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ABSTRACT

Aid and Radicalization: The Case of Hamas in the West Bank and Gaza

In this paper we study how radical political factions secure support. In order to achieve their objective of gaining support, radical political factions can choose from a number of specific strategies. They can provide financial assistance and generate a reciprocal relationship with their beneficiaries (political clientelism). On the other hand, financial assistance from other, non-radical sources, may raise the opportunity cost from militant policies performed by radical factions, making recipients of such financial assistance less likely to support radicals (opportunity cost theory). Smaller payments may induce loyalty, especially if the assistance is part of a "club good" offered by the radical faction, (club good theory). Costly forms of political violence by the radical faction signal resolve and may attract more support, (outbidding theory). We examine all four tactics for the case of Hamas, a radical faction in the Palestinian National Authority. We exploit a unique dataset that includes the sources and extent of assistance received by Palestinian households, data on Israeli and Palestinian fatalities as well as data on the level of support for particular Palestinian factions. We find that residents of districts that receive assistance from religious charities are more likely to support Hamas, even though this support is relatively small in monetary terms. These support patterns are in line with existing theory on armed religious groups as club good providers. By comparison, residents of districts who receive more material aid from Palestinian Authority agencies are more likely to support Fatah, except in the Hamas-controlled Gaza Strip. Finally, aid from international organizations is associated with support for moderate factions and decreased support of radical factions. While it is possible that charities only target districts and households that support them, testing for reverse causality, by regressing charity support on lagged political preferences, yields no such evidence.

JEL Classification: D72, D74, H56

Keywords: Hamas, charities, radicalization, conflict, Palestine, humanitarian aid

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1. Introduction

During the summer of 2000 the leaders of the USA, Israel and the Palestinians met at Camp David for further negotiations on the Middle East peace process. These peace negotiations failed and soon after Palestinians rose up against Israel. This uprising is commonly referred to as the "Second Intifada". The fighting continued until early 2005 and the effects were devastating; more than 4,000 people were killed and average Palestinian incomes fell by 40% (Statistics, 2005). Declining incomes made more Palestinian families reliant on humanitarian aid. In 2004, 29% of Palestinian households reported that they had received humanitarian aid. By 2009 this figure had risen to 59%. Our study focuses on developing an understanding of the importance of material aid in shaping political preferences, and on identifying a plausible mechanism through which this effect is achieved.

The rest of the paper is organized as follows: the next section provides some contextual background on the Israeli-Palestinian conflict, the different political factions and their provision of financial assistance. In Section 3, we discuss various theories of how radical factions widen their political support. These theories include the opportunity cost theory, the "religious club theory", which involves religious groups providing club goods, outbidding and political clientelism. In Section 4, we discuss our data and estimation methods, as well as the threats to identification. Our results are presented in Section 5. We find that aid from charities was associated with an increase in support of Hamas, that aid from the Palestinian National Authorities (PNA) agencies is associated with support for the faction currently in power and that aid from international organizations has a moderating effect on Palestinians' political preferences. We discuss these results in Section 6 and analyze them using our competing theories. The impact of aid very much depends on the source of aid. Financial support from charities is small in absolute terms, but increases support for Hamas, and can best be explained in terms of the religious club theory. The effect of aid from PNA agencies can be attributed to political clientelism, while aid from international organizations fits the opportunity cost theory. In the conclusion we discuss the policy implications of our findings for countries and international institutions that fund humanitarian aid to the Palestinians.

2. Background and Context

The Israeli-Palestinian Conflict has a pervasive impact on the day-to-day existence of both Palestinians and Israelis. To understand the dynamics of the conflict it is important to analyze the political preferences of the population, in particular the support for radical factions.

The Israeli-Palestinian Conflict

The conflict has a long history, but of particular importance to our analysis is the fact that, following the Six Days War in 1967, the West Bank and Gaza Strip came under Israeli control. A Palestinian uprising against Israeli control (the "First Intifada") broke out in December 1987. This uprising led to the signing of the Oslo Accords in 1993. The period of peace following the Oslo Accords came to an end with the "Second Intifada" (2000-2006).

The Second Intifada was characterized by violent clashes between Palestinians and the Israel Defense Forces (IDF). From 2000 to 2006, there were 703 Israeli civilian deaths, 316 Israeli military deaths, and over 4,000 Palestinians were killed (B'Tselem, 2007). Furthermore, this period also saw the establishment of a comprehensive system of mobility restrictions, imposed by the IDF, severely curtailing the freedom of movement of Palestinians throughout the West Bank. This system was enforced through various manned and unmanned physical barriers placed on roads between settlements and at points of entry to villages, towns, and cities.

Political factions in the West Bank and Gaza Strip.

The focus of our investigation is on how parts of the Palestinian population became more radicalized and in this section we provide some brief information on the main political factions.[1] We use the term "faction" instead of "party" to describe Palestinian movements for two reasons. First, existing literature on the political economy of the Israeli Palestinian conflict generally uses the term "faction" (see Jaeger et al, 2012; 2015). Second, we focus less on electoral politics and these organizations in their capacity as parliamentary parties, but more on their capacity as insurgent factions with armed and social wings.

[1] Further information on the main political factions can be found in the works of Jaeger et al. (2012; 2015).

One of the main political factions is Fatah. The movement was founded in 1959 and was led by Yasser Arafat until his death in 2004. Throughout this period Fatah dominated the Palestinian national movement and was the sole representative of the Palestinian population, both in the Gaza Strip and the West Bank, and abroad. Fatah led the Palestinian National Authority (PNA) after its establishment in 1993, following the Oslo Peace Accords. As the majority party in the Palestinian Legislative Council, (PLC), until the end of the Second Intifada in 2005, Fatah was the primary negotiator with the Israeli government. Fatah supports the two-state approach to the Israeli-Palestinian conflict, agreeing in principle to a partition between an Israeli and a Palestinian state (Calì and Miaari, 2017).

The other main political faction is Hamas, founded in 1987, soon after the First Intifada, as an offshoot of the Egyptian Muslim Brotherhood. The key distinction between Fatah and Hamas lies in the parties' attitude towards solutions to the Israeli-Palestinian conflict. In contrast to Fatah, Hamas does not entertain the possibility of a two-state solution. Hamas has called for the destruction of Israel and the establishment of an Islamist state in all of Mandatory Palestine (Mishal and Sela, 2000). Co-founder Sheik Ahmed Yassin declared in 1987 that Hamas was founded to liberate Palestine from Israeli occupation and to establish an Islamic state. As such we classify Hamas as a radical faction. Hamas's military wing has launched attacks against Israeli civilians and soldiers and was responsible for over 40% of Israeli fatalities between 2000 and 2005 (Jaeger et al., 2015) and for over half of Israeli fatalities attributable to suicide bombers during this period. By comparison, Fatah and the Palestinian security forces were responsible for only about 13% of the fatalities caused by suicide bombers and Palestinian Islamist Jihad for about 23%[2].

In 2006 the two political factions faced each other for the first time in the elections for the Palestinian Legislative Council[3], Hamas securing a large victory. Fatah, Israel and the United States all made attempts to constrain the newly formed Hamas government. In March 2007, talks brokered by Saudi Arabia led to the formation of a Hamas-Fatah unity government in an attempt to settle the conflict between the two factions. However, in June 2007 Hamas expelled Fatah forces, loyal to Palestinian

[2] Authors calculations from B'Tselem data.
[3] Officially, Hamas boycotted the previous legislative elections in 1996, but many Islamist candidates affiliated with Hamas ran independently.

President Mahmoud Abbas, from its stronghold in the Gaza strip. As a result of the 2007 violence, the territory controlled by the Palestinian authority is today *de facto* divided into two entities, the Hamas-controlled Gaza Strip and a Fatah-controlled West Bank (Jaeger et al., 2012).

Public opinion polls conducted by the Palestinian Center for Policy and Survey Research (PCPSR), indicate that between 1994 and 2014, 15.9% of the Palestinian population supported Hamas. Fatah received 37.9% support. After Fatah and Hamas, the third largest party was Palestinian Islamist Jihad (PIJ) which received roughly 6.1% of support (including that for independent Islamists). A large proportion of respondents (27.0%) reported not supporting any political party.[4] Figure A1 shows the trends in faction support for these years.[5]

Aid provision

The Second Intifada severely impacted the Palestinian labor market, and employment levels remained low even after the violence subsided (Loewenthal and Miaari, 2020), due to movement restrictions disrupting employment and growth both in the West Bank (Cali and Miaari, 2018) and the Gaza Strip (Etkes and Zimring, 2015). As income from labor stagnated or declined, outside aid became an important source of income for many households. Aid to households in the West Bank and Gaza Strip comes from three[6] main sources: the PNA government, local non-government actors and international organizations. (1) Most of the state aid is provided by the Ministry of Social Assistance (MoSA). Other government institutions also provide aid, for example the Association for the Care of Families of Martyrs and the Wounded as well as the Ministry of Detainee and Ex-Detainee Affairs. These institutions focus on providing aid for the families of Palestinians held in Israeli prisons or of those killed or injured as a result of political violence (Ameta, 2015). (2) Local non-state actors are mainly religious charitable, (also known as "Zakat", after one of the Five Pillars of Islam, the

[4] Reported in the survey as "none of the above" describing respondents that do not support any of the factions specified in the survey, nor other, unspecified, factions..

[5] These support shares vary between the West Bank and Gaza Strip. In the West Bank, 37.5% of the population supported Fatah, 13.9% supported Hamas, 6.1% supported PIJ, 13.5% other factions, and 28.9% did not support any faction. In the Gaza Strip, 38.6% of the population supported Fatah, 19.5% supported Hamas, 6.1% supported PIJ, 12.0% other factions, and 23.8% did not support any faction.

[6] Minor sources include friends and relatives, municipalities, Arab countries, banks and labor unions. However, the share of households receiving aid from each of these sources is minuscule and they are not consistently reported as separate sources in our data. We therefore group all of these sources under the category of "other."

decree of charity), organizations, most of which are associated with Hamas's network of social organizations (Berman and Laitin, 2008; International Crisis Group, 2008; 2010). Other Islamic factions, such as PIJ, have few to no such charities (Berman and Laitin, 2008). (3) The most important international non-state actor is the United Nations, in particular the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), followed by other UN agencies, such as the World Food Program, and the Food and Agriculture Organization. Aid is given in many forms, including food, cash transfers and services. Most government and charity programs are aimed at low-income or marginalized households (Ameta, 2015), while UNRWA aid is aimed at Palestinian refugees[7] (Ameta, 2015; UNRWA, 2019).

Figure 1 illustrates the overall share of households receiving aid and the average value of aid over time. The figure demonstrates that the share of households receiving aid rose after 2004; this trend was matched by an increase in the total value of aid. Given that the Palestinian labor market was negatively affected by the Second Intifada (Miaari, 2020) and that employment levels did not fully recuperate, this increase in households receiving aid is not surprising. Figures 2 and 3 give a breakdown of the sources of aid and show that most of the aid originated from PNA agencies and international organizations.

3. Theory

Several theories illustrate how factions gain political support within a non-democratic regime, (or a weak democracy), characterized by political violence. First, opportunity cost theory implies that higher income can reduce an individual's willingness to back radical or militant factions. Second, apart from affecting opportunity costs, aid can act as a "club good", access to which is dependent on supporting a religious group. Third, the outbidding theory suggests that individuals are more likely to support groups that are able to inflict costs on the opposing side. Finally, the theory of political clientelism suggests that aid given by a government agency can be used as a means to consolidate support for the faction currently in power. In this section, we discuss these rival explanations in detail.

Opportunity cost theory

[7] Defined as individuals who lived in Mandatory Palestine between June 1946 and May 1948 and who lost their homes as a result of the 1948 Israeli-Arab war, and their descendants (Ameta, 2015).

The opportunity cost theory argues that an individual will turn to violence or criminality when their expected utility from these options exceeds the expected utility from legitimate and nonviolent behavior (Becker, 1968; Ehrlich, 1973). In our context, individuals with low personal income or those residing in an area with poor job opportunities, will be more likely to support radical factions. However, we go on to hypothesize that Hamas also acts as a religious club (see discussion below). We therefore distinguish between the effect of opportunity cost on Hamas's support and the effect of the religious club mechanism. *We hypothesize that for the opportunity theory to hold, unemployment and low wages are associated with support for Hamas and PIJ and not associated with Fatah support. Furthermore, we hypothesize that the total value of aid from all sources is associated with support for Fatah and negatively associated with support for Hamas and PIJ.* As we see below, this is contrary to our hypothesis regarding religious groups as providers of club goods.

Religious groups as providers of club goods

We can think of religious groups as the providers of club goods. These are neither private nor public goods, as they are excludable (like private goods) but non-rivalrous (like public goods) until a congestion point is reached. Although religion is ostensibly about the belief in and worship of a superhuman controlling power, the organization of religious groups can be compared to clubs that provide services and material goods to members. Strict rules, prohibitions and sacrifice can be interpreted as efficient means of maintaining group discipline (Iannaccone, 1992). Examples include dietary restrictions, which increase the cost of shop-bought food, increase the amount of time spent on preparing meals and so limit the amount of time that could be spent with non-members. Rules regarding prayer and religious holidays also limit income opportunities and time spent outside the group. Religious dress codes make it easier to enforce transgressions. These religious groups not only provide spiritual guidance but also provide goods and services to the members of their group. Examples include welfare services, schools, hospitals, and mutual insurance (Berman and Laitin, 2008:1951). The club goods theory explains, using social interaction between utility-maximizing agents, the existence and success of sects and cults, including the promotion of extreme forms of prohibition and costly activities. Berman and Laitin (2000) show how costly sacrifices can be used as signals that exclude free riders and allow for an efficient club. Clubs with a higher quality of club goods, such as better welfare or education systems,

will result in costlier sacrifices. Berman and Laitin also demonstrate how a club with higher quality club goods can be better at coordinating insurgency and suicide attacks (2008). Continuing this line, we argue that better club goods will result in stronger political support. This political support can be thought of as either a costly activity (time spent on activism, voting, and in some cases, a social stigma related to supporting a radical faction) or as a coordination problem between many activists and voters. If this argument is correct, we would expect to find that in regions where a religious social club provides high-level goods, its political arm will enjoy more political support.

Formal representation of the theory

A formalized version of the club good model of religious groups is suggested by Iannaccone (1992) and simplified by Berman and Laitin (2008). Agents gain utility from secular market goods G, from time spent in religious activities R, such as prayer and community service, and a non-rivalrous (public or club) good A, which is a positive function of religious activity by all agents (assume no government and no taxation authority). Equation (1) shows the formal utility function:

$$(1)\ U_i = U(G_i, R_i, A_i) \quad i\epsilon 1,2,\cdots,N$$

$$U_1, U_2, U_3 > 0,\ U_{11}, U_{22}, U_{33} < 0$$

$$A = C(R_i, R_{-i}), \frac{dC}{dR_i} > 0$$

All agents allocate a fixed amount of time T between work hours H and religious activity R. Income is earned from hourly wage w and is spent on the secular market goods at price p. Equations (2) and (3) describe temporal and budget constraints:

$$(2)\ T = H_i + R_i$$
$$(3)\ pG_i = wH_i$$

The non-rivalrous good is produced by voluntary donations of time from agents. In a competitive equilibrium, the allocation of R for all agents will be lower than the optimal allocation because its positive externalities are not internalized (Berman and Laitin, 2008). With no authority to levy taxes a religious club community might prohibit the consumption of some secular market goods, thus inducing members to spend more time on religious activity and less time working. The selection of members increases the utility of an agent who joins a club that requires these prohibitions.

To demonstrate how this theory helps to explain the organizational strength of a religious group, consider an economy of agents with unobserved heterogeneity in wages: type 1 has a higher wage than type 2, and therefore dedicates less time to religious activity (a substitution effect). Due to the fact that type 2 agents are likely to contribute more to the production of non-rival club goods, whereas type 1 agents are more likely to be "free riders", the existing members of a club will prefer new members who are type 2 agents. In such a case, costly sacrifices are used as signals that discriminate between the types and allow for an efficient club (Berman, 2000). Religious groups that provide a higher quality of club goods, such as better welfare or education systems, will be better at coordinating insurgency and suicide attacks (Berman and Laitin, 2008).

We extend this theory to the field of political preferences and show how the provision of club goods can result in stronger approval of the religious group. As per the methodological framework of Jaeger et al. (2015), we replace U_i with $U_{j,i}$ which we designate as the utility an individual i gains from political faction or party j. Higher utility from a faction means a greater probability of the individual supporting it. To better define the functional form of $U_{j,i}$ and translate it to an econometric model, we discuss other theories and factors that can explain political preferences. *Based on the religious club good theory, we hypothesize that aid from charities will be positively associated with support for Hamas. The support will be stronger for individuals with indicators representing low labor productivity (low household income, low education, large family).* This is distinguished from the opportunity cost effect, in which the value of aid from all sources is negatively associated with support of Hamas.

Outbidding

The "outbidding hypothesis" was first suggested by Bloom (2004). It argues that Palestinian political factions use their attacks on Israeli targets to gain public support. Jaeger et al. (2015) tested it empirically, providing strong evidence for this hypothesis and promoting it to a theory. They found that in Palestinian districts responsible for a greater number of Israeli fatalities (i.e., the districts from which the attackers responsible for the fatalities originated), the faction responsible was more popular. For example, if the local Hamas branch in Jenin successfully killed more Israelis, Hamas would become more popular in Jenin. The researchers also found that when a secular

faction like Fatah and the Popular and Democratic Fronts for the Liberation of Palestine gained popularity in this way, it only did so at the expense of other secular factions. The same was true for Islamist factions (Hamas and PIJ). Outbidding did not help secular factions to gain popularity at the expense of Islamist factions, and vice versa.

There are two theoretical explanations for this phenomenon. The first explanation is that Palestinians consider the attacks a public good, because of a desire for retaliation against Israel (de Figueiredo and Weingast, 2001). The second explanation is that successful attacks are a signal. A faction able to conduct high-quality attacks signals to Palestinians that it is strong and organized enough to provide them with public goods, such as security and social welfare (Kydd and Walter, 2006; Lapan and Sandler, 1993).

The outbidding hypothesis serves as an alternative to the club theory: Using the previous example due to the success of its attacks on Israelis, the Hamas Branch in Jenin would become popular and prestigious, gaining power and resources. In these conditions, it would also be able to provide more club goods. In such a case, findings will still show a positive correlation between these goods and political support, but with no actual causal relationship. *According to the outbidding theory we hypothesize that Israeli fatalities caused by a faction will be associated with support for this faction. We also predict that the results for the religious club goods hypothesis are robust when controlling for Israeli and Palestinian fatalities.*

Political Clientelism

Clientelism is a phenomenon that characterizes political systems in many non-democratic countries and weak democracies. There is considerable evidence that incumbents have successfully used aid programs, such as conditional cash transfers, to increase their support.[8] A meta-analysis of ten studies of conditional cash transfers from six countries also supports this result (Araújo, 2021).

Based on Lauth (2000), we define clientelism as a protective mutual benefit relationship between a patron, occupying a position of power and clients, who provide political support to the patron in exchange for protection or material support. Lauth

[8] See evidence for Brazil (Zucco, 2013), Colombia (Conover, Zarate, Camacho, and Baez, 2020; Nupia, 2018), Honduras (Galiani, Hajj, McEwan, Ibarraran, and Krishnaswamy, 2019), Mexico (De la O, 2013), the Philippines (Labonne, 2013), and Uruguay (Manacorda, Miguel, and Vigori, 2011).

(2000) distinguishes between four forms of clientelism, based on whether the patron-client relationship is based on a social system or a state system, and on whether this relationship affects the political system directly or indirectly. From these four types, the only two that seem relevant for our case are the state system, direct influence, Type III ("Clientelist Party") and the state system, indirect influence, Type IV ("Patronage").[9] A political system with Type III clientelist parties is characterized by open participation, such as in the form of free elections, and by competing patrons and a patron-client system, usually originating in the political establishment (Lauth, 2000; Gërxhani and Schram, 2009). In a Type IV patronage system, the patron extends political influence from the outside into formal institutions (Miaari, 2020). Our case has elements of Types III and IV, as elections took place in the PNA on several occasions, and as Fatah may have used public sector jobs for its political ends (Miaari, 2020). For our purposes, there is no need to distinguish between these types, only to show that goods from religious clubs influence political preferences in a manner that is different to a situation in which goods are provided by state agencies. In the former case, the way in which political preferences are influenced should be in line with the religious club theory discussed in the previous section. In the latter case, for clientelistic influence, the manner in which political preferences are influenced would be such that the faction in power, (Fatah in the West Bank and pre-2007 Gaza Strip and Hamas in the Gaza Strip from 2007), benefits politically from the aid, while other factions do not. *According to the theory of political clientelism we hypothesize that aid from PNA agencies will be associated with support for the faction currently in power.*

4. Data and Methods

For our analysis, we use three data sources that have not previously been used together. These include data on political preferences and attitudes from the Palestinian Center for Policy and Survey Research (PCPSR) [10] , data on household aid and labor market indicators from the Palestinian Central Bureau of Statistics (PCBS), and data on Israeli and Palestinian fatalities from the website of the Israeli human rights

[9] Type I ("Kinship") refers to clientelistic systems based on ethnic or patrilineal groups, while Type II refers to Mafia-type structures. Neither of these types is relevant in our case.

[10] The PCPSR is an independent, nonprofit, Palestinian institute. Its political preference and attitude surveys are conducted by field workers, who visit households randomly selected from census-based clusters. Non-response for each survey is between 2% and 9%. Information on the surveying methodology and the wording of questions is available in the PCPSR website (http://www.pcpsr.org/).

organization B'Tselem (www.btselem.org). We combine them into a single dataset from which we construct our variables. We first introduce the dependent variable, then the explanatory variables and the control variables. Finally, we elaborate on the identification strategy. Our unit of observation is the individual, and we observe the individual's political preference as expressed in the PCPSR poll. Some of our independent variables are district-level, where a single unit describes one of the 16 districts in the West Bank and Gaza during a specific year.

Dependent Variable

Political preferences

Our dependent variable is the individual's preference for a particular political faction. We construct our dependent variable based on answers to the survey question; "Which of the following political parties do you support?". In addition to factions listed, respondents may choose "other" or "no one".[11] Although the list of factions changes over time, it always includes the two major political factions. Following Jaeger et al. (2015), we divide the various factions into five groups: Fatah, Hamas, PIJ,[12] 'Other' (all other factions) and 'No one.' The groups are shown in Table 1.

Data on support for factions come from 44 polls conducted by the PCPSR between 2004 and 2014. Each poll consists of an average of 1,326 adult participants from all PNA districts. We restrict the sample to individuals 18 or older and exclude individuals with missing data on faction support or demographic control variables. The exclusion restricts the sample to 48,240 observations. Descriptive statistics for faction support are provided in Table 2.

Explanatory Variables

Household aid

Our primary explanatory variable is a vector of annual, district-level indicators for the aid level by each source. The rationale behind using district-level variables is that political preferences and household aid each come from a separate data source, and we cannot observe both for the same household. The district-level variables give us an indication of the magnitude of material aid in the district at specific points in time. Data on material aid come from two types of annual household survey conducted by the

[11] The rate of non-response or missing data for the faction support question is very low. Of the 48,330 observations of respondents with no missing data on other variables, only 90 did not have data on faction support.

[12] All other Islamic factions, other than Hamas, are also put into this category.

PCBS: the Expenditure and Consumption Survey (ECS, available for 2004-07) and the Survey of Socioeconomic Conditions of Palestinian Households (SCPH, available for 2009-14). Both employ the same sampling methods and assess the standard of living of households in the West Bank and Gaza.[13] The sample size ranges from 1,231 households, in the 2007 ECS, to 8,359, in the 2012 SCPH. Both surveys have sections on assistance received by households, with information on whether the household receives assistance, the reported type and value of this assistance, and the reported source,[14] with the structure and wording of these three sections being consistent between the two surveys.[15]

We divide sources of financial assistance into four groups: 1) PNA and PNA agencies, 2) Charity and factions, 3) UNRWA and international institutions 4) Other/Unknown. Table 3 provides the division into categories. We aggregate this data to the year and district levels[16] and construct two sets of variables: the share of households in the districts receiving aid from each of our four sources, and the average real value per household of aid from each source[17] (in NIS, 2010 prices). Our principle explanatory variable is the share of households receiving aid. Rather than using the value of aid as our main explanatory variable, we focus on the share of households receiving aid to overcome the issue of missing data for aid values and potential measurement error in the reported aid value. Table 4 provides descriptive statistics. We use two versions of the household aid indicator – the share of households in the district who reported they had received assistance from source m, and the average real value of support in NIS (2010 prices).[18] These indicators are similar to the indicators used in the literature dealing with the electoral effects of cash transfers. Zucco (2013), for example, used both the share of families covered by the cash transfers program in each municipality, and the total expenditure on these transfers in the municipality. Other

[13] It should be noted that unlike, for example, the PLFS, the incomes and expenditures reported in these surveys are based on self-reporting by surveyed individuals, and not on evaluations made by the surveyor.
[14] The assistance part of the survey starts with a variation of the following: "Have you or your family received any assistance\aid from any party during the last month", with the PSCS surveys asking about the last six months. Respondents answering "yes" are then asked to detail the sources.
[15] It should be noted that other parts are not entirely consistent, including reasons for not receiving assistance, and some categories of assistance that only appear in the SCPH, (both surveys have the category "other"). However, since this study only deals with whether or not assistance was received and the value of this assistance, these inconsistencies are not an issue.
[16] This prevents balance problems from the differences in sample sizes between surveys.
[17] With households who did not get any aid receiving a value of zero.
[18] For the purposes of the support value calculation, households that did not receive support from source m receive a value of 0 NIS.

researchers (Conover, Zarate, Camacho, and Baez, 2020; Manacorda, Miguel, and Vigori, 2011; Nupia, 2018) used only the share of eligible families in a municipality.

District-level economic indicators

We use two annual, district-level, economic indicators to control for the fact that poorer areas are likely to require more aid: the unemployment rate and the average real daily wage. Data on employment and wages come from the Palestinian Labor Force Survey (PLFS), administered each quarter by the PCBS in the West Bank and Gaza Strip. We use annual district-level averages of the daily wage and the unemployment rate of individuals aged 18-64, sampled between quarter one of 2004 and quarter four of 2014. We provide descriptive statistics for these indicators in Table 4.

Israeli and Palestinian fatalities

Another factor which is accounted for in our model is the intensity of political violence. The effect is twofold. First, political violence within districts, as measured by the number of Palestinian fatalities, influences political preferences (Jaeger et al., 2012). Second, as per the outbidding theory, successful suicide bombings on Israeli targets by a specific faction, originating from a particular district, can be the cause of its popularity in that district and signal a capacity to provide goods to constituents (Jaeger et al., 2015). We thus construct the following control variables: (1) a variable to measure conflict intensity as the total number of *all* Palestinians killed, whether by Israelis or Palestinians, in each district during each year; (2) the total number of all Israelis killed by each faction (Fatah,[19] Hamas, PIJ, Other, and No One) in suicide bombing attacks,[20] in each district, (by the attacker's district of origin), during each year.

We use fatality data collected by the Israeli NGO B'Tselem, considered accurate and reliable by Israelis and Palestinians. It contains information on all politically-motivated Palestinian fatalities and all Israeli fatalities due to suicide bombings. For each Palestinian fatality, the dataset indicates the location of the event and a description

[19] Israelis killed by Palestinian security forces are treated as killed by Fatah, because all of these fatalities occurred while these forces were controlled by the Fatah-led PNA.

[20] Hamas and Fatah took shared responsibility for two suicide attacks that took place in Erez industrial zone on January 14, and on April 17, 2004. In both cases we considered the fatalities to have been attributable to Hamas, because Hamas took a leading role in their organization and execution. These two factions also took shared responsibility for an attack in Ashdod, on March 14, 2004, in which ten people were killed. However, in the latter case two bombers were involved, one affiliated with Hamas and one with Fatah. We therefore considered this as an event in which ten people were killed by Hamas and an additional ten were killed by Fatah.

of the circumstances of the event, including whether the perpetrator was a Palestinian, an Israeli civilian, or a member of the Israeli security forces, (such as the IDF or the Israeli Border Police). For each Israeli fatality, this dataset indicates the victim's identity, the location of the event, the district from which the attacker originated, and which faction, (if any), took responsibility. We restrict our dataset to fatalities occurring between January, 2004 and December, 2014. Table 5 provides the numbers of fatalities by year.

Religious devotion

An alternative interpretation of the relationship between material assistance and political preferences is that a third factor affects both: that districts with a larger share of devoted Muslims will tend to support Islamist parties to a greater extent and will have a higher demand for religious charity. We address this problem by including the variable $praying$,[21] which takes on a value of one for individuals who reported that they pray five times a day and zero otherwise. This data is taken from the PCPSR survey (available from 2003 onwards). Descriptive statistics for this variable are provided in Table 2.

Demographic control variables

Finally, we include a vector of other demographic control variables for each observation: gender, age, marital status, education level, refugee status, type of residence (city, village or refugee camp), occupation, and sector. Respondents report all of them in PCPSR surveys. We provide descriptive statistics for this variable in Table 2.

5. Empirical Methods

Identification

The basis for our identification strategy is the individual's utility from each faction. Equation (4) describes the utility function. Let $U_{j,i,d,y}$ be the utility from faction j for individual i living in district d at year t:

$$(4)\ U_{j,i,d,t} = \sum_{m=0}^{3} \alpha_{j,k} S_{d,t}^{m} + \beta_j P_{d,t} + \sum_{k=0}^{4} \gamma_{j,k} I_{d,t}^{k} + \eta_j E_{d,t} + \delta_j X_{i,d,t} + \zeta_j + \mu_{d,j} + \varepsilon_{j,i,d,t}$$

[21] In the equations, the variable praying is included within the individual characteristics vector X

Where $S_{d,t}^{m}$ is the indicator for assistance level by source m in district d in year t; $P_{d,t}$ is the number of Palestinian fatalities that occurred in district d in year y; $I_{d,t}^{k}$ is the number of Israeli fatalities caused by faction k, originating in district d in year y; $X_{i,d,t}$ is a vector of individual characteristics including prayer habits (time devoted to prayer), gender, age, marital status, education level, refugee status, type of residence (city, village or refugee camp), occupation, and sector; $\zeta_{t,j}$ is a faction-specific effect; $\mu_{d,j}$ is a faction-specific district effect; $\varepsilon_{j,i,d,t}$ is the error term. From equation (4), we build a probabilistic multinomial logit choice model, described in equation (5), where the dependent variable is the probability that individual i supports faction j:

(5)

$$P\left(\{S_{d,t}^{m}\}_{m=0}^{M}, P_{d,q}, \{I_{d,y}^{k}\}_{k=0}^{K}, E_{d,t}, X_{i,d,t}\right) = \frac{exp\left(\sum_{m=0}^{3}\alpha_{j,m}S_{d,t}^{m} + \beta_{j}P_{d,t} + \sum_{k=0}^{4}\gamma_{j,k}I_{d,t}^{k} + \eta_{j}E_{d,t} + \delta_{j}X_{i,d,t} + \zeta_{j} + \mu_{d,j}\right)}{1 + \sum_{l\neq j}^{4} exp\left(\sum_{m=0}^{3}\alpha_{l,m}S_{d,t}^{m} + \beta_{l}P_{d,t} + \sum_{k=0}^{4}\gamma_{l,k}I_{d,t}^{k} + \eta_{l}E_{d,t} + \delta_{l}X_{i,d,t} + \zeta_{l} + \mu_{d,l}\right)}$$

Combining all three datasets, (political preferences, household assistance, fatalities), provides 160 year-district clusters.[22] As in Jaeger et al. (2015), the faction-specific coefficients (such as $\alpha_{j,m}$) create a flexible specification that allows for spillover effects. For example, the coefficient $\alpha_{PIJ,charity}$ describes possible spillover effects of charity support on PIJ. To understand the income effect of aid, we also run a reduced specification of the model. We replace the share of households in the district who reported having received assistance from each source with the total share of households receiving aid and the value of support from each source with the total value of support.

Threats to identification

An alternative interpretation of the relationship between material assistance and political preferences is reverse causality: rather than aid enticing support, charitable institutions may simply reward their supporters. The clientelistic approach we described earlier might also work in the opposite direction: state officials might delay government aid to put pressure on regions that resist the faction in power. We test for reverse causality using the same method as Jaeger et al. (2012). We regress the share of households receiving aid from PNA agencies and charities on lagged political

[22] In the regression with average support value, the number of clusters is 155.

preferences,[23] and on all other control variables in our primary model, except for education indicators,[24] all aggregated into district-year clusters, with district-level fixed effects. The regression model is given in equations (6) and (7):

$$S_{d,t}^{PNA\ agencies} = \theta_0 Fatah_{d,t-1} + \theta_1 Hamas_{d,t-1} + \theta_2 PIJ_{d,t-1} + \theta_3 Other_{d,t-1} + \beta P_{d,t} + \sum_{k=0}^{4} \gamma_k I_{d,t}^{k} + \eta E_{d,t} + \delta \bar{X}_{d,t} + \mu_d + \varepsilon_{d,t}$$

$$S_{d,t}^{Charity} = \theta_0 Fatah_{d,t-1} + \theta_1 Hamas_{d,t-1} + \theta_2 PIJ_{d,t-1} + \theta_3 Other_{d,t-1} + \beta P_{d,t} + \sum_{k=0}^{4} \gamma_k I_{d,t}^{k} + \eta E_{d,t} + \delta \bar{X}_{d,t} + \mu_d + \varepsilon_{d,t}$$

$Fatah$, $Hamas$, PIJ, and $Other$ represent the lagged support share of these factions, respectively.[25] $\bar{X}$ represents a vector of district-level averages for all individual-level variables.

A second possible threat to identification is religious devotion. Districts with more devout Muslims have higher levels of support for Islamist factions and more extensive charity infrastructure. Our set of district-level dummy variables accounts for time-invariant differences, (for example, if some districts simply have higher levels of religious devotion than others, but with no variation across time). We test for the effect of time-variant religiosity by including a district-level average of the share of individuals praying five times a day in our reverse causality test. We also control for the trends in this variable over time.

6. Results

For ease of interpretation, we present the marginal effects of each variable instead of the multinomial logit coefficients. The marginal effects format allows us to facilitate comparison across Tables 6, 7, A1 and A2, as in Jaeger et al. (2015). We start

[23] Some criticize the use of lagged values in causality tests (Reed, 2015; Bellemare, 2017). However, the criticism applies only to the use of a lagged explanatory variable in order to receive an unbiased estimator or establish causal relationship with the explained variable. We, on the other hand, use a lagged explained variable in a reverse causality test.

[24] Because we use district-level averages of these controls, (for example, the share of respondents with elementary education, or secondary education), there is a risk of multicollinearity with the average wage variable, which would bias the results.

[25] The excluded category is the support share of "no one".

by reporting the results for the total share of households receiving aid, and the value of aid received, regardless of source, in Table 6. An increase of one percentage point (pp) in the share of households receiving aid is associated with increases of 0.0636 pp in the probability of supporting Hamas (column 2) and 0.0509 pp in the probability of supporting other factions (column 4), respectively. It is also associated with a change of -0.175 pp in the probability of supporting no one (column 5). For comparison, in a meta-analysis of the literature on the electoral effect of cash transfers, the average effect size of being eligible for a cash transfer program was an increase of 12 pp in the support for incumbent parties (Araújo, 2021), which in our study's terms will probably be a 0.12 pp change for a one pp increase in the share of households eligible. This effect size is similar in magnitude to our results.

When we use our alternative measure of aid, namely the average value of the support a household receives, the results are different (see the right half of Table 6). An increase of 100 NIS in the real value of aid, (at 2010 prices), is associated with a change of -0.144 pp in the probability of supporting Hamas (column 7), and an 0.129 pp increase in the likelihood of a household supporting other factions (column 9).

Faction support also seems to be affected by Palestinian fatalities. Support for Fatah increases following Israeli fatalities for which Fatah is responsible and decreases when such fatalities occur as a result of the actions of Hamas and "other factions" (columns 1 and 6). By contrast, support for Hamas is neither associated with Israeli fatalities attributed to Hamas nor Fatah. Support for Hamas is positively associated with fatalities caused by the PIJ and negatively associated with fatalities attributed to "other factions", (columns 2 and 7). Support for the PIJ increases with Israeli fatalities caused by Fatah, PIJ and "others", but is only weakly, negatively associated with fatalities attributed to Hamas, (columns 3 and 8).

While we include a number of control variables, in Table 6 we only report the coefficients for Palestinian fatalities, wages, unemployment and religious behavior, (full results are available upon request). Palestinian fatalities only appear to have an impact on the support for one faction: more fatalities increase support for Hamas. With regard to economic variables, an increase of 1 NIS in daily wage is associated with a 0.172-0.175 pp increase in support for Fatah, (columns 1 and 6), a 0.0616-0.115 pp increase in support for Hamas (columns 2 and 7), and a change of -0.22 – -0.251 pp in

the share of Palestinians that do not support any faction (columns 5 and 10). A 1 pp increase in the unemployment rate is associated with an increase in support of 0.259-0.293 pp for Hamas and 0.205-0.235 pp in support for PIJ (columns 2-3, 6-7), as well as with decreases in support for "no one" (columns 5 and 10) and Fatah, although the latter is significant only in the second variation of the model (column 6). Finally, highly religious individuals, (those who pray five times a day), are more likely to support the religious factions, Hamas and PIJ, and less likely to support secular Fatah and "other factions" (most of which are also secular).

So far we have focused on the effect of aid on the support of factions, but we now take a closer look at the effects of aid by source: PNA agencies, charities and UNRWA and international institutions. We present this analysis in Table 7 and show the effect sizes using margin plots (Figure 4). An increase in the share of households receiving aid from PNA agencies is associated with an increase in support for both Hamas and Fatah (Table 7, columns 1-2). Aid from PNA agencies is also associated with a decrease in support for other factions (columns 3-4) and a decrease in support for "no one" (column 5). Charity Aid is associated with a decrease in Fatah's share of support and an increase in support for all other factions. An increase in the share of households receiving UNRWA aid is associated with an increase in support for Fatah and a decrease in support for "no one". Receiving aid from other sources is associated with an increase in support for Hamas, PIJ, and other factions and a decrease in the probability of supporting "no one" (Figure 4a).

We also investigate the impact of the alternative aid measure, (the average real value of household aid), on the support for the different factions (Table 7, columns 6-10). This yields different results. None of the coefficients for aid from PNA agencies are statistically significant, (Figure 4b), whilst an increase in charity aid is associated with a decrease in the support for Fatah, (Table 7, column 6), and an increase in the support for Hamas and PIJ, (columns 7-8). Aid from UNRWA is associated with an increase in support for Fatah but with a decrease in support for Hamas and PIJ. An increase in aid from other sources is associated with a decrease in support for Hamas, (Figure 4b). The results for our control variables are qualitatively similar when compared to the model shown in Table 6, so in Tables 7, A1 and A2 we will exclude the controls for brevity. (Full results are available upon request).

Mechanisms

We now consider the evidence in the light of the mechanisms discussed in our theory section. We suggest that the main results reported so far are in line with our hypothesis that aid from charities boosts support for Hamas, providing support for the religious club theory. By contrast, aid from PNA agencies boosts support for Fatah, which we interpret as support for the clientelist theory. In order to strengthen our interpretation of the results, we carry out additional tests that allow us to distinguish between theories and to further our understanding of the underlying mechanism shaping political preferences.

Opportunity cost theory mechanism

In terms of political support, we expect that individuals living in worse-off districts will tend to support factions defined by Calì and Miaari (2017) as 'radical,' which, according to our classification, include Hamas, PIJ, and some of the "other factions." We would also expect individuals in better-off districts to support factions defined as 'moderate,' which, in our study, include Fatah and some of the "other factions." As shown in Table 6, the results for unemployment are in line with opportunity cost theory, with the moderate Fatah losing support while the radical Hamas and PIJ gain from rising joblessness. Since the unemployment rate may be our best indicator of economic prospects this result provides some evidence for the opportunity cost theory.

If income from humanitarian aid is a substitute for labor income, we would expect that, when controlling for economic indicators, individuals in districts that receive more aid, regardless of source, will be more likely to support Fatah and less likely to support Hamas and PIJ. As shown in Table 6, when the share of households receiving aid increases, so does the support of Hamas. However, when the total value of aid per household increases, Hamas's support decreases. The result for total aid value supports the existence of the opportunity cost mechanism regarding aid. The results in Table 6 and Table 7, for the shares of households receiving aid, (from a specific source or regardless of source), implies that the act of receiving aid, as well as the source of this aid, affect political preferences in a way that is different from the opportunity cost mechanism.

It is also interesting to note that the value of aid from 'UNRWA and international institutions' displays an opportunity cost theory pattern, because it is associated with

an increase in the share of support enjoyed by Fatah, along with a decrease in that enjoyed by Hamas and PIJ.

Outbidding mechanism

We find evidence for the outbidding mechanism, but not for all factions. According to the results in Table 6, Fatah seems to gain political support as a result of being responsible for Israeli fatalities, but Hamas does not. PIJ gains political support as fatalities caused by most types of faction increase. It is difficult to compare the results on fatalities to the existing evidence in the literature, provided by Jaeger et al. (2015), due to the difference in the time frame, which in their paper is a very short-term effect, measured in weeks.

Religious club theory mechanism

Berman (2000) demonstrates that individuals with low labor market productivity have a stronger incentive to join a religious club because their opportunity cost, (in terms of market income sacrificed), is lower than that of individuals with high productivity. We would expect that sources of aid that take the form of a religious club good will have a stronger effect on the political preferences of low-productivity individuals. Thus, if charity aid is a club good provided by a religious club, we would expect this increase to be bigger for individuals with low productivity. We therefore add an indicator of low productivity to our previous model and interact it with charity aid. We categorize low income as a dummy variable, taking a value of one when reported, monthly, household income is less than 600 NIS, which is the lowest income bracket in the reported income variable we have in our survey data. We report the results for our low household income indicator in Table A1, and plot the margins for the interaction between low income and household aid in Figure 5. There are clear differences between the support for Fatah and Hamas. Low income is associated with an increase of about 2.37% in support for Hamas and the interaction between low income and charity aid is positive and significant (Table A1, column 2). Low income households are not only more likely to support Hamas but providing charity aid to these households further increases this support. On the other hand, support for Fatah is neither associated with low income nor is the interaction effect between low income and charity aid significant (Table A1, column 1). Our alternative aid measure confirms these results, (Table A1, columns 6 and 7). We also investigate different low income cut off

points, (1200 NIS and 1800 NIS), but find no evidence that these households are more likely to support Hamas.

We interpret these results of the impact of income and aid on the support for political factions as further evidence that charity aid takes the form of a religious club good for Hamas. This effect is particularly strong for households at the bottom of the income, (or labor productivity), distribution. We also investigate the interactions of low income with the other sources of aid, and none act in a way that could be accounted for by the religious club theory, thus strengthening our interpretation that charity aid is a religious club good for Hamas.[26]

Clientelist theory mechanism

As discussed in the theory section, aid can reinforce the relationship between patron and client and thus be used to increase the political support for the faction in power. Fatah was in power in both the West Bank and the Gaza Strip but this changed in 2007 when Fatah lost control of the Gaza Strip to Hamas. Adopting an approach similar to that used in the literature on voting and cash transfers (Araújo, 2021), we assume that Palestinians associate the aid from PNA agencies with the faction currently in power,[27] but that this is not the case for aid from charities and other sources. To test our hypothesis, we add a set of interaction terms between the aid variables and an indicator equal to one for observations in the Gaza Strip in 2007 and later, and to zero otherwise. We expect the marginal effect for the PNA agencies aid variables on Fatah support to be positive, but the interaction term on Fatah support to be negative, possibly resulting in a negative net effect.[28] Conversely, we expect the marginal effect of this interaction term on support for Hamas to be positive, as well as resulting in a positive net effect. Furthermore, we expect aid from charities to have different effects.

In Figure 6 we compare the effect of the share of households receiving aid, depending on where and when each faction is in power, for Fatah (Figure 6a) and

[26] We also test for the following alternative indicators of low labor market productivity: (1) A dummy for a large family, (9 or more members), as lower-income parents tend to have more children (De La Croix and Doepke, 2003). (2) A dummy for low level of education, (illiterate or elementary), which indicates a lack of labor market skills. (3) an indicator for higher education, (B.A. and over), which we expect to have the opposite effect. Our results do not vary when testing for these alternative indicators, (results not shown).

[27] Even after the Hamas takeover in the Gaza Strip, at least some of the PNA social budget came from the Fatah-led government budget. As it was allocated to Gazans in a Hamas-ruled area, it is likely that local individuals associated this aid with the Hamas Government.

[28] "Net effect" is the sum of the marginal effect for the aid variable and the interaction term. This is the net marginal effect in the Gaza Strip after the Hamas takeover.

Hamas (Figure 6b). We present the full results for the clientelism test in Table A2. The marginal effects of the aid variables indicate that, for periods when Fatah held power in a particular area, aid from PNA agencies is positively associated only with support for Fatah, (columns 1 and 6). The marginal effects of the interaction terms for the aid from PNA agencies are negative for Fatah and positive for Hamas, (columns 2 and 7), and PIJ, (columns 3 and 8). The net effect is negative for Fatah and positive for Hamas and PIJ, with the Hamas effect size considerably larger compared to that for PIJ. It is important to note that none of the other aid sources present this pattern. We can thus conclude that when PNA agencies are the source of aid this mobilizes political support through the clientelistic mechanism, with a spillover effect to PIJ when Hamas is in power.

Reverse causality test

We report the reverse causality test results in Table A3. This test allows us to reject an alternative interpretation for our results – that charitable institutions might set up in areas where Hamas's political support was already strong, and that the faction in power might delay government aid to put pressure on individuals that resist it. Lagged faction support does not affect PNA agencies' aid, even without accounting for control variables (columns 1-3). The same result is obtained for charity aid when accounting for control variables (column 6). We thus find no evidence for reverse causality.

We can also reject the second alternative interpretation for our results – that both the shares of support enjoyed by religious factions and the level of aid from charities are determined by the share of devout Muslims residing in a district. We see very little variation in praying habits over time at the national level (Figure A2), with larger variations over time within districts (Figure A3). It seems, however, that charity aid is unaffected by religiosity (Table A3, columns 4-6). These results imply that religiosity does not prevent identification.

7. Discussion

Our empirical results indicate that aid can have very different effects on political preferences, depending on the source of aid. Aid from PNA agencies displays patterns consistent with the theory of political clientelism. An increase in the share of households receiving aid from the PNA source is associated with an increase in the share of support of the ruling faction: Fatah before 2007, and later Hamas in the Gaza

Strip and Fatah in the West Bank. This suggests that voters become more loyal to parties that provide them with aid. Aid from charities has effects consistent with the religious club goods theory. In districts where more households receive charitable aid, support for Hamas is considerably greater, with a smaller spillover effect towards PIJ. This suggests that aid functions as a "club good" in these districts. The effect on support for Hamas is somewhat stronger for low-income individuals. Aid from international organizations has effects on political attitudes consistent with the opportunity cost theory. Higher levels of aid from international organizations is associated with support for the moderate Fatah faction and decreased support for radical Hamas and PIJ. Contrary to the opportunity cost theory, an increase in the overall share of households receiving aid does not have a moderating effect. This is because some components of the aid, from PNA agencies and charities, have specific effects that change the overall outcome. The aid category "other" displays no observable pattern, which is due to its eclectic composition (Table 7).

Our evidence for the religious club theory is robust to the inclusion of fatalities, which represent the outbidding theory, and economic indicators, which represent the opportunity cost theory. The marginal effects of our controls for Israeli and Palestinian fatalities appear to have longer-term effects than previously thought. Jaeger et al. (2015) use a short timeframe and only observe the effect of fatalities occurring several weeks before the polls used to indicate political preferences. In our study, we use annual data, observing effects across a longer timeframe. The precise pattern of the effect of fatalities in our study is unclear, and identifying it requires a separate study. The results for one of our economic controls, the unemployment rate, are in line with what we know about the relationship between economic shocks and conflict in the PNA (Calì and Miaari, 2015; Miaari, Zussman and Zussman, 2014). The fact that we found no evidence for reverse causality also strengthens the validity of our results.

8. Conclusion

In this paper, we have studied how humanitarian aid affects political preferences and show that the different sources of aid matter. Humanitarian aid by religious charities functions like a good provided by a religious club, as per Berman and Laitin's theory (2008). An increase in the share of households receiving aid from charities increases the support for Hamas, especially for low-income individuals. Aid from PNA agencies has the same effect as goods provided by a clientelist organization: It

strengthens support for Fatah in regions and times where it is the ruling party, and Hamas where and when it is in power. Aid from international organizations, such as UNRWA has a moderating effect, as per the opportunity cost theory, decreasing support for radical factions like Hamas and PIJ and increasing support for Fatah.

Our study has important policy implications. First, it demonstrates the true extent of the political significance of club goods provided by charities close to Hamas and the importance of the efforts to block them. Second, the results on the political effects of aid by PNA agencies and international organizations serve to inform the policies of the countries currently funding the PNA and UNRWA. We provide conclusive evidence of the importance of this funding in keeping the peace, and in supporting efforts to prevent reliance on funding from Hamas charities and the Hamas government. This is especially true in the period since the Second Intifada, an event from which the Palestinian labor market, especially the private sector (Miaari, 2020), has never fully recovered, leaving a larger share of households reliant on outside aid, (Figure 1). Policies such as the suspension of the payment of tax revenues payable to the PNA by Israel (United Nations Trade and Development Board, 2015; Mosse, 2015) can cripple a vital source of political support for both the Fatah and Hamas regimes. Future decisions on (de)funding aid and state-building efforts in the PNA should consider the costs resulting from radicalization and violent conflict in the absence of adequate financial support for effective and moderate government. The moderating effect of international aid on Palestinian political preferences provides a justification for the continued operation of UNRWA and similar types of international aid. However, merely maintaining historic levels and channels of funding runs the risk of leaving the region stuck in a vicious circle, with the PNA locked into dependence on a flow of funds that allows it to do no more than to keep the *status quo*. A wiser course of action would be to provide funding that is both sufficient and suitably directed at treating a fundamental cause of the problem – an economy with a dysfunctional private sector – and not the symptom.

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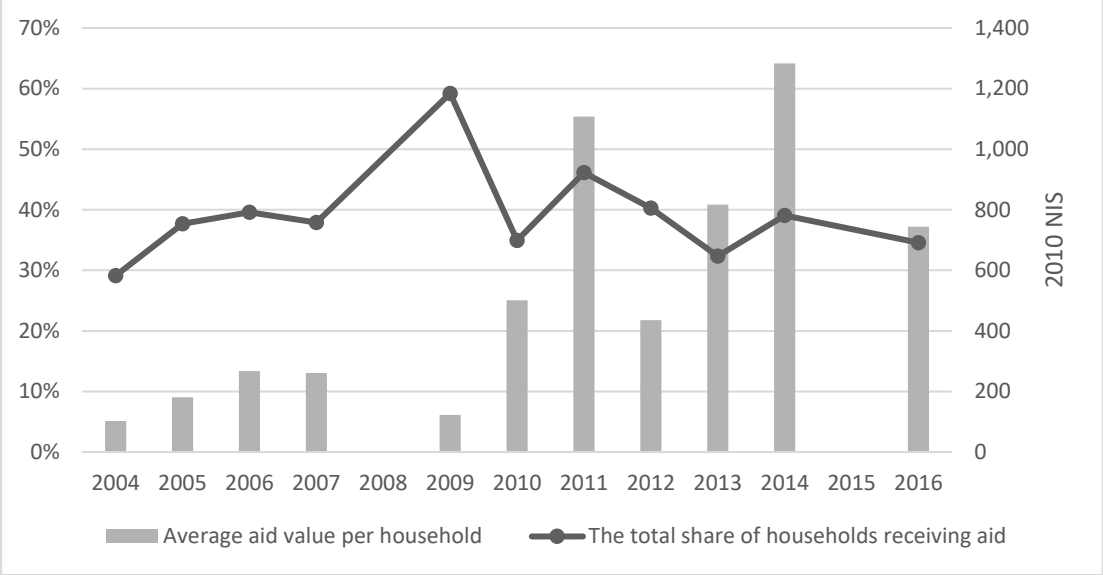
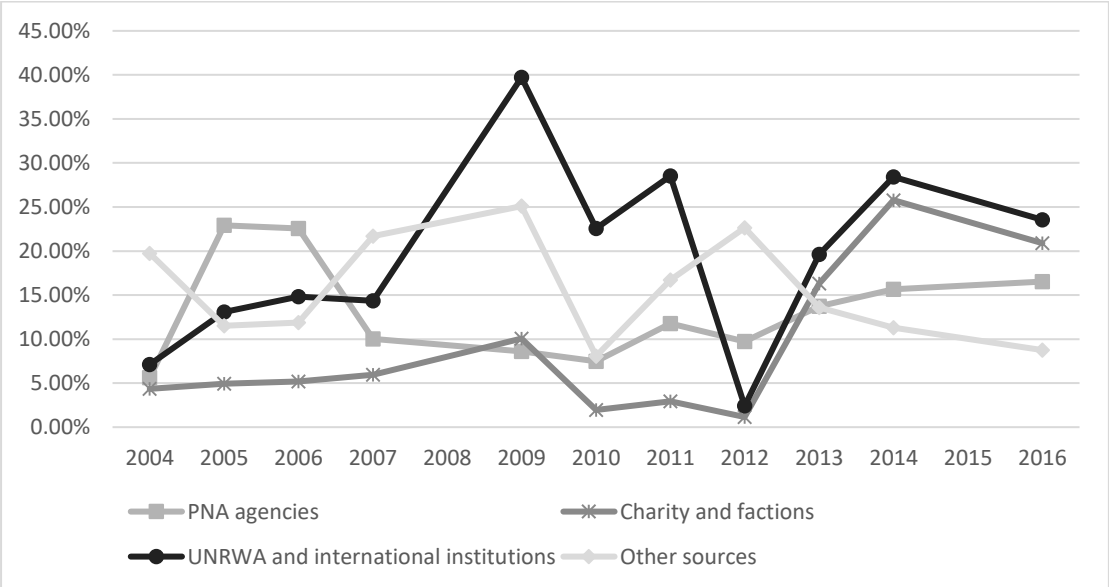
Figures and tables

Figure 1: The total share of households receiving aid, and the average value of aid per household, 2004-2016



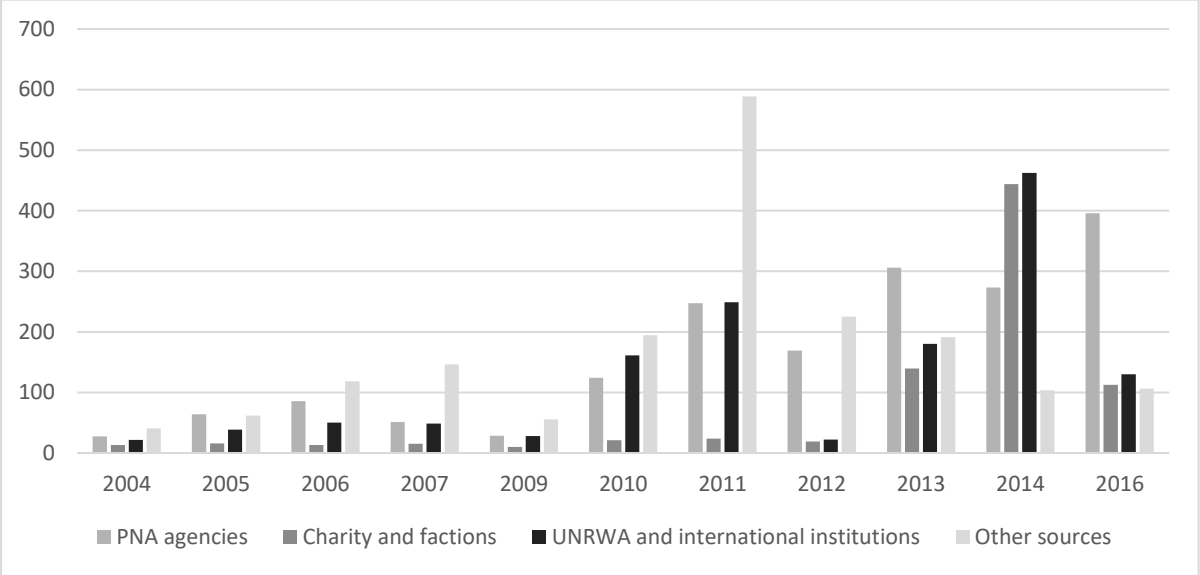
Source: Author's calculation from ECS and SCPH
Notes: No data available for 2008 and 2015. The data on the average value of aid per household in 2009 only covers the West Bank. For the calculation of average value of aid, households that did not report having received aid were given a value of zero.

Figure 2: Share of households receiving aid, by source, 2004-2014



Source: Author's calculation from ECS and SCPH
Notes: No data available for 2008 and 2015. Some households received aid from more than one source, so the values in this figure do not sum up to the values in Figure 1. See the data section and Table 3 for more information on the division to sources.

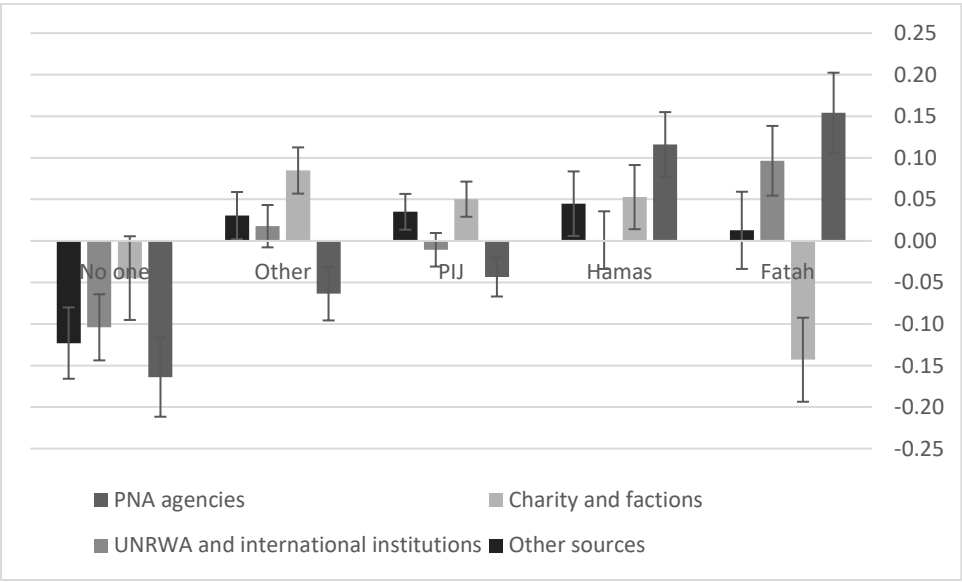
Figure 3: Average value of aid per household by source, 2004-2016



Source: Author's calculation from ECS and SCPH
Notes: No data available for 2008 and 2015. The data on value of aid for 2009 only covers the West Bank. For the calculation of the average value of aid, households that did not receive aid were given a value of zero. See the data section and Table 3 for more information on the division to sources.

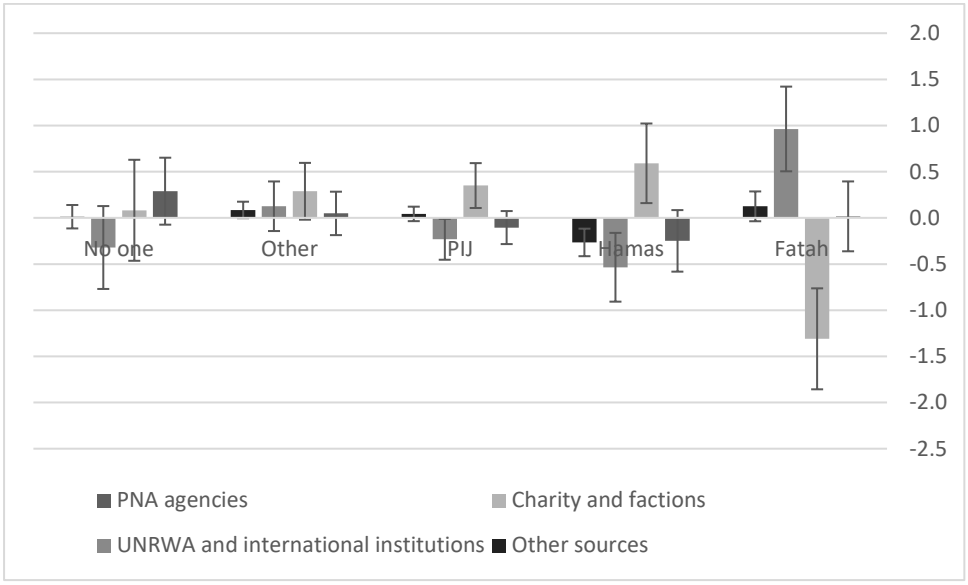
Figure 4: Margin plots for the results of the primary model

4a: Margin plots for the relationship between share of households receiving aid and faction support



Notes: In this figure, we plot the effects of a single percentage point increase in the share of households receiving aid, (separately for each source of aid), on each faction's share of support (in percentage points). Calculations are based on the margins from columns 1-5 of Table 7. Values are plotted with a 95% confidence interval.

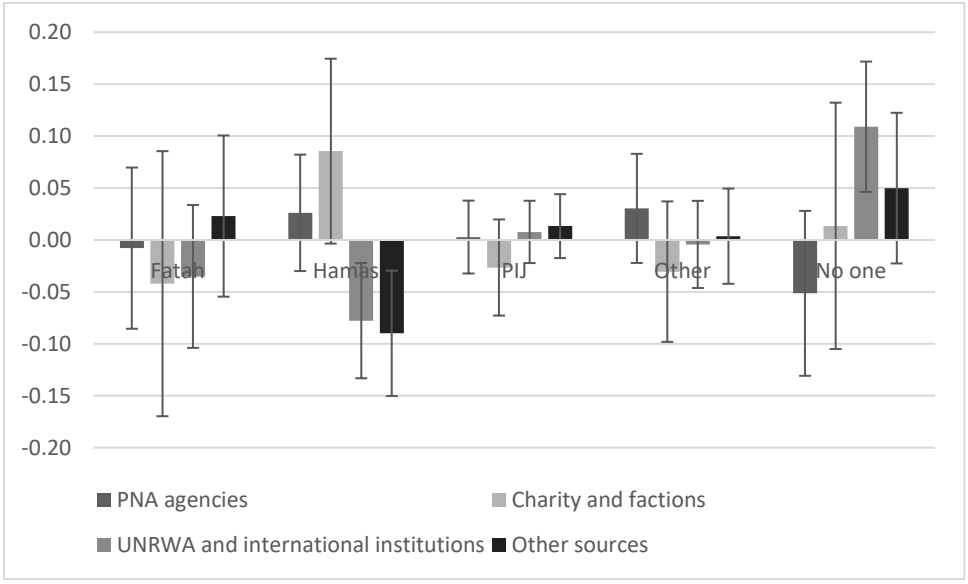
4b: Margin plots for the relationship between real value of aid per household (2010 NIS) and faction support



Notes: In this figure, we plot the effects of a 100 NIS increase in the real value of aid per household (2010 NIS), (separately for each source of aid), on each faction's share of support (in percentage points). Margins are taken from columns 6-10 of Table 7. Values are plotted with a 95% confidence interval.

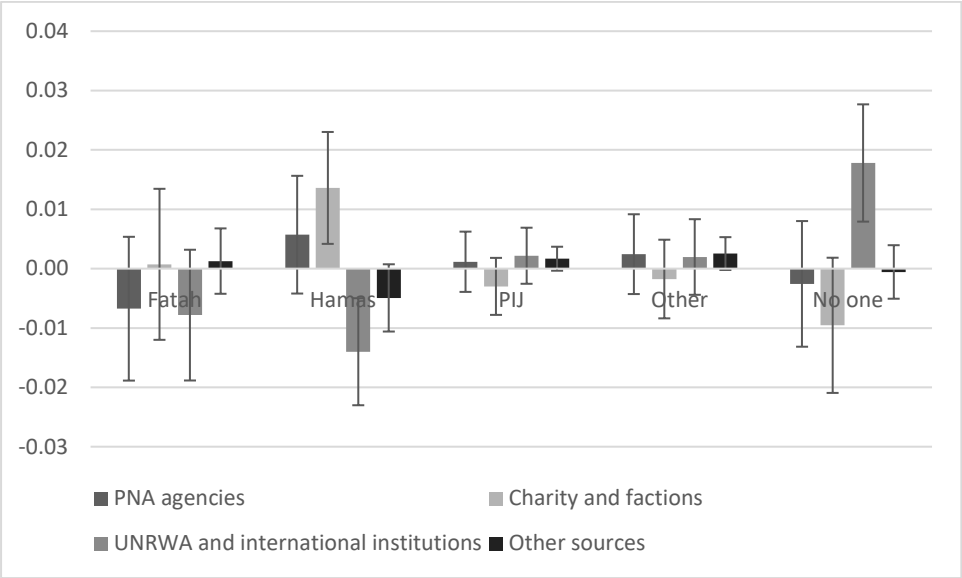
Figure 5: Margin plots for religious club mechanism

5a: Margin Plots for the relationship between the interaction between low family income and the share of households receiving aid and faction support



Notes: In this figure, we plot the effects of a single percentage point increase in the interaction between low family income and share of households receiving aid, (separately for each source of aid), on each faction's share of support (in percentage points). Calculations are based on the margins from columns 1-5 of Table A1. Values are plotted with a 95% confidence interval.

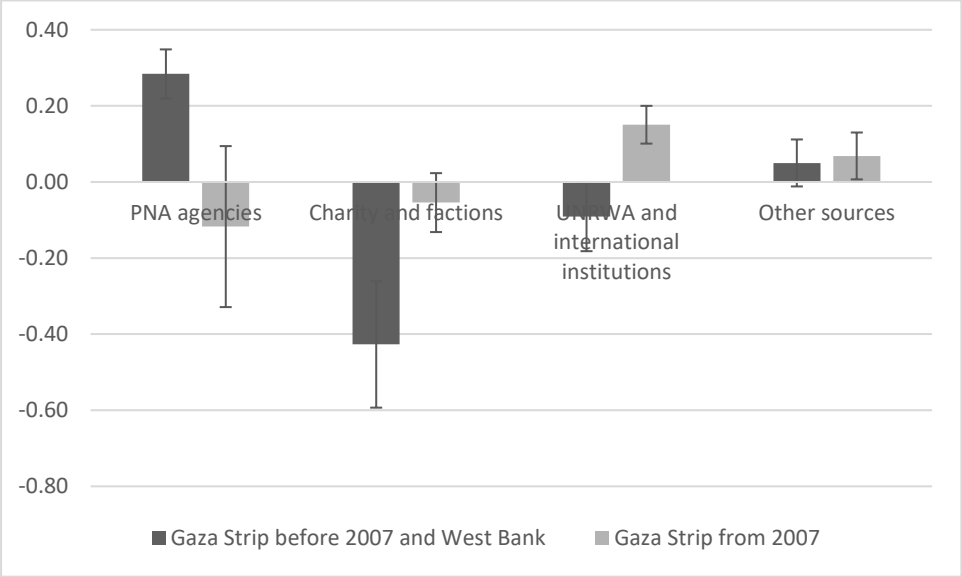
5b: Margin Plots for the relationship between the interaction between low family income and the real value of aid per household (2010 NIS) and faction support



Notes: In this figure, we plot the effects of a single percentage point increase in the interaction between low family income and the real value of aid per household (2010 NIS), separately for each source of aid), on each faction's share of support (in percentage points). Calculations are based on the margins from columns 1-5 of Table A1. Values are plotted with a 95% confidence interval.

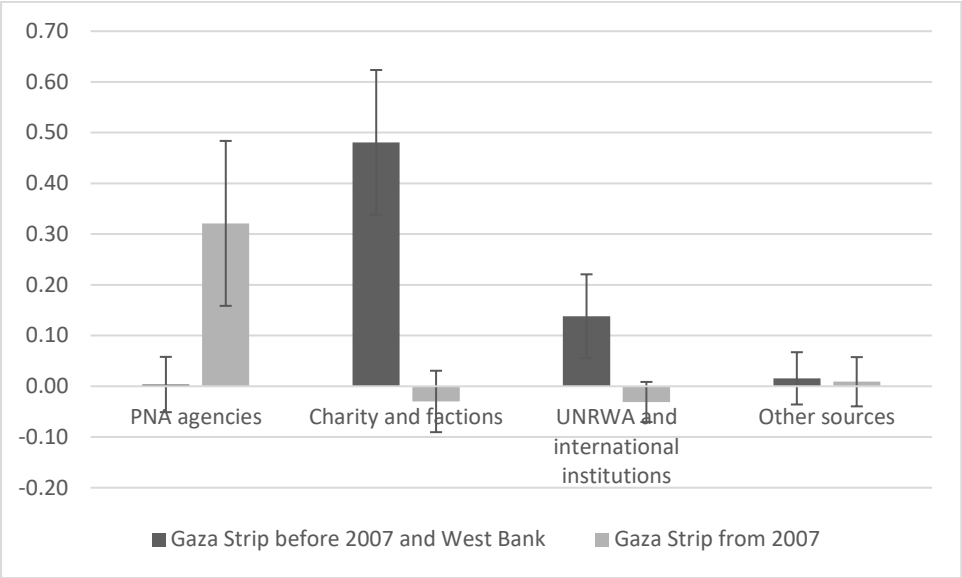
Figure 6: Margin plots for the clientelistic mechanism

6a: Margin plots for the relationship between the share of households receiving aid and Fatah support, by region and time



Notes: In this figure, we plot the effects of a single percentage point increase in the share of households receiving aid, (separately for each source of aid), on Fatah's share of support (in percentage points). The dark columns are the margins for the coefficients of the base variables, representing the effect in the Gaza Strip before 2007 and in the West Bank. The light columns are the sums of margins for the base and interaction variables, representing the effect in the Gaza Strip from 2007. Calculations are based on the margins from column 1 of Table A2. Values are plotted with a 95% confidence interval.

6b: Margin plots for the relationship between the share of households receiving aid and support for Hamas, by region and time



Notes: In this figure, we plot the effects of a single percentage point increase in the share of households receiving aid, (separately for each source of aid), on Hamas's share of support (in percentage points). The dark columns are the margins for the coefficients of the base variables, representing the effect in the Gaza Strip before 2007 and in the West Bank. The light columns are the sums of margins for the base and interaction variables, representing the effect in the Gaza Strip from2007. Calculations are based on the margins from column 2 of Table A2. Values are plotted with a 95% confidence interval.

Table 1: Classification of political factions

Faction	*Classification*
Fatah	Fatah
Hamas	Hamas
Independent Islamists	PIJ
Islamic Jihad	PIJ
Democratic Front for the Liberation of Palestine (DFLP)	Other
Independent	Other
Independent leftist	Other
Independent Nationalists	Other
National Initiative (Almubadara al Wataniyya)	Other
Palestine Democratic Union (Fida)	Other
Palestinian People's Party (PPP)	Other
Palestinian Popular Struggle Front (Nidal)	Other
Popular Front for the Liberation of Palestine (PFLP)	Other
Third Way	Other
Others	Other
No one	No one

Notes: not all factions appear in all surveys**.**

Table 2: Descriptive statistics for the political preferences dataset

Variable	*Mean*	*Std. Dev.*	*Min*	*Max*
Faction:				
Fatah	0.363	0.481	0	1
Hamas	0.203	0.402	0	1
PIJ	0.053	0.224	0	1
Other	0.095	0.293	0	1
No one	0.286	0.452	0	1
Praying five times a day	0.840	0.366	0	1
Female	0.507	0.500	0	1
Married	0.749	0.434	0	1
Refugee	0.451	0.498	0	1
Large family (9 or more members)	0.221	0.415	0	1
Living in the Gaza Strip	0.357	0.479	0	1
Occupation:				
Student	0.094	0.292	0	1
Waged laborers	0.095	0.293	0	1
Housewives	0.385	0.487	0	1
Employee/Low-Professional	0.165	0.372	0	1
Merchants	0.054	0.226	0	1
Farmers	0.016	0.126	0	1
Craftsmen	0.065	0.246	0	1
High Professional	0.002	0.045	0	1
Unemployed	0.106	0.308	0	1
Retired	0.018	0.133	0	1
Sector:				
Public	0.128	0.334	0	1
Private	0.267	0.442	0	1
Other/no work	0.605	0.489	0	1
Locality type:				
City	0.548	0.498	0	1
Village/town	0.307	0.461	0	1
Refugee camp	0.145	0.353	0	1
Age group:				
18-24	0.205	0.404	0	1
25-31	0.204	0.403	0	1
32-38	0.183	0.387	0	1
39-45	0.160	0.367	0	1
46-52	0.107	0.309	0	1
53+	0.140	0.347	0	1
Education level:				
Illiterate	0.052	0.223	0	1
Elementary	0.124	0.330	0	1
Preparatory	0.233	0.423	0	1
Secondary	0.326	0.469	0	1
College	0.095	0.293	0	1
BA	0.157	0.364	0	1

MA & over	0.012	0.109	0	1
Family monthly income (NIS):				
<600	0.151	0.358	0	1
601-1200	0.203	0.402	0	1
1201-1800	0.220	0.414	0	1
1801-2400	0.176	0.381	0	1
2401-3000	0.115	0.319	0	1
3001-3600	0.040	0.196	0	1
3600-4200	0.035	0.185	0	1
4201-4800	0.017	0.129	0	1
>4800	0.043	0.203	0	1

Source: Author's calculation from PCPSR

Notes: Sample size is 48,240 observations. Data on the "large family" variable is missing for some respondents and appears in only 48,155 observations. Some of the 2004 PCPSR observations do not include data on the family monthly income variable, and this appears in only 44,289 observations. The surveyors define "low professionals" as respondents who reported working in occupations included in the "Professionals, Technical, Associate and Clerks" occupation category of the Palestinian Labor Force Survey, and "high professionals as respondents who reported working in occupations included in the "Legislators, Senior Officials and Managers" category (of the PLFS). .

Table 3: Sources of assistance – by category

Survey	**ECS**			**SCPH**					
Year	**2004**	**2005, 2006**	**2007**	**2009 (West Bank)**	**2009 (Gaza Strip)**	**2010**	**2011**	**2012**	**2013, 2014, 2016**
PNA and PNA agencies	1. PNA Institutions	2. Ministry of Social Affairs \ Other Palestinian National Authority Institutions	1. social affairs 2. other Palestinian authority foundations	2. The Palestinian Authority/ministries/agencies	2. Ministry/govt.	1. Government	1. MOSA 2. Other PA agencies	1. Government	1. Ministry of Social Affairs 2. Other PA agencies
Charities and factions	2. political parties 3. charity (ZAKAT) committee\ charity institutions	4. Charity (Zakat) committees	3. political parties 4. zakat 8. charities	6. A Local NGO (Palestinian non-governmental organization) 8. A religious organization	4. NGO 7. Charities/religious org	6. Charities	3. Zakat/other local institutions	6. Charities	3. Political parties 4. Zakat 8. Charity / religious
UNRWA and international institutions	4. International institutions\ UNRWA	1. UNRWA 5. International Institutions	5. international organizations 6. UNRWA	3. UNRWA 4. Other UN organizations 7. An international NGO 9. WFP	3. UNRWA 5. International org	3. UNRWA 4. International organizations 5. Other International NGOS	4. International agencies 5. UNRWA	3. UNRWA 4. International organizations 5. Other International NGOS	5. International agencies 6. UNRWA

Other/ Unknown	5. relatives \ friends\ neighbors 6. Labor unions 7. others: (Arab countries \ local banks \ local committees or boards\ other	3. Relatives 6. Others	7. Arab countries 9. family and relatives 10. friends/neighbor 11. labor unions 12. national banks 13. local committee 14. other/specify	1. The Municipality/village council 5. Chambers of commerce/industry 10. A private source	1. Local authority 6. Private Sector 8. Friends/ relatives 9. Other specify	2. Local Authority 7. Other	6. Relatives/friends/neighbors 7. Other 99. DK	2. Local Authority 7. Other	7. Arab countries 9. Family and Relatives 10. friends/neighbors 11. Labor union 12. National banks 13. local Reform Commission 14. Other/…….

Notes: We provide the original text as-is from the ECS and SCPH data files, including possible spelling or grammar mistakes.

Table 4: Descriptive statistics for district-level variables

Variable	*Clusters*	*Mean*	*Std. Dev.*	*Min*	*Max*
Share of households receiving aid from:					
PNA agencies	160	0.137	0.129	0	0.632
Charity and factions	160	0.076	0.139	0	0.819
UNRWA and international institutions	160	0.178	0.216	0	0.858
Other sources	160	0.155	0.160	0	0.801
The average real value of aid (2010 NIS):					
PNA agencies	155	163.68	171.96	0	1,150.57
Charities and factions	155	75.30	280.16	0	2,862.59
UNRWA and international institutions	155	134.69	300.70	0	2,933.62
Other sources	155	171.62	302.78	0	2,816.97
Israeli fatalities from suicide bombings by:					
Fatah	160	0.22	1.37	0	11
Hamas	160	0.21	1.53	0	16
PIJ	160	0.23	1.32	0	11
Other factions	160	0.04	0.33	0	3
Palestinian fatalities	160	39.98	98.64	0	600
Real daily Wage (2010 NIS)	160	90.95	17.28	66.74	156.27
Unemployment rate	160	23.18%	8.97%	7.91%	49.57%

Source: SEC, SCPH, B'Tselem, PLFS (2004-2007, 2009-2014)

Table 5: Israeli and Palestinian fatalities 2004-2014

Year	*Palestinian fatalities*	*Israeli fatalities from suicide bombings by:*			
		Fatah	*Hamas*	*PIJ*	*Other factions*
2004	861	31	33	0	3
2005	205	0	1	25	0
2006	725	4	0	11	0
2007	737	0	0	0	3
2009	1081	0	0	0	0
2010	82	0	0	0	0
2011	124	0	0	0	0
2012	258	0	0	0	0
2013	39	0	0	0	0
2014	2285	0	0	0	0

Source: B'Tselem (2004-2007, 2009-2014)
Israeli fatalities from other types of attack are not included

Table 6: Result for total assistance from all sources

	Share of households receiving aid					*Real value of aid per household*				
Variables	***Fatah***	***Hamas***	***PIJ***	***Other***	***No one***	***Fatah***	***Hamas***	***PIJ***	***Other***	***No one***
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Share of households receiving aid	0.0413	0.0636***	0.0196	0.0509***	-0.175***					
	(0.0263)	(0.0226)	(0.0129)	(0.0165)	(0.0238)					
Real value of aid per household (2010 NIS)						-2.87e-06	-1.44e-05***	1.63e-06	1.29e-05***	2.65e-06
						(4.09e-06)	(3.23e-06)	(1.63e-06)	(2.20e-06)	(3.74e-06)
Israeli fatalities from suicide bombings by:										
Fatah	0.00385**	-0.00125	0.00498***	0.00664***	-0.0142***	0.00375**	-0.00198	0.00473***	0.00642***	-0.0129***
	(0.00172)	(0.00149)	(0.000605)	(0.000918)	(0.00185)	(0.00171)	(0.00146)	(0.000591)	(0.000910)	(0.00186)
Hamas	-0.00775***	0.000530	-0.000855	-0.00459***	0.0127***	-0.00759***	-0.00144	-0.00105*	-0.00411***	0.0142***
	(0.00172)	(0.00129)	(0.000596)	(0.00100)	(0.00161)	(0.00176)	(0.00131)	(0.000608)	(0.00102)	(0.00165)
PIJ	0.000532	0.0133***	0.00358***	-0.00152	-0.0159***	0.000437	0.0130***	0.00353***	-0.00132	-0.0156***
	(0.00174)	(0.00132)	(0.000732)	(0.00113)	(0.00179)	(0.00175)	(0.00131)	(0.000730)	(0.00113)	(0.00181)
Other factions	-0.0163**	-0.0117**	0.00925***	0.00261	0.0161**	-0.0158**	-0.0190***	0.00833***	0.00351	0.0230***
	(0.00716)	(0.00554)	(0.00276)	(0.00399)	(0.00678)	(0.00722)	(0.00554)	(0.00275)	(0.00403)	(0.00690)
Other major control variables:										
Palestinian fatalities	-4.60e-05	5.59e-05**	1.21e-05	9.90e-06	-3.20e-05	3.92e-06	0.000166***	2.87e-06	-1.45e-05	-0.000158***
	(3.06e-05)	(2.30e-05)	(1.23e-05)	(1.74e-05)	(3.01e-05)	(3.62e-05)	(2.67e-05)	(1.45e-05)	(2.00e-05)	(3.55e-05)
Real daily Wage (2010 NIS)	0.00172***	0.00115***	-0.000145	-0.000207	-0.00251***	0.00175***	0.000616**	-0.000135	-3.12e-05	-0.00220***
	(0.000371)	(0.000302)	(0.000178)	(0.000219)	(0.000309)	(0.000380)	(0.000307)	(0.000179)	(0.000227)	(0.000316)
Unemployment rate	-0.114	0.293***	0.205***	0.0333	-0.418***	-0.236***	0.259***	0.235***	0.0299	-0.288***
	(0.0710)	(0.0575)	(0.0322)	(0.0440)	(0.0671)	(0.0739)	(0.0593)	(0.0341)	(0.0457)	(0.0693)
Praying	-0.120***	0.154***	0.0380***	-0.0697***	-0.00230	-0.119***	0.152***	0.0382***	-0.0696***	-0.000880
	(0.00628)	(0.00695)	(0.00394)	(0.00332)	(0.00606)	(0.00630)	(0.00693)	(0.00395)	(0.00334)	(0.00611)
Observations	48,240	48,240	48,240	48,240	48,240	46,931	46,931	46,931	46,931	46,931

*Notes: The regressions are estimated using a multinomial logit. Coefficients represent the marginal effect of each outcome. Control variables not reported include: Gender, age, marital status, education level, refugee status, type of residence (city, village or refugee camp), occupation, and sector. Standard errors are reported in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels, respectively.*

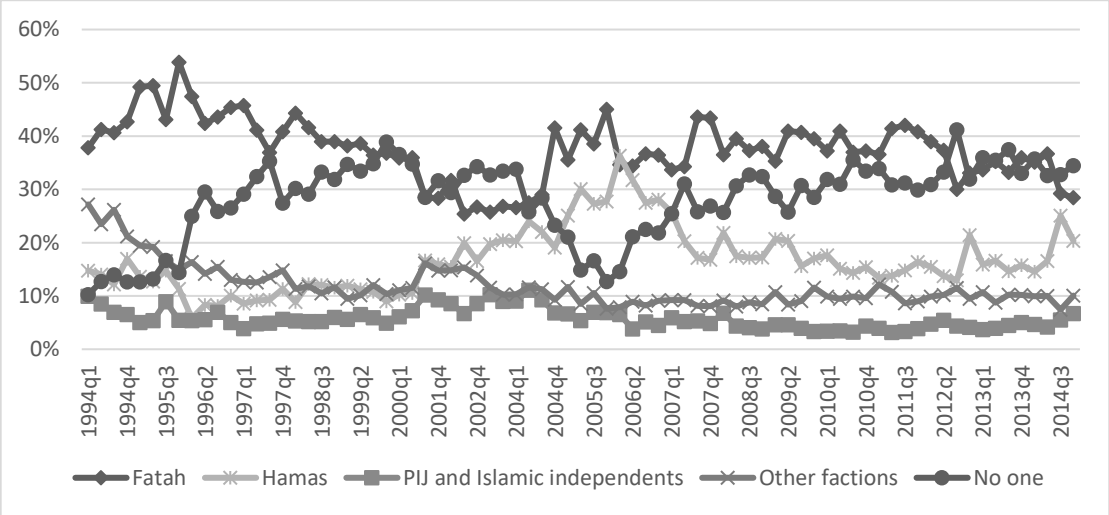
Table 7: Results for assistance by source

	Share of households receiving aid					*Real value of aid per household*				
Variables	***Fatah***	***Hamas***	***PIJ***	***Other***	***No one***	***Fatah***	***Hamas***	***PIJ***	***Other***	***No one***
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Share of households receiving aid from:										
PNA agencies	0.154***	0.116***	-0.0434***	-0.0634***	-0.164***					
	(0.0247)	(0.0199)	(0.0120)	(0.0165)	(0.0243)					
Charities and factions	-0.143***	0.0527***	0.0502***	0.0847***	-0.0448*					
	(0.0258)	(0.0197)	(0.0108)	(0.0142)	(0.0257)					
UNRWA and international institutions	0.0964***	0.000903	-0.0107	0.0177	-0.104***					
	(0.0214)	(0.0177)	(0.0103)	(0.0130)	(0.0203)					
Other sources	0.0127	0.0448**	0.0350***	0.0304**	-0.123***					
	(0.0237)	(0.0198)	(0.0110)	(0.0145)	(0.0219)					
Real value of aid per household (2010 NIS):										
PNA agencies						1.65e-06	-2.49e-05	-1.05e-05	4.84e-06	2.89e-05
						(1.93e-05)	(1.70e-05)	(9.13e-06)	(1.20e-05)	(1.85e-05)
Charities and factions						-0.000131***	5.91e-05***	3.50e-05***	2.88e-05*	8.22e-06
						(2.79e-05)	(2.20e-05)	(1.24e-05)	(1.57e-05)	(2.79e-05)
UNRWA and international institutions						9.63e-05***	-5.35e-05***	-2.32e-05**	1.26e-05	-3.21e-05
						(2.34e-05)	(1.90e-05)	(1.13e-05)	(1.37e-05)	(2.29e-05)
Other sources						1.25e-05	-2.66e-05***	4.30e-06	8.58e-06*	1.25e-06
						(8.24e-06)	(7.61e-06)	(4.00e-06)	(4.56e-06)	(6.47e-06)
Observations	48,240	48,240	48,240	48,240	48,240	46,931	46,931	46,931	46,931	46,931

*Notes: The regressions are estimated using a multinomial logit. Coefficients represent the marginal effect of each outcome. Control variables not reported include: Palestinian fatalities, Israeli fatalities from suicide bombings (by responsible faction), unemployment rate, average daily wage, praying, gender, age, marital status, education level, refugee status, type of residence (city, village or refugee camp), occupation, and sector. Standard errors are reported in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels, respectively.*

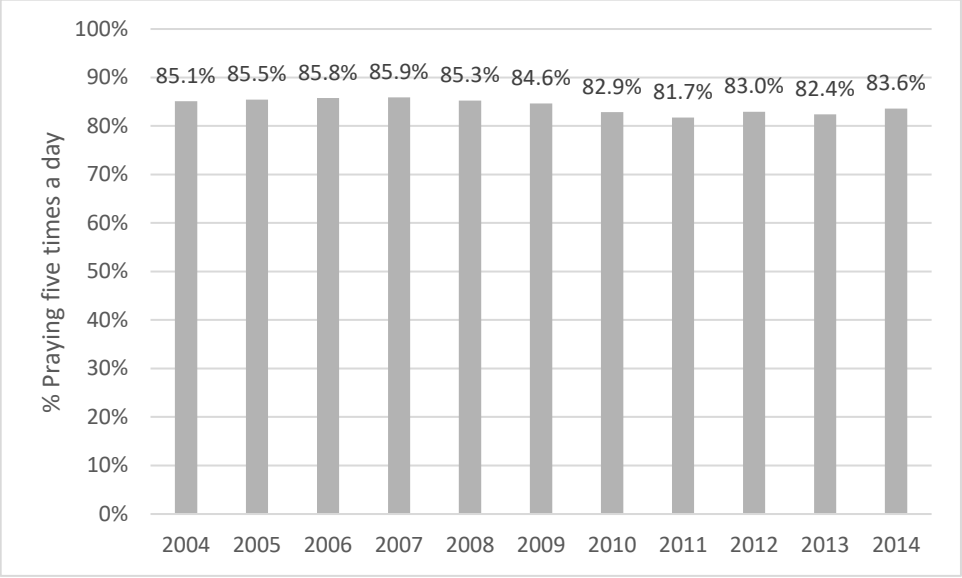
Appendix

Figure A1: Trends in support for different factions, 1994-2014



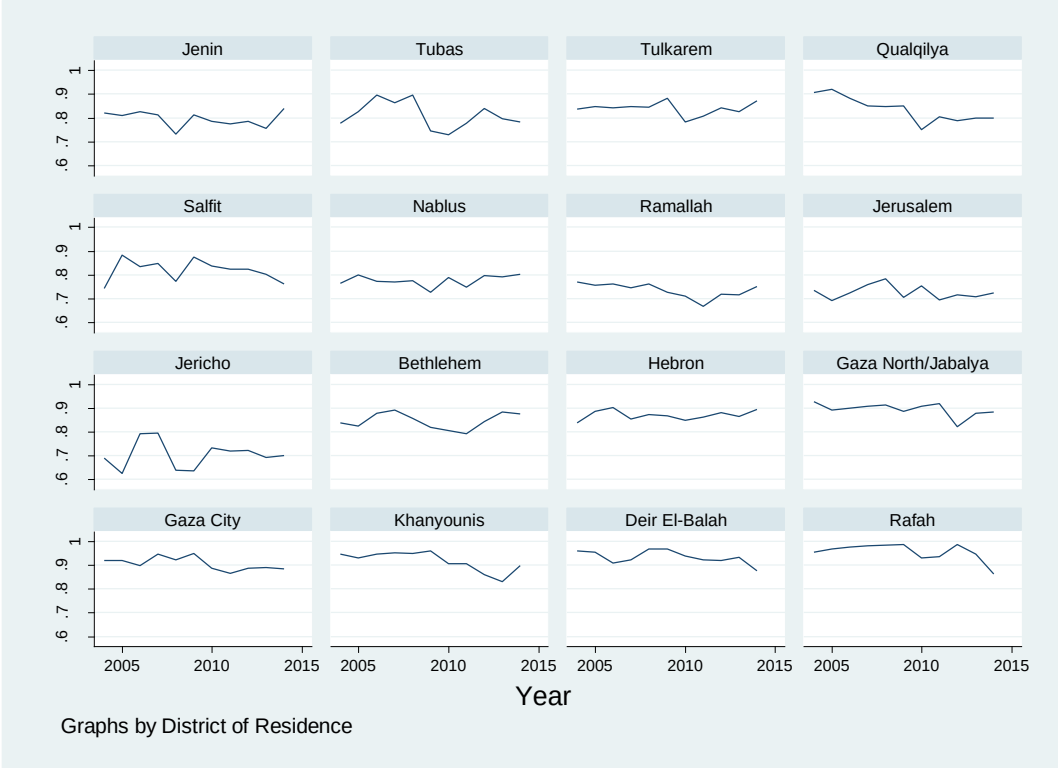
Source: Author's calculation from PCPSR

Figure A2: Trends in Religiosity (Time devoted to praying), 2004-2014



Source: Author's calculation from PCPSR

Figure A3: Trends in praying by district



Source: Author's calculation from PCPSR

Table A1: Results for religious club mechanism

	Share of Households receiving aid					*Real value of aid per household*				
Variables	***Fatah***	***Hamas***	***PIJ***	***Other***	***No one***	***Fatah***	***Hamas***	***PIJ***	***Other***	***No one***
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Monthly family income < 600 NIS	-0.0108	0.0237**	-0.00424	-0.00160	-0.00700	-0.000101	0.00934	-0.00833*	-0.00912	0.00821
	(0.0127)	(0.0107)	(0.00612)	(0.00827)	(0.0114)	(0.0108)	(0.00868)	(0.00485)	(0.00691)	(0.00989)
Interaction between low family income and share of households receiving aid from:										
PNA agencies	-0.00789	0.0261	0.00280	0.0304	-0.0514					
	(0.0396)	(0.0286)	(0.0179)	(0.0268)	(0.0405)					
Charities and factions	-0.0421	0.0855*	-0.0265	-0.0305	0.0136					
	(0.0651)	(0.0454)	(0.0236)	(0.0345)	(0.0605)					
UNRWA and international institutions	-0.0351	-0.0777***	0.00773	-0.00430	0.109***					
	(0.0351)	(0.0283)	(0.0153)	(0.0214)	(0.0320)					
Other sources	0.0230	-0.0899***	0.0133	0.00364	0.0499					
	(0.0396)	(0.0308)	(0.0157)	(0.0234)	(0.0370)					
Share of households receiving aid from:										
PNA agencies	0.128***	0.101***	-0.0405***	-0.0696***	-0.118***					
	(0.0286)	(0.0227)	(0.0131)	(0.0188)	(0.0284)					
Charities and factions	-0.170***	0.0394*	0.0580***	0.0915***	-0.0192					
	(0.0278)	(0.0209)	(0.0109)	(0.0150)	(0.0277)					
UNRWA and international institutions	0.0730***	0.0214	-0.00780	0.0186	-0.105***					
	(0.0230)	(0.0189)	(0.0104)	(0.0136)	(0.0219)					
Other sources	0.00884	0.0644***	0.0341***	0.0344**	-0.142***					
	(0.0254)	(0.0208)	(0.0111)	(0.0152)	(0.0234)					
Interaction between low family income and real value of aid per household (2010 NIS) from:										
PNA agencies						-6.75e-05	5.72e-05	1.16e-05	2.44e-05	-2.57e-05
						(6.18e-05)	(5.06e-05)	(2.59e-05)	(3.43e-05)	(5.40e-05)
Charities and factions						7.28e-06	0.000136***	-2.99e-05	-1.75e-05	-9.55e-05
						(6.49e-05)	(4.81e-05)	(2.45e-05)	(3.38e-05)	(5.81e-05)

UNRWA and international institutions						-7.83e-05	-0.000141***	2.17e-05	1.96e-05	0.000178***
						(5.62e-05)	(4.60e-05)	(2.41e-05)	(3.25e-05)	(5.04e-05)
Other sources						1.27e-05	-4.93e-05*	1.67e-05	2.54e-05*	-5.61e-06
						(2.81e-05)	(2.89e-05)	(1.03e-05)	(1.41e-05)	(2.30e-05)
Real value of aid per household (2010 NIS):										
PNA agencies						-1.77e-05	-2.15e-05	-6.52e-06	-1.73e-06	4.74e-05**
						(2.04e-05)	(1.78e-05)	(9.00e-06)	(1.26e-05)	(1.93e-05)
Charities and factions						-0.000144***	3.19e-05	4.13e-05***	3.93e-05**	3.13e-05
						(3.01e-05)	(2.34e-05)	(1.24e-05)	(1.67e-05)	(3.00e-05)
UNRWA and international institutions						8.82e-05***	-3.07e-05	-2.41e-05**	6.42e-06	-3.99e-05
						(2.56e-05)	(2.05e-05)	(1.14e-05)	(1.47e-05)	(2.52e-05)
Other sources						9.66e-06	-2.16e-05***	2.48e-06	8.16e-06*	1.30e-06
						(8.66e-06)	(7.73e-06)	(3.99e-06)	(4.75e-06)	(6.69e-06)
Observations	44,289	44,289	44,289	44,289	44,289	42,980	42,980	42,980	42,980	42,980

Notes: See Table 7.

Table A2: Results for the clientelistic mechanism

	Share of Households receiving aid					*Real value of aid per household*				
Variables	***Fatah***	***Hamas***	***PIJ***	***Other***	***No one***	***Fatah***	***Hamas***	***PIJ***	***Other***	***No one***
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Interaction between post Hamas Gaza Takeover and share of households receiving aid from:										
PNA agencies	-0.401***	0.318***	0.168***	0.0626	-0.147					
	(0.107)	(0.0827)	(0.0455)	(0.0624)	(0.108)					
Charities and factions	0.372***	-0.511***	-0.140***	0.108*	0.170*					
	(0.0941)	(0.0794)	(0.0471)	(0.0609)	(0.0910)					
UNRWA and international institutions	0.242***	-0.169***	-0.0807***	-0.150***	0.158***					
	(0.0511)	(0.0455)	(0.0266)	(0.0323)	(0.0498)					
Other sources	0.0184	-0.00661	0.0198	0.0349	-0.0666*					
	(0.0370)	(0.0288)	(0.0158)	(0.0221)	(0.0350)					
Share of households receiving aid from:										
PNA agencies	0.284***	0.00346	-0.0764***	-0.112***	-0.0996***					
	(0.0329)	(0.0278)	(0.0165)	(0.0218)	(0.0317)					
Charities and factions	-0.427***	0.481***	0.148***	-0.0176	-0.185**					
	(0.0848)	(0.0727)	(0.0440)	(0.0565)	(0.0817)					
UNRWA and international institutions	-0.0919**	0.138***	0.0501**	0.145***	-0.241***					
	(0.0464)	(0.0422)	(0.0246)	(0.0298)	(0.0448)					
Other sources	0.0500	0.0156	0.00351	-0.00460	-0.0644**					
	(0.0315)	(0.0263)	(0.0150)	(0.0198)	(0.0283)					
Interaction between post Hamas Gaza Takeover and real value of aid per household (2010 NIS) from:										
PNA agencies						-0.000139***	0.000132***	9.97e-05***	0.000110***	-0.000203***
						(4.57e-05)	(3.66e-05)	(2.09e-05)	(2.57e-05)	(4.47e-05)
Charities and factions						0.000547***	-0.000116	-3.52e-05	0.000177**	-0.000573***
						(0.000129)	(0.000111)	(6.60e-05)	(8.97e-05)	(0.000119)
UNRWA and international institutions						-2.61e-05	-0.000113**	1.82e-05	-9.14e-05**	0.000212***

						(5.87e-05)	(5.29e-05)	(3.15e-05)	(3.77e-05)	(5.80e-05)
Other sources						-0.000206***	2.20e-05	6.83e-05***	5.90e-05***	5.62e-05*
						(3.37e-05)	(2.56e-05)	(1.34e-05)	(1.78e-05)	(3.18e-05)
Real value of aid per household (2010 NIS):										
PNA agencies						0.000117***	-7.58e-05***	-8.57e-05***	-5.28e-05***	9.77e-05***
						(2.34e-05)	(2.38e-05)	(1.62e-05)	(1.76e-05)	(2.17e-05)
Charities and factions						-0.000563***	0.000161	3.61e-05	-0.000171**	0.000537***
						(0.000122)	(0.000106)	(6.36e-05)	(8.65e-05)	(0.000112)
UNRWA and international institutions						4.32e-05	3.97e-05	-2.07e-05	0.000101***	-0.000163***
						(5.62e-05)	(5.23e-05)	(3.10e-05)	(3.70e-05)	(5.53e-05)
Other sources						3.64e-05***	-3.60e-05***	-7.23e-06	9.57e-07	5.87e-06
						(9.06e-06)	(8.93e-06)	(5.58e-06)	(5.53e-06)	(7.34e-06)
Observations	48,240	48,240	48,240	48,240	48,240	46,931	46,931	46,931	46,931	46,931

Notes: See Table 7.

Table A3: Reverse causality test results

Share of households receiving aid from:	PNA agencies	PNA agencies	PNA agencies	Charities and factions	Charities and factions	Charities and factions
	(1)	(2)	(3)	(4)	(5)	(6)
Lagged share of support for:						
Fatah	-0.0243	-0.0735	-0.0688	-0.187	-0.201	-0.218
	(0.149)	(0.148)	(0.164)	(0.162)	(0.163)	(0.147)
Hamas	0.121	0.0906	0.152	0.0684	0.0510	0.235
	(0.143)	(0.142)	(0.173)	(0.155)	(0.157)	(0.155)
PIJ	-0.238	-0.337	-0.220	0.111	0.281	0.645
	(0.360)	(0.372)	(0.450)	(0.391)	(0.412)	(0.404)
Other factions	-0.122	-0.189	0.0369	1.374***	1.291***	0.395
	(0.318)	(0.317)	(0.337)	(0.346)	(0.351)	(0.303)
Israeli fatalities from suicide bombings by:						
Fatah		0.00418	-0.00290		-0.00541	-0.00399
		(0.00770)	(0.00746)		(0.00853)	(0.00670)
Hamas		-0.0120*	-0.0197***		-0.00567	0.00273
		(0.00668)	(0.00718)		(0.00739)	(0.00645)
PIJ		0.0116	0.0143*		-0.00978	-0.00214
		(0.00708)	(0.00725)		(0.00784)	(0.00651)
Other factions		-0.0433	-0.0829***		-0.0209	0.00183
		(0.0270)	(0.0271)		(0.0299)	(0.0243)
Other major control variables:						
Palestinian fatalities			5.16e-05			0.000610***
			(0.000131)			(0.000118)
Real daily Wage (2010 NIS)			0.00462***			0.00120
			(0.00151)			(0.00135)
Unemployment rate			0.142			0.486*
			(0.287)			(0.258)
Praying			-0.392			-0.138
			(0.303)			(0.272)
Demographic controls	No	No	Yes	No	No	Yes
Observations	160	160	160	160	160	160
Number of districts	16	16	16	16	16	16
Adjusted R-squared	-0.124	-0.088	0.068	0.058	0.055	0.468

*Notes: The regressions are estimated using a fixed-effects model. Demographic controls include: Gender, age, marital status, refugee status, type of residence (city, village or refugee camp), occupation, and sector. Standard errors are reported in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels, respectively.*