assesses these hypotheses.

The results in Table 7.1 also indicate that there is no significant impact of Red Alerts on voter turnout at the 5% significance level. Despite the increased security concerns following the alerts, there is no evidence to suggest that these events motivated more voters to participate in the election. This absence of a turnout effect underscores that Red Alerts shape voter preferences rather than mobilize new voters. This reinforces the idea that the shift towards Likud is more about concerns over security and leadership than broader ideological or political realignment across the electorate.

The possibility of an alternative hypothesis concerning the turnout cannot be entirely dismissed, namely that Red Alerts might lead to an increase in voter turnout among right-wing voters while simultaneously discouraging turnout among left-wing voters. In this scenario, heightened security concerns could motivate right-leaning individuals to cast their ballots in support of Likud, perceiving it as better equipped to handle national security threats. Conversely, left-leaning voters could be less inclined to participate. This dynamic could contribute to the observed shift in election outcomes without necessarily reflecting a broad change in ideological preferences, but rather a turnout imbalance driven by divergent reactions to the perceived threat of terrorism.

This short-term effect aligns with how salience shapes voter behavior: security concerns are most acute when threats are fresh, prompting shifts toward parties emphasizing security. Over time, as the immediacy of the threat diminishes and other issues come to the forefront, the influence of past security events wanes. Therefore, while Red Alerts shortly before an election can significantly sway voter preferences, this effect seems to dissipate relatively quickly, indicating that such events are likely to have

only a transient impact on electoral outcomes.

7.1 Polarization

This analysis explores the heterogeneous impact of Red Alerts on Likud's vote share, support for other Right-Wing parties (excluding Likud), and voter turnout across localities grouped by quintiles of their baseline Likud support in the 2013 election.

Table 7.2 displays difference-in-differences estimates of the impact of Red Alerts occurring either 6 days or more than 149 days before the 2015 election, broken down by quintiles (Q1–Q5) of prior Likud support.

Table 7.2: Red Alert Effects by 2013 Likud Support Quintile

	Q1	Q2	Q3	Q4	Q5
Panel A: Likud					
6 days before elections	0.007	0.001	0.003	-0.002	0.119***
	(0.005)	(0.009)	(0.014)	(0.020)	(0.021)
149+ days before elections	0.007	0.002	-0.016	-0.010	0.050+
	(0.007)	(0.012)	(0.013)	(0.018)	(0.029)
Num.Obs.	232	236	236	236	236
R2	0.733	0.746	0.782	0.789	0.883
Panel B: Right-Wing					
6 days before elections	0.018	-0.007	0.012	-0.011	-0.108***
	(0.018)	(0.012)	(0.015)	(0.020)	(0.028)
149+ days before elections	-0.022	-0.005	0.021	-0.034+	-0.101*
	(0.022)	(0.015)	(0.015)	(0.018)	(0.039)
Num.Obs.	232	236	236	236	236
R2	0.951	0.984	0.985	0.931	0.833
Panel C: Turnout					
6 days before elections	-0.004	-0.014	0.010	-0.019	0.029
	(0.023)	(0.032)	(0.032)	(0.024)	(0.022)
149+ days before elections	0.011	0.011	0.012	-0.005	0.012
	(0.029)	(0.042)	(0.030)	(0.022)	(0.032)
Num.Obs.	232	236	236	236	236
R2	0.658	0.490	0.576	0.896	0.754

Notes: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
Standard errors are reported in parentheses.

Panel A shows that Red Alerts within 6 days of the election have a negligible impact in lower-support areas (Q1–Q4), while in the highest quintile (Q5), a Red Alert 6 days before the 2015 election increased Likud's vote share by 11.9 percentage points.

In contrast, Panel B reveals a negative effect of Red Alerts on support for other right-wing parties. Again, the effect is only substantial and statistically significant in the highest quintile (Q5), for both Red Alerts close and distant to the 2015 election date.

Panel C shows no significant effects of Red Alerts on turnout in all quintiles. This indicates that, while Red Alerts may shift vote shares among parties, they do not meaningfully change overall turnout levels, regardless of previous Likud support.

Taken together, these results suggest that Red Alerts do not affect all voters equally. In localities with the highest baseline support for Likud, these alerts significantly boost Likud's vote share. This pattern points to increasing polarization: security threats do not broaden Likud's appeal but deepen its support in areas already favorable to the party.

8
Mechanisms

To understand the mechanisms behind the impact of Red Alerts on voting behavior, I analyze Google Trends data from 2014 to 2022 at the district level in Israel.[1] Specifically, I examine monthly search intensity for keywords related to either security or politics to determine whether Red Alerts heighten the salience of security concerns in the short term or lead to an ideological shift.

Keyword	Related to
Siren	Security
Hamas	Security
War	Security
Terrorism	Security
Ceasefire	Security
Peace	Security
Netanyahu	Politics
Likud	Politics
Elections	Politics
Government	Politics

Table 8.1: Keywords used in Google Trends analysis

The Google Trends index ranges from 0 to 100, where 0 indicates an absence of significant search activity, and 100 represents the peak search volume for that keyword within the specified timeframe. Figure 8.1 presents the search trend for the keyword "siren" for each Israeli district.

From Figure 8.1, it is clear that the 2014 war had a deep impact on all districts, regardless of the proportion of the population that was targeted.

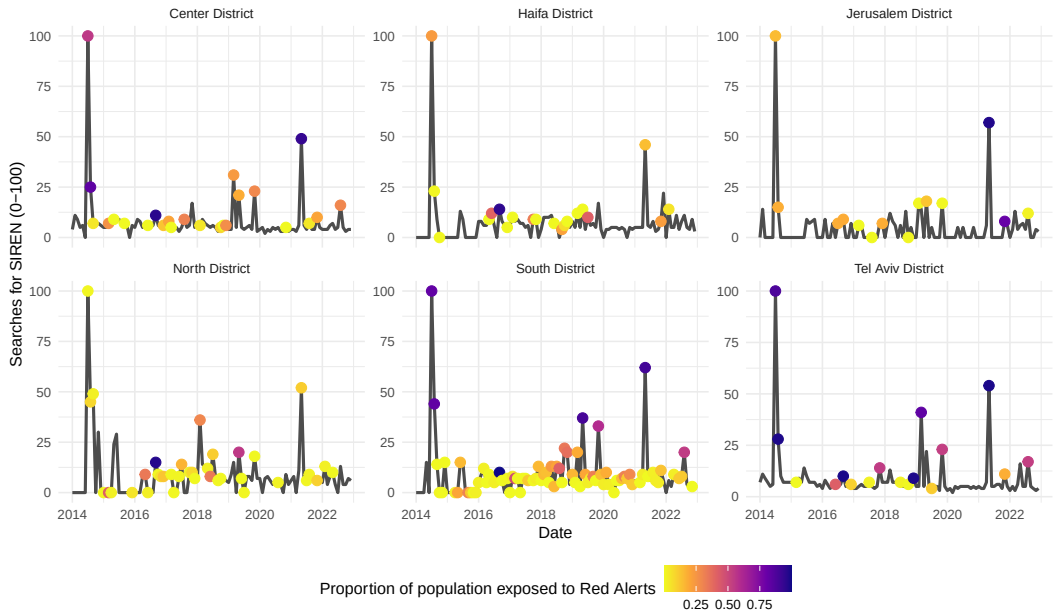
I estimate the following regression for each keyword:

$$\text{keyword}_{dt} = \beta_1 \text{Red Alert}_{dt} + \beta_2 \text{Red Alert}_{dt-1} + \beta_3 \text{Red Alert}_{dt-2} + \gamma_d + \lambda_t + \epsilon_{dt}$$

where keyword_{dt} represents the Google search index for a given keyword in district d and month t. The variable Red Alert_{dt} equals the proportion of the entire district that was affected by a Red Alert in month t. This al-

[1] Ideally, I would have collected Google Trends data from 2006 to 2022. However, a significant change in Google's geographical assignment methodology in 2011 fundamentally altered data collection, making trends from earlier years incompatible. Additionally, before 2014, some localities near the Gaza Strip were already equipped with the siren system, but there is no record of which ones, and no available data on Red Alerts prior to that year.

Figure 8.1: Trend Evolution of the Word “Siren" (2014-2022)



lows me to approximate district-level exposure, ensuring that the estimated effects reflect actual information salience within the district.[2] Red Alert$_{dt-1}$ and Red Alert$_{dt-2}$ capture the persistence of the effect over the following two months. I include district fixed effects (γ_d) and year fixed effects (λ_t) to control for time-invariant district characteristics and national trends.

Table 8.2 presents the regression results.

The key finding is that Red Alerts significantly increase search intensity for all war-related keywords that were tested (*War*, *Siren*, *Terrorism*, *Ceasefire*, *Hamas*), but not for politics-related keywords (*Elections*, *Likud*, *Netanyahu*, *Government*). This translates to a sharp increase in Google searches for these terms within the same month. In contrast, searches for politics-related keywords remain unaffected by Red Alerts. Furthermore, the effect is short-lived: while contemporaneous Red Alerts (β_1) exhibit strong positive coefficients, the lagged effects (β_2, β_3) are small and, in general, statistically insignificant.

These results suggest that Red Alerts temporarily increase the salience of security concerns but do not have neither a short nor a long-term ideological effect. This aligns with my main findings on voting behavior: the impact of Red Alerts on electoral outcomes is concentrated when alerts occur

[2]Google Trends data for Israel is not available at the locality level. Therefore, I simply calculate the portion of the population from each district that was affected by each Red Alert (by adding each affected locality from the same district) in relation to the district’s total population.

Table 8.2: Impact of Red Alerts on Google Trends Keywords

	Peace	War	Siren	Terrorism	Ceasefire	Hamas	Elections	Likud	Netanyahu	Government
Red Alert	6.096***	23.007***	34.435***	19.820***	37.858***	27.021***	−3.546	0.187	5.313	4.630
	(1.832)	(2.539)	(2.330)	(4.208)	(2.556)	(2.299)	(4.260)	(3.660)	(3.341)	(3.402)
Red Alert - lag 1	−3.125+	2.698	−0.979	5.227	0.326	2.272	−3.522	−1.286	0.154	8.043*
	(1.826)	(2.532)	(2.323)	(4.196)	(2.549)	(2.292)	(4.248)	(3.650)	(3.331)	(3.393)
Red Alert - lag 2	−0.153	−4.216+	−1.220	−3.238	0.672	−0.984	−2.224	−2.784	0.435	0.235
	(1.823)	(2.527)	(2.318)	(4.187)	(2.544)	(2.287)	(4.239)	(3.642)	(3.324)	(3.386)
Num.Obs.	648	648	648	648	648	648	648	648	648	648
R2	0.435	0.440	0.325	0.222	0.309	0.270	0.148	0.306	0.534	0.385

Notes: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
Standard errors are reported in parentheses.
Each column represents a different keyword.
Trends are measured on a monthly basis, where "lag 1" refers to Red Alerts that occurred in the previous month relative to the trend observation, and "lag 2" refers to Red Alerts that occurred two months prior.

shortly before elections. Voters exposed to alerts in the election period are more likely to prioritize security, terrorism prevention, and border protection when casting their vote, rather than experiencing a lasting ideological shift toward right-wing positions.

9
Conclusion

This study illustrates the significant impact of immediate security threats on electoral outcomes in Israel, specifically through the lens of the siren alert system. My findings indicate that exposure to Red Alerts prior to elections can influence voters to favor the incumbent party, which they associate with providing protection during periods of conflict. This relationship underscores the critical role that perceived security risks play in shaping political behavior and voter preferences.

Furthermore, the mainly short-term nature of the behavioral effect observed in our analysis suggests that voters are primarily influenced by recent experiences of threat rather than long-standing conditions. Localities that experienced alerts at a considerable temporal distance from the election did not demonstrate significant changes in voting behavior towards the incumbent party. The observed short-term effect of these alerts emphasizes that the impact on electoral outcomes is not merely a reflection of general security sentiments but rather a specific reaction to recent experiences of threat.

Moreover, my analysis of Google search trends reinforces the idea that the mechanism driving this effect is salience rather than an ideological shift. Red Alerts lead to a temporary surge in searches for security-related terms, such as "terrorism" and "war," while searches for political terms, including "elections" and "Netanyahu," remain unaffected. This suggests that voters are not changing their fundamental political ideology in response to Red Alerts but are instead reacting to heightened security concerns in the immediate aftermath of the threat. The fact that these spikes in search activity fade within a short period further supports the notion that salience, rather than deep-seated ideological change, is the primary driver of the observed electoral shifts.

Ultimately, this study contributes to a broader understanding of how contextual factors, particularly salient security threats, influence agent behavior. By analyzing the intersection of rocket attacks, Red Alerts, and voting patterns, I highlight the role of immediate environmental stimuli in shaping electoral preferences. This focus on salience improves our understanding of voting dynamics in conflict-affected regions and underscores the importance of considering the impact of such stimuli in electoral analysis.

10
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A
Appendix

A.1
Red Alert Analysis Using Localities Located 85-140km from the Gaza Strip

Table A.1: Differences-in-Differences Estimates: Red Alert Impact on Likud's vote share, Right Wing's vote share and Turnout (only localities 85-140km from the Gaza Strip)

	(1)	(2)	(3)	(4)	(5)	(6)
Red Alert 6 Days Before * 2015 Election	0.034**	0.034**	−0.022+	−0.021+	0.006	0.006
	(0.011)	(0.011)	(0.012)	(0.011)	(0.015)	(0.015)
Red Alert 149+ Days Before * 2015 Election	0.012	0.012	−0.038**	−0.035*	0.015	0.015
	(0.014)	(0.013)	(0.014)	(0.014)	(0.018)	(0.018)
Red Alert 6 Days Before * 2009 Election	0.007	0.007	−0.009	−0.008	−0.004	−0.004
	(0.011)	(0.011)	(0.012)	(0.011)	(0.015)	(0.015)
Red Alert 149+ Days Before * 2009 Election	0.003	0.003	0.002	−0.003	0.003	0.003
	(0.014)	(0.013)	(0.014)	(0.014)	(0.018)	(0.018)
Red Alert 6 Days Before * 2006 Election	−0.001	−0.002	−0.010	−0.010	0.037*	0.037*
	(0.011)	(0.011)	(0.012)	(0.011)	(0.015)	(0.015)
Red Alert 149+ Days Before * 2006 Election	−0.010	−0.011	0.005	−0.003	−0.006	−0.006
	(0.014)	(0.014)	(0.014)	(0.014)	(0.018)	(0.018)
Dependent Variable	Likud	Likud	Right Wing (excluding Likud)	Right Wing (excluding Likud)	Turnout	Turnout
Control Variables	No	Yes	No	Yes	No	Yes
Locality Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Control Group	NRA 2015	NRA 2015	NRA 2015	NRA 2015	NRA 2015	NRA 2015
Observations	892	892	892	892	892	892

Notes: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
Standard errors are reported in parentheses.
NRA 2015 stands for No Red Alerts until the 2015 Election.
Columns (1) and (2) estimate the impact of Red Alerts on Likud's vote share, columns (3) and (4) estimate the impact on Right-Wing parties' vote share (excluding Likud), and columns (5) and (6) estimate the impact on voter turnout.
"Red Alert 6 Days Before" indicates localities that experienced their last Red Alert 6 days before the 2015 Legislative Election.
"Red Alert 149+ Days Before" indicates localities that experienced their last Red Alert 149+ days before the 2015 Legislative Election.
Control variables: demographic density, population size and nighttime luminosity level (as a proxy to economic development).

A.2
Red Alert Analysis Including Arab Localities

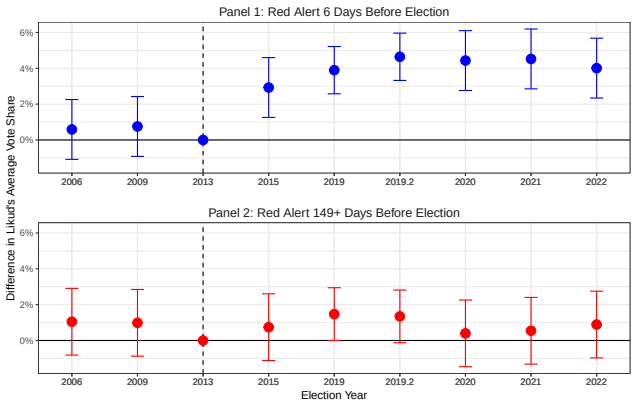
Table A.2: Differences-in-Differences Estimates: Red Alert Impact on Likud's vote share, Right Wing's vote share and Turnout (including Arab Cities)

	(1)	(2)	(3)	(4)	(5)	(6)
Red Alert 6 Days Before * 2015 Election	0.026**	0.027**	−0.013	−0.012	0.007	0.005
	(0.009)	(0.009)	(0.009)	(0.009)	(0.012)	(0.012)
Red Alert 149+ Days Before * 2015 Election	0.008	0.009	−0.016	−0.016	0.008	0.010
	(0.010)	(0.010)	(0.010)	(0.010)	(0.014)	(0.014)
Red Alert 6 Days Before * 2009 Election	0.007	0.007	−0.009	−0.009	−0.002	−0.002
	(0.009)	(0.009)	(0.009)	(0.009)	(0.012)	(0.012)
Red Alert 149+ Days Before * 2009 Election	0.009	0.009	−0.001	−0.004	0.002	0.003
	(0.010)	(0.010)	(0.010)	(0.010)	(0.014)	(0.014)
Red Alert 6 Days Before * 2006 Election	0.006	0.006	−0.013	−0.015+	0.018	0.020+
	(0.009)	(0.009)	(0.009)	(0.009)	(0.012)	(0.012)
Red Alert 149+ Days Before * 2006 Election	0.002	0.002	−0.007	−0.011	−0.009	−0.010
	(0.010)	(0.010)	(0.010)	(0.010)	(0.014)	(0.014)
Dependent Variable	Likud	Likud	Right Wing (excluding Likud)	Right Wing (excluding Likud)	Turnout	Turnout
Control Variables	No	Yes	No	Yes	No	Yes
Locality Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Control Group	NRA 2015	NRA 2015	NRA 2015	NRA 2015	NRA 2015	NRA 2015
Observations	1348	1348	1348	1348	1348	1348

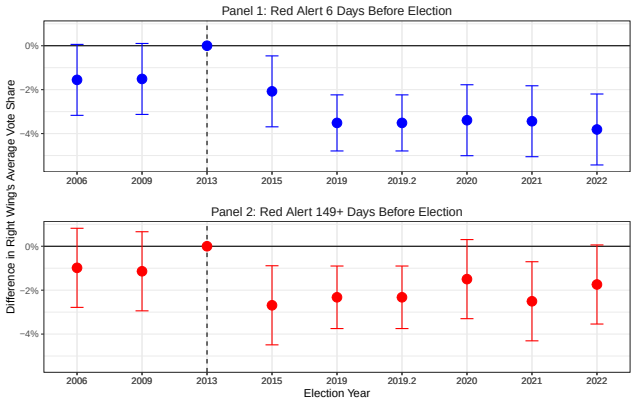
Notes: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
Standard errors are reported in parentheses.
NRA 2015 stands for No Red Alerts until the 2015 Election.
Columns (1) and (2) estimate the impact of Red Alerts on Likud's vote share, columns (3) and (4) estimate the impact on Right-Wing parties' vote share (excluding Likud), and columns (5) and (6) estimate the impact on voter turnout.
"Red Alert 6 Days Before" indicates localities that experienced their last Red Alert 6 days before the 2015 Legislative Election.
"Red Alert 149+ Days Before" indicates localities that experienced their last Red Alert 149+ days before the 2015 Legislative Election.
Control variables: demographic density, population size and nighttime luminosity level (as a proxy to economic development).

A.3
Red Alert Analysis Including All Elections

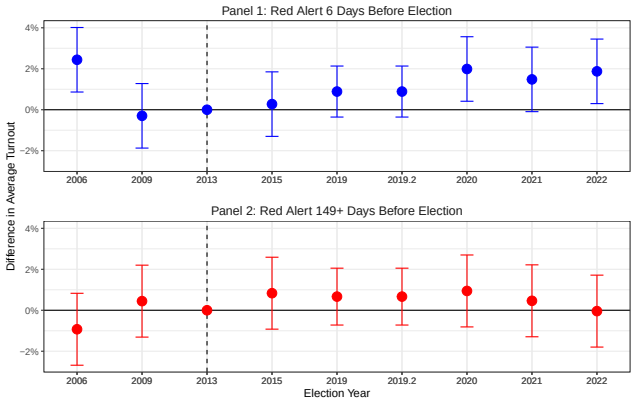
Figure A.1: Difference in Likud vote share, right-wing vote share, and voter turnout (2006-2022)



((a)) Likud Vote Share



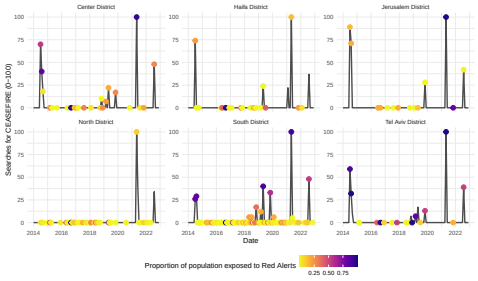
((b)) Right-Wing Vote Share



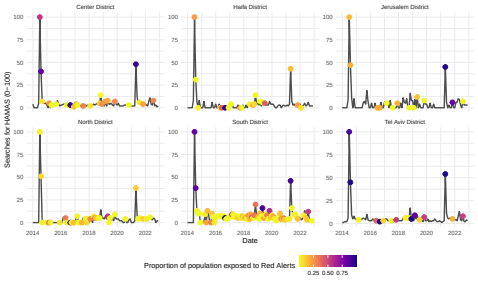
((c)) Voter Turnout

A.4
Google Trends Search Trends

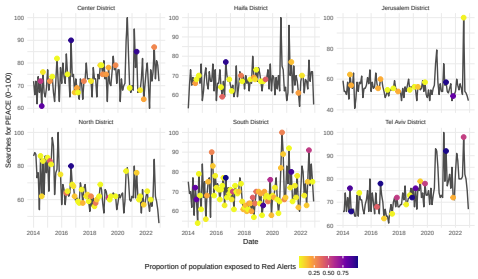
Figure A.2: Google Trends search trends for selected keywords



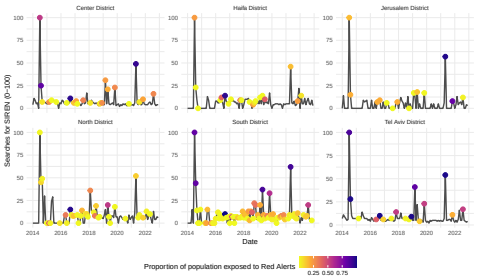
((a)) Searches for "Ceasefire"



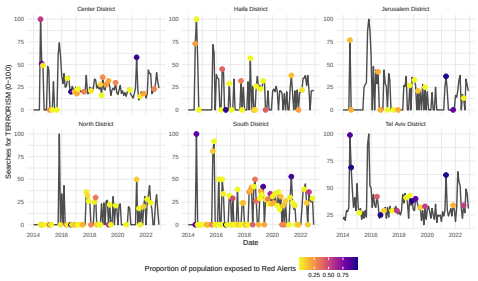
((b)) Searches for "Hamas"



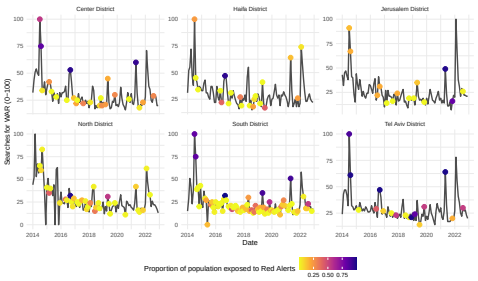
((c)) Searches for "Peace"



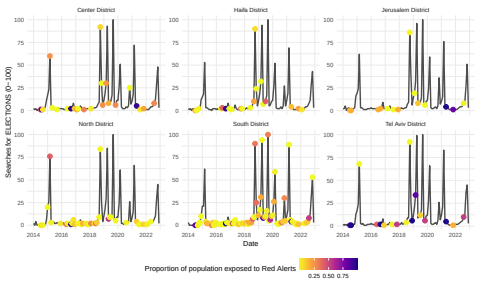
((d)) Searches for "Siren"



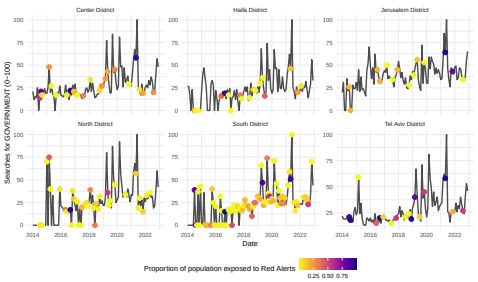
((e)) Searches for "Terrorism"



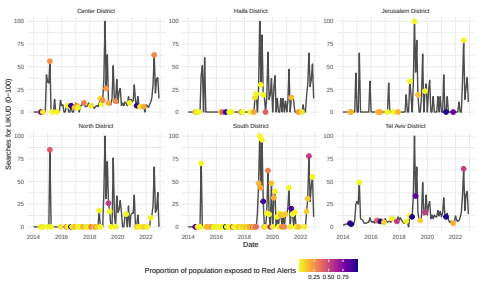
((f)) Searches for "War"



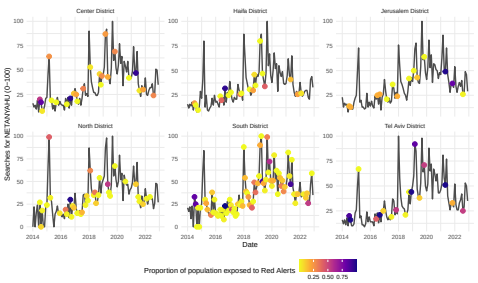
((g)) Searches for "Elections"



((h)) Searches for "Government"



((i)) Searches for "Likud"



((j)) Searches for "Netanyahu"