Rockets and Votes*

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Abstract

Citizens in many countries are forced to make their political decisions under the threat of terrorism. This paper explores the effects of rocket attacks from the Gaza Strip on voting patterns in Israeli elections between 1999 and 2015. Relying on a micro-level dataset of claims for rocket-related property damages as a proxy for the severity of the rocket attacks, I find that an additional one thousand claims in a locality increases right-bloc parties' vote-share by about 4 percentage points. Recent attacks, initial exposure and geographical proximity lead to stronger effects on voting behavior. The results are driven by actual exposure of the locality to rocket fire rather than by the mere threat of an attack.

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1 Introduction

Many societies around the world are faced today with the prospect of terrorism on their own soil. Terrorism is broadly defined in this paper as the use of violence and threats to intimidate or coerce, especially for political purposes. Since the September 11, 2001 terrorist attack in the United States, there have been several additional major terrorist attacks against democratic countries. In recent years, Spain, the UK, Germany and France have been attacked by terrorist organizations. Numerous factors may affect how the public responds to a terrorist attack, such as the timing, the location and the scale of the attack. This paper explores the electoral effects of rocket attacks perpetrated by Palestinian terrorist organizations operating in the Gaza Strip against Israel. Using six rounds of national elections held in Israel from 1999 to 2015, I analyze whether and which features of rocket attacks from the Gaza Strip affect political preferences in Israel.

Palestinian terrorist organizations started to fire rockets from the Israeli-occupied Gaza Strip in 2001 and have continued to do so ever since. Their rocket arsenal improved over time and enabled them to reach targets further away from the Strip and cause more destruction. To measure variation in the intensity of the rocket attacks over time and across space, I use detailed data on claims for rocket-related property damages. According to Israeli law, the government fully compensates for property damages caused by hostilities, such as rocket attacks. I use data obtained from the Israel Tax Authority on rocket-related claims for the period 2000-2015 (in total, more than ten thousand claims for southern and central Israel). For each claim, there is information on location, incident date and monetary compensation.

Relying on a treatment intensity identification strategy, I find that an additional one thousand claims in a locality increases right-bloc parties' vote-share by about 4 percentage points.[1] This finding is highly robust to various changes, including in the set of election rounds and localities included in the analysis.

[1]Locality is a permanently inhabited place that meets the following criteria: (a) It is usually inhabited by 40 or more adult residents and (b) It has self-administration.

My study builds on two lines of research in the literature. The first studies the goals of terrorist groups and examines whether the terrorists were able to achieve them. The second estimates the electoral effects of terrorism using various measures of the intensity of terrorist attacks.

The extensive research on the effectiveness of terrorism typically relies on cross national analysis. For example, Pape (2003) argues that terror attacks are mostly effective, while Abrahms (2006; 2012) reaches the opposite conclusion. Given the cross-sectional nature of these studies it is difficult to infer causality from them.

Focusing on the Israeli-Palestinian context, Berrebi and Klor (2006) distinguish between two types of Palestinian terrorist organizations – moderate and extremist. The main goal of moderate organizations is to establish a sovereign Palestinian state in the West Bank and the Gaza Strip while the main goal of extremist organizations is to destroy Israel and establish a state in accordance with the borders of British Mandate Palestine. Kydd and Walter (2002; 2006) as well as Bueno de Mesquita and Dickson (2007) examine another goal of the terrorists: mobilizing more supporters. Provoking a harsh reaction from Israel might radicalize the Palestinian population and bolster support for extremists. Jaeger et al. (2012) find that local Israeli violence discourages Palestinians from supporting moderate political positions, but only for a short time period of about 90 days.

In the Israeli political landscape, left and right are defined primarily by security and peace issues. With respect to the conflict with the Palestinians, left-leaning parties are more willing to make territorial concessions while right-leaning parties tend to reject them. Moreover, right-leaning parties in Israel are viewed as more likely to respond forcefully to terrorist attacks (Peffley et al., 2015). Berrebi and Klor (2008) find that the occurrence of local terror attacks causes Israelis to vote increasingly for hardliner right-bloc parties. Gould and Klor (2010) rely on survey data and describe a more nuanced reaction to terror attacks. They show that Israelis are more willing to support territorial concessions to the Palestinians up to a certain threshold of terror intensity (measured by the number of fatalities). Beyond this threshold, Israelis adopt

a less accommodating position.[2] In this paper, I find that rocket attacks from Gaza increase support for the right political bloc in Israel, which in turn likely makes the Israeli-Palestinian conflict more persistent and difficult to resolve. Thus, it is not serving the goals of the moderate Palestinians, nor does it necessarily benefit the extremists.

Research on the electoral effects of terrorism and other forms of politically motivated violence typically exploits voters' differential exposure to incidents or casualties. For example, Karol and Miguel (2007) document a lower vote-share for the Republican president George W. Bush in 2004 compared to 2000, in states that saw more Iraq insurgency-related casualties. Montalvo (2011) examines elections held immediately after a terrorist bombing attack in Spain in 2004 and compares two groups of Spanish voters: Spanish nationals abroad who voted before the attack and local residents who voted after it occurred. He finds that the terror attack led to lower support for the incumbent conservative party among the latter group of voters. Kibris (2011) analyzes the 1991 and 1995 general elections in Turkey, and finds higher support for right-wing parties in districts that saw more security-force casualties.

A few recent studies attempt to distinguish between the political effects of the mere threat of terrorist attacks and the effects of actual attacks. One way to do this is by comparing failed and successful terrorist attacks, as the former capture the threat and the latter capture both the threat and the actual exposure. The identification assumption is that conditional on trying to carry out a terrorist attack, the success or failure of the attempt can be treated as plausibly exogenous. For example, Brodeur (2015) finds that compared to failed attacks, successful terror attacks in the US lead to higher vote-shares of Republican candidates in gubernatorial elections. In a somewhat different context, Jones and Olken (2009) analyze the political effects of assassinations by comparing the consequences of successful and failed assassination attempts.

[2] Ben Bassat et al. (2012) also examine the effect of terrorism on Israelis' willingness to grant territorial concessions. They document the same non-linear effect of the number of Israeli fatalities on political views. However, when they measure terrorism by the economic costs of the conflict (focusing on the tourism sector), they do not find an effect on individuals' political attitudes.

They find that successful assassinations of autocrats substantially raise the probability that a country transitions to democracy.

In this respect, an interesting and important question is whether the effect on Israeli voting patterns I document is driven by the mere threat of a rocket attack or by actual exposure to rocket fire. Getmansky and Zeitzoff (2014) examine this issue by exploiting the expanding range of the rocket arsenal held by terrorist organizations in the Gaza Strip over time. Only municipalities within rocket range are under the threat of an attack.[3] They find that voters in municipalities which entered rocket range between 1999 and 2009, increased their support for right-bloc parties by 2 to 6 percentage points. Crucially, however, Getmansky and Zeitzoff (2014) did not have data on actual rocket attacks. The data I use on claims for rocket-related property damages allow me to proxy for the severity of the attacks across different locations within rocket range. I find that the effect on the right-bloc vote-share is mainly driven by municipalities within rocket range whose residents filed rocket-related claims for property damages (their support for the right increases by about 4.5 percentage points per 1,000 additional claims). Entering the rocket range per se has an insignificant effect on the support for the right political bloc. This findings indicate that actual attacks matter and not the threat of attacks (as argued by Getmansky and Zeitzoff, 2014). This implies that in order to bring about a change in voting patterns, an individual has to experience the attack directly.[4]

Furthermore, using the data I have on the exact location of rocket-related damages to properties, I disaggregate the baseline analysis in this paper to the locality-Statistical Area level (similar to neighborhood). This is a further

[3] Israel has about 1,200 localities, divided into about 250 municipalities. A municipality is either an urban locality, a local council or a regional council. Urban localities are populous cities that consist of several locality-statistical areas (SAs). Local councils and regional councils include several single SA-localities. I elaborate on these geographical definitions in Section 4.2.7.

[4] The localized effect of terror attacks on the identity and preferences of the aggravated Israeli population has been documented before in several other aspects. For example, local exposure to violence shaped their religious self-identify (Zussman, 2014) and influenced court decisions (Shayo and Zussman, 2011).

advancement relative to what has been done in the literature before and at this level of spatial disaggregation it is easier to argue that the precise locality-SA in which a rocket falls is exogenous. I explore how far the rocket effects persist, by creating boundaries around the location of the effects. I find that the effect of additional 1,000 rocket-related claims on the support for the right political bloc at the locality-SA is significantly larger (about 15 percentage points) than the effect of rocket attacks outside of the voter locality-SA in the same municipality (about 3 percentage points), the effect of rocket attacks in the natural area outside of the municipality (about 3 percentage points) and the effect of rocket attacks in the sub-district outside of the natural area (with an estimated zero effect). I also disaggregate this localized effect into shorter time spans, and find that there is a significantly larger effect in the year before elections relative to earlier attacks. Having said that, the effect remains positive and significant even for earlier attacks. Finally, I compare different scales of attacks, and find that massive attacks have a significantly larger effect on election outcomes than small-scale attacks.

The highly localized effect of rocket attacks is not an obvious behavioral outcome. As Getmansky and Zeitzoff (2014) point out, the strategy of terrorists is to instill fear in the opponent population. In fact, since Palestinian rockets have a limited accuracy, every Israeli voter within the range has some likelihood of being hit. So, what can explain the limited response of voters outside affected locality-SAs?

Sharkey and Faber (2014) provide a survey of observational studies in Sociology that try to uncover the effect of neighborhoods on its residents. Among these, several studies focused on the exposure to different forms of violence. They indicate a decaying effect of local violence on children performance in cognitive skills assessments, and find substantial benefits for students that moved out of communities with extraordinarily high levels of concentrated violence. Their proposed mechanism involves the stress, shock, trauma, or fear experienced by individuals who are exposed to or made aware of extreme violence close to home. They explain the localized effect of violent events by the higher likelihood of the incident to be part of daily conversations and interactions in

the neighborhood.

Another cognitive bias could be driving my results. Guryan and Kearney (2008) survey the existing empirical evidence of misperceptions of randomness. Their study finds that even though the probability of buying a winning lottery ticket is independent of the location of its purchase, individuals tend to increase their purchases at stores in the week following the sale of a large-prize winning ticket. The effect dissipates over time but sales at stores that sell winning tickets remain elevated for up to 40 weeks. They propose the following explanation; consumers erroneously expect positive serial correlation. Following the same logic, voters from "lucky" locations, that did not suffer rocket attacks, might expect positive serial correlation and thus repeat their voting patterns without reacting to the threat.

In sum, this paper advances the literature in two ways. First, it provides further evidence on the effect of terrorism on the electorate's political preferences. Second, the paper uncovers several mechanisms behind the effect of terrorism on political outcomes. This is especially important, given that voting has been documented as one of the most persistent political behavior over time (e.g. Shachar and Shamir, 1996). Understanding the situations under which behavior changes, may help us learn about the necessary conditions for a political shift. The findings of this paper have a significant policy implication. Since the documented effects are highly localized, policy decision makers may prefer to adopt limited security measures instead of reaching a higher level solution to the threat. Indeed, Israel has developed the *Iron Dome* – a mobile anti-rocket defense system – which is only able to protect a few selected regions in Israel against rocket attacks at each point in time. The findings could also be relevant to other terrorist organizations around the world. On the positive side, the paper uncovers how limited in scope the effect of a terror attack is. On the flip side, the effect remains significant for a long period of time, and it is especially large after massive attacks.

The rest of the paper is organized as follows. Section 2 describes the data and Section 3 presents the empirical strategy. Results are presented in Section 4. Section 5 concludes.

2 Data

2.1 Rocket Attacks

Palestinian terrorist organizations started to fire rockets from the Israeli-occupied Gaza Strip on southern Israel in 2001. The severity of the attacks increased after the Israeli pullout from the Strip in 2005. The growing rocket threat led Israel to initiate three large-scale military operations: "Cast Lead" (2008/9), "Pillar of Defense" (2012) and "Protective Edge" (2014). During all three operations, the Palestinians were able to launch a large number of rockets deep into Israel.

2.1.1 Claims for Rocket-related Damages

A natural way to measure variation over time and across space in the severity of the rocket attacks is to use the number of rocket hits. However, these data are not available to researchers. To capture the intensity of the attacks I instead use data on claims for rocket-related damages. The data were obtained from the Israel Tax Authority (ITA) and include all rocket-related claims for property damages from January 1, 2000 to June 30, 2015.[5] For each claim, there is information on location, incident date and monetary compensation.[6] In total, for the period 2000-2015 and for the entire country there are data on about ten thousand claims, and the total compensation awarded for these claims stands at about 200 million NIS (roughly fifty million US dollars).[7] Figure 1 shows the quarterly number of rocket-related claims for property damages from 1999 to 2015, and highlights the six quarters in which national election rounds were held. The number of claims turns positive after the

[5] Elster et al. (2019) originally obtained the data on rocket-related claims for property damages from the ITA.

[6] It is important to note that after each rocket attack ITA staff arrives at the scene of the attack and assesses property damage. Therefore, when claiming compensation, there is little possibility to deceive government insurance.

[7] The data also include about 18,000 claims for property damages caused by rocket attacks from Lebanon. These data will not be part of the main analysis in this paper. I will only incorporate it in the analysis as a robustness test in section 4.2.5.

attacks begin in 2001, grows over time and peaks during the three Israeli military operation in Gaza.[8]

[Figure 1]

The number of rocket-related claims for property damages varies a lot across Israeli localities. Out of about 1,200 localities with voters, residents of 148 localities filed at least one rocket-related claim from 2000 to 2015. Figure 2 divides these 148 localities into four groups according to the cumulative number of claims for rocket-related property damages their residents filed during this period. The figure shows that while residents of most localities have filed less than ten claims, residents of four localities have filed more than one thousand claims. Importantly, these four localities are rather large: together they had a population of about 0.6 million in 2015. In that year, the population in all 148 localities was 4.3 million, more than half of total Israeli population.

[Figure 2]

The number of claims for rocket-related property damages is correlated across locations and periods with other measures of rocket attacks. Appendix Figure A1 illustrates the positive relationship between claims and the following measures: monetary compensation (Panel A), number of civilian injuries (Panel B) and number of civilian fatalities (Panel C).[9]

[8] Elster et al. (2019) provide a more detailed discussion of this chronology.

[9] I also compared the data on claims for rocket-related damages with three different sources of data in a previous paper (Elster et al., 2019). First, I used data on the annual number of rocket launches from the Gaza strip reported by the Israeli Security Agency. Both the number of rocket launches and the number of claims exhibit an increase over time, with a noticeable jump following the Israeli pullout from the Gaza Strip in 2005. Launches and claims peak during the three major military operations of this period and are strongly correlated (r = 0.87). Second, I obtained data on the use of sirens during operation "Protective Edge" in mid-2014 from the Israel Defense Force (IDF). Data for the previous operations are unavailable. The number of claims and the number of rocket alert sirens are also positively correlated (r = 0.74). Third, I compared IDF data on actual rocket hits in the North during the 2006 Second Lebanon War and the number of rocket related-claims. The two variables are positively and tightly correlated (r=0.94). These correlations provide evidence that claims are a good proxy for rocket attacks and alleviate the concern of missing reports.

2.1.2 Rocket Range

Part of the spatial variation in the number of rocket-related claims for property damages stems from the growing range of rockets at the hands of the terrorist organizations operating in the Gaza Strip. I infer from the data on rocket-related claims the maximum range of rockets that were fired before each election round.[10] As can be seen in Figure 3, the rockets launched from the Gaza Strip reached a range of 11km by the 2003 elections. This range did not change by the 2006 elections, but expanded to 38km by 2009, 68km by 2013 and 136km by 2015.

[Figure 3]

The rocket range calculated using this method may produce an underestimate since the terrorist organizations operating in Gaza might not be using their longest-range rockets at each point in time. For this reason, I also measure the maximum range by analyzing media coverage of the Palestinian rocket arsenal. Specifically, I use the online archive of the Jerusalem Post newspaper to locate articles which contain an official Israeli estimate of this range between January 2000 and June 2015. I uncovered about 70 such articles and collectively they provide similar estimates of the maximum range of rockets held by the terrorist organizations in Gaza (12km by 2003-2006, 40km by 2009, 85km by 2013 and 160km by 2015).

2.2 Elections Data

Since rocket fire from the Gaza Strip began in 2001, most of the analysis in this paper focuses on the six rounds of national elections held in Israel between 1999 and 2015. Voting data were obtained from the Israeli Central Elections Committee.[11] For each polling station, the data include the total number of

[10] Specifically, I calculate the aerial distance between the location of each damaged property and the Gaza Strip. I then define the maximum rocket range by the furthest calculated distance up to each election round between 2003 and 2015.

[11] Data on voting patterns are available online. Links to the online data-
up to 2009: http://isdc.huji.ac.il,
for 2013: http://www.votes-19.gov.il, and for 2015: http://www.votes20.gov.il.

eligible voters, voter turnout, and support for each political party. Most of the analysis in this paper aggregates the electoral data to the locality-level. There are about 1,200 localities with voters. Israeli citizens vote for their preferred party and not for any individual candidates. The 120 seats in the Israeli parliament are assigned proportionally to each party that received votes (as long as it crosses a vote threshold).[12]

Appendix Table A1 shows the vote share of each Israeli party in elections held since 1984, and classifies them by political blocs (left, center and right). Until the 2006 election round, this classification into blocs is based on Arian and Shamir (2008) and has been previously used by Berrebi and Klor (2008) and by Gould and Klor (2010). In later election rounds, the classification of parties into blocs is taken from Getmansky and Zeitzoff (2014) and Jha and Shayo (2018).

Appendix Figure A2 compares the nation-wide vote-shares for each political bloc over time. The figure shows that the right political bloc had a stable support of about 40-50 percent of the Israeli electorate between the 1984 and 2015 election rounds. The support for the left political bloc peaked in 1992 with almost 50 percent of the nation-wide vote-share, but had lost support since then and until 2009. The center political bloc gained power since 1992, as the left was weakening. In the last two election rounds (2013 and 2015), these trends somewhat reversed.

Summary statistics on the main variables used in the analysis are provided in Appendix Table A2.

[12] During the 1999-2015 period, two election rounds were an exception to the rule described above. First, the 1999 elections allowed for split ticket voting; i.e. each voter cast a ballot in support of a political party for the parliamentary elections and a different ballot for the elections for prime minister. My analysis will only focus on the parliamentary results. Second, in 2001, a round of national elections was held only for prime minister. This round is excluded from the analysis in this paper.

3 Effect of Rocket Attacks on Voting Patterns

In this section I explore the effects of rocket attacks on voting patterns in the Israeli elections for parliament between 1999 and 2015. The main outcome of interest is the locality-level support for the right political bloc, measured by right-bloc parties' vote-share (i.e. the number of votes for the right political bloc divided by the number of valid votes). I begin with two graphical illustrations of the effect of rocket attacks on support for the right political bloc, and then turn to describing the empirical strategy.

3.1 Illustration of the Political Effects of Rocket Attacks

The first illustration of the effect of rocket attacks on voting patterns is presented in Figure 4. This figure plots changes in the locality right-bloc parties' vote-share against the cumulative (logged) number of rocket-related claims filed by the locality residents. Changes are measured in each election round between 2003 and 2015 relative to the 1999 elections. The figure shows an increased support for the right political bloc in localities that suffered rocket attacks.

[Figure 4]

A second illustration of the effect of rocket attacks on support for the right political bloc is presented in Figure 5. In this figure, Israeli localities are divided into six groups according to the earliest date they were directly exposed to rocket fire from Gaza. This division creates five treatment groups and a control group. Specifically, residents of 7 localities filed at least one rocket-related claim for property damages before the 2003 election round, 19 localities before 2006, 51 localities before 2009, 86 localities before 2013, and 148 localities before 2015.[13] Residents of the about 1,000 remaining localities

[13]Note that each group contains all localities that were exposed to rocket fire before a given election round. For example, the 19 localities exposed before 2006 consist of the 7 localities that were exposed before 2003 and an additional 12 localities that were exposed between 2003 and 2006.

were not directly exposed to rocket fire from Gaza. For each group I calculate an index of the mean right-bloc vote-share between the 1984 and 2015 election rounds. I normalize this index to 1 in the elections of 1999 (i.e. the last elections before the rocket attacks from Gaza began). The Figure does not suggest the existence of pre-trends: the voting patterns of the different groups were quite similar before the 1999 elections. In contrast, after the rocket attacks started, a relative increase in the support for the right political bloc emerged. Looking at the last election round, one can observe a striking pattern: the right-bloc vote-share is higher the earlier the locality was exposed to rocket fire.

[Figure 5]

3.2 Empirical Strategy

The identification of causal effects on voting patterns relies on the exogenous nature of the temporal and spatial variation in the intensity of the rocket attacks. In particular, I start by estimating the following equation:

$$Right\ Share_{lt} = \alpha + \beta Claims_{lt} + \delta_l + \theta_t + \varepsilon_{lt}, \tag{1}$$

where *Right Share* is the right-bloc vote-share in locality l at election year t (i.e. the number of votes for the right political bloc divided by the number of valid votes in a locality in a given election); *Claims* is the number of rocket-related claims for property damages in locality l between elections (divided by one thousand); δ is a locality fixed-effect; θ is an election year fixed-effect; and ε_{lt} is a well-behaved error term clustered at the locality level.[14] The equation is estimated by OLS using population weights.[15] My interest is in

[14] I do not control for localities time-varying characteristics such as education level, income level and internal migration because these variables may be directly affected by rocket attacks. This assertion is based on the existing literature regarding the effects of terror on education (e.g. Shani, 2017), on wages and housing wealth (e.g. Elster et al., 2017) and on migration (e.g. von Borstel, Gobien, and Roth, 2017).

[15] I use population weights to take into account the fact that more highly populated localities have a larger impact on the results of national elections.

the β coefficient, which represents the causal effect of rocket attacks on voting patterns. I estimate this equation for all Israeli localities with voters between the 1999 and 2015 election rounds.

Later, I will estimate this equation at a higher level of spatial and temporal disaggregation. This will make it is easier to trust the identification exogeneity assumption regarding the location of rocket attacks.

4 Results

4.1 Locality Level Analysis

Results from estimating equation (1) are provided in column 1 of Table 1. I find that an additional one thousand claims in a locality between elections increases right-bloc vote-share by about 4 percentage points. This is a relative effect, above and beyond the nation-wide effect of the rocket attacks, which I cannot measure. To illustrate the relative effect, take for example the period between the 2006 and 2009 election rounds. Multiplying the estimated effect of rocket attacks from equation (1) by the number of rocket-related claims between 2006 and 2009 and the number of eligible voters in each locality implies that almost 10,000 more voters supported the right (which translates into about 0.35 additional mandates in the parliament). Moreover, Figure 5 suggests that the political effect of rocket attacks is to an extent cumulative. The figure shows that in 2009, the difference in support for the right political bloc between residents of localities that have been exposed to rocket fire from Gaza before 2003 and residents of localities that have never been exposed reaches almost 20 percentage points. This is especially meaningful given that Israeli elections are often very tight. In fact, in the 2009 election round, "Kadima" – the leading party from the center won 28 seats, one more than the leading party from the right ("Likud"). However, Likud's leader, Netanyahu was asked to form a government by President Peres following talks with delegations from all parties represented in the parliament.

The finding presented in column 1 of Table 1 will serve as my baseline

throughout the paper. I next present a large set of robustness checks in Panel A through Panel E of Table 1.

[Table 1]

4.2 Robustness Checks

To test for the robustness of the main finding of this paper, I first explore different sets of election-rounds and localities. Then I examine alternative empirical strategies and voting outcomes. Finally, I include in the analysis additional controls and test for reverse causality.

4.2.1 Excluding Election Rounds

In Panel A of Table 1, I check whether the results are driven by any particular election round. In columns 2-7, I omit in turn each of the six election rounds between 1999 and 2015. The estimated effect remains positive and significant and ranges from 3 to 5 percentage points.

4.2.2 Excluding Localities

In Panel B of Table 1, I omit outlier localities in terms of exposure to rocket attacks or other terrorist threats. First, as evident in Figure 2, residents of four localities (Sederot, Ashdod, Ashqelon and Be'er Sheba) filed more than a thousand claims per locality between 1999 and 2015. In columns 2-5, I omit in turn each of these localities from the analysis. Results are robust to these changes.

Second, during the 2006 Second Lebanon War, northern Israel suffered a massive rocket attack launched by Hezbollah, a Lebanese terrorist organization.[16] The main finding of this paper is robust to excluding northern localities from the analysis (column 6).

[16] Elster et al. (2017), who analyze the housing market effects of rocket attacks from Lebanon, provide a more detailed description of this event.

Finally, during the Second Palestinian uprising against Israel between 2000 and 2005, localities in the West Bank suffered an especially high number of non-rocket terrorist attacks. Excluding West Bank localities from the analysis does not change the estimated rocket effect (column 7).

4.2.3 Alternative Empirical Strategies

In Panel C of Table 1, I explore other possible identification strategies. Columns 2 and 3 address the question of weights. Column 2 estimates the baseline specification without weights, while column 3 uses the number of eligible voters in the locality as weights. Results prove robust to both changes.

Next, in columns 4 and 5, I add linear and quadratic locality-specific time trends to equation (1), respectively. These trends should capture changes over time in the support for the right political bloc within each locality, that may be due to various developments e.g. changes in average income or levels of education. However, such developments could themselves be impacted by rocket attacks and thus including the trends is problematic. Even tough inclusion of locality-specific time trends might soak away much of the variation in the dependent variable, the estimated effect of rocket-related claims for property damages remains positive and significant, and ranges between 2 and 3 percentage points.

In columns 6 and 7, I measure the rocket attacks in two alternative ways. Column 6 excludes from the analysis observations of localities in election years beyond the first elections following the initial attack. It turns out that the impact of initial attacks has a particularly strong effect on the electorate. Specifically, an additional one thousand rocket-related claims for property damages in the initial attack increases right-bloc vote-share by about 8 percentage points (the p-value for the difference between this coefficient and the baseline estimated coefficient is 0.028). One possible explanation for this finding is that the public may become less sensitive to persistent terrorist attacks over time as individuals tend to habituate and adjust themselves to chronic terrorism (Yechiam et al. 2005; Waxman, 2011; Becker and Rubinstein, 2011).[17] An-

[17] In a different context, Jha and Shayo (2016) also examine the habituation of Israeli

other possibility is that some voters are loyal supporters of the left political bloc without regard to the number of rocket attacks in their locality. Thus, there is a limit that the right-bloc vote-share approaches but cannot exceed. With little room for the right to grow, the relationship between rockets and votes will be reduced in subsequent rocket attacks.[18] Finally, in column 7, I replace the explanatory variable by the logged number of claims (plus one). I consider this specification because the number of rocket-related claims is considerably skewed. The estimated effect remains significant and positive.

4.2.4 Alternative Voting Outcomes

In Panel D of Table 1, I address the possibility that rocket attacks may affect political outcomes in various ways. For example, Waxman (2011) claims that people with greater confidence in their views are less likely to change their opinion as a result of a major event, like a terrorist attack. Bali (2007) further argues that individuals who are ambivalent, on the verge of deciding between approval and disapproval for a policy, are more likely to change their views as a result of external conditions. To explore this issues, I estimate equation (1) and replace *Right Share* by different political outcome measures.

As mentioned above, the main dividing line between the right and the left in Israeli elections concerns the Israeli-Palestinian conflict. Centrist parties are more ambivalent about this issue, and could in principle join a coalition led by a Prime Minister from either the right or the left political bloc. In columns 2 and 3, I analyze the effect of rocket attacks on the vote-share of the center and left political blocs, respectively. In line with the arguments of Waxman (2011) and Bali (2007), I find a large negative effect on centrist voters and no effect on left-bloc parties' vote-share. Taken together, these results suggest

voters to new information. They conduct an experiment exposing selected individuals to financial markets. They find that this exposure mainly affects the voting decisions of individuals who had not actively invested in the period preceding their experiment and has less of an effect on experienced investors.

[18] For example Gartner et al. (1997) document a declining effect of California's "killed in action" in Vietnam on the likelihood that survey respondents supported or opposed the president's policy.

that most of the effect of rocket attacks is on swing voters who choose to move to the right. This enables the formation of a stable right-leaning parliamentary majorities in Israel.

Next, I turn to explore the effect of rocket attacks on different segments within the right political bloc. The effect of rocket attacks on the "Likud" – the leading party of the right political bloc, might be very different from the effect on religious ultra-Orthodox parties. Ultra-Orthodox voters tend to vote according to the views of their spiritual leader (a Rabbi) and are therefore less likely to be impacted by rocket attacks. Indeed, while the effect of rocket attacks on the vote-share of the "Likud" is 9.5 percentage points (column 4), the vote-share of religious ultra-Orthodox parties ("Haredi") is not significantly affected by rocket attacks (column 5). Finally, in column 6, I explore the mobilization effect of the rocket attacks by examining turnout rates (the number of valid voters divided by the number of eligible voters in the locality). The estimated effect of rocket attacks on the turnout rate is small and insignificant.[19] In sum, the results suggest that rocket attacks shifted political support in Israel from the center to the right, mainly to the "Likud" party and did not affect turnout.

A possible alternative explanation for these results is that rocket attacks lead left voters to migrate to other localities outside the rockets' range, and right voters to migrate into localities within the range. To address this possibility, I regress the logged number of eligible voters in the locality in a given election against the number of rocket related claims (column 7). The estimated effect is negative (-0.031) but insignificant.[20] Even if there is little correlation between the size of the eligible voters population and the number of rocket-related claims, it is still possible that the composition of voters that migrated

[19] The same non-result is documented in Berrebi and Klor (2008), who show that terror fatalities in Israel do not affect the turnout rate and in Getmansky and Zeitzoff (2014), who find no evidence for an effect of rocket range on turnout.

[20] Von Borstel et al (2017) conduct a similar empirical analysis at the sub-district level and find that rocket attacks per 1,000 inhabitants had a small effect on inner migration in Israel. The attacks do not affect the migration out of the affected area, but do reduce the size of migration flows into the affected areas by 2-3%. The reported effect of rockets attacks is smaller than the effect of other terror attacks (estimated at 3-9%).

did change following the rocket attacks. In a previous study (Elster et al, 2017), I addressed this issue using confidential data on migrants and focusing on rocket attacks in the north of Israel during the 2006 Second Lebanon War. I find that the rocket attacks did not affect the composition of migrants in terms of wages, age, marital status, number of children and new immigrant status. If the rocket attacks in the north have the same effect as attacks in the south, it is more likely that individuals changed their political preferences and less likely that selective migration is driving the results. In the next section, I will compare the effects of rocket attacks in the North to attacks in the South.

4.2.5 Including Additional Controls

In columns 2-4 of Panel E of Table 1, I further investigate the effect of terrorist attacks other than the rocket attacks from Gaza. Here, instead of excluding northern and West Bank localities, I incorporate in the analysis data on rocket attacks from Lebanon and information on non-rocket terrorist attacks against Israel.

First, the above mentioned dataset on rocket-related claims include about 18,000 claims related to Hezbollah's rocket attacks between 2000 and 2015 (almost all of them occurred during the Second Lebanon War in 2006). In column 2, I add to equation (1) the number of rocket-related claims for property damages caused by rocket attacks from Lebanon per locality between elections (divided by 1,000). The estimated effect of rockets from Gaza remains unchanged. The effect of rocket attacks from Lebanon is also positive and significant, albeit smaller (about 0.9 percentage points). A possible explanation for the smaller effect is that while all three major rocket attacks in the South occurred within the year before the elections, the massive rocket attack in the North occurred three months after the 2006 elections, and well before the 2009 elections. I will further address the issue of temporal variation in the magnitude of the effect below (see section 4.4).

In column 3, I add an indicator for localities where at least one civilian was killed by a rocket attack fired from either Gaza or Lebanon. Despite the considerable property damages caused by rocket attacks there have only been a

few dozen rocket-related fatalities during the entire period under investigation. The rocket fire from Gaza led to 42 civilian fatalities between 2001 and 2015, and the rocket fire from Lebanon led to 44 civilian fatalities.[21] I find that rocket-related fatalities also have a positive, but insignificant, effect on the support for the right political bloc. The effect of rocket-related claims for property damages slightly decreases in size as these two measures of intensity of rocket attacks are correlated.

Column 4, adds to the estimated equation an indicator for localities that lie within a natural area where at least one civilian was killed by hostilities other than rocket fire between the 1999 and 2015 election rounds.[22] Almost 1,000 civilians were killed by these hostilities during this period. The effect of non-rocket terror-related fatalities is positive and significant (about 0.7 percentage points).[23] At the same time, the estimated effect of rocket attacks from Gaza remains positive and significant while the effect of rockets from Lebanon and the effect of rocket-related fatalities remain positive but insignificant.

Column 5 of Panel E in Table 1, adds another set of control variables. Specifically, I include in the analysis initial localities characteristics from the Israeli 1995 Census (instead of the locality FEs). These include population size, percentage of population under 19 years old, fraction of population born abroad, percentage of BA holders and percentage employed. I find that localities a-priory inhabited with larger and younger population, and by more immigrants from abroad tend to vote more for the right political bloc. On the other hand, higher fractions of educated and employed population in the locality decrease the support for the right. When I include these demographic controls, the estimated effect of rocket-related claims grows to 5.6 percentage points which isn't statistically different from the baseline estimation.

[21] Data on all rocket-related civilian fatalities are from the National Insurance Institute of Israel.

[22] The data on fatalities were collected using standard sources, mainly B'Tselem (The Israeli Information Center for Human Rights in the Occupied Territories). The data have been previously used by Jaeger and Paserman (2008), Shayo and Zussman (2011), and by Romanov et al. (2012) among many others.

[23] The positive effect of terror-related fatalities on the support for the right political bloc is in line with findings in previous research (e.g. Berrebi and Klor, 2008).

4.2.6 Reverse Causality

A remaining concern about the analysis is that the location of rocket hits may be endogenous to the political orientation of localities.[24] In practice, it would be very hard to target particular localities based on the contemporaneous changes in their political attitudes, given that the information on the trends in political attitudes is not widespread, and since Palestinians have limited means (Gould and Klor, 2010). Nevertheless, to address this concern, in column 6 of Panel E of Table 1, I reverse the roles of the dependent and independent variables of equation (1), regressing the number of rocket-related claims between elections on the lagged right-bloc vote-share in the locality. The results provide no evidence of reverse causality. In any case, this threat to the identification assumption is even less likely at the more disaggregated spatial level of analysis I will use below.

4.2.7 Locality-SA Level of Analysis

So far I estimated all the regressions at the locality level. I chose this level of analysis for several reasons. First, this is a well-known unit of observation for the voters. Every voter knows the name of the locality he lives and votes in. The name of the locality appears in the ID Card of every Israeli citizen. Second, whenever there are news on rocket attacks in Israel the name of the affected locality is mentioned. Finally, localities are fairly stable over time and most of them did not split or merge between 1999 and 2015.

However, in the remainder of the paper I will use four additional spatial aggregation levels. The smallest one is the locality-statistical area ("locality-SA").[25] Data on voting is available at the level of the polling station and

[24] To illustrate, in a very different context, Alesina et al. (2016) show that criminal organizations strategically use terror and violence to influence elections in Italy. They find that regions with a greater presence of criminal organizations are characterized by abnormal increases in homicides during the year before elections.

[25] Locality statistical-areas were defined for the 1995 and 2008 Censuses by the Israel Central Bureau of Statistics and are unfamiliar to the public. Localities with less than 10,000 residents are defined as a single SA. In localities with above 10,000 residents, SAs are the smallest continuous geographical unit with 3,000 to 5,000 residents.

I obtained from the Israel Central Bureau of Statistics (CBS) the matching between polling stations and locality-SAs of Israel. While most of the 1,200 localities in Israel are small and consist of a single locality-SA, there are 70 large localities with multiple locality-SAs. On average, there are 50 locality-SAs in these urban localities. In column 7 of Panel E of Table 1, I estimated the effect of locality-level claims on the voting patterns in the locality-SAs.[26] The estimated effect proofs robust to this new level of disaggregation.

The other three spatial levels I will use below are municipalities, natural areas and sub-districts. There are 250 municipalities in Israel (70 of them are large urban localities with multiple SAs and the rest are local or regional councils with multiple single-SA localities). Israel is also divided into 51 natural areas and 16 sub-districts.

4.3 Threat vs. Actual Exposure

The effect of rockets on electoral outcomes might reflect either the direct damage they cause, the mere threat of an attack or both. As mentioned above, Getmansky and Zeitzoff (2014) find that voters in municipalities which entered rocket range between 1999 and 2009, increased their support for right-bloc parties by 2 to 6 percentage points. They thus claim that the mere threat of an attack affects voting. However, Getmansky and Zeitzoff (2014) did not have data on actual rocket attacks. The data I use on claims for rocket-related property damages allow me to proxy for the severity of the attacks across different locations within rocket range, and to further investigate this issue.

First, I conduct an analysis similar to that Getmansky and Zeitzoff (2014) carried out. Specifically, I estimate the following equation for the election rounds between 1999 and 2009:

$$Right\ Share_{it} = \alpha + \beta Range_{it} + \delta_i + \theta_t + \varepsilon_{it}, \tag{2}$$

where *Right Share* is the right-bloc vote-share in municipality i at elec-

[26] Since data on the annual population size in this level of analysis is not available, I weight the regression by the number of eligible voters.

tion year t (i.e. the number of votes for the right political bloc divided by the number of valid votes in a municipality in a given election); *Range* is a binary indicator of whether municipality i is within rocket range one day before election t;[27] δ is a fixed-effect for a municipality (i.e. either an urban locality, a local council, or a regional council); θ is an election year fixed-effect; and ε_{it} is a well-behaved error term clustered at the municipality level. The equation is estimated by OLS using population weights. My interest is in the β coefficient, which identifies the effect of being within rocket range on the right-bloc vote-share.

Column 1 of Table 2 provides results from estimating equation (2). The estimated effect of entering the rocket range on the right-bloc vote-share is about 2 percentage points. This result is in line with the findings presented in Table 2 of Getmansky and Zeitzoff (2014).[28]

[Table 2]

I now turn to distinguish between the political effects of the mere threat of rocket attacks and the effects of actual attacks. I add to equation (2) the number of rocket-related claims for property damages per municipality between elections (divided by one thousand).[29] Results from estimating this extended equation are presented in column 2 of Table 2. The results reveal that the effect on the right-bloc vote-share is mainly driven by municipalities within rocket range whose residents filed rocket-related claims for property damages (their support for the right increases by about 4.5 percentage points per one thousand additional claims). Entering the rocket range per se has an insignificant positive effect on the support for the right political bloc.

Next, I show that the results do not depend on how the rocket range is measured. While columns 1 and 2 rely on the range reported by Getmansky

[27] The range is based on Getmansky and Zeitzoff (2014) who rely on the website of the Home Front Command of the Israeli Defense Force and report a maximum rocket range of 10km by 2003, 20.4km by 2006 and 43km by 2009.

[28] There are two differences between my estimation and that of Getmansky and Zeitzoff (2014). First, they include a vector of lagged time-varying locality-level controls. Second, they do not use locality population as weights.

[29] By 2009, out of about 250 Israeli municipalities, residents of 16 municipalities filed claims for rocket-related property damages.

and Zeitzoff (2014), in column 3 the rocket range is inferred from the data on rocket-related claims for property damages (see Figure 3) and in column 4 the rocket range is based on the maximum rocket range reported in the Jerusalem Post. Using these alternative range measures has no qualitative effect on the results.

To further demonstrate that it is the actual hits and not the threat of attacks that affect political outcomes, I return to the baseline specification, estimating equation (1) at the locality level between the 1999 and 2015 election rounds. I add to this equation the *Range* indicator for localities within rocket range one day before elections. In column 5, the rocket range is inferred from the data on rocket-related claims for property damages, and in column 6 the range is based on Jerusalem Post articles. The analyses at this disaggregated level show that the effect on the support for the right political bloc is entirely driven by actual attacks. While the estimated effect of an additional one thousand claims in a locality between elections increases right-bloc vote-share by about 4 percentage points, the estimated effect of entering the rocket range is small and insignificant.

The public response to rockets can be thought of as a struggle to collect reliable information in an uncertain environment. Kydd and Walter (2006) argue that terrorist violence is a form of costly signaling. Since terrorists are too weak to impose their will directly, they need to provide credible information to the voters whose behavior they hope to influence. The greater the damage a terrorist organization is able to cause, the more credible its threat to impose future damage, and the more likely the voter is to change her behavior. Based on the results presented above, I argue that the range of the rockets is a weak signal, while the destruction of property in the voters' hometown is a strong signal. These findings are also consistent with the literature in psychology regarding the "personal experience" hypothesis: local residents who are exposed to risk without suffering bad outcomes are more likely to base future decisions on this (positive) experience (see e.g. Yechiam et al., 2005). Thus, voters in localities within rocket range that were not directly exposed to rocket fire, should not necessarily change their political decisions.

4.4 Disaggregation of the Effect of Rocket Attacks by Location, Time and Scale

Various features of the rocket attacks may influence their impact on voters. Table 3 examines three main such features: the geographical proximity of the voter to the impact point, the timing of the attack and the scale of the attack. To perform the analysis in this section I replace the dependent variable of equation (1) with the right-bloc vote-share in the locality-SA s at election year t.[30] Note that in column 7 of Panel E of Table 1, I estimated the effect of locality-level claims on the voting patterns in the locality-SAs. I find that an additional 1,000 claims for rocket-related damages in the locality increases the locality-SA support for right-bloc parties by about 4 percentage points.

[Table 3]

My empirical strategy assumes that the effect of rocket attacks on voting behavior is local, i.e. voters react more to attacks that occur in their hometown than in the rest of the country. The following analysis examines whether the effect is even more localized and how far it persists. In column 1 of Table 3, I compare the effects of rocket attacks in a particular locality-SA to attacks outside of it. I find that the effect of additional 1,000 rocket related claims on the support for the right political bloc at the locality-SA is significantly larger (about 15 percentage points) than the effect of rockets outside of the voter locality-SA in the same municipality (about 3 percentage points), the effect of rockets in the natural area outside of the municipality (about 3 percentage points) and the effect of rockets in the sub-district outside of the natural area (with an estimated zero effect). A possible explanation for this result is that the information on rocket hits for a voter from these locality-SAs is more salient – i.e. the voter is more likely to witness or hear about the event.

[30] Specifically, I use data on voting at this disaggregated level and add to equation (1) locality-SA fixed-effects. Error terms are clustered by locality-SAs. Since data on the annual population size in this level of analysis is not available, I weight the regression by the number of eligible voters.

Moreover, people care a lot more about events that affect them directly than about distant events.[31]

To analyze the effect of rocket attacks closer to election date, In column 2 of Table 3, I replace the number of rocket-related claims for property damages per locality *between elections* in equation (1) with the number of rocket-related claims in the last 3 months before elections, 4-12 months before elections, and the period between the previous elections and the year before the current elections. I aggregated the claims in each period if and only if they didn't file claims in the previous period. I find that there is a significantly larger effect in the 3 months before elections (about 40 percentage points) relative to earlier attacks (about 14 percentage points). However, the effect of attacks in 0-3 months is not statistically different from the effect of 4-12 months before the elections.

The results suggest that rocket attacks that are closer to the election date have a stronger effect on voting behavior.[32] There are three possible explanations for this result. First, voters tend to weigh their recent experiences more heavily in forming their political views (Achen and Bartels, 2004). Second, during election year, there is added emphasis on government performance in the media and in the public debate, and thus terror attacks during this time may have greater influence on political views (Bali, 2007).[33] Third, these re-

[31] This brings to mind Adam Smith's (1790) famous quote: "Let us suppose that the great empire of China [...] was suddenly swallowed up by an earthquake and let us consider how a man of humanity in Europe, who had no sort of connection with that part of the world, would be affected upon receiving intelligence of this dreadful calamity. [...] If he was to lose his little finger tomorrow, he would not sleep tonight; but, provided he never saw them, he will snore with the most profound security over the ruin of a hundred millions of his brethren, and the destruction of that immense multitude seems plainly an object less interesting to him, than this paltry misfortune of his own."

[32] Gassebner et al. (2008) also find that the electorate is short-sighted with respect to its voting behavior. Relying on 800 elections in 115 countries over the period 1968–2002, they show that terror attacks lead to replacement of the incumbent government when they occur a year before the election, but this effect is no longer significant if the lag is larger than a year.

[33] An interesting question is whether the decision to go for elections in Israel was motivated by terrorist campaigns. Israeli parliamentary elections are supposed to take place every four years, but the parliament may decide by an ordinary majority to dissolve itself and call for unscheduled early elections. In fact, all elections for the Israeli parliament during the

sults may stem from the fact that the massive attacks in the south mainly occur during the three major military operations in Gaza. The operations took place three months before the 2009 elections, three months before the 2013 elections, and seven-eight months before the 2015 elections.

Thus, I turn to disaggregate the effect of rocket attacks by scale. In column 3 of Table 3, I use indicators for locality-SAs whose residents filed 1-10, 11-100, or above 100 additional rocket-related claims within a year before elections. I find that the most massive attacks had the largest effect. Specifically, the effect of 1-10 claims (about 1.9 percentage points) is significantly smaller than both the effect of 11-100 attacks (about 3.6 percentage points) and the effect of above 100 claims (estimated at about 4.2 percentage points).

In sum, geographical proximity to the impact point, recent attacks and large scale attacks increase the estimated effect of rocket attacks on political outcomes.[34]

5 Conclusion

This paper presents a thorough examination of whether terrorist rocket attacks from Gaza are affecting voting patterns in Israel. To explore this issue, I rely on two detailed datasets for the period 1999-2015: one on Israeli national elections for parliament and the other on rocket-related claims for property

period analyzed here preceded their original scheduled dates. While the last operation in Gaza preceded the decision of the parliament to dissolve itself, the first two operations took place after the announcement of an early election which alleviates this concern. The fact that these two operations took place around elections, fits the pattern of earlier Palestinian terrorist campaigns, which typically chose the timing of their attacks around elections in Israel to achieve their goals (Kydd and Walter, 2002).

[34] Another interesting question is whether the introduction of a defensive anti-rocket system can change the political outcomes of rocket attacks. In fact, during the period under investigation in this paper, Israel has developed a system which is designated to intercept rockets – the "Iron Dome". The first "Iron Dome" battery was introduced in March 2011 and by now Israel has nine operational mobile batteries. However, there have only been two rounds of national elections since its introduction and thus my panel data is too short for causal inference purposes. In particular, even though excluding post "Iron Dome" rounds of voting (2013 and 2015) results in higher local average treatment effects, I cannot rule out the possibility that nation-wide developments other than the introduction of the system may be driving these results.

damages. The identification of causal effects relies on the exogenous nature of the temporal and spatial variation in the intensity of the rocket attacks. The main finding is that an additional one thousand rocket-related claims in a locality increases right-bloc parties' vote-share by 4 percentage points. This result is robust to various changes and is not driven by reverse causality.

Several features of the rocket attacks from Gaza influence the strength of this effect. The shift to the right is stronger (a) when the rocket attacks are closer to the date of national elections; (b) in the election round immediately following the initial exposure of the locality to rocket fire; (c) when the voter's locality-SA is under direct attack and (d) following massive rocket attacks. In addition, I find that voting patterns are mainly driven by actual exposure and not by the mere threat of rocket attacks.

Finally, I find a large negative effect of rocket attacks on centrist voters and no effect on left-bloc parties' vote-share. This implies that the terrorist attacks primarily affected voters whose views on the Israeli-Palestinian conflict were not solid. Turnout rates and the number of eligible voters do not seem to be significantly affected by the rocket attacks from Gaza, which suggests that the higher support for the right political bloc reflects changes in voters' preferences, rather than in electoral composition.

6 References

Abrahms, Max. 2006. "Why Terrorism Does Not Work." *International Security* 31(2): 42-78.

Abrahms, Max. 2012. "The Political Effectiveness of Terrorism Revisited." *Comparative Political Studies* 45(3): 366-393.

Achen, Christopher H., and Larry M. Bartels. 2004. "Musical Chairs: Pocketbook Voting and the Limits of Democratic Accountability." Presented at the Annual Meeting of the American Political Science Association, Chicago.

Alesina, Alberto, Salvatore Piccolo, and Paolo Pinotti. 2016. "Organized Crime, Violence, and Politics." NBER working paper No. 22093.

Arian, Asher, and Michal Shamir. 2008. "A Decade Later, the World Had Changed, the Cleavage Structure Remained: Israel 1996—2006." *Party Politics* 14(6): 685-705.

Bali, Valentina A. 2007. "Terror and Elections: Lessons from Spain." *Electoral Studies* 26(3): 669-687.

Becker, Gary S., and Yona Rubinstein. 2011. "Fear and the Response to Terrorism: An Economic Analysis." CEP discussion paper, No. 1079.

Ben Bassat, Avi, Momi Dahan, Benny Geys, and Esteban F. Klor. 2012 "The Impact of the Economic Costs of Conflict on Individuals' Political Attitudes." *Peace Economics, Peace Science and Public Policy* 18(2): 2-29.

Berrebi, Claude, and Esteban F. Klor. 2006. "On Terrorism and Electoral Outcomes: Theory and Evidence from the Israeli-Palestinian Conflict." *Journal of Conflict Resolution* 50(6): 899-925.

Berrebi, Claude, and Esteban F. Klor. 2008. "Are Voters Sensitive to Terrorism? Direct Evidence from the Israeli Electorate." *American Political Science Review* 102(3): 279-301.

von Borstel, Johanna, Tom Gobien, and Duncan Roth. 2017."Terror and Internal Migration in Israel." *Defence and Peace Economics*: 1-17.

Brodeur, Abel. 2015. "Terrorism and Employment: Evidence from

Successful and Failed Terror Attacks." IZA discussion paper, No. 9526.

Bueno de Mesquita, Ethan, and Eric S. Dickson. 2007. "The Propaganda of the Deed: Terrorism, Counterterrorism, and Mobilization." *American Journal of Political Science* 51(2): 364-381.

Elster, Yael, Asaf Zussman, and Noam Zussman. 2017. "Rockets: The Housing Market Effects of a Credible Terrorist Threat." *Journal of Urban Economics* 99: 136-147.

Elster, Yael, Asaf Zussman, and Noam Zussman. 2019. "Effective Counter-terrorism: Rockets, *Iron Dome* and the Israeli Housing Market." *Journal of Policy Analysis and Management* 38(2): 308-337.

Gartner, Scott Sigmund, Gary M. Segura, and Michael Wilkening. 1997. "All Politics Are Local: Losses and Individual Attitudes toward the Vietnam War." *Journal of Conflict Resolution* 41(5): 669-694.

Gassebner, Martin, Richard Jong-A-Pin, and Jochen O. Mierau. 2008. "Terrorism and Electoral Accountability: One Strike, You're Out!." *Economics Letters* 100(1): 126-129.

Getmansky, Anna, and Thomas Zeitzoff. 2014. "Terrorism and Voting: The Effect of Rocket Threat on Voting in Israeli Elections." *American Political Science Review* 108(3): 588-604.

Gould, Eric D. and Esteban F. Klor. 2010. "Does Terrorism Work?" *The Quarterly Journal of Economics* 125(4):1459–1510.

Guryan, Jonathan, and Melissa S. Kearney. 2008. "Gambling at lucky stores: Empirical evidence from state lottery sales." *American Economic Review* 98(1): 458-473.

Jaeger, David A., and M. Daniele Paserman. 2008. "The Cycle of Violence? An Empirical Analysis of Fatalities in the Palestinian-Israeli Conflict." *The American Economic Review* 98(4): 1591-1604.

Jaeger, David A., Esteban F. Klor, Sami H. Miaari, and M. Daniele Paserman. 2012. "The Struggle for Palestinian Hearts and Minds: Violence and Public Opinion in the Second Intifada." *Journal of Public Economics* 96(3): 354-368.

Jha, Saumitra, and Moses Shayo. 2018. "Valuing Peace: The Effects

of Financial Market Exposure on Votes and Political Attitudes." Unpublished manuscript.

Jones, Benjamin F., and Benjamin A. Olken. 2009. "Hit or Miss? The Effect of Assassinations on Institutions and War." *American Economic Journal: Macroeconomics* 1(2): 55-87.

Karol, David, and Edward Miguel. 2007. "The Electoral Cost of War: Iraq Casualties and the 2004 US Presidential Election." *Journal of Politics* 69(3): 633-648.

Kibris, Arzu. 2011. "Funerals and Elections: The Effects of Terrorism on Voting Behavior in Turkey." *Journal of Conflict Resolution* 55(2): 220-247.

Kydd, Andrew, and Barbara F. Walter. 2002. "Sabotaging the Peace: The Politics of Extremist Violence." *International Organization* 56(2): 263-296.

Kydd, Andrew H., and Barbara F. Walter. 2006. "The Strategies of Terrorism." *International Security* 31(1): 49-80.

Montalvo, Jose G. 2011. "Voting After the Bombings: A Natural Experiment on the Effect of Terrorist Attacks on Democratic Elections." *Review of Economics and Statistics* 93(4): 1146-1154.

Pape, Robert A. 2003. "The Strategic Logic of Suicide Terrorism." *American Political Science Review* 97(3): 343-361.

Peffley, Mark, Marc L. Hutchison, and Michal Shamir. 2015. "The Impact of Persistent Terrorism on Political Tolerance: Israel, 1980 to 2011." *American Political Science Review* 109(4): 817-832.

Romanov, Dmitri, Asaf Zussman, and Noam Zussman. 2012. "Does Terrorism Demoralize? Evidence from Israel." *Economica* 79(313): 183-198.

Shachar, Ron, and Michal Shamir. 1996. "Estimating vote persistence sources without panel data." *Political Analysis* (6): 107-124.

Shany, Adi. 2017. "Too Scared for School? The Effects of Terrorism on Israeli Student Achievement." UC San Diego, mimeo.

Sharkey, Patrick, and Jacob W. Faber. 2014. "Where,When, Why, and for Whom Do Residential Contexts Matter? Moving Away from the Di-

chotomous Understanding of Neighborhood Effects," *Annual Review of Sociology*, 40: 559–579.

Shayo, Moses, and Asaf Zussman. 2011. "Judicial Ingroup Bias in the Shadow of Terrorism." *The Quarterly Journal of Economics* 126(3): 1447-1484.

Smith, Adam. 1790. "The Theory of Moral Sentiments." *Library of Economics and Liberty.*

Yechiam, Eldad, Greg Barron, and Ido Erev. 2005. "The Role of Personal Experience in Contributing to Different Patterns of Response to Rare Terrorist Attacks." *Journal of Conflict Resolution* 49(3): 430-439.

Waxman, Dov. 2011. "Living with Terror, Not Living in Terror: The Impact of Chronic Terrorism on Israeli Society." *Perspectives on Terrorism* 5(5-6): 4-26.

Zussman, Asaf. 2014. "The effect of political violence on religiosity." *Journal of Economic Behavior and Organization* 104: 64-83.

Table 1
Effect of Rocket Attacks on Support for the Right Political Bloc
1999-2015 Election Rounds

Panel A: Excluding Election Rounds

	Dependent variable: right share						
	Baseline	Exclude 1999	Exclude 2003	Exclude 2006	Exclude 2009	Exclude 2013	Exclude 2015
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rocket-related claims (/1,000)	0.040***	0.040***	0.034***	0.033***	0.043***	0.053***	0.041***
	(0.007)	(0.007)	(0.007)	(0.010)	(0.008)	(0.015)	(0.006)
Locality FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Election year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,901	5,831	5,749	5,754	5,746	5,718	5,707
R-squared	0.976	0.978	0.979	0.979	0.975	0.975	0.977

Panel B: Excluding Localities

	Dependent variable: right share						
	Baseline	Exclude Sederot	Exclude Ashdod	Exclude Ashqelon	Exclude Be'er-Sheba	Exclude Northern Localities	Exclude West Bank
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rocket-related claims (/1,000)	0.040***	0.044***	0.036***	0.038***	0.038***	0.042***	0.038***
	(0.007)	(0.007)	(0.009)	(0.008)	(0.008)	(0.009)	(0.007)
Locality FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Election year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,901	6,895	6,895	6,895	6,895	3,995	6,202
R-squared	0.976	0.976	0.976	0.976	0.976	0.977	0.977

Panel C: Alternative Empirical Strategies

	Dependent variable: right share						
	Baseline	Without Weights	Eligible Voters as Weights	Linear Time Trend	Quadratic Time Trend	Initial Claims	Log Claims
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rocket-related claims (/1,000)	0.040***	0.039***	0.040***	0.024***	0.031***	0.078***	
	(0.007)	(0.008)	(0.007)	(0.008)	(0.010)	(0.025)	
Rocket-related claims (logs)							0.004***
							(0.002)
Locality FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Election year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,901	6,901	6,901	6,901	6,901	6,721	6,901
R-squared	0.976	0.958	0.977	0.983	0.987	0.975	0.976

Panel D: Alternative Voting Outcomes

Dependent variable:	*Right share* (1)	*Center share* (2)	*Left share* (3)	*Likud Share* (4)	*Haredi Share* (5)	*Turnout rate* (6)	*Eligible Voters* (7)
Rocket-related claims (/1,000)	0.040***	-0.034***	0.003	0.095***	-0.014	0.005	-0.031
	(0.007)	(0.011)	(0.010)	(0.022)	(0.016)	(0.006)	(0.029)
Locality FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Election year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,901	6,901	6,901	6,901	6,901	6,901	6,901
R-squared	0.976	0.882	0.754	0.878	0.976	0.927	0.997

Panel E: Including Additional Controls, a Reverse Causality Test, and Locality-SA level

Dependent variable:	*right share in the locality*					*Rocket-related claims*	*right share in the locality-SA*
	Baseline (1)	Lebanese Rocket Threat (2)	Rocket-related Fatalities (3)	Non-rocket Terrorism (4)	Initial Controls (5)	Reverse Causality (6)	Locality SA Level (7)
Rocket-related claims (/1,000)	0.040***	0.040***	0.035***	0.035***	0.056***		0.041***
	(0.007)	(0.007)	(0.009)	(0.008)	(0.015)		(0.004)
Lebanese rocket-related claims		0.009**	0.006	0.007			
		(0.004)	(0.004)	(0.005)			
Rocket-related fatalities			0.007	0.008			
			(0.009)	(0.010)			
Other terror-related fatalities				0.007**			
				(0.004)			
Log locality population (95')					0.014***		
					(0.003)		
Pct 0-19 years old (95')					0.018***		
					(0.001)		
Pct born abroad (95')					0.004***		
					(0.001)		
Pct BA holders (95')					-0.003***		
					(0.001)		
Pct employed (95')					-0.007***		
					(0.001)		
Lagged right share						-0.001	
						(0.007)	
Locality FEs	Yes	Yes	Yes	Yes	No	Yes	No
Election year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Locality-SA FEs	No	No	No	No	No	No	Yes
Observations	6,901	6,901	6,901	6,901	5,607	5,690	13,558
R-squared	0.976	0.976	0.976	0.976	0.436	0.373	0.964

Notes. "*Right share*" is the number of votes for the right political bloc divided by the number of valid votes in a locality in a given election. "Rocket-related claims" is the number of claims for rocket-related property damages per locality between

elections (divided by 1,000). In all five panels, column (1) replicates the results of the baseline specification which includes all Israeli localities and the six election rounds held between 1999 and 2015. Panels A, B, C and D as well as columns (1)-(4) in Panel E include locality fixed-effects and election year fixed-effects. Estimated by OLS using locality population weights (except for columns (2)-(3) of Panel C). Standard errors, clustered by locality, in parentheses.
*, **, *** represent statistical significance at the 10, 5, and 1 percent levels.
Panel A: columns (2)-(7) omit in turn each of the six election rounds between 1999 and 2015.
Panel B: columns (2)-(5) omit in turn four Israeli localities that are outliers in terms of their exposure to rocket attacks from Gaza. Column (6) omits northern Israeli localities within 72km of the Israel-Lebanon border. Column (7) omits West Bank localities.
Panel C: Column (2) estimates the baseline specification without weights. Column (3) estimates the baseline specification with the number of eligible voters in the locality as weights. Columns (4) and (5) include locality-specific linear and quadratic time trends, respectively. Column (6) excludes from the analysis observations of localities in election years beyond the first elections after they were initially targeted by rockets. Column (7) replaces the dependent variable by the logged number of claims (plus 1).
Panel D: "*Right share*", "*Center share*" and "*Left share*" are the number of votes for the right, center or left political bloc divided by the number of valid votes in a locality in a given election, respectively. "*Likud share*" is the vote-share of the leading party of the right political bloc, and "*Haredi share*" is the vote-share of religious ultra-Orthodox parties. "*Turnout rate*" is the number of valid voters divided by the number of eligible voters in the locality in a given election. *"Eligible Voters"* is the number of eligible voters in the locality in a given election (in logs).
Panel E: columns (2)-(4) add measures of additional terrorist attacks against Israel. Column (2) adds "Lebanese rocket-related claims" i.e. the number of rocket-related claims for property damages caused by rocket attacks from Lebanon per locality between elections (divided by 1,000). Column (3) adds "Rocket-related fatalities" – an indicator for localities where at least one civilian was killed by a rocket attack fired from either Gaza or Lebanon. Column (4) further adds "Other terror-related fatalities" – an indicator for localities that lie within a natural area where at least one civilian was killed by hostilities other than rocket fire. Column (5) includes initial localities characteristics from the 1995 Israeli Census instead of locality FEs. The regression includes election year fixed-effects, and it is estimated by OLS using locality population weights. Standard errors, clustered by locality, in parentheses. In column (6) the dependent variable is the number of rocket-related claims in the locality, and the explanatory variable is "Lagged right share" – the number of votes for the right political bloc divided by the number of valid votes in a locality in the previous elections. This column excludes the 2015 election round from the analysis. The regression includes locality fixed-effects and election year fixed-effects. Standard errors, clustered by locality, in parentheses. In column (7) the dependent variable is the "*Right share*" in the locality-SA and the explanatory variable is the number of rocket-related claims in the entire locality. The regression includes locality-SAs fixed-effects and election year fixed-effects. Standard errors, clustered by locality-SA, in parentheses.
Sources. Voting data are from the Israeli Central Elections Committee. Data on claims for rocket-related property damages are from the Israel Tax Authority. The data on fatalities were collected using standard sources, mainly the National Insurance Institute of Israel and B'Tselem (The Israeli Information Center for Human Rights in the Occupied Territories). See text for details.

Table 2
Threat vs. Actual Exposure

Dependent variable: right share						
Level of analysis:	Municipality level				Locality level	
Election rounds in the analysis	1999-2009				1999-2015	
Maximum rocket range is based on:	Getmansky and Zeitzoff (2014)		Claims Submitted to ITA	Media Coverage	Claims Submitted to ITA	Media Coverage
	(1)	(2)	(3)	(4)	(5)	(6)
In range	0.024**	0.014	0.011	0.011	-0.006	-0.007
	(0.011)	(0.011)	(0.012)	(0.011)	(0.006)	(0.006)
Rocket-related claims in the municipality		0.045***	0.049***	0.049***		
		(0.009)	(0.009)	(0.009)		
Rocket-related claims in the locality					0.042***	0.042***
					(0.009)	(0.008)
Municipality FEs	Yes	Yes	Yes	Yes	No	No
Locality FEs	No	No	No	No	Yes	Yes
Election year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,000	1,000	1,000	1,000	6,901	6,901
R-squared	0.979	0.980	0.980	0.980	0.976	0.976

Notes. "*Right share*" is the number of votes for the right political bloc divided by the number of valid votes in a municipality (or locality) in a given election. "In range" is an indicator for municipalities (or localities) which entered the range of rockets up to one day before elections. "Rocket-related claims in the municipality" is the number of claims for rocket-related property damages per municipality between elections (divided by 1,000). "Rocket-related claims in the locality" is the number of claims for rocket-related property damages per locality between elections (divided by 1,000).

The level of analysis in columns (1)-(4) is the municipality and the election rounds included are 1999, 2003, 2006 and 2009. Columns (5)-(6) use a more disaggregated level of analysis, namely the locality, and add the 2013 and 2015 election rounds to the analysis.

In columns (1)-(2) the maximum rocket range is based on the estimations presented by Getmansky and Zeitzoff (2014). In columns (3) and (5) rocket range is calculated from data on claims for rocket-related property damages. In columns (4) and (6) the range is based on media coverage of the rocket threat in the Jerusalem Post.

All regressions include municipality fixed-effects (or a locality fixed-effect) and election year fixed-effects. Estimated by OLS using municipality (or locality) population as weights. Standard errors, clustered by municipality (or locality), in parentheses.

*, **, *** represent statistical significance at the 10, 5, and 1 percent levels.

Sources. Voting data are from the Israeli Central Elections Committee. Data on claims for rocket-related property damages are from the Israel Tax Authority. See text for details.

Table 3
Disaggregation of the Effect of Rocket Attacks by Location, Time and Scale

Dependent variable: *right share*					
Claims Between Elections		Last Claims In the Locality-SA Before Elections		Claims Indicators In the Locality-SA A Year Before Elections	
	(1)		(2)		(3)
Locality-SA	0.155***	3 months	0.411***	1-10	0.019***
	(0.049)		(0.108)		(0.006)
Municipality	0.027***	A year	0.441**	11-100	0.036***
	(0.010)		(0.172)		(0.006)
Natural Area	0.027**	Since previous	0.137***	Above 100	0.042***
	(0.013)	elections	(0.039)		(0.010)
Sub-District	0.002				
	(0.020)				
Locality-SA FEs	Yes		Yes		Yes
Election year FEs	Yes		Yes		Yes
Observations	13,558		13,558		13,558
R-squared	0.972		0.972		0.972
F-test	P-values	F-test	P-values	F-test	P-values
SA=Municipality	0.009	3 months= year	0.875	1-10=11-100	0.011
SA=Natural area	0.011	3 months= since	0.041	1-10=above 100	0.024
SA=Sub-district	0.003	previous elections			

Notes. "*Right share*" is the number of votes for the right political bloc divided by the number of valid votes in a locality-SA in a given election. All regressions are estimated by OLS using eligible voters as weights and include locality-SA fixed-effects and election year fixed-effects. Standard errors, clustered by locality-SA in parentheses. *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.

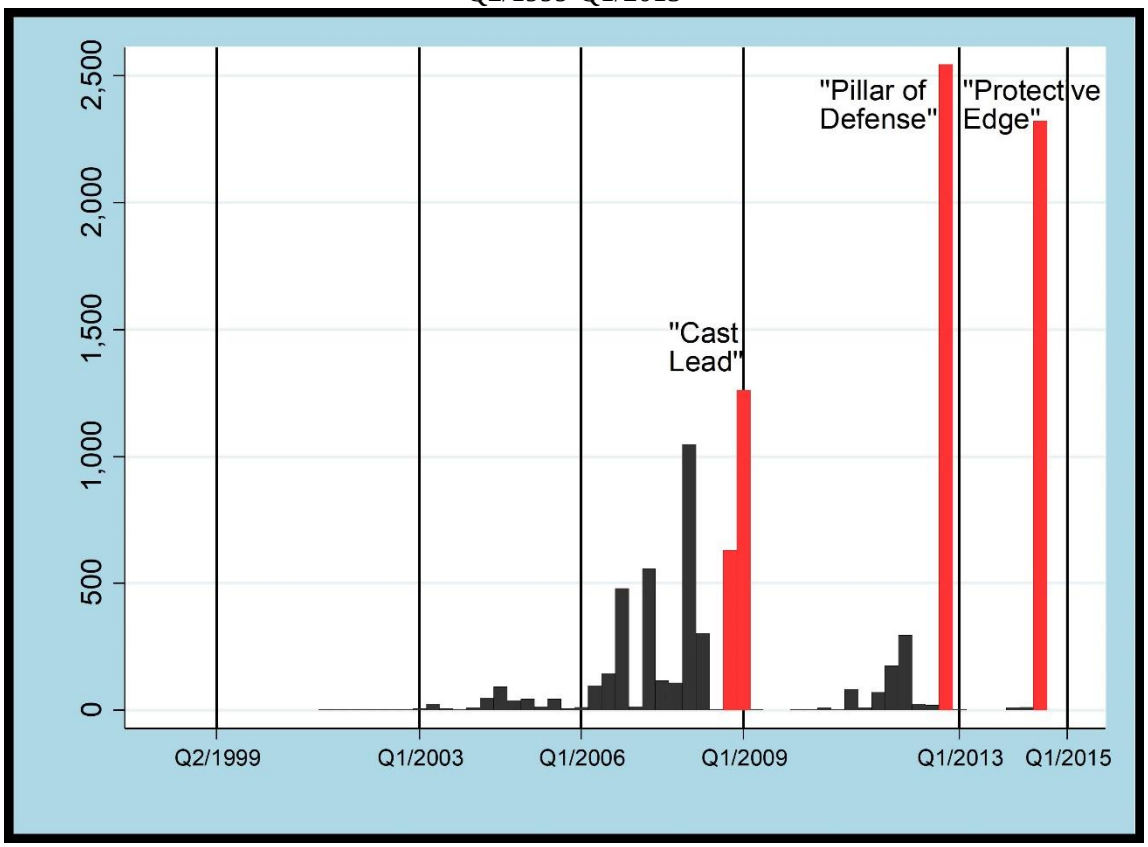
In column (1), "Claims Between Elections" is the number of claims for rocket-related property damages between elections (divided by 1,000). I aggregate these claims for the following boundaries: the locality-SA, the rest of the municipality (only if there are no claims in the locality-SA), the natural area (only if there are no claims in the municipality) and the sub-district (only if there are no claims in the natural area). I conduct three F-tests for the assumption that claims in the locality-SA have the same effect as claims outside of locality-SA and report the P-values of these tests.

In column (2), "Last Claims in the Locality-SA Before Elections" is the number of claims for rocket-related property damages per locality- statistical area (divided by 1,000) in the last 3 months before elections, or in 4-12 months before elections (only if there are no claims in the last 3 months), or in the period between the previous elections and the year before elections (only if there are no claims in the last year). I conduct two F-tests for the assumption that claims in the last 3 months before the elections have the same effect as claims before this period and report the P-values of these tests.

In Column (3), "Claims Indicators In the Locality-SA a Year Before Elections" are three indicators for locality-SAs whose residents filed 1-10, 11-100, or above 100 additional rocket-related claims in the year before elections. I conduct two F-tests for the assumption that 1-10 claims in the locality-SA have the same effect as 11-100 or above 100 claims and report the P-values of these tests.

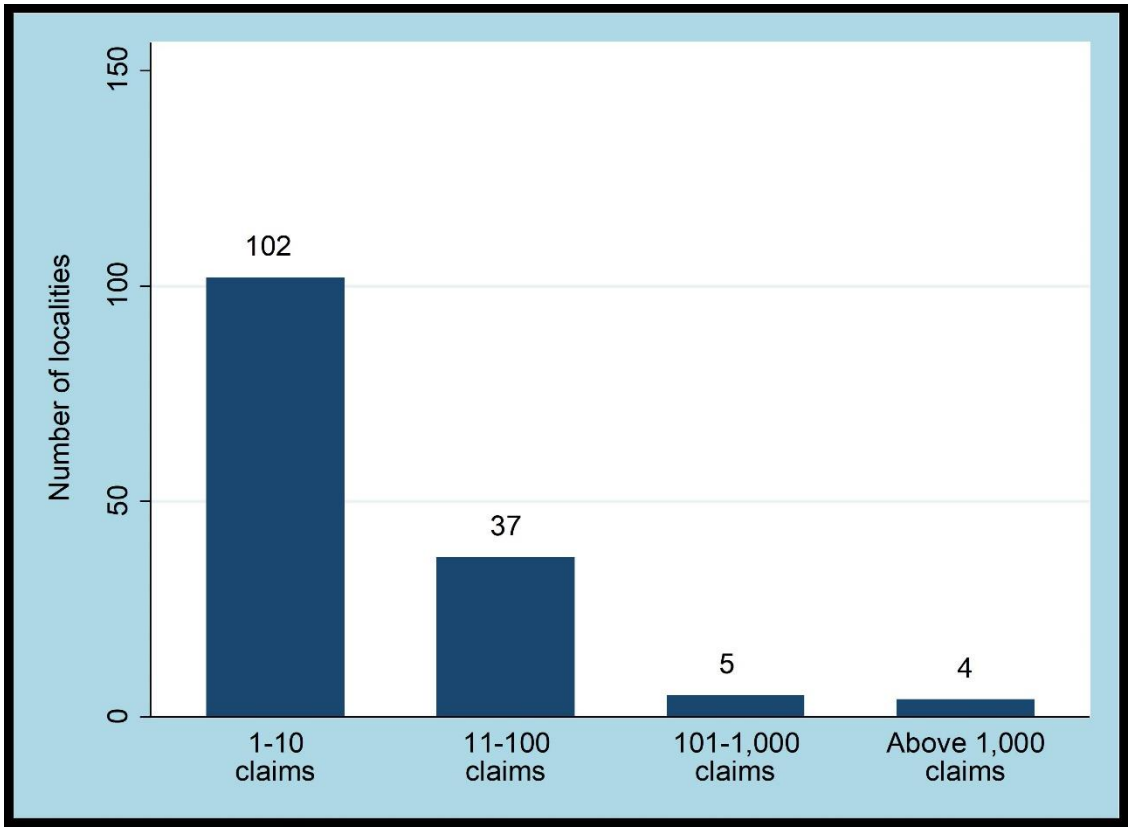
Sources. Voting data are from the Israeli Central Elections Committee. Data on claims for rocket-related property damages are from the Israel Tax Authority. See text for details.

Figure 1
Quarterly Number of Claims for Rocket-Related Property Damages
Q2/1999-Q1/2015



Notes. The figure shows the quarterly number of claims for rocket-related property damages in Israel. The figure only includes claims related to rocket attacks from Gaza. The data on claims cover the period between 2000-2015, but before 2001 there were no rocket attacks from Gaza. The highlighted bars are the quarters of the three major Israeli operations in Gaza: "Cast Lead" (Q4/2008-Q1/2009), "Pillar of Defense" (Q4/2012) and "Protective Edge" (Q3/2014). The vertical lines denote quarters in which national elections were held.
Sources. Data on claims for rocket-related property damages are from the Israel Tax Authority. See text for details.

Figure 2
Distribution of Claims for Rocket-Related Property Damages
In 148 localities whose residents filed at least one claim between 1999 and 2015

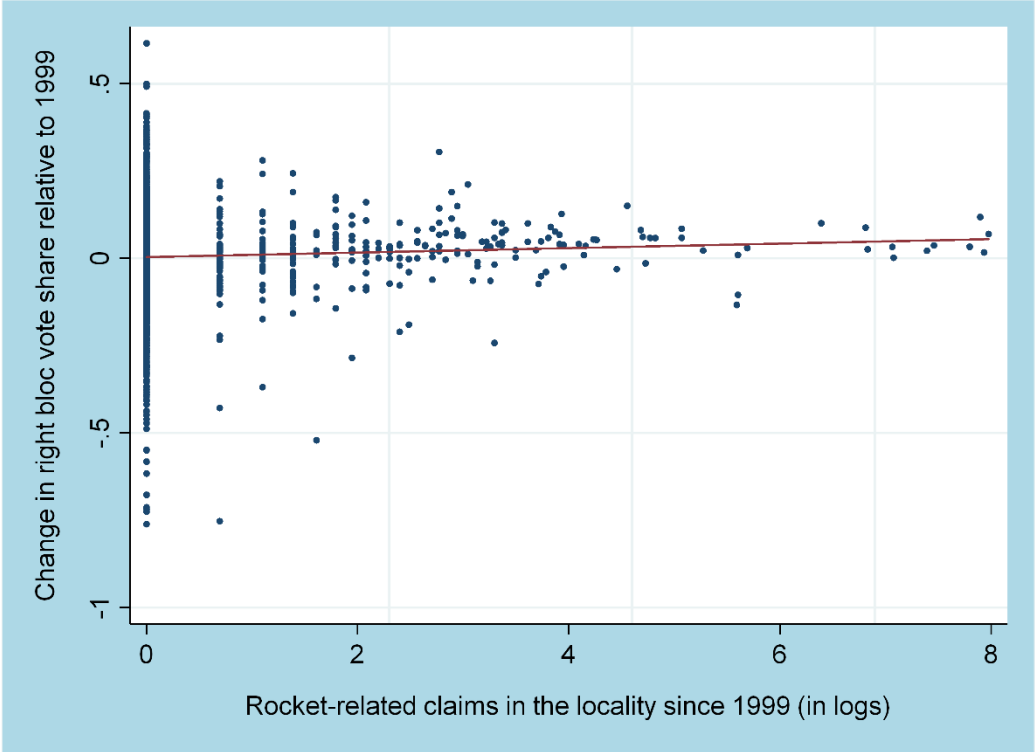


Notes. The figure shows the distribution of the cumulative number of claims for rocket-related property damages between 1999 and 2015 in the 148 localities (out of 1,200 localities with voters) whose residents filed at least one claim for rocket-related property damages. The figure only includes claims related to rocket attacks from Gaza.
*Source*s. Data on claims for rocket-related property damages are from the Israel Tax Authority. See text for details.

Figure 3
Rocket Range
2003-2015 Election Rounds

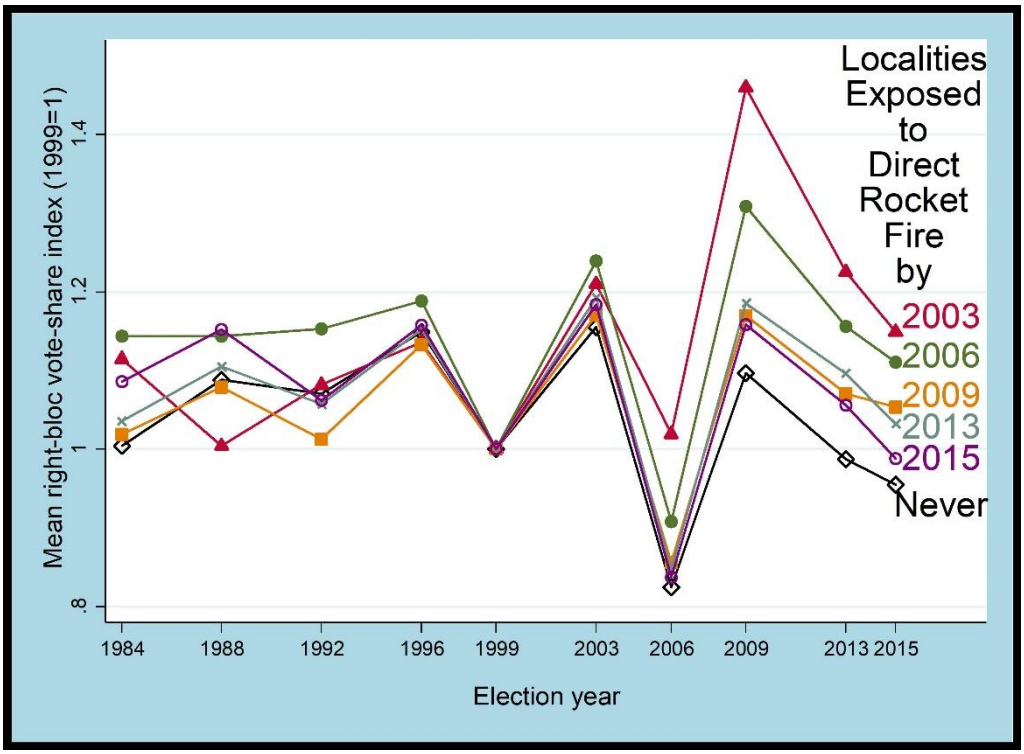
Notes. The map shows the maximum range of rockets launched from the Gaza Strip into Israel by election rounds.
Sources. GIS Lab, Department of Geography, The Hebrew University of Jerusalem. Maximum range is calculated from data on claims for rocket-related property damages obtained from the Israel Tax Authority. See text for details.

Figure 4
Support for the Right Political Bloc and Rocket-Related Claims
2003-2015 Election Rounds relative to 1999



Notes. The figure plots changes in the locality right-bloc parties' vote-share against the cumulative number of rocket-related claims filed by the locality residents (in logs). Both changes are measured between the 1999 elections and the 2003, 2006, 2009, 2013 or 2015 elections. The fitted line is based on a linear regression. The vertiacl grid lines represent 10, 100 and 1,000 cumulative rocket-related claims.
*Source*s. Voting data are from the Israeli Central Elections Committee. Data on claims for rocket-related property damages are from the Israel Tax Authority. See text for details.

Figure 5
Support for the Right by First Date of Exposure to Direct Rocket Fire
1984-2015 Election Rounds



Notes. The figure displays the level of support for the right political bloc in Israeli localities by the earliest date they were exposed to direct rocket fire from Gaza. Specifically, residents of 7 localities filed at least one rocket-related claim for property damages before the 2003 election round, 19 localities before 2006, 51 localities before 2009, 86 localities before 2013, and 148 localities before 2015. Residents of the about 1,000 remaining localities with voters did not file any such claims. The figure plots indices of the mean right-bloc parties' vote-share between 1984 and 2015 for each group (the right-bloc parties' vote-share is normalized to 1 in 1999).
*Source*s. Voting data are from the Israeli Central Elections Committee. Data on claims for rocket-related property damages are from the Israel Tax Authority. See text for details.

Appendix

Table A1
Parties in Political Blocs
(Vote-shares in parentheses)

	Blocs		
Election year	Left	Center	Right
1984	Labor (35%) Chadash (3%) Progressive peace movement (2%) Raz (2%)	Shinui (3%) Yahad (2%)	Likud (32%) Zomet-Hathia (4%) Mafdal (4%) Shas (3%) Yahadut haTorah (2%) Morasha (2%) Tami (1%) Kach (1%) Ometz (1%)
	Left (42%)	Center (5%)	Right (50%)
1988	Labor (30%) Raz (4%) Chadash (4%) Mapam (3%) Progressive peace movement (1%) Mada (1%)	Shinui (2%)	Likud (31%) Yahadut haTorah (4%) Shas (5%) Mafdal (4%) Hathia (3%) Zomet (2%) Moledet (2%) Degel Hatorah (1%)
	Left (43%)	Center (2%)	Right (52%)
1992	Labor (35%) Meretz (10%) Chadash (2%) Mada (2%)		Likud (25%) Zomet (6%) Shas (5%) Mafdal (5%) Yahadut haTorah (3%) Moledet (2%)
	Left (49%)	Center (0%)	Right (46%)
1996	Labor (27%) Meretz (7%) Chadash- Balad (4%) Mada-Raam (3%)	The Third way (3%)	Likud (25%) Shas (9%) Mafdal (8%) Israel Baaliya (6%) Yahadut haTorah (3%) Moledet (2%)
	Left (41%)	Center (3%)	Right (53%)

1999	Labor (20%) Meretz (8%) Chadash (3%) Raam (3%) Am Echad (2%) Balad (2%)	haMerkaz (5%) Shinui (5%)	Likud (14%) Shas (13%) Israel Baaliya (5%) Mafdal (4%) Yahadut haTorah (4%) haIchud haLeumi (3%) Israel Beteinu (3%)
	Left (38%)	Center (10%)	Right (46%)
2003	Labor (14%) Meretz (5%) Am Echad (3%) Chadash-Taal (3%) Balad (2%) Raam (2%)	Shinui (12%)	Likud (29%) Shas (8%) haIchud haLeumi (6%) Mafdal (4%) Yahadut haTorah (4%) Israel Baaliya (2%)
	Left (29%)	Center (12%)	Right (53%)
2006	Labor (15%) Meretz (4%) Chadash (3%) Raam-Taal (3%) Balad (2%)	Kadima (22%)	Shas (10%) Likud (9%) Israel Beteinu (9%) haIchud haLeumi-Mafdal (7%) Yahadut haTorah (5%)
	Left (27%)	Center (22%)	Right (40%)
2009	Labor (10%) Meretz (3%) Chadash (3%) Raam (3%) Balad (2%)	Kadima (22%)	Likud (22%) Israel Beteinu (12%) Shas (8%) Yahadut haTorah (4%) haBait haYehudi (3%) haIchud haLeumi (3%)
	Left (21%)	Center (22%)	Right (52%)
2013	Labor (11%) Meretz (5%) Raam-Taal (4%) Balad (3%) Chadash (3%)	Yesh Atid (14%) haTnuah (5%) Kadima (2%)	Likud-Israel Beteinu (23%) haBait haYehudi (9%) Shas (9%) Yahadut haTorah (5%)
	Left (26%)	Center (21%)	Right (46%)
2015	haMahane haTzioni (19%) Joint List (11%) Meretz (4%)	Yesh Atid (9%) Kulanu (7%)	Likud (23%) haBait haYehudi (7%) Shas (6%) Israel Beteinu (5%) Yahadut haTorah (5%)
	Left (34%)	Center (16%)	Right (46%)

Notes. Up to 2006, I classify Israeli parties into left, center, and right political blocs using the classification proposed by Arian and Shamir (2008). The 2009 classification into political blocs relies on Getmansky and Zeitzoff (2014) while the 2013 and 2015 classifications rely on Jha and Shayo (2016). The percentage points do not add up to 100 since in every election there are parties that do not cross the vote threshold required by law.
Sources. Voting data are from the Israeli Central Elections Committee. See text for details.

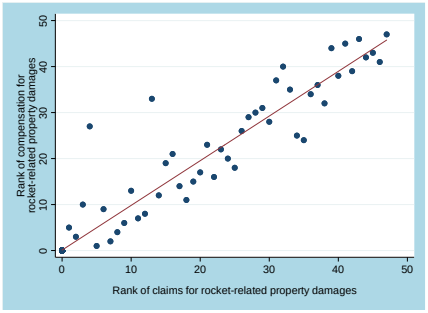
Table A2
Summary Statistics

Dataset	Variable					
	Between election rounds	1999-2003	2003-2006	2006-2009	2009-2013	2013-2015
Claims for property damages caused by rocket hits from Gaza	Total # of claims	16	324	4,671	3,267	2,345
	Total compensation (NIS millions)	0.7	6.5	58.0	74.3	58.5
Casualties caused by rocket hits from Gaza	# of civilian injuries	17	168	1,081	682	914
	# of civilian fatalities	0	7	14	12	7
	By election round held in	2003	2006	2009	2013	2015
	Inferred maximum rocket range (km)	10.9	10.9	38.3	67.6	136.1
Jerusalem Post Articles	Reported maximum rocket range (km)	12	12	40	85	160
Voting data	Eligible voters (millions)	4.7	5.0	5.3	5.7	5.9
	Turnout (%)	66.7	59.2	60.4	63.3	67.6
	Right-bloc vote-share (%)	53.8	39.4	52.1	46.2	45.8
	Localities with voters	1,152	1,148	1,155	1,183	1,194

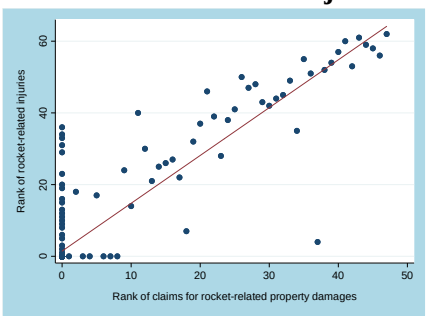
Sources. Data on claims for rocket-related property damages are from the Israel Tax Authority. Data on casulties are from the National Insurance Institute of Israel. Voting data are from the Israeli Central Elections Committee. Jerusalem Post articles are available online. See text for details.

Figure A1
Measures of the Severity of the Rocket Threat Facing Israel
1999 to 2015

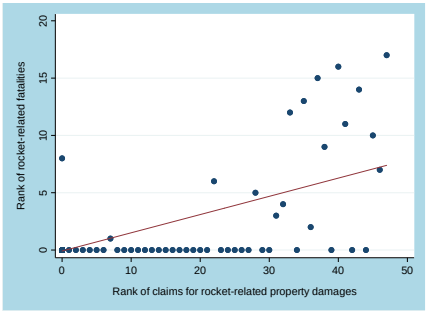
Panel A: Claims and Compensation



Panel B: Claims and Injuries



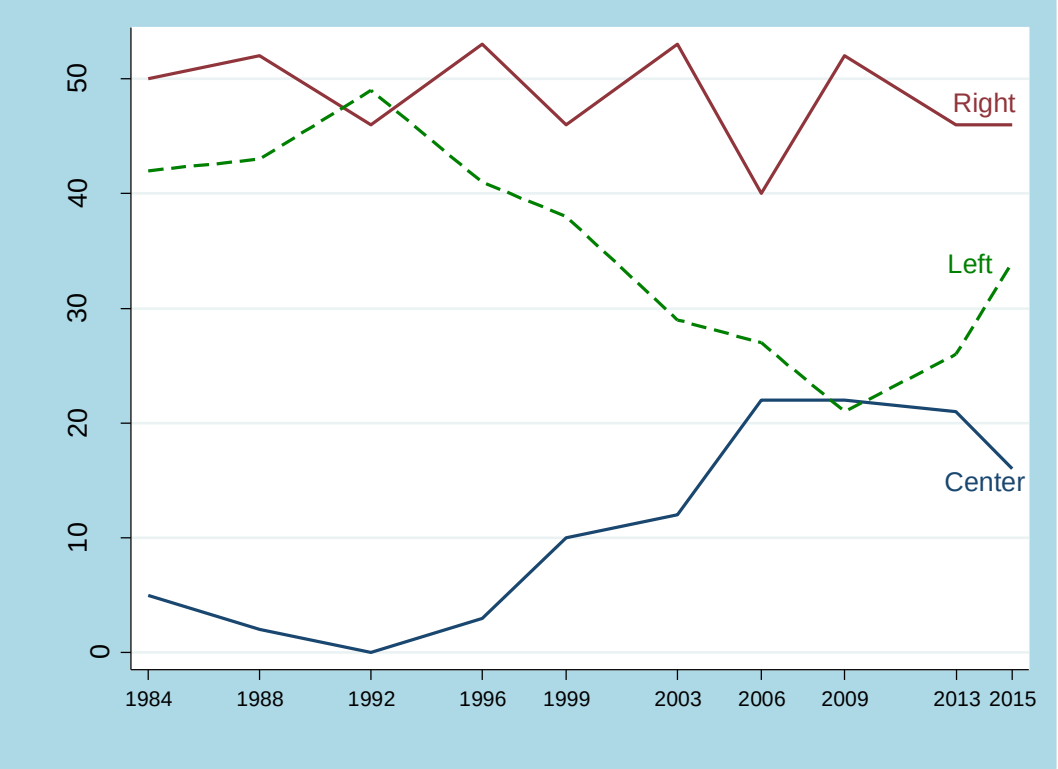
Panel C: Claims and Fatalities



Notes. The figure plots a ranking of each natural area and each period between elections in Israel between 1990 and 2015. There are 51 natural areas and 6 periods in this analysis. The ranking are based on the following measures of rocket attacks from Gaza during this period: number of claims (Panel A-C), monetary compensation (Panel A), number of civilian injuries (Panel B) and number of civilian fatalities (Panel C). Positive values of these measures are ranked 1,...,#, and values and ties are broken arbitrarily. The rank is zero otherwise. The figure illustrates the positive relationship between these alternative measures of the rocket threat, by scattering each measure's rank against the ranking of rocket-related claims. The fitted line is based on a linear regression.

Sources. Data on claims and compensation for rocket-related property damages are from the Israel Tax Authority. Data on rocket-related civilian injuries and fatalities are from Data on all rocket-related fatalities are from the National Insurance Institute of Israel. See text for details.

Figure A2
Support for Political Blocs in Israel
1984-2015 Election Rounds



Notes. The figure plots the nation-wide vote-shares of the left, center, and right political blocs in Israel between the 1984 and 2015 election rounds. The classification of Israeli parties into these political blocs is presented in Table A1.
Sources. Voting data are from the Israeli Central Elections Committee. See text for details.