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**The Struggle for Palestinian Hearts and Minds:
Violence and Public Opinion in the Second Intifada**

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July 2007

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Acknowledgements; We are deeply grateful to the JMCC and DPS at Bir Zeit University for kindly providing us with their micro data. The authors thank seminar participants at the Economics of National Security Program at the Samuel Neaman Institute for comments. David Jaeger and Daniele Paserman thank the Economics of National Security Program at the Samuel Neaman Institute for financial support.

Abstract

In this paper we examine how violence in the Second Intifada influences Palestinian public opinion. Using micro data from two different series of opinion polls linked to data on fatalities, we find that Israeli violence against Palestinians leads them to support more radical factions. This effect is temporary, however, as the effect diminishes completely within 90 days. We also find some evidence that Palestinian fatalities lead to increased disaffection and a lack of support for any faction. Geographically proximate Palestinian fatalities have a larger effect than those that are distant, as do the deaths of “ordinary” Palestinians relative to leaders killed in targeted killings. We find little evidence that Israeli fatalities change Palestinian public opinion and present evidence rejecting the hypothesis that Israeli fatalities claimed by different factions are effective in increasing support for those factions.

JEL Classification: H56

Keywords: Israeli-Palestinian Conflict, Palestinian Fatalities, Israeli Fatalities, Palestinian Public Opinion

More than conventional warfare that pits two large armies of (roughly) equal strength against each other on a battlefield, modern conflict often pits two sides of unequal strength in an effort not (primarily) to win territory, but to influence the hearts and minds of civilians on both sides. These conflicts, in which a limited number of fatalities are used to affect negotiations, demoralize the civilian population, or strategically incapacitate the opponent, are largely psychological. Public opinion therefore plays a crucial role in such conflicts, to the point that most of the battles are conducted through the news media.

In the context of the long-standing conflict between Israel and the Palestinians, the Second Intifada, which began in September 2000, has been characterized by the increased use of suicide bombings by the Palestinians, and targeted killings of Palestinians by Israel. These direct and extremely violent actions by both sides, which often, either by design or by chance, result in the death of civilians who are not involved in combat nor are the targets of the attack, are intended, at least in part, to create fear and reduce the willingness to resist in the opposite side. They convey, by their very nature, an important message that goes beyond the actual damage or incapacitation that they might cause to the other side. Attacks by Palestinian organizations might intend to demonstrate to the Palestinian public the resolve of these organizations to continue the struggle against the occupation by any means and at any cost. Attacks and collective punishments imposed by the Israeli government might be aimed at convincing the Palestinian people that Israel is not going to “surrender to violence.”

There are, of course, dissenting views regarding the effects of Israeli and Palestinian fatalities on the preferences of the Palestinian people. On the one hand, several scholars and political commentators claim that counter-terrorism in general, and targeted killings in particular, have a boomerang effect. Accordingly, these harsh measures foster hatred and desire for revenge

among the Palestinian population. Counter-terrorism, therefore, directly causes the radicalization and mobilization of the Palestinians, encouraging yet more attacks against Israelis (Rubinstein, 2002; Rosendorff and Sandler, 2004; Kaplan et al., 2005; Siquiera and Sandler, 2006; Bueno de Mesquita and Dickson, 2007).¹ In the words of Marwan Barghouti, former head of the Tanzim (an armed faction affiliated with Fatah):

First of all, in principle, the assassination policy is a policy of terror. It's also a very dangerous moral issue. And it also doesn't solve anything. Really. It just raises the level of hatred between the two peoples.²

On the other hand, the opposing view is that Israel uses active measures of counter-terrorism because they are an effective tool in disrupting the operations of the Palestinian military organizations (Brophy-Baermann and Conybeare, 1994; Ganor, 2005). Zussman and Zussman (2006) report that the Israeli stock market reacts positively to the assassination of senior Palestinian military leaders, reflecting the expectation that future levels of terrorism will decrease. Similarly, Jaeger and Paserman (2007b) find that targeted killings have a short-term deterrent or incapacitation effect: the overall number of Israeli fatalities and the number of Israelis killed in suicide attacks fall in the first week after a targeted killing.

According to this view, a pro-active policy that includes curfews, closures and targeted killings incapacitates Palestinian military organizations. Perhaps more importantly, these measures are meant to punish and cause fear among the wider Palestinian population and deter

¹ Terrorism and counter-terrorism are contested terms. A given act is defined in opposite ways by the two sides to the conflict. Whereas Palestinians view their struggle in terms of resistance against the Israeli occupation, Israelis view this resistance as terrorism. The related literature uses the terms terrorism and counter-terrorism. Hereby, we only refer to them in general terms as Palestinian and Israeli fatalities.

² "Death Isn't a Big Deal Anymore," *Ha'aretz*, 12 November 2001.

regular citizens from committing attacks and supporting military organizations. For example, Moshe Ya'alon, former chief of staff of the Israeli Defense Force (IDF) has said:

I defined [victory] from the beginning of the confrontation: the very deep internalization by the Palestinians that terrorism and violence will not defeat us, will not make us fold. If that deep internalization does not exist at the end of the confrontation, we will have a strategic problem with an existential threat to Israel. If that [lesson] is not *burned into the Palestinian and Arab consciousness*, [emphasis ours] there will be no end to their demands of us. Despite our military might, the region will perceive us as being even weaker.³

Ya'alon defines victory in the Intifada not only as a military defeat, but mostly in terms of the mindset of the Palestinians. In this view, continued Israeli violence should lead to a reduction in the support for continuing violence against Israelis.

This paper empirically examines the effects of Palestinian and Israeli fatalities on the preferences of the Palestinian population. To that end, we combine daily data on fatalities from September 2000 to February 2007 with micro data regarding the preferences of the Palestinian population. The data on preferences was obtained from two sets of opinion surveys conducted during the same time period and comprise a large representative sample of Palestinians. We use the variation of fatalities and the population's preferences over time and geography to empirically test the two competing theories regarding the effects of violent attacks mentioned above.

The empirical evidence supports the hypothesis that Palestinian fatalities lead the Palestinian population to move away from more moderate positions. That is, Palestinian fatalities increase the political support for radical factions within one month of their occurrence. The radicalization of the population, however, steadily dissipates over time and totally disappears after ninety days. Interestingly, an increase in Palestinian fatalities does not only shift

³ "The Enemy Within," Ha'aretz, 30 August 2002, <http://www.haaretz.com/hasen/pages/ShArt.jhtml?itemNo=202714> , last seen 28 March 2007.

preferences in support of Hamas. Rather, it significantly increases the support for other radical factions (like the Popular Front for the Liberation of Palestine) and also leads to disaffection of the Palestinian population from the existing political factions. We also find that geographically proximate Palestinian fatalities have a larger effect than those that are distant, as do the deaths of “ordinary” Palestinians relative to leaders killed in targeted killings. In contrast, Israeli fatalities claimed by a military Palestinian organization in a given district do not significantly affect the political preferences of the Palestinians.

The conclusions above are robust to alternative questions used by the pollsters to measure the preferences of the Palestinian population. We obtain similar qualitative results regarding the effects of Palestinian and Israeli fatalities when we measure radicalization by using the support of the Palestinian population for the continuation of negotiations with Israel, the support for the resumption of military operations, support for suicide bombings and support for the creation of an Islamic state in the territory of British Mandate Palestine.

Our results are consistent with the conclusions of other studies focusing on the Israeli-Palestinian conflict. As in Berrebi and Klor (2006), we find that violent attacks have a significant effect on the preferences of the aggrieved population. This highlights the important role that the news media and their depiction of events play on modern conflicts. Similar to Berrebi and Klor (2007), who document that local Israeli fatalities cause an increase in the electoral support for more radical political parties, we find a comparable effect on the Palestinian population.

Given these results, it is sensible to argue that the conflict is going through a painful cycle of violence including constant attacks and retaliations. Accordingly, Israeli fatalities radicalize the Israeli population and trigger pro-active policy measures by the Israeli government, causing Palestinian fatalities. These, in turn, radicalize the Palestinian population

causing more attacks. Recently, Jaeger and Paserman (2007a and 2007b) dismissed this hypothesis. They found that even though attacks cause an Israeli response that increases Palestinian fatalities, the Palestinians do not react in a systematic and predictable way to Israeli violence.

What really drives the high frequency variation in Palestinian violence is somewhat of an open question. Perhaps it is optimal for the Palestinians to randomize their responses to Israeli violence. Perhaps we do not observe a systematic pattern of attacks due, in part, to the fractious nature of leadership among the Palestinians. Unlike Israel, Palestinian military actions are not centrally commanded. Rather, they are controlled by different factions within the Occupied Territories (primarily the Al-Aqsa Martyrs Brigades, Hamas, and the Palestinian Islamic Jihad), which are also aligned with the political parties there.

According to an intriguing theory put forth by Bloom (2004, 2005), these Palestinian factions use violence not only as a means through which to fight the occupation, but also as an attempt to prove their radical credentials and influence the preferences of the Palestinian population. These factions may use attacks to outbid each other in their competition for the preferences of the Palestinian public. The implicit assumption on which this theory rests is that faction support is indeed affected by successful attacks against Israeli targets.⁴ To the best of our knowledge, this theory has yet to be empirically tested due to the inability of Palestinians to express their preferences for more or less violent factions through voting until 2004.⁵

4 Kydd and Walter (2006) analyze this strategy, called the outbidding strategy, along with other strategies used by these organizations.

⁵ The first Palestinian presidential election since 1996 took place in January 2005 after the death of Yasser Arafat. Local council elections took place for the first time since 1976 in December 2004 in the West Bank and in January 2005 in the Gaza Strip, with subsequent rounds taking place during 2005. In the parliamentary elections in January 2006, Hamas won a majority of seats in the Palestinian parliament. For more information see the website of the Palestinian Election Commission at <http://www.elections.ps/>, last seen 28 March 2007.

Although our main interest is to estimate the effects of Palestinian fatalities, we exploit our rich data set to empirically test the outbidding hypothesis as well. That is, we examine whether the number of Israeli fatalities claimed by each faction affects support for those factions. The obtained empirical evidence does not support the outbidding hypothesis. As already reported above, Israeli fatalities do not seem to have a particular effect on the Palestinians' preferences at the district level, regardless of the faction responsible for the attack. This is not to say that there is not competition among factions. Rather, it implies that this competition, if it exists, is conducted at the national level and not at the district level.

The remainder of the paper proceeds as follows. The next section describes our data set in greater detail. We discuss our empirical strategy in Section 2 and present the basic results in Section 3. Additional results and robustness checks are in Section 4. The last section concludes.

1. Data

1.A Palestinian Public Opinion Data

The data on Palestinian public opinion comes from two sets of surveys conducted by independent institutes: the Development Studies Programme (DSP) at Bir Zeit University, and the Jerusalem Media and Communication Centre (JMCC). For these two surveys we have detailed micro data on respondents' demographic characteristics and on their attitudes towards various aspects of the conflict. Table 1 presents the exact dates of each poll, together with the occurrence of the main questions of interest, which are described below. The exact wording of the questions of interest and the response frequencies are presented in Table 2.

The DSP data

The Development Studies Programme (DSP) at Bir Zeit University has conducted regular public opinion polls on all aspects of Palestinian life since the year 2000. General information on these polls, including methodology, the wording of the questions, and summary results are available from the DSP web site at <http://home.birzeit.edu/dsp/opinionpolls/>.

The DSP polls contain information on the gender, age, marital status, education level, refugee status, type of residence (city, village or refugee camp) and, notably, the district of residence of each respondent. This information is very important for our purposes, since it allows us to estimate the effect of fatalities on public opinion at a high level of geographic detail. In addition, the polls include a wide array of questions on economic conditions, perceptions of corruption, democracy, human rights, and various other social issues. Only a limited a number of questions, however, appear repeatedly across polls. We employ the two questions that appear consistently and that inform us about respondents' political preferences: the political faction supported, and support for negotiations with Israel.

Political faction supported. This question directly asks the respondent which political faction he or she supports.⁶ The available options included all the major Palestinian factions. In addition, respondents who stated that they were independent were asked whether their preferences leaned towards Fatah, to one of the Islamic factions, or to one of the leftist factions.⁷

The question on political support appeared in 18 polls between August 2000 and February 2007,

⁶ The two main Palestinian political factions are Fatah and Hamas. Fatah was founded by Yasir Arafat in 1959, and from 1969 it has been the controlling group of the Palestinian national movement, first in the Palestinian Liberation Organization (PLO), and subsequently in the Palestinian National Authority (PA), after it was established in 1993 following the Oslo Peace Accords. As the majority party, Fatah has been the primary negotiator with the Israeli government. It has adopted the two-state approach to the solution of the conflict, agreeing in principle to a partition of mandatory Palestine between a Jewish and a Palestinian state, although the issues of Jerusalem, the final borders of the Palestinian state, and the status of refugees have been postponed to final status negotiations. Unlike Fatah, Hamas does not entertain the possibility of a two-state solution. Hamas has expressly called for the destruction of Israel and the establishment of an Islamist state in all of mandatory Palestine. Hamas has also been able to establish a strong support base through its provision of social services (Mishal and Sela, 2000).

⁷ We coded independents leaning to Fatah together with outright Fatah supporters.

for a total of 21,156 observations (Table 1). Table 2 shows that Fatah enjoyed about 30 percent support on average over the whole period, while Hamas enjoyed about 22 percent. Notably, the proportion of respondents reporting that they do not support any group is nearly as large as the proportion supporting Fatah. This shows that that a large fraction of the Palestinian population feels disaffection from the Palestinian political parties. We will, of course, address this issue in our empirical analysis.

Support for peace negotiations. In twelve polls, between November 2000 and September 2006, respondents were asked whether they supported or opposed continuation of peace talks with Israel. We have a total of 13,692 observations on this variable, and we see that on average about 60 percent of Palestinians supported negotiations with Israel.

The JMCC data

Our second source of micro data comes from the polls conducted by the Jerusalem Media and Communication Center (JMCC). This institute has conducted polls on Palestinian political opinions since 1993, but we will focus here only on those polls conducted since the outbreak of the second Intifada in September 2000. General information on these polls, including methodology, the wording of the questions, and summary results are available from the JMCC web site at <http://www.jmcc.org>.⁸

The JMCC polls contain information on the gender, age, marital status, education level, refugee status, type of residence (city, village or refugee camp), religion and occupation of the

⁸ All polls are based on stratified random samples of the Palestinian population. In each poll, approximately 1,200 people over the age of 18 were interviewed face to face throughout the West Bank (including East Jerusalem) and the Gaza Strip. The number of respondents was roughly 760 in the West Bank and 440 in Gaza. The interviews were conducted in roughly 60 sampling points chosen randomly according to population. Homes were selected randomly in each sampling point, and the subjects inside each home were also selected randomly according to Kish tables.

respondent. One of the main advantages of the JMCC opinion polls is that there is a relatively large number of questions related to the conflict that are asked consistently over time. This enables us to test the effects of fatalities on Palestinian public opinion focusing on a variety of important subjects. One shortcoming of the JMCC data is that it does not identify the district of residence of the respondent. Hence, we are constrained to exploit only variation in violence and political attitudes at the broad region level (West Bank, Gaza and East Jerusalem).

We focus in particular on five main questions on political attitudes: the most trusted political or religious faction, the preferred solution to the Israeli-Palestinian conflict, support for continuation of the Palestinian Intifada, support for resumption of military operations against Israeli targets, and support of suicide operations. We discuss here more in detail the questions asked, and describe how we created from the raw data the main variables that we use in our empirical analysis.

Most trusted political or religious faction. This is the question that comes closest to inquiring about the Palestinian's political preferences. The question was asked in 13 polls between June 2001 and September 2006, with a total of 14,495 respondents. In the absence of regular elections, the question was not framed in terms of the political party supported, but rather in terms of the factions that was trusted the most. The question was open-ended, and respondents could state any Palestinian political or religious faction. Relative to the DSP polls, we observe an increase in the percentage trusting one of the two major factions, and Fatah in particular. This shift comes mostly at the expense of the minor factions, as the percentage of respondents stating that they "don't trust anyone" is also around 27 percent.

Preferred solution to the Arab-Israeli conflict. In 15 polls between April 2001 and September 2006, respondents were asked about their preferred solution for the Arab-Israeli

conflict. As shown in Table 1, 19,027 individuals answered this question. Two main alternatives were presented to the respondents, a two-state solution, and a bi-national state on all of historic Palestine. Respondents could however also state an alternative preferred solution open-endedly. Of those choosing this alternative, a vast majority prefers the creation of a Palestinian/Islamic state on the entire territory of British Mandate Palestine. The average percent of the population that prefers each alternative appears in Table 2.

The two-state solution is the one endorsed by the international community, and has been accepted by the Fatah movement as the long-term solution to the conflict. It can therefore be viewed as a moderate position, in that it implicitly recognizes the State of Israel in at least parts of its current territory. Similarly, the creation of a bi-national state can be interpreted as a moderate position proposing equal rights to all the individuals living in the territory of British Mandate Palestine, regardless of their religion or current nationality, as highlighted in the actual wording of the question (see Table 2). On the contrary, the creation of a Palestinian and/or Islamic State on the entire territory of British Mandate Palestine is clearly a radical position that does not recognize the State of Israel. Therefore, in the econometric analysis below, we separate respondents who prefer the creation of a Palestinian and or Islamic State from the respondents who prefer any of the other two solutions. We say that the Palestinians exhibit more radical preferences when the share of individuals who prefer the creation of a Palestinian/Islamic State increases.

Continuation of the current Palestinian Intifada. In 13 polls respondents were asked whether they support the continuation of the Palestinian Intifada. Over fifteen thousands individuals answered this question. In the first two surveys during the time period at issue, surveys 40 and 41, the only available options were “support” or “oppose.” All subsequent

surveys included another two options: “somewhat support” and “somewhat oppose.” To make all surveys comparable, we exclude from the feasible answers the options “don't know” and “don't answer,” and group together the option “somewhat support” with “support” as well as “somewhat oppose” with “oppose.” The averages presented in Table 2 show that over 78 percent of the population supports or somewhat supports the continuation of the Intifada.

Resumption of military operations against Israeli targets. 14 polls asks respondents whether they support the resumption of military operations against Israeli targets as a suitable response within the current political conditions, or whether they reject it and find it harmful to Palestinian national interests. We have 15,616 answers to this question. Note that the question is much more focused than the broad question on the continuation of the Intifada, and it asks explicitly about support conditional on the current situation. Note also that it asks explicitly about support for military operations (i.e., armed attacks against Israeli security forces and civilians, as both in the occupied territories and within the pre-1967 Israel borders), as opposed to nonviolent resistance such as demonstrations, which are also included in the broad definition of the Intifada. On average, 63 percent of the population supports military operations against Israeli targets. This is roughly 15 percentage points lower than the support for the continuation of the Intifada.

Support for suicide bombings. This question appeared in 15 surveys during the time period at issue, and was answered by 14,600 individuals. The question directly inquires about one of the distinguishing features of the Second Intifada -- the widespread use by Palestinians of

suicide bombings against Israeli civilian targets.⁹ Similarly to the support for military operations, on average over 64 percent of the population somewhat or strongly support suicide bombings.

Figure 1 exhibits the evolution of the Palestinian population's preferences as measured by the questions of interest. Figure 1a depicts the average support for Fatah separately across surveys. Two important patterns are worth mentioning. First, whereas the polls show significant differences during the first two years of the period at issue, by the end of April 2003 they report a strikingly similar average support for Fatah. This similarity remains until the last poll available despite the fact that the polls' timing differs for both institutes. Second, we observe a somewhat stable downward trend in the support for Fatah between 2001 and September 2004. This trend is followed by an abrupt increase in Fatah support immediately after Arafat's death and a steady decline since.

In Figure 1b we show the evolution in the fraction of Palestinians who strongly or somewhat support the continuation of the Intifada, suicide operations and the resumption of military operations, all questions taken from the JMCC. The three variables show a remarkably similar downward sloping trend, going from around 85 percent in December 2000 to around 70 percent in June 2004. The support for radical positions drops sharply in November 2004, after the death of Arafat.

The third panel of Figure 1 depicts the fraction of Palestinians that support negotiations with Israel and the fraction that does *not* support the creation of a Palestinian/Islamic State (we code the variable this way so that high values represent a more moderate position). This picture

⁹ Almost all polls ask respondents about their feelings toward "suicide bombing operations against Israeli civilians." The only difference to that wording appears in two early polls where the exact question was phrased as "Do you see [suicide operations] as a suitable response within the current political conditions or do you oppose them and see them harmful to national interests? We retain these questions in our analysis to maximize sample size.

is murkier. It appears that support for a Palestinian/Islamic State follows a U-shape pattern (except for the observation of September 2002). We observe a relatively low support for a Palestinian/Islamic State at the beginning of the Intifada (maybe because negotiations between the Israeli government led by Ehud Barak and the Palestinian Authority were still ongoing at the time). There is an increase throughout 2001 and 2002, falling again in the latter part of the period. The pattern of the fraction of Palestinian that support negotiations with Israel is much more erratic, showing sharp increases and decreases over short periods of time.

1.B Data on Fatalities

The data on fatalities is the same data used in Jaeger and Paserman (2006 and 2007a). We relied primarily on the web site of B'Tselem (<http://www.btselem.org>), an Israeli human rights organization. Widely thought to be accurate and reliable, the data published by B'Tselem record in detail every fatality (excluding suicide bombers) on both sides of the conflict during the second Intifada. They include information on the date, location and circumstances of the fatal wounding, the date of death, the age, gender and locality of residence of the victim, and whether the victim was a civilian or a member of the security forces. The main advantage of these data is their comprehensiveness and the symmetrical treatment of fatalities on both sides of the conflict, something that is unavailable in the official statistics compiled by either side.

We classify each Palestinian fatality according to the district where the fatal wounding took place, and whether or not he or she died on a targeted killing. We perform a similar classification of Israeli fatalities according to the district where the attack originated. Finally, we calculate the number of Israeli fatalities claimed by the different Palestinian factions (again, separately for each district), using the database on incidents and casualties in the Second Intifada

prepared by the Institute for Counter Terrorism (ICT) at the Interdisciplinary Center in Herzliya, Israel, crossvalidated with newspaper reports.

Table 3 presents the geographic variation of the fatalities according to the district where the event took place. This table also separates Palestinian fatalities between those killed in targeted killings and the rest, and it differentiates Israeli fatalities according to the group claiming responsibility for the particular attack. The table depicts the high variability across districts in the number of fatalities that occur ninety days before each poll. An average district suffered slightly over 9 Palestinian fatalities and claimed 2.4 Israeli fatalities. There are a few very violent districts in the West Bank like Jenin, Nablus and Hebron with a high number of Palestinian and Israeli fatalities.

The variability across districts in the West Bank highlights the importance of exploiting both time series and cross sectional variability in our analysis. For example, if the Palestinian population is sorted across districts according to their political preferences and violence occurs mainly in radical districts, based only on a cross-sectional analysis we would observe a spurious correlation between radical attitudes and violence, with the actual direction of causality running from attitudes to violence, and not the other way round. The availability of longitudinal data allows us to include in the analysis district fixed effects, so that we can separate the effect of violence from attributes of the district that are constant across time.

In contrast to the West Bank and Jerusalem, the average number of Palestinian fatalities of every district in Gaza is above the average, while the average number of Israeli fatalities of each of these districts is below the overall average. Particularly noteworthy are the average fatalities in Gaza City, showing an average of almost 23 Palestinian fatalities ninety days before each poll (with almost 8 of them as a result of targeted killings) and only 1.48 Israeli fatalities claimed by

cells located in this city. This gap between Palestinian and Israeli fatalities in Gaza is perhaps due to the fact that closures in the Gaza Strip are easier to implement, thus keeping its residents away from Israeli territory.

The time series variation of the data is depicted in Figure 2. This figure shows the monthly number of fatalities during our sample period. The figure shows that initially Palestinian fatalities outnumber Israeli fatalities by a large amount, and then both series start rising until Operation Defensive Shield (ODS) in March 2002. After ODS, the overall trend in Israeli fatalities starts to slope downwards, while the number of Palestinian fatalities maintains itself at a high level until the beginning of 2005. During 2005 and parts of 2006 we observe an important drop in the level of Palestinian fatalities. This was followed by a sharp increase in the summer of 2006 as a consequence of military operations conducted by Israel in Gaza following the abduction of an Israeli soldier and in coincidence with the Second Lebanon War.

These trends, combined with those in Figures 1a and 1b, hint that Palestinian public opinion takes on more radical positions when Palestinian fatalities outnumber Israeli fatalities by a large amount (for example, in 2002-2003), and more moderate positions when the difference is relatively small (e.g., 2005). These conclusions, however, are based only on casual observation and ignore important events, like Arafat's death, that might have affected both trends. In the next section we propose an econometric framework to investigate the effect of violence on the Palestinians' preferences more in depth, using regression analysis to exploit both geographic and time variation in public opinion and in the level of fatalities.

2. Empirical Specification

We first examine how violence on both sides of the conflict affects Palestinian support

for Fatah, as measured by the Bir Zeit and JMCC questions. We consider first the following general specification:

$$Fatah_{ijt} = a_1 P_{j,t-1} + a_2 P_{j,t-2} + \dots + a_{13} P_{j,t-13} + b_1 I_{j,t-1} + b_2 I_{j,t-2} + \dots + b_{13} I_{j,t-13} + \mathbf{X}_{ijt} \Phi + c_j + u_{ijt}. \quad (1)$$

where $Fatah_{ijt}$ is a binary indicator for whether individual i in geographic area j and poll conducted at time t “supports” (DSP) or “trusts” (JMCC) Fatah; $P_{j,t-k}$ is the number of Palestinian fatalities in location j that occurred k weeks prior to date t ; $I_{j,t-k}$ is the number of Israeli fatalities that originated in location j and occurred k weeks before date t ; \mathbf{X}_{ijt} is a vector of individual-specific characteristics, location-specific characteristics, and period dummies; c_j is a location fixed effect; and the a 's, b 's and the vector Φ are unknown parameters. Non-systematic determinants of the support for Fatah are captured by the error term, u_{ijt} .

This general specification allows fatalities at every different lag (in weeks) to have a potentially different effect on the support for Fatah.¹⁰ Given our data, however, it may be difficult to estimate the separately the a 's and the b 's with a satisfactory degree of precision. Therefore, we impose the following linear restriction:

$$a_k = \alpha_0 + \alpha_1 \cdot k, \quad (2a)$$

and

$$b_k = \beta_0 + \beta_1 \cdot k. \quad (2b)$$

This specification imposes the restriction that the effect of fatalities varies linearly with time. Specifically, α_0 represents the effect of one Palestinian fatality that occurred in the 7 days that preceded the poll – we call this the *immediate* effect; while α_1 represents the weekly change in

¹⁰ For fatalities occurring more than 13 weeks before the poll, we assume that the effect is zero.

the effect as the fatality is more distant in time. A similar interpretation is given to β_0 and β_1 with respect to Israeli fatalities. Note that if we restrict α_1 (or β_1) to be zero, we essentially constrain the effect of every Palestinian (Israeli) fatality in the 13 weeks preceding the poll to be constant. In the empirical application we present results for both the constant-effect specification (i.e., α_1 and β_1 equal to zero), and for the dynamic specification, where we allow the effects of fatalities to differ over time.

Finally, note that plugging (2a) and (2b) into (1), we obtain the following compact specification:

$$\begin{aligned}
 Fatah_{ijt} = & \alpha_0 \sum_{k=1}^{13} P_{j,t-k} + \alpha_1 \sum_{k=1}^{13} k \cdot P_{j,t-k} + \\
 & \beta_0 \sum_{k=1}^{13} I_{j,t-k} + \beta_1 \sum_{k=1}^{13} k \cdot I_{j,t-k} + X_{ijt} \Phi + c_j + u_{ijt}.
 \end{aligned} \tag{3}$$

Hence, the dynamic-effect model is simply obtained by adding to the constant-effect model two additional variables (one for Palestinians and one for Israelis), the sum of fatalities weighted by the number of weeks since those fatalities occurred. Consequently, a simple test of the dynamic model is whether α_1 and β_1 are equal to zero in the above equation.

3. Results

This section presents the main results of the paper. We first depict the main demographic characteristics of the surveys' respondents separately for Fatah and Hamas supporters. The evidence in Table 4, based on a representative sample of the Palestinian population, shows that there are no clear and striking differences between Fatah and Hamas supporters regarding areas and types of residency, refugee status, marital status and age. Females show a relative tendency to support Hamas more than males do. Hamas supporters are not necessarily less educated than Fatah supporters. People attending college or with a college degree are, however, less likely to

support Hamas and more likely to support one of the smaller factions, with the support for Fatah relatively unaffected. It is noteworthy that there is strong disaffection with the political system among all demographic groups. Over 28 percent of the population does not support any party. This is especially acute among the elderly, the illiterate, and Jerusalem residents.

The bottom of Table 4 presents evidence on the correlation of economic indicators and the political support for Fatah and Hamas. These indicators, calculated from micro data obtained from the Palestinian Labor Force Survey, measure the quarterly local unemployment rate and average wage of each district.¹¹ These figures indicate that there is no strong correlation between economic conditions and support for a given political party, even though support for Fatah decreases in districts with high unemployment rates and low average wages. This is consistent with the economic voting hypothesis whereby voters assign the responsibility for bad economic outcomes to the governing party (Lewis-Beck and Stegmaier, 2000).¹² It is also consistent with the interesting idea that recessionary economies make mobilization more attractive because of the lack of economic opportunity (Bueno de Mesquita, 2005; Bueno de Mesquita and Dickson, 2007). Hence, it is important to control for economic conditions in equation (1) to differentiate between radicalization induced by political or economic reasons.

In Table 5 we present results from estimating equation (3) using the DSP data in panel A and the JMCC data in panel B. The models are estimated with ordinary least squares (OLS) and the estimated heteroskedasticity-consistent standard errors allow for clustering in time and

¹¹ The survey is conducted by the Palestinian Central Bureau of Statistics. We present in the table the relaxed definition of the local unemployment rate, which includes not only workers actively looking for work but discouraged workers as well. We view this variable as more appropriate, given the very high number of discouraged workers throughout the period. All our results are essentially identical when we use the standard definition of unemployment.

¹² For the overwhelming majority of our sample period, Fatah held both the presidency of the Palestinian National Authority, the majority in the Palestinian Legislative Council (PLC), and the Prime Minister office. Hamas became the majority party in the PLC and took hold of the Prime Minister's Office following its success in the legislative elections in January 2006.

geography. All regressions include controls for sex, age, marital status, education, the local unemployment rate, the local wage rate, a measure of border closings, two period dummies to capture broad trends in violence and public opinion in the different phases of the conflict (before Operation Defensive Shield, between ODS and the death of Yasser Arafat, and after the death of Yasser Arafat). Regressions using the JMCC data also include indicators for occupation and religion.

Columns (1) and (4) present estimates of the constant-effect specification, in which we constrain α_1 and β_1 to be equal to zero. We find no statistically significant relationship between violence and support for Fatah, in either of the two surveys. The dynamic-effect model, however, shows a substantially different picture. When we do not constrain α_1 and β_1 to be equal to zero, (columns 2 and 5) we find that the immediate effect of Palestinian fatalities is to reduce support for Fatah, but this effect falls off rather quickly. This result is consistent across both polls. Specifically, 10 additional Palestinian fatalities reduce support for Fatah by 1.6 - 1.9 percentage points in the first week after they occur; this effect, however, fades away at a rate of 0.2 - 0.3 percentage points per week. Hence, this linear specification implies that the effect of Palestinian fatalities on Fatah support dissipates after about 7-8 weeks.

Contrary to the effect of Palestinian fatalities, we find that Israeli fatalities have essentially no effect on Palestinian public opinion. This is true in both specifications and in both surveys. One possible explanation for this result is that Palestinians do not necessarily feel a sense of local pride when a resident of a specific locality manages to carry out a fatal attack against Israeli targets. Maybe what drives Palestinian sentiment is the overall level of violence against Israelis, rather than violence originating in a specific locality. We evaluate this hypothesis in columns 3 and 6, where we replace the number of Israeli fatalities at the district or

area level with the overall number of Israeli fatalities. We still find no effect of Israeli fatalities on support for Fatah. Notably, the coefficients on Palestinian fatalities remain essentially identical in the DSP data (column 3), but fall somewhat and become statistically insignificant in the JMCC data, even though they maintain the same pattern of signs: an immediate negative effect which diminishes over time. In the remainder of the paper we adopt this specification, unless stated otherwise.

While support for Fatah (the most moderate of the factions) is an indicator of the radicalization or outrage of the Palestinian population, the surveys include more specific information on which of the factions individuals support. In Table 6 we explore this issue further, by using a multinomial logit for the support for all the other factions relative to Fatah. To facilitate the understanding of the coefficients, we first present in column 1 a simple logit model where the dependent variable is a binary indicator for *not* supporting Fatah. This is just the mirror image of the regressions in Table 5, and, not surprisingly, we find very similar results to those in Table 5, with opposition to Fatah increasing with fatalities, but then decreasing over time. The logit coefficients imply that 10 Palestinian fatalities lower the odds of supporting Fatah relative to all other factions by 9.78 log points. The remaining results in Table 6 are from multinomial logit regressions in which the dependent variable is the full set of choices for the faction support/trust questions, with Fatah as the base group. Focusing first on the results from the DSP polls in the top panel, we find that increases in Palestinian fatalities shift support away from Fatah towards more radical groups like Hamas and the Popular Front for the Liberation of Palestine (PLFP). But as the level of violence against Palestinians increases, they also become

more disaffected (relative to Fatah) and report supporting no one.¹³ We find similar results using data from JMCC, although they are generally weaker, not always significant, and do not replicate the strong disaffection results we find in the DSP data.

We next investigate the effect of violence on other attitudes towards the conflict, using the additional questions available in the two polls that were described earlier. The results are presented in Table 7. To facilitate reading the table, we have transformed all the binary variables so that 1 indicates the more moderate position, and 0 indicates the more radical position. In column (1) the dependent variable is the indicator for whether the individual supports continued peace negotiations with Israel from the DSP polls. Columns (2) through (5) present results from the JMCC data on the preferred outcome of the conflict (column 2), continuation of the Intifada (column 3), whether military operations should be resumed (column 4), and support for suicide operations (column 5). The pattern of results is broadly consistent with the one found previously. Palestinian fatalities lower support for more moderate positions in the short run, but this effect becomes weaker with time. The effect is statistically significant for the questions on resumption of military operations and support for suicide operations, marginally insignificant (but with the correct signs) for the question on support for peace negotiations, and essentially zero for the remaining two questions. The magnitude of the effect is larger in the question based on the DSP polls, but we should keep in mind that in these polls we measure violence at the district level, rather than at the area level. In contrast to the results on Fatah support, we find some effect of Israeli fatalities on support for peace negotiations and on the preferred solution to the conflict. Not surprisingly, Israeli fatalities embolden the Palestinian population and lead them to more

¹³ An alternative explanation for the disaffection results is that the “support no one” category in fact reflects support for one of the more radical factions, but respondents may refrain to state such a preference because of stigma associated with support for factions other than Fatah.

radical positions in the short run, with the effect diminishing with time. On the other hand, we find no effect of Israeli fatalities on the support for continuation of the Intifada or for resumption of military operations, and the effect on support for suicide operations goes in the opposite direction.

To get a more concrete sense of the short and long run effects of Palestinian fatalities on Palestinian attitudes, we next run a series of regressions as follows:

$$Y_{ijt} = \gamma_m \sum_{k=1}^m P_{j,t-m} + \beta_0 \sum_{k=1}^{13} I_{t-k} + \beta_1 \sum_{k=1}^{13} k \cdot I_{t-k} + \mathbf{X}_{ijt} \Phi + c_j + u_{ijt}, \quad m = 1, \dots, 13.$$

Each coefficient γ_m represents the effect of all Palestinian fatalities that occurred up to m weeks before the poll at time t . If Palestinian fatalities indeed generate a radicalization of attitudes in the short run that fades away with time, we would expect to find that the γ 's are large and negative at low values of m , and then revert towards zero at longer lags. The estimated γ coefficients are presented in Figure 3. Figure 3a presents the coefficients on support for Fatah in the DSP and JMCC polls, while Figure 3b presents the coefficients on the other outcome variables. The pattern of coefficients confirms the results from Tables 5-7. Fatalities that occur in the first few weeks before the poll induce a stronger shift toward more radical positions, but this effect is attenuated with time. This result holds for nearly all the variables under examination, even though the magnitude of the effects differs somewhat.

This section has provided a wide array of evidence in support of the notion that Palestinian fatalities generate a short-run radicalization effect, which dissipates over time. We next proceed to testing whether this result is robust to different subsamples and different classifications of fatalities.

4. Robustness Checks

Conditions in the West Bank and East Jerusalem are substantially different than those in the Gaza Strip, and we might expect that violence has a differential effect in the two areas. In Table 8 we estimate similar models to those in Table 5 separately for the West Bank/Jerusalem and the Gaza Strip, using only the DSP data.¹⁴ We find similar effects of fatalities in both regions. The pattern of the effect of violence against Palestinians on support for Fatah follows that in Table 5 – violence temporally proximate to a poll date lowers support for Fatah, but this effect quickly diminishes with the temporal distance from the poll. In the West Bank the immediate effect appears particularly large (albeit not significant) in column (1), when we do not control for border closings, but becomes much smaller once this variable is included. In Gaza, the immediate effect is smaller but the coefficient on the change over time is estimated more precisely, and the coefficients are not affected by the inclusion of the border closings variable.

Our analysis thus far has focused on local fatalities only. That is, our fatality variables include only those fatalities incurred or caused by Palestinians from a particular district or area and we have implicitly assumed that all other fatalities have no effect on public opinion. In Table 9 we relax this assumption and, using the rich geographic detail available in the DSP data, we include both local Palestinian fatalities and other Palestinian fatalities in the regressions. In column (1) we include separately local fatalities (those that occurred in the district of residence of the respondent) and all other fatalities, again using the dynamic effect specification of equation (3). In column (2) we separate further between local fatalities, fatalities that occurred in other districts within the same region (West Bank or Gaza), and fatalities that occur in the other region. Strikingly, the results show that there is a clear ranking in the effects of fatalities by

¹⁴ Because there are only 3 areas identified in the JMCC data, once we stratify by those areas there is no geographic variation to identify our models.

geographic distance: fatalities that occur within the district of residence lead to the largest shift away from Fatah, followed by fatalities that occur in other districts within the same region and by fatalities that occur in the other region. The immediate effect of local fatalities is about twice as large as the effect of fatalities within the region, which in turn is about twice as large as the effect of fatalities in the other region. For all types of fatalities, the effect diminishes over time, and becomes zero after six to eight weeks. It appears therefore that the effect of fatalities diminishes both with temporal distance and with geographic distance.

Jaeger and Paserman (2007b) have noted that targeted killings of Palestinian leaders reduce subsequent Israeli fatalities in the short run, even though they may lead to an increase in intended violence. We examine how targeted killings and other fatalities affect public opinion in Table 10. In column (1) we use fatalities in targeted killings (including collateral fatalities) and other fatalities while in column (2) we separate out only the targets of the targeted killing. Both columns present very similar results – support for Fatah is affected by the deaths of “ordinary” Palestinians while the assassination of leaders does not lead to changes in support for Fatah. Both sets of results follow the pattern of Table 5, with non-targeted killing fatalities closer to the poll date having a greater effect than those temporally removed from the poll date. The weekly change coefficients, even though estimated imprecisely, suggest that the effect of targeted killings dissipates more quickly than the effect of other fatalities.

The last issue we examine, in Table 11, is that of how Israeli fatalities claimed by the different factions affect the support for them.¹⁵ In model (1) we use an indicator for Fatah support as the dependent variable, while model (2) is a multinomial logit model, where the base

¹⁵ Here we use Israeli fatalities originating from the district as explanatory variables. Using overall Israeli fatalities in this specification would make us lose an excessive amount of degrees of freedom, and the results would be meaningless.

category is Fatah. We do not find much in the way of an effect of violence by the various factions moving Palestinian support for Fatah, in either model. In fact, when looking just at the two major factions, Fatah and Hamas, the results go in the direction that is opposite to the one predicted by the outbidding hypothesis (even though the coefficients are not significant): a higher number of Israeli fatalities claimed by Fatah raises the relative support for Hamas, and a higher number of fatalities claimed by Hamas lowers the relative support for Hamas. One of the few significant coefficients in this table shows that fatalities claimed by Palestinian Islamic Jihad seem to *reduce* their levels of support. Overall, there is little evidence to support Bloom's (2004, 2005) hypothesis that violence against Israelis can be used by the different factions to increase their popularity among the Palestinian public.

5. Conclusion

[TO BE COMPLETED]

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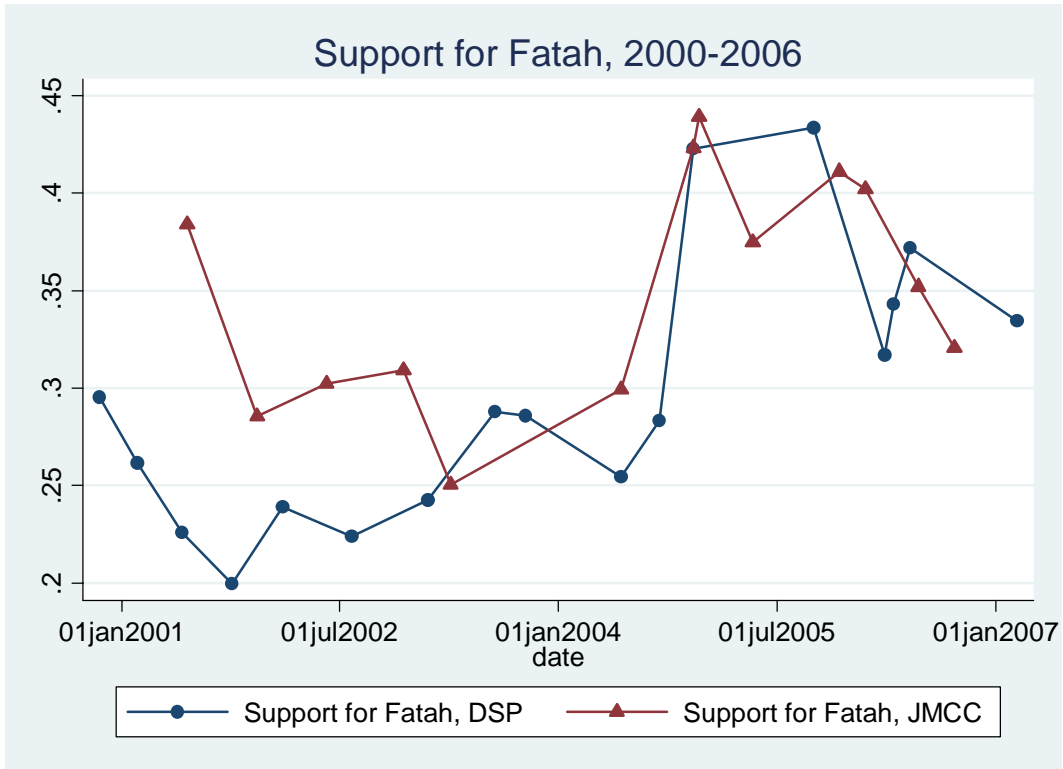


Figure 1a: Support for Fatah in DSP and JMCC data

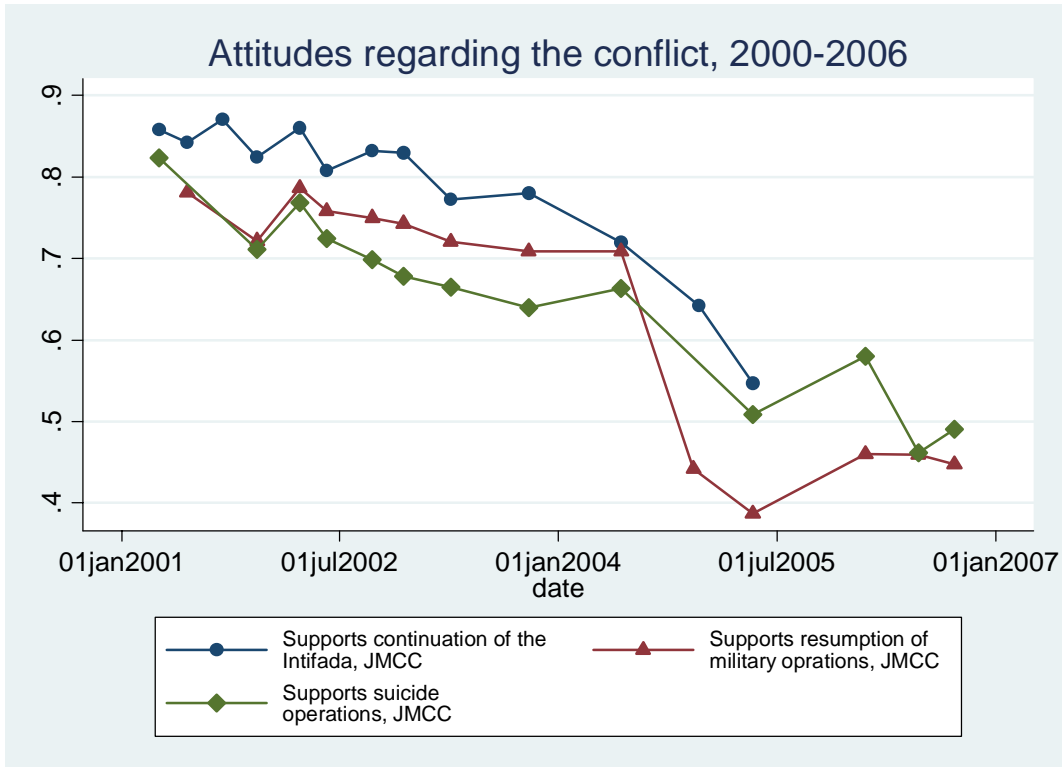


Figure 1b: Attitudes regarding the conflict, 2000-2006

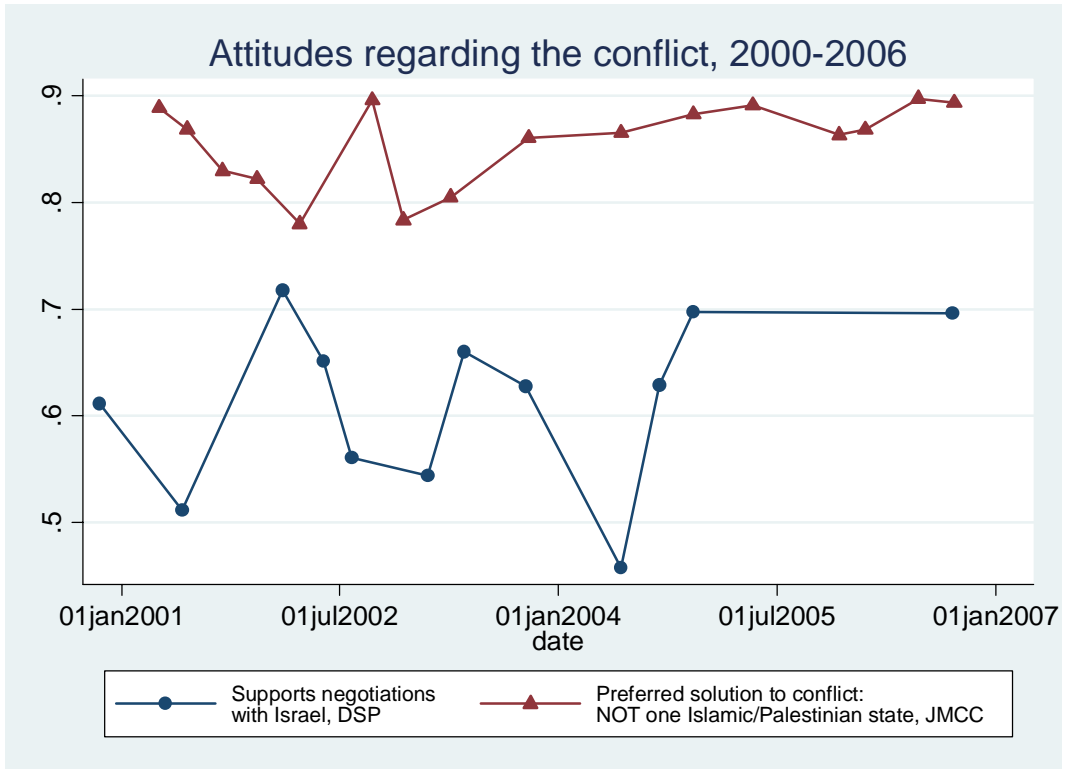


Figure 1c: other attitudes

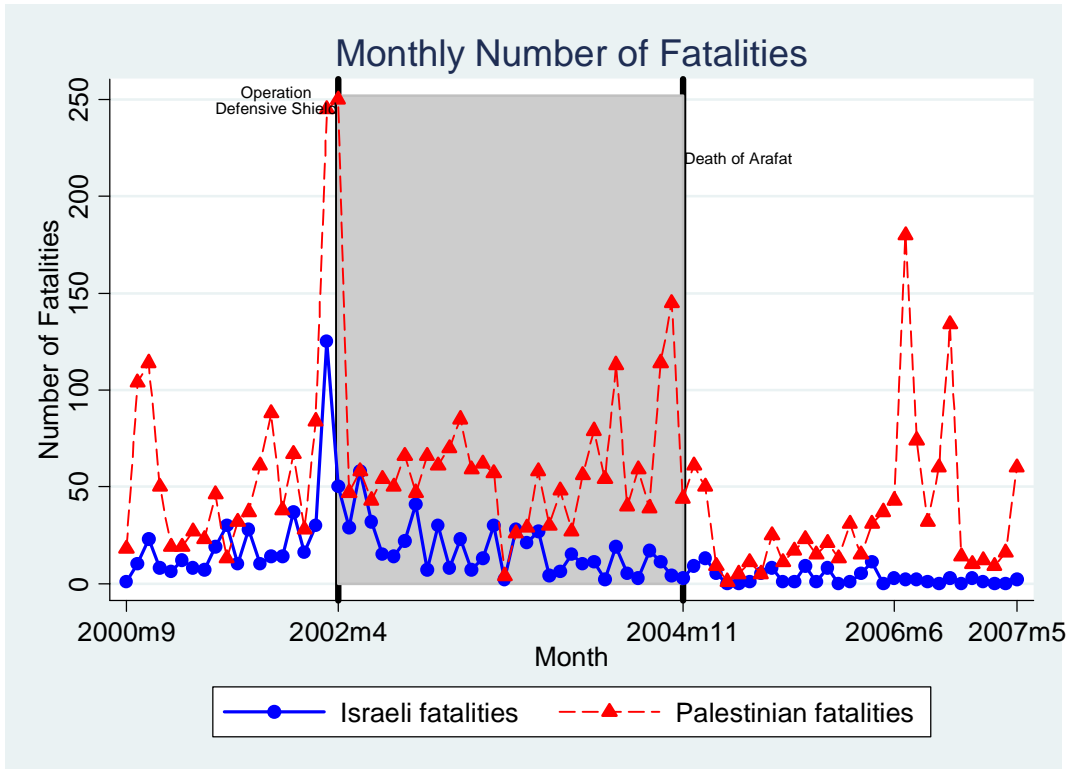


Figure 2: Monthly number of fatalities, 2000-2007

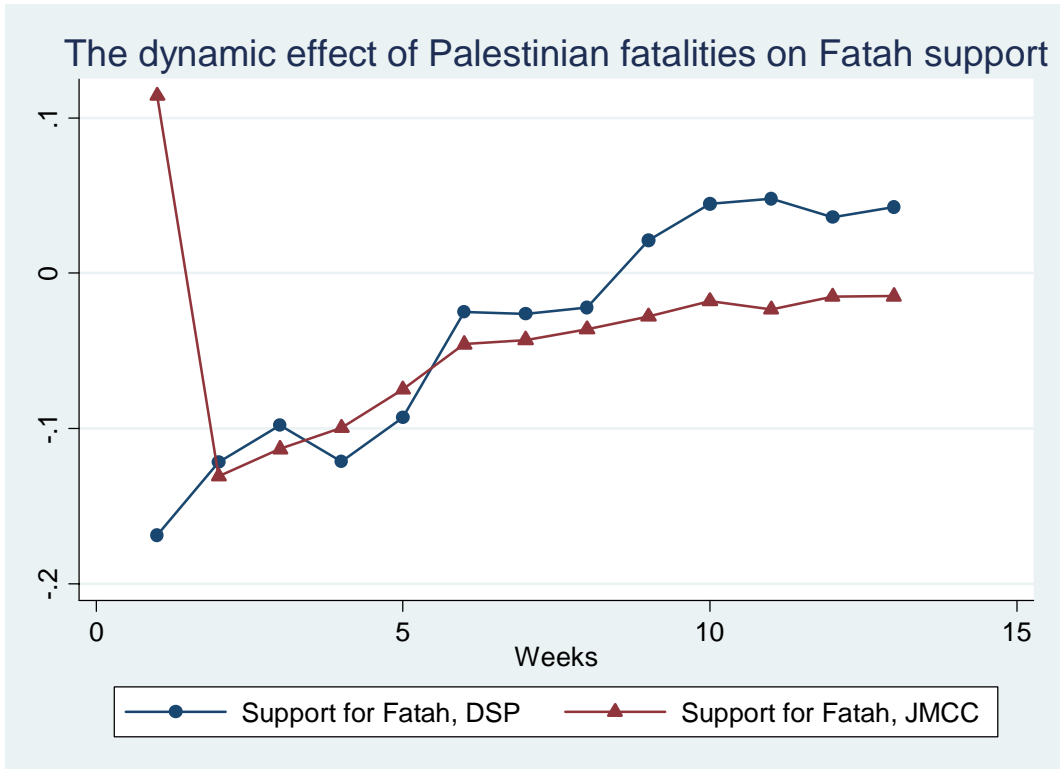


Figure 3a: The dynamic effect of fatalities on Fatah support

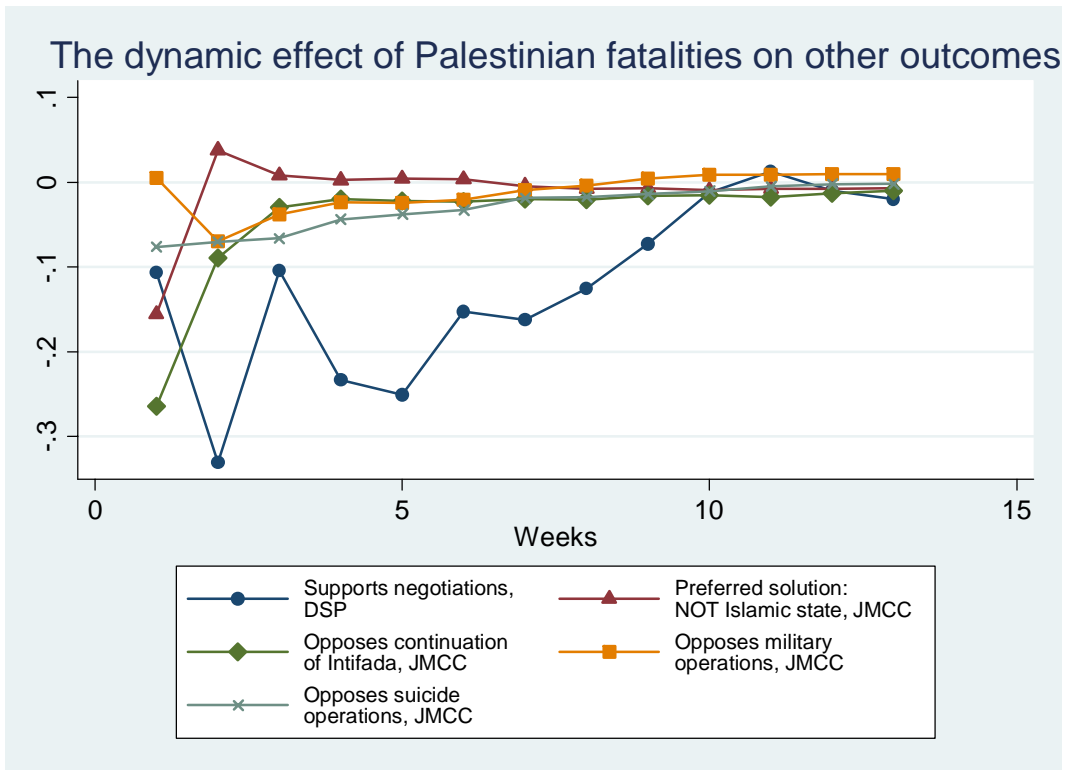


Figure 3a: The dynamic effect of fatalities on other outcomes

Table 1
Dates and Contents of Polls of Palestinian Opinion

Date	DSP Questions			JMCC Questions					
	Poll #	Which Faction Do You Support?	Do You Support or Oppose Negotiations with Israel?	Poll #	Which Faction Do You Trust the Most?	Which is Your Preferred Solution to the Conflict?	Do You Support Continuation of the Intifada?	Do You Support the Resumption of Military Operations?	Do You Support or Oppose Suicide Bombing Operations?
31-Aug-2000	1	✓							
6-Nov-2000	2	✓	✓						
8-Feb-2001	3	✓							
5-Apr-2001				40		✓	✓		✓
31-May-2001	4	✓	✓						
14-Jun-2001				41	✓	✓	✓	✓	
11-Sep-2001				42		✓	✓		
4-Oct-2001	5	✓							
6-Dec-2001				43	✓	✓	✓	✓	✓
7-Feb-2002	6	✓	✓						
23-Mar-2002				44		✓	✓	✓	✓
21-May-2002	7		✓						
29-May-2002				45	✓		✓	✓	✓
31-Jul-2002	8	✓	✓						
21-Sep-2002				46		✓	✓	✓	✓
8-Dec-2002				47	✓	✓	✓	✓	✓
6-Feb-2003	10	✓	✓						
5-Apr-2003				48	✓	✓	✓	✓	✓
8-May-2003	12		✓						
24-Jul-2003	13	✓							
10-Oct-2003	14	✓	✓						
18-Oct-2003				49		✓	✓	✓	✓
4-Jun-2004	16	✓	✓						
6-Jun-2004				51	✓	✓	✓	✓	✓
9-Sep-2004	18	✓	✓						
3-Dec-2004	20	✓	✓						
4-Dec-2004				52	✓	✓		✓	
18-Dec-2004				53	✓		✓		
2-May-2005				54	✓	✓	✓	✓	✓
30-Sep-2005	22	✓							
5-Dec-2005				55	✓	✓			
8-Feb-2006				57	✓	✓		✓	✓
27-Mar-2006	25	✓							
19-Apr-2006	26	✓							
31-May-2006	27	✓							
21-Jun-2006				58	✓	✓		✓	✓
14-Sep-2006	28		✓						
19-Sep-2006				60	✓	✓		✓	✓
22-Feb-2007	30	✓							
Total number of polls		18	12		13	15	13	14	13
Total N		21,156	13,692		14,495	19,027	15,065	15,616	14,600

Table 2
Key Questions of Interest and Response Frequencies in All Available Polls

Question	Exact Wording	Values	Percent
<i>A. DSP Polls</i>			
1. Faction Support	Which of the following political groups do you support?	Fatah	29.62
		Hamas	22.12
		PFLP	2.78
		PIJ/Other Islamic	9.44
		Others	7.42
		No one	28.63
2. Support for peace negotiations	Do you support or oppose the continuation of negotiations with the Israelis?	Support	59.55
		Oppose	36.92
		Don' know	3.53
<i>B: JMCC polls</i>			
1. Faction trusted	Which Palestinian political or religious faction do you trust the most?	Fatah	35.14
		Hamas	24.15
		PFLP	3.05
		PIJ/Other Islamic	6.15
		Others	3.86
		No one	27.66
2. Preferred solution to the conflict	Some believe that a two-state formula is the favored solution for the Arab-Israeli conflict, while others believe that historic Palestine cannot be divided and thus the favored solution is a bi-national state on all of Palestine wherein Palestinians and Israelis enjoy equal representation and rights. Which of these solution do you prefer?	Two states	49.07
		Binational state	26.25
		Palestinian/Islamic state	14.38
		Other	0.71
		No solution	6.42
		Don't know	3.17
3. Support for continuation of the Intifada	Do you strongly support, somewhat support, somewhat oppose, or strongly oppose the continuation of the al-Aqsa Intifada in the West Bank and Gaza Strip?	Support	78.27
		Oppose	21.73
4. Resumption of military operations	Do you support the resumption of the military operations against Israeli targets as a suitable response within the current political conditions, or do you reject it and find it harmful to Palestinian national interests?	Suitable response	63.20
		Harmful response	36.80
5. Support of suicide bombings	What is your feeling towards suicide bombing operations against Israeli civilians, do you support them, or oppose them?	Strongly support	36.63
		Somewhat support	27.78
		Somewhat oppose	20.21
		Strongly oppose	15.38

Note: PFLP is the Popular Front for the Liberation of Palestine, PIJ is Palestinian Islamic Jihad.

Table 3
Summary Statistics of Palestinian and Israeli Fatalities

Area	Average Palestinian Fatalities within 90 Days Prior to a Poll by District of Fatality		Average Israeli Fatalities within 90 Days Prior to a Poll, by District and Affiliation of Attacker		
	All	Targeted Killings	All	Fatah	Hamas
Jerusalem	1.28 (1.46)	0.00 (0.00)	2.88 (5.83)	0.92 (1.55)	1.88 (4.65)
<i>West Bank</i>					
Jenin	13.72 (16.56)	0.56 (1.19)	7.80 (12.81)	1.96 (4.64)	1.28 (4.87)
Toubas	1.88 (3.09)	0.56 (1.61)	0.16 (0.62)	0.00 (0.00)	0.04 (0.20)
Tulkarem	7.12 (7.41)	0.40 (0.91)	3.16 (5.01)	0.60 (1.19)	1.40 (3.69)
Nablus	17.92 (20.29)	0.72 (2.01)	6.60 (12.46)	2.68 (5.14)	3.00 (8.72)
Qalqilya	1.96 (2.86)	0.00 (0.00)	1.00 (2.40)	0.08 (0.28)	0.76 (2.40)
Salfeet	1.00 (2.10)	0.08 (0.40)	0.08 (0.40)	0.00 (0.00)	0.08 (0.40)
Jericho	1.00 (1.08)	0.00 (0.00)	0.48 (0.92)	0.16 (0.37)	0.12 (0.60)
Ramallah	6.96 (13.84)	0.20 (0.82)	2.68 (4.60)	1.64 (3.28)	0.76 (3.19)
Bethlehem	3.92 (7.61)	0.48 (1.12)	2.24 (5.17)	1.60 (4.79)	0.48 (2.20)
Hebron	6.64 (8.70)	0.24 (0.52)	5.68 (8.93)	0.64 (1.22)	4.00 (7.51)
Total	62.12 (74.99)	3.24 (4.55)	29.88 (36.85)	9.36 (15.71)	11.92 (17.89)
<i>Gaza Strip</i>					
Gaza North	24.28 (34.39)	1.60 (3.98)	1.00 (1.44)	0.04 (0.20)	0.72 (1.34)
Gaza City	22.84 (21.01)	7.96 (8.59)	1.48 (3.40)	0.76 (2.18)	0.56 (1.61)
Deir El-Balah	10.00 (9.71)	0.04 (0.20)	0.36 (0.81)	0.04 (0.20)	0.00 (0.00)
Khan Younis	13.76 (11.93)	0.88 (1.45)	1.52 (2.65)	0.48 (1.87)	0.44 (1.08)
Rafah	14.56 (15.20)	0.72 (1.57)	0.96 (2.47)	0.04 (0.20)	0.28 (0.89)
Total	85.44 (68.97)	11.20 (9.45)	5.32 (6.63)	1.36 (2.94)	2.00 (2.45)
Total for All Areas	148.84 (116.86)	14.44 (9.19)	38.08 (43.29)	11.64 (17.31)	15.80 (22.46)

Source: Authors calculations using data from B'Tselem, linked to dates of polls from DSP and JMCC.

Table 4
Faction Support by Demographic Characteristics

Demographic Characteristic	Share supporting:				Fatah share out of Fatah/Hamas alone
	Fatah	Hamas	Others	No one	
ALL	29.12	22.64	19.88	28.36	56.26
Area of residence					
Jerusalem	19.87	19.67	20.57	39.89	50.26
West Bank	30.06	21.50	21.28	27.16	58.30
Gaza Strip	29.65	24.86	17.76	27.73	54.40
Type of residence					
Cities	28.10	23.81	18.88	29.21	54.13
Villages	29.57	20.72	21.36	28.35	58.80
Refugee camps	30.40	24.25	18.88	26.47	55.63
Refugee Status					
Non-refugees	28.19	21.98	20.58	29.25	56.18
Refugees	29.94	22.34	19.35	28.37	57.26
Gender					
Males	33.70	18.32	21.96	26.02	64.79
Females	24.67	26.85	17.86	30.62	47.89
Marital Status					
Married	28.39	21.90	19.98	29.73	57.59
Non-married	30.87	22.74	20.63	25.76	56.45
Age					
15-29	29.59	24.69	19.94	25.77	54.52
30-44	31.12	22.78	19.95	26.15	57.73
45-59	26.84	20.42	20.26	32.48	56.80
60+	22.89	17.30	18.49	41.32	56.96
Education					
Illiterate	25.56	19.37	17.57	37.50	56.88
Elementary	30.43	23.51	17.18	28.89	56.42
Middle school	28.13	25.48	19.60	26.79	52.47
Secondary	30.41	23.80	19.84	25.95	56.10
Some college	30.24	19.79	22.77	27.20	60.44
College degree	30.23	16.64	25.99	27.13	64.50
Local Unemployment Rate					
≤ 30%	30.21	23.56	19.23	26.99	56.19
30% - 40%	30.38	21.7	19.85	28.08	58.33
≥ 40%	26.01	22.64	19.88	28.36	53.29
Daily wage (in year 2000 NIS)					
≤ 55 NIS	26.83	21.79	18.47	32.91	55.18
55 NIS - 65 NIS	31.69	24.44	18.13	25.75	56.46
≥ 65 NIS	26.46	20.28	23.66	29.61	56.61

Source: Authors' calculations using poll data from DSP.

Table 5
The Effect of Violence on Support for Fatah

Variable	A. DSP Polls			B. JMCC Polls		
	(1)	(2)	(3)	(4)	(5)	(6)
Palestinian fatalities in 13 weeks prior to poll (100s):						
Overall effect / immediate effect	0.033 [0.034]	-0.193 ** [0.086]	-0.176 ** [0.080]	-0.007 [0.023]	-0.155 * [0.082]	-0.086 [0.085]
Weekly change	-	0.0312 *** [0.010]	0.0293 *** [0.009]	-	0.018 * [0.010]	0.0087 [0.011]
Israeli fatalities in 13 weeks prior to poll, local (100s):						
Overall effect / immediate effect	0.014 [0.075]	0.102 [0.128]	-	0.013 [0.048]	0.041 [0.116]	-
Weekly change		-0.012 [0.015]	-	-	-0.004 [0.016]	-
Israeli fatalities in 13 weeks prior to poll, overall (100s):						
Overall effect / immediate effect	-	-	-0.027 [0.044]	-	-	0.056 [0.096]
Weekly change	-	-	-0.002 [0.006]	-	-	-0.001 [0.011]
Daily wage	0.001 [0.001]	0.001 [0.001]	0.001 [0.001]	0.001 [0.004]	0.001 [0.004]	0.001 [0.003]
Local unemployment rate	-0.186 ** [0.072]	-0.196 *** [0.071]	-0.128 * [0.076]	-0.035 [0.236]	-0.179 [0.248]	-0.376 [0.253]
Closure days out of past 30 days	-0.0064 [0.0047]	-0.0066 [0.0044]	-0.0086 * [0.0048]	-0.0100 [0.0100]	-0.0096 [0.0116]	-0.0096 [0.0088]
<i>N</i>	16,474	16,474	16,474	13,307	13,307	13,307
<i>R</i> ²	0.04	0.04	0.04	0.02	0.02	0.02
Number of clusters	221	221	221	39	39	39

Source: Authors' calculations using fatality data from B'Tselem, poll data from DSP and the Jerusalem Media and Communications Center, labor market data from the Palestinian Labor Force Survey and border closures data from the Palestinian Ministry of Labor.

Note: Estimated via OLS. Dependent variable is an indicator variable for supporting Fatah. All regressions include controls for residence type, gender, age, marital status, refugee status, education dummies, local unemployment rate, the local wage rate, the number of closure days in the 30 days preceding the poll, and two period dummies. Columns 1-3 include 15 district fixed effects. Columns 4-6 include 2 area fixed effects, occupation dummies, and a religion dummy. Robust standard errors in brackets; * indicates statistically significant at 10% level, ** indicates statistically significant at 5% level, *** indicates statistically significant significant at 1% level.

Table 6
The Effect of Violence on Support for Different Groups

Variable	Logit	Multinomial logit (Fatah is base group)				
	Non-Fatah	Hamas	PFLP	PIJ/Islam.	Others	No one
A: DSP Polls						
Palestinian fatalities in 13 weeks prior to poll (100s)						
Immediate effect	0.978 ** [0.429]	0.786 [0.533]	2.596 ** [1.080]	0.226 [1.161]	0.620 [1.347]	1.278 ** [0.606]
Weekly change over time	-0.155 *** [0.050]	-0.146 ** [0.065]	-0.343 ** [0.134]	-0.188 [0.157]	0.028 [0.161]	-0.202 *** [0.072]
Israeli fatalities in 13 weeks prior to poll (100s)						
Immediate effect	0.136 [0.238]	0.180 [0.290]	0.569 [0.529]	-1.719 *** [0.559]	1.835 *** [0.428]	0.133 [0.288]
Weekly change over time	0.010 [0.033]	-0.041 [0.042]	0.020 [0.072]	0.372 *** [0.091]	-0.156 *** [0.060]	-0.009 [0.037]
<i>N</i>	16,474	16,474	16,474	16,474	16,474	16,474
Number of clusters	221	221	221	221	221	221
B: JMCC Polls						
Palestinian fatalities in 13 weeks prior to poll (100s)						
Immediate effect	0.346 [0.397]	0.774 [0.492]	0.518 [0.623]	-0.944 ** [0.437]	0.171 [0.586]	0.215 [0.498]
Weekly change over time	-0.035 [0.050]	-0.089 [0.062]	-0.068 [0.077]	0.121 ** [0.053]	-0.022 [0.071]	-0.012 [0.062]
Israeli fatalities in 13 weeks prior to poll, overall (100s)						
Immediate effect	-0.258 [0.460]	-0.819 [0.652]	-2.593 *** [0.963]	1.295 ** [0.636]	-1.665 [1.082]	0.325 [0.551]
Weekly change over time	0.002 [0.051]	0.087 [0.075]	0.324 *** [0.109]	-0.229 *** [0.068]	0.226 * [0.119]	-0.085 [0.059]
<i>N</i>	13,307	13,307	13,307	13,307	13,307	13,307
Number of clusters	39	39	39	39	39	39

Source: Authors' calculations using fatality data from B'Tselem, poll data from DSP and JMCC, labor market data from the Palestinian Labor Force Survey and border closures data from the Palestinian Ministry of Labor.

Note: Entries in table are coefficients, not marginal effects. All regressions include controls for residence type, gender, age, marital status, refugee status, education dummies, local unemployment rate, the local wage rate, the average number of closure days in the 30 days preceding the poll, and two period dummies. Panel A models include 15 district fixed effects. Panel B models include 2 area dummies, occupation dummies and a religion dummy. Robust standard errors in brackets; * indicates statistically significant at 10% level, ** indicates statistically significant at 5% level; *** indicates statistically significant at 1% level.

Table 7
The Effect of Violence on Other Outcomes

Variable	(1)	(2)	(3)	(4)	(5)
	Supports Peace Negotiations (DSP)	Preferred Solution: NOT Islamic/Pale- stinian state (JMCC)	Opposes Continuation of the Intifada (JMCC)	Opposes Resumption of Military Operations (JMCC)	Opposes Suicide Operations (JMCC)
Palestinian fatalities in 13 weeks prior to poll (100s)					
Immediate effect	-0.213 [0.142]	0.010 [0.036]	-0.033 [0.039]	-0.056 ** [0.025]	-0.066 * [0.037]
Weekly change	0.025 [0.018]	-0.003 [0.005]	0.003 [0.005]	0.009 *** [0.003]	0.009 * [0.005]
Israeli fatalities in 13 weeks prior to poll, overall (100s)					
Immediate effect	-0.208 *** [0.078]	-0.226 *** [0.083]	-0.037 [0.072]	0.061 [0.058]	0.171 *** [0.062]
Weekly change	0.034 *** [0.010]	0.040 ** [0.017]	0.005 [0.009]	-0.013 [0.007]	-0.025 *** [0.009]
<i>N</i>	11,969	17,619	13,988	14,476	13,566
<i>R</i> ²	0.03	0.03	0.07	0.11	0.07
Number of clusters	174	48	39	42	39

Source: Authors' calculations using fatality data from B'Tselem, poll data from DSP and the Jerusalem Media and Communications Center, labor market data from the Palestinian Labor Force Survey and border closures data from the Palestinian Ministry of Labor.

Note: Estimated via OLS. Dependent variables are indicator variables. All regressions include controls for residence type, gender, age, marital status, refugee status, education dummies, local unemployment rate, the local wage rate, and the number of closure days in the 30 days preceding the poll. Column 1 includes 15 district fixed effects. Columns 2-4 include 2 area fixed effects, occupation dummies, and a religion dummy. Robust standard errors in brackets; * indicates statistically significant at 10% level, ** indicates statistically significant at 5% level; *** indicates statistically significant at 1% level.

Table 8
The Effect of Violence on Support for Fatah: West Bank and Gaza

Variable	(1) West Bank and Jerusalem (DSP)	(2) West Bank and Jerusalem (DSP)	(3) Gaza Strip (DSP)	(4) Gaza Strip (DSP)
Palestinian fatalities in 13 weeks prior to poll (100s)				
Immediate effect	-0.303 [0.224]	-0.093 [0.208]	-0.099 [0.068]	-0.098 [0.068]
Palestinian fatalities,	0.045 [0.029]	0.017 [0.029]	0.014 * [0.008]	0.014 * [0.008]
Israeli fatalities in 13 weeks prior to poll, overall (100s)				
Immediate effect	0.005 [0.067]	0.017 [0.066]	-0.042 [0.049]	-0.044 [0.052]
Weekly change	-0.008 [0.010]	-0.014 [0.009]	0.006 [0.006]	0.006 [0.006]
Number of closure days in 30 days prior to poll		-0.0024 *** [0.0008]		-0.0001 [0.0006]
<i>N</i>	10,078	10,078	6,396	6,396
<i>R</i> ²	0.04	0.04	0.05	0.05
Number of clusters	151	151	70	70

Source: Authors' calculations using fatality data from B'Tselem, poll data from DSP and the Jerusalem Media and Communications Center, labor market data from the Palestinian Labor Force Survey and border closures data from the Palestinian Ministry of Labor.

Note: Estimated via OLS. Dependent variable is indicator for supporting Fatah. All regressions include controls for overall number of Israeli fatalities (immediate effect and weekly change), residence type, gender, age, marital status, refugee status, education dummies, local unemployment rate, the local wage rate, period dummies, and district fixed effects. Robust standard errors in brackets; * indicates statistically significant at 10% level, ** indicates statistically significant at 5% level; *** indicates statistically significant

Table 9
The Effect of Violence on Fatah Support: Local and Non-Local Fatalities

Variable	(1)	(2)
Palestinian fatalities in 13 weeks prior to poll (100s), local		
Immediate effect	-0.157 ** [0.074]	-0.150 ** [0.073]
Weekly change	0.023 *** [0.008]	0.022 ** [0.009]
Palestinian fatalities in 13 weeks prior to poll (100s), all other		
Immediate effect	-0.053 ** [0.021]	-
Weekly change	0.009 *** [0.003]	-
Palestinian fatalities in 13 weeks prior to poll (100s), other districts in same region		
Immediate effect	-	-0.070 ** [0.031]
Weekly change	-	0.011 *** [0.004]
Palestinian fatalities in 13 weeks prior to poll (100s), other region		
Immediate effect	-	-0.038 [0.031]
Weekly change	-	0.006 [0.004]
<i>N</i>	16,474	16,474
<i>R</i> ²	0.04	0.04
Number of clusters	221	221

Source: Authors' calculations using fatality data from B'Tselem, poll data from DSP, labor market data from the Palestinian Labor Force Survey and border closures data from the Palestinian Ministry of Labor.

Note: Estimated via OLS. Dependent variable is indicator for supporting Fatah. All regressions include controls for overall number of Israeli fatalities (immediate effect and weekly change), residence type, gender, age, marital status, refugee status, religion, education dummies, local unemployment rate, the local wage rate, the number of closure days in the 30 days preceding the poll, period dummies, and 15 district fixed effects. Robust standard errors in brackets; * indicates statistically significant at 10% level, ** indicates statistically significant at 5% level; *** indicates statistically significant at 1% level.

Table 10
The Effect of Violence on Fatah Support: Targeted Killings and Other Fatalities

Variable	(1)	(2)
Palestinian fatalities not in targeted killings in 13 weeks prior to poll (100s)		
Immediate effect	-0.207 ** [0.086]	
Weekly change	0.032 *** [0.010]	
Palestinian fatalities in targeted killings in 13 weeks prior to poll (100s)		
Immediate effect	-0.035 [0.109]	
Weekly change	0.019 [0.019]	
Palestinian fatalities, not object of targeted killing in 13 weeks prior to poll		
Immediate effect		-0.173 * [0.090]
Weekly change		0.028 ** [0.010]
Palestinian fatalities, object of targeted killing, 13 weeks prior to poll (100s)		
Immediate effect		-0.048 [0.127]
Weekly change		0.029 * [0.016]
<i>N</i>	16,474	16,474
<i>R</i> ²	0.04	0.04
Number of clusters	221	221

Source: Authors' calculations using fatality data from B'Tselem, poll data from DSP, labor market data from the Palestinian Labor Force Survey and border closures data from the Palestinian Ministry of Labor.

Note: Estimated via OLS. Dependent variable is indicator for supporting Fatah. All regressions include controls for overall number of Israeli fatalities (immediate effect and weekly change) residence type, gender, age, marital status, refugee status, education dummies, local unemployment rate, the local wage rate, the number of closure days in the 30 days preceding the poll, period dummies, and 15 district fixed effects. Robust standard errors in brackets; * indicates statistically significant at 10% level, ** indicates statistically significant at 5% level; *** indicates statistically significant significant at 1% level.

Table 11
The Effect of Israeli Fatalities Claimed by Different Factions on Fatah support

Variable	(1)	(2)				
	OLS	Multiple Logit Coefficients (Fatah is base category)				
	Support Fatah vs. All					
	Others	Hamas	PFLP	PIJ/ Islamic	Others	No one
Palestinian fatalities in 13 weeks prior to poll (100s)						
Immediate effect	-0.189 ** [0.086]	1.012 * [0.576]	2.893 ** [1.260]	0.828 [1.613]	1.504 [1.326]	1.222 ** [0.512]
Weekly change	0.031 *** [0.010]	-0.176 *** [0.069]	-0.379 ** [0.153]	-0.219 [0.209]	-0.098 [0.160]	-0.191 *** [0.061]
Israeli fatalities claimed by Fatah in 13 weeks prior to poll, local (100s)						
Immediate effect	-0.309 [0.343]	2.918 [2.678]	9.314 ** [4.655]	2.428 [4.093]	3.838 [4.141]	-2.399 [2.193]
Weekly change	0.033 [0.041]	-0.389 [0.331]	-1.329 ** [0.598]	0.040 [0.498]	-0.379 [0.471]	0.223 [0.239]
Israeli fatalities claimed by Hamas in 13 weeks prior to poll (100s)						
Immediate effect	0.310 [0.234]	-0.195 [1.958]	0.124 [1.996]	-6.227 *** [2.007]	1.427 [2.237]	-2.380 [1.526]
Weekly change	-0.021 [0.029]	0.010 [0.291]	0.185 [0.260]	0.640 ** [0.312]	-0.453 [0.316]	0.224 [0.192]
Israeli fatalities claimed by PIJ in 13 weeks prior to poll (100s)						
Immediate effect	0.025 [0.157]	-3.582 ** [1.518]	-3.678 [5.120]	-9.636 *** [3.436]	0.326 [1.924]	2.706 ** [1.336]
Weekly change	-0.027 [0.024]	0.292 [0.191]	0.782 [0.624]	1.408 *** [0.329]	-0.276 [0.283]	-0.056 [0.199]
Israeli fatalities claimed by others in 13 weeks prior to poll (100s)						
Immediate effect	0.341 [1.744]	-22.999 * [13.223]	-66.003 *** [25.205]	21.756 [24.480]	-1.081 [28.867]	18.013 [11.655]
Weekly change	-0.242 [0.305]	4.992 ** [2.281]	10.132 ** [4.327]	-2.175 [4.227]	2.341 [5.069]	-2.452 [2.029]
<i>N</i>	16,474			16,474		
Number of clusters	221			221		

Source: Authors' calculations using fatality data from B'Tselem, poll data from DSP, labor market data from the Palestinian Labor Force Survey and border closures data from the Palestinian Ministry of Labor.

Note: All regressions include controls for area, residence type, gender, age, marital status, refugee status, religion, education dummies, local unemployment rate, the local wage rate, the average number of closure days in the 30 days preceding the poll, and period controls. Robust standard errors in brackets; * indicates statistically significant at 10% level, ** indicates statistically significant at 5% level; *** indicates statistically significant at 1% level.