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ABSTRACT

Do Economic Changes Affect the Political Preferences of Arabs in Israel?

We examine the relationship between socio-economic characteristics and voting patterns among Arabs in Israel. We combine panel data on 73 Arab localities with election results and socio-economic indicators for seven election years between 1996 and 2015. Exploiting variation in political preferences and socio-economic status between localities across time, we find that both demographic transition and improvements in standards of living are associated with a decrease in the proportion of Israeli Arabs voting for Jewish-majority parties and a rise in their electoral support for Arab Parties. We also find that the decrease in voter turnout among Arabs following the political effects of the Second Intifada may have been only circumstantial. Our results suggest that Arabs in Israel are becoming more politically independent, as a result of social, political and economic modernization.

JEL Classification: D01

Keywords: Israel, elections, Arabs, political economy

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1. Introduction

Over recent decades, three key socio-economic and political developments have had a profound effect on the Israeli Arab population. The first was a steady increase in human capital and the standard of living (Yashiv & Kasir, 2018). The second was a demographic transition following a steady decline in the fertility rate (Winckler, 2002; Yashiv & Kasir, 2018). The third was an evolution in voting patterns, characterized by a shift away from support for Zionist, or Jewish-majority, parties, either to support for Arab Parties or disengagement from voting[1]. Are these patterns related?

In this paper, we aim to identify the determinants of voter turnout and voters' choice of political parties for the Arab minority in Israel by testing several competing theories of voting: classical economic voting theory (or modernization theory), instrumental voting theory, political exclusion theory, substantive representation theory, and express voting theory. As we discuss each theory and its implications, we review the literature on voter turnout and political party choices for minority groups. Overall, the empirical literature is scant, especially on the Arab minority in Israel, whose experiences are unique for a number of political, economic and institutional reasons.

Our contribution is twofold. First, we use an exploratory approach to formulate hypotheses that test competing theories of voting by relying on their conceptual frameworks but also the empirical literature on voting patterns of various minority groups where sophisticated empirical techniques are used. Second, we use a novel panel data set with election results and socio-economic indicators for 73 Arab localities to employ a fixed effects model and run a number of robustness checks to test how members of the Arab minority respond to changes in the economic and political climate. Our data includes results for seven election years between 1996 and 2015, allowing us to exploit the temporal variation on locality-level variables. We find that the modernization process, in the form of increased household income and a decrease in the dependency ratio, is associated with increased support for Arab parties and decreased support for Jewish-majority parties. We also find that voter turnout is not

[1] We define Jewish parties as those whose voters and representatives in the Knesset are mainly Jewish. These include Zionist parties, who support Zionist ideology, and the idea of Israel as a Jewish state that manifests the Jewish people's right of self-determination, and a few non-Zionist Ultra-Orthodox parties whose number of Arab voters is negligible.

necessarily sensitive to political events, such as the Second Intifada. However, institutional changes such as the formation of the Joint List led to increases in voter turnout as well as to a rise in the proportion of voters that favor Arab parties.

Our work has a number of important policy implications. First, in many Western democracies, minorities have a relatively low voter turnout rate, which undermines democratic and political institutions. While the focus of many debates has been on economic exclusion, our analysis points to political factors taking precedence over socio-economic factors in predicting voter turnout. More importantly, our findings highlight the connection between voter turnout and the range of political parties available for Arab voters to support. Researchers usually study either voter turnout or political party affiliation, yet we believe the two topics are strongly related since low voter turnout might be a symptom of poor representation by available political parties. Thus, institutional factors play an immense role, possibly more than political and economic factors in empowering minority groups to vote because correcting institutional inequities potentially provides minorities with the opportunity to be represented by candidates that prioritize their issues.

While the experience of the Arab minority in Israel is unique, they share similarities with minority groups in other Western contexts. For example, there are common concerns among African Americans and other minority groups in the United States, who believe that their vote does not count or is less influential. This is consistent with Hajnal (2009) who shows that the US institutional setup consistently dilutes Black votes. Other studies show that the electoral college overrepresents the residents of swing states (Duquette et al, 2017), most of which consist of disproportionately more (non-Hispanic) White residents. In view of Lijphart (1994), who shows that majoritarian systems (e.g. US) are less likely to represent minorities than proportional representation systems (e.g. Israel), our work explores the relevance of institutional changes. We conclude that our findings reinforce the importance of amending institutional inequities to empower minorities and increase their voting power.

The rest of the paper is structured as follows. In the next section, we provide an exploratory analytical framework and formulate two to three hypotheses on the determinants of voter turnout and political party choice. In section 3, we provide a short summary of voting patterns of Arabs in Israel. Next, we explain the main data

sources and methodology in section 4. Section 5 presents our results. Section 6 discusses and interprets them in the light of literature and theory. Finally, section 7 concludes.

2. Theoretical framework

In this section, we use an exploratory approach to formulate hypotheses about which factors are most closely associated with changes in voter turnout and other voting patterns for the Palestinian minority in Israel. First, we review the theoretical and empirical literature on voter turnout with a focus on documented trends for minority groups. Then we state three main hypotheses which are tested in the empirical section. Finally, we replicate this process to gain an understanding of which factors attracted minority voters to various political party groups.

2.1. Voter turnout

According to "classic" economic voting theory voters tend to reward incumbents in good economic times but punish them when the economy gets worse (Duch & Stevenson, 2008; Lewis-Beck, 1986; Lewis-Beck & Paldam, 2000; Lewis-Beck & Stegmaier, 2007; 2008). A related theory is the modernization theory, where high-income and well-educated individuals are more likely to vote and engage in politics than those of lower socioeconomic status (Verba, Nie, & Kim, 1987; Verba, Schlozman, & Brady, 1995). In Afriat and Dahan (2010), researchers found that while turnout decreased across Israeli localities from 1996 to 2006, localities that experienced a lower rate of household income growth had a greater drop in turnout. In a separate strand of literature, numerous studies have pointed to political exclusion theory to explain recent voting patterns among the Palestinian citizens of Israel, highlighting the Second Intifada as a major turning point. In one study, researchers conduct face-to-face interviews immediately after the Second Intifada (January-May 2001) and find that, among Arab citizens of Israel, those who identify as "Palestinian" are much more likely to use legal forms of protest and to engage in boycotting the vote for parliamentary/national elections than those who identify as "Israeli" (Lowrance, 2005). Likewise, deteriorating political and economic conditions led Palestinians to question whether Israel was a democracy in which the Palestinian minority could hope to achieve any meaningful representation, and to ask whether Palestinians might do more to

improve their lives by engaging in alternative forms of political pressure, other than voting (Jamal, 2002, Rekhess, 2008, Kook, 2017). Feelings of political exclusion likely intensified during the 2006 and 2009 elections following the Lebanon War of 2006 and the Gaza War of 2008, which likely contributed to further decreases in voter turnout (Rekhess, 2007; Rouhana et al, 2017)[2].

There is also international evidence that increased mistrust generated by violence can lead individuals to abandon the political process (Jones et al, 2017). Using US county-level data, Williams (2017) finds that counties where individuals were exposed to a higher intensity of violence—proxied for by the number of (Black) lynchings per county—also had lower voter turnout rates among Blacks. Thus, given that the improvement in socio-economic indicators of Arab citizens coincided with the Second Intifada—an event that involved an unfortunate cycle of violence between Israel and the Palestinian territories—the question of how voter turnout responded to these trends and events is an empirical question.

Substantive representation theory constitutes an effort to explain both the decline in voter turnout and the rise in the vote for Arab parties (Rosenthal et al, 2018). Using electoral data for the period after the Second Intifada, authors study the degree to which descriptive and substantive representation have an effect on voting patterns. They conclude that the increase in the minimum threshold of votes needed to secure seats in the Knesset, forced Arab parties to unite under the "Joint List" in 2015, after which Arabs increased their turnout (Kook, 2017). The underlying reason for the popularity of the Joint List was its focus on issues that were fundamental to the Arab minority in Israel, rather than the Palestinian-Israeli conflict. Specifically, the Joint List campaigned to bridge social/economic gaps between Arabs and Jews and worked with the government to increase the budget for Arab localities, allowing Arabs to potentially enjoy substantive representation. This theory might also explain why abstention was popular prior to 2015. Not only did Arabs feel socially and politically excluded from Zionist parties but, as many researchers have noted, they also felt that Arab leaders were powerless to enact real change for the Palestinian minority in Israel (Jamal, 2002, Rouhana et al, 2005, Rekhess, 2008).

[2] The fact that Arab towns had fewer bomb shelters and warning sirens during the Lebanon war exacerbated the tensions between the state and its minority further (Rekhess, 2007).

In summary, these theories allow us to formulate the following hypotheses for how a minority group responds to economic, political and institutional changes:

H1a: Increases in educational attainment and living standards lead to higher voter turnout. [modernization theory]

H1b: Major political events, (e.g. the Second Intifada), involving a major clash between the majority and the minority over fundamental issues, have a negative effect on voter turnout [political exclusion theory of voting].

H1c: Increased opportunities for substantive representation (e.g. formation of Joint List) raise the voter turnout rate (substantive representation theory).

2.2. Which parties to vote for?

In this subsection, we will supplement the above-mentioned theories with other major frameworks to generate hypotheses about the determinants of voting for minority (Arab) versus majority (Zionist) parties. Voting for a party type, (Arab party, left-wing Zionist, right-wing Zionist), can be due to instrumental voting, which is typically motivated by benefits stemming from the election's outcome and expected by the voter, who maximizes material welfare (Buchanan & Yoon, 2004). Ethnic minorities in Europe and the United States, especially immigrants, tend to support left-wing parties. (Bergh & Bjørklund, 2011; De la Garza & Cortina, 2007; Teney, Jacobs, Rea, & Delwit, 2010; Marcos-Marne, 2017). There are three main reasons for this. First, there is higher representation of ethnic minorities among the elected officials of left-leaning parties (Teney, Jacobs, Rea, & Delwit, 2010). Second, left-wing parties usually promote policies that encourage government intervention in the economy to close socio-economic gaps, benefiting ethnic minorities who are usually less well-off (Marcos-Marne, 2017). Finally, left-wing parties usually promote policies which are more inclusive towards ethnic minorities, and their rights (Sanders, Heath, Fisher, & Sobolewska, 2014)[3]. In the context of Israel, most right-wing Zionist parties have platforms that include politically charged, nationalist rhetoric and which exclude Palestinian aspirations of statehood (Adnan and Miaari, 2018). Thus, if one assumes

[3] Likewise, papers that investigate the historical consequences of racism and violence find that majority voters are less likely to vote for left-leaning parties if they currently live in areas that had more historical encounters with violence. Acharya et al (2016) finds that contemporary Southern Whites residing in US counties with higher rates of enslaved people in the 1860's are less likely to vote for the Democratic party.

that welfare benefits are more appealing to those of lower socio-economic status, then left-wing (Zionist) parties are less appealing as the socio-economic status of minority groups improve.

Expressive voting is motivated by concerns that are not purely economic or do not stem from the election's outcome (Brennan & Hamlin, 2000; Hamlin & Jennings, 2011; Brennan & Brooks, 2013). One of the main motivations for expressive voting is that of social identification (Hamlin & Jennings, 2011), in contrast to the primary concern of material gain, as is the case with instrumental voting. A good example of social identification associated with high levels of mobilization is municipal elections in Arab localities. In this case, extended family or *hamula* identity (Ben-Bassat & Dahan, 2012) and religious identity (Hillman, Metsuyanim, & Potrafke, 2015) are associated with high turnout[4]. Note that voters who seek substantive representation seek both material gain and social identification, thereby avoiding social, political and economic exclusion. There are other examples of expressive voting in a Western context[5]. If those of lower socio-economic status are more likely to vote based on social identification, then an improvement in socio-economic status is likely to lead to more votes for left-wing Zionist parties; this is in direct contrast to the instrumental voting theory. While both theories may hold weight, ultimately, which theory dominates and how socio-economic status affects the composition of votes for different political parties in Israel are empirical questions.

Finally, as set out previously, the substantive representation theory argues that citizens are more likely to vote when political candidates directly account for their political and economic interests. However, this theory might also explain the recent increase in minority votes for Arab parties. This is especially the case in the context of Arab parties who historically played a minor role in the political process and were prohibited from joining a governing coalition. Thus, it is not surprising that until

[4] While the Jewish majority's voting patterns are beyond the scope of this paper, a short discussion of Jewish politicians employing this principle to boost turnout in the 2015 election can be found in Zucker (2017, pg 109-111).

[5] Another example of expressive voting is shown in Washington (2006), who finds that the introduction of a Black Democrat on a ballot (in various district-level and state-level electoral races) induces a rise in voter turnout of 2-3 percentage points for both Whites and Blacks. The former group increases turnout to oppose the Black candidate, even if affiliated with the same party, while the latter group increases turnout to support the Black candidate.

recently, and especially before the formation of the Joint List, left-wing Zionist parties captured most of the Palestinian vote. If those with higher education (and socio-economic status more generally) are more responsive to substantive representation, then higher socio-economic status should be linked with favoring Arab political parties; this is fully consistent with the instrumental voting theory that states that individuals from lower socio-economic backgrounds are likely to gravitate towards left-wing Zionist parties.

In summary, these theories allow us to generate the following hypotheses on political party choice:

H2a: Lower socioeconomic status is associated with favoring Jewish-majority parties [instrumental voting theory — embedded assumption that welfare benefits are more appealing to those who are less educated and those with lower SES].

H2b: Lower socioeconomic status is associated with favoring Arab parties [assumption—those with lower SES are more likely to engage in expressive voting].

H2c: Higher socioeconomic status is associated with favoring Arab parties [our theory—those with higher SES are more likely to care about substantive representation]

Two things are worth noting. First, as mentioned above, H2a and H2b contemplate opposite outcomes but the empirical question is to identify which of the two dominates. Second, the hypotheses above do not restrict the sample to those who voted. For example, if H1c holds true, one can infer that voters who previously did not turn out, due to the lack of substantive representation, are now voting for Arab political parties. However, if H1b holds, such that the role of the Intifada is considerable, even in the presence of substantive representation, in decreasing turnout, then H2c might only hold conditioned on voting (restricting the sample to those who voted). For the reasons discussed in the next subsection, we do not analyze support for party type conditional on voting, but test our hypothesis on a sample consisting of all eligible voters.

2.3 Combining turnout and party vote frameworks

Studies that aim to study both turnout and the share of votes gained by particular parties, (or political blocks), usually test their hypotheses by adopting an approach based on the following two stages: (1) analyzing the decision of whether or not to vote, based on

the share of voters as a proportion of eligible voters and (2) analyzing the votes obtained by a particular party or block, based on the share of votes obtained as a proportion of the total number of votes cast (see, for example, Ben-Bassat & Dahan, 2018). In contrast to this method, we use a framework where the eligible voter decides whether to abstain from voting, support a Jewish majority party or support an Arab party. We therefore split all eligible voters into three political blocks and use the share of supporters for each block as a dependent variable. This practice allows us to treat abstention from voting as a political stance equivalent to supporting a political block or party. There have been important political movements in Israeli Arab society encouraging voters to boycott general elections, and there have been marked differences between the high proportion of individuals voting in municipal elections and the low proportion voting in general elections (Ben-Bassat & Dahan, 2012). These patterns suggest that not voting is a political stance of a politically engaged public.

3. Voting patterns of Arabs in Israel

In the period immediately after the independence of Israel, Arab turnout in general elections was consistently high, averaging about 80%-90% in elections held in the years 1949-1969 (Israel Democracy Institute, 2009).[6] Over this period, Israeli Arab votes were divided between the Arab satellite parties of Mapai, the ruling party in Israeli politics until 1977, and the Israeli Communist Party, Maki (Kenig, 2004). The formation of these satellite parties by Mapai was part of a patronage system (Brake, 2018) in which localities with a high share of votes for these parties received a better supply of public goods. Maki attracted Arab voters not coopted by Mapai. Along with its later radical left successors, Rakach and Hadash, it remained outside of the Israeli political consensus (Kenig, 2004). The satellite parties faded away in the seventies. The patronage and votes moved to Jewish-majority, especially Zionist Left parties, such as the Israeli Labor Party, the successor of Mapai (Brake, 2018). "Anti-establishment" Arab voters continued voting for Hadash and smaller binational left-wing parties (Kenig, 2004).

A significant change took place in the nineties, during which, for the first time, independent Arab parties, (who were neither communist nor officially binational, like

[6] This turnout rate later decreased to about 70%-80%, but remained very close to the Jewish turnout rate until the 1999 elections.

Hadash), gained representation in the Knesset, the national legislature of Israel. These parties were, like Hadash, also outside of the Israeli political consensus. Officially they represented varying ideologies, such as Socialism (Hadash), Islamism (Ra'am), Centrism[7] (Ta'al), and Arab Nationalism (Balad). In practice, Israeli Jewish politicians and the media treated them as a single block of "Arab Parties." With respect to the stance they took on the most topical issues of the day, such as the peace process and the future of the West Bank and Gaza, they were all considered to be radical left-wing parties. They were not an official part of any ruling coalition but did provide vital support for the Rabin government in votes of confidence and votes to approve state budgets during the years 1992-1995. In return, these parties gained additional financial resources for infrastructure development and Arab municipalities (Kenig, 2004). The formation of these parties was accompanied by many Arab voters leaving the Zionist Left parties. The implementation of direct popular election of the Prime Minister in the 1996 and 1999 elections, which weakened the two major big-tent parties, Labor and Likud, and which benefited smaller sectoral parties, also encouraged the formation and favored the rise of independent Arab parties, at the expense of Zionist Left parties.

From September 2000 to the end of 2004, Israel experienced a violent conflict with its Palestinian neighbors, known as the Second Intifada.[8] While Arab communities in Israel did not participate in this conflict, it provoked a wave of demonstrations and protests during October 2000, which quickly deteriorated into violent clashes with the Israeli police. The October 2000 clashes had a lasting, negative effect on Jewish-Arab relations in Israel (Miaari, Zussman, and Zussman, 2012). There was a dramatic reduction in Arab voter turnout in elections held in the years that followed the events of October 2000 (Figure 1). Turnout did not recover until 2015, when the four main Arab parties came together to form the Joint List. The political appeal of this union is indicated by the sharp decrease in Arab voter turnout and the fall in the share of votes gained by Arab parties in the April 2019 and 2021 elections, when the Joint List split, and by the rise in turnout in September 2019, when the Joint List was reestablished.

[7] It should be noted that Ta'al is a party whose appeal is primarily based on that of its leader rather than an attachment to a specific ideology or institution, and which has never run independently, only in joint lists with other parties. These included Balad (1999), Hadash (2003, April 2019), Ra'am (2006-2013), and the Joint List (2015, September 2019, 2020-2021). The party's characteristics make it difficult to define its ideology.

[8] The First Intifada occurred during the 1980s and its electoral consequences are beyond the scope of this paper.

The vote share of Zionist Left parties continued to fall throughout this period, although the elections of April 2019 and 2021 marked a (temporary) reversal in the steadily declining fortunes and popularity of these parties. Another important feature of the data to note is the difference between the political preferences of Druze voters and the voting patterns of Muslims and Christians. The Druze citizens of Israel have historically been more accepting of the Zionist narrative and political establishment (Nisan, 2010). Therefore, the proportion of Druze voting for Jewish-majority parties, both on the Left and the Right, is far greater than is the case for other Arabs.

4. Data and Methods

We use two data sources in our paper. The first consists of the results of all Israeli general elections, in the period from 1996 to 2021.[9] held for the purposes of electing a new Knesset[10]. These results include the number of eligible voters in each voting precinct, the total numbers of valid and disqualified ballots, and the number of ballots cast for each party or list in each locality. We include localities defined by the Israeli Central Bureau of Statistics (ICBS) as "Arab."[11]

We categorize eligible voters into three political blocks: "Nonvoters," "Arab Parties," and "Jewish-majority Parties." We calculate Nonvoters as the number of eligible voters minus the number of valid ballots. "Arab Parties" are non-Zionist parties that specifically aim to serve Arab voters, and who draw a majority of their electoral support from the Arab population. From 1996 to 2015, they included four major parties, who participated in a number of different electoral alliances: The Socialist Hadash[12], Islamist Ra'am, Nationalist Balad, and Centrist Ta'al. This category also included a number of smaller Arab parties, who received less than 1% of the votes in the general elections studied. The full list of parties in this block is given in Table A2. "Jewish-

[9] We exclude the 2001 special elections because they were only for the office of Prime Minister, not for the Knesset. Moreover, in the 1996 and 1999 elections, which included two ballots, we exclude the ballot for the election of the Prime Minister.
[10] For more information about the Israeli political system, see section 3.4 of Adnan and Miaari (2018).
[11] About 73% of Arabs in Israel live in these localities, whose non-Arab population is negligible in size. 26% live in 6 localities which the ICBS defines as "mixed", and only 1% live in Jewish localities (Yashiv & Kasir, 2018).
[12] Hadash is officially a binational Arab-Jewish party, but with relatively few Jewish voters and MKs (Members of the Knesset)

majority Parties" includes all other parties,[13] and are defined as those drawing the majority of their electoral support from Jewish voters.

The second data source consists of locality-level socio-economic characteristics drawn from ICBS publications.[14] We focus on five variables that consistently appear in all publications: (1) The median age of a locality's residents; (2) The dependency ratio, calculated as the size of the dependent population, (including children and youths of ages 0-19 plus the elderly, aged 65 and above), divided by the size of the working-age population, (aged 20-64); (3) The average household income per capita; (4) The share of subminimum wage earners; the share of employees and independent workers (as a proportion of all employees and independent workers) whose monthly income is under the statutory minimum wage for a full-time worker; (5) The share of individuals, (out of the total population), receiving an income support payment from the National Insurance Institute.[15] We also perform additional regressions in which we include additional indicators that are relevant but were not published consistently, as described in appendix B. We present a correlation matrix for the five main independent variables in Table C1 and an additional correlation matrix for the additional variables mentioned in appendix B on Table C2.

We merge each set of election results with a set of socio-economic indicators from the closest ICBS survey year, as demonstrated in Table A1. The four elections held in 2019-2021 are not included in the data because no appropriate ICBS survey data is available after 2015. We also excluded small localities that were not surveyed separately by the ICBS. The result is a panel of 73 localities over seven time periods from 1996 to 2015. We provide a list of the localities in Table A3, along with a list of excluded and merged localities in the notes accompanying Table A3.

Our main empirical strategy is a fixed-effects regression. In each regression, the dependent variable is the vote share for one of the political blocks in locality i in time

[13] In a previous version of the paper, this category included disqualified ballots (now part of the "Nonvoters" block) and minor Arab parties, but since the share of small parties and disqualified ballots is negligible, this did not significantly change the results.
[14] The ICBS periodically publishes locality level socio-economic characteristics for all localities. Only very small localities, with populations of less than 2000, are excluded.
[15] It should be noted that eligibility requirements for an income (maintenance stipend) support payment changed over time. In a similar manner to the minimum wage variable, we should treat this variable as a proxy for the share of individuals which society thinks of as impoverished or in need.

t. The independent variables are the observed socio-economic characteristics for that locality at that time. Our regression can be written as:

$$Vote\ share_{i,t} = \alpha + \beta X_{i,t} + \gamma_i + \varepsilon_{i,t}$$

where $X_{i,t}$ is a vector of our five observed socio-economic characteristics: median age, dependency ratio, natural logarithm of real average household income per capita, share of subminimum wage earners, and share of individuals receiving income (maintenance) support payments. The term γ_i denotes the locality fixed effect and $\varepsilon_{i,t}$ the independent error. Our model is identified by temporal variation in voting patterns and in economic patterns within a locality over time. To account for the difference(s) between Druze Arabs, on the one hand, and Muslim and Christian Arabs, on the other, we repeat this regression, excluding Druze localities. We also run an Ordinary Least Square regression with indicators for Christian- and Druze-majority localities. Finally, we check the robustness of our main fixed effect model using a first-difference fixed effect regression.

4.1. Threats to the identification strategy

Our main identification assumption is that there are no other omitted time-varying locality level characteristics that are both correlated with economic conditions and that affect the vote share. There are two main reasons why our identification strategy may not hold: reverse causality and omitted variable bias. Reverse causality may stem from political parties rewarding localities that give strong electoral support with benefits that improve the locality's economic condition. Decisions regarding Israeli local government are under the authority of the Interior Minister (Ordinance of Municipalities, 1964). Therefore, if there is reverse causality, we would expect localities with a greater share of votes cast for the Minister's party to be better off economically. In Appendix C3, we provide a test of reverse causality and demonstrate that it is not a concern in our context (see test results on Table C3).

In our context, omitted variable bias can arise from three sources: (i) the nature of social identity in particular localities, (ii) the political representation of Arabs in Jewish-majority Parties, and (iii) the long-term effect of the Second Intifada on Arab voter turnout. Regarding the social identity of localities, one concern is that particular unobserved social identities within a given locality might affect economic conditions

and voting patterns simultaneously. Arab localities are traditionally built around distinct social groups (or "clans") called *hamulas*. Each *hamula* is a group of families who share common ancestry (Rosenfeld, 1974). The strength of the *hamula* as an identity group varies across localities and affects voting behavior, at least at the level of municipal elections (Ben-Bassat & Dahan, 2012). Because there is no evidence to indicate that the relative power of *hamulas* changes across the studied period,[16] we assume that this variable is time-invariant and accounted for by the locality fixed effect[17].

Regarding the political representation of Arabs in Jewish-majority parties, one concern is that minority representation in party lists is known to affect political preferences (Teney, Jacobs, Rea, & Delwit, 2010). We construct a representation index for the inclusion of Arab candidates in the top levels of the Jewish-majority party lists. The index represents the share of Arab candidates included in the top 10 (or 20) individuals in the Jewish-majority party list and can be calculated as follows:

$$Representation_t = \frac{\sum_{p\in\{Jewish-majority\}}^{P} Arabs\ 1-10_{p,t} + \sum_{q}^{2} Arabs\ 11-20_{p,t}}{10 \cdot P + 10 \cdot 2}$$

$Arabs\ 1-10_{p,t}$ is the number of Arab candidates in the top ten places of the party list of Jewish-majority party p at time t. $Arabs\ 11-20_{p,t}$ is the number of Arabs amongst those ranked 11-20th in a party list, and we only consider the latter in the case of the two largest parties in a particular election.[18,19] We use the candidate lists

[16] Compare, for example, Al-Haj (1989) with Herzog and Yahia-Younis (2007), and Ben-Bassat and Dahan (2012). All studies describe hamulas gaining prominence following the 1948 War, but no changes in political power since at least the Nineties.

[17] Our variation of the basic model, with a variable for higher education takes care of the possible effects of hamulas over time, as we would expect these to be less influential politically in "modernized" localities where a larger share of the population is educated. Our locality-level fixed effects also prevent the confounding effect that could lead to aggregation bias or ecological fallacy.

[18] For example, in $Representation_{1996}$, we only consider Arab representation, amongst those ranked 11th-20th in a party list, in the case of the Israeli Labor Party (who received 34 seats) and Likud (who received 32 seats).

[19] During the period we cover, the average party size in the Knesset was about ten seats (Authors' calculations based on Israel's central elections commission data), but the average size of the two largest parties was about 23-24 (Kenig and Totenauer, 2017). For average-sized parties, we assume that voters considered representation in the top 10 places of the party list as effective, because only these candidates would have a reasonable chance of becoming members of the Knesset. We also assume that the voters expect the two largest parties to receive at least 20 seats and therefore will also consider representation in positions 11 to 20 of the party list as effective for these parties. At least until the 2006 elections, it was clear, before voting took place, which two of the major parties would gain the largest share of votes. Nevertheless, making the assumption that the two parties who gained the largest vote share were also those that most voters regarded as likely to achieve this outcome in advance of an election, may lead to

published by Israel's central elections committee. We present the number of Arab candidates in each party for each election in Table A5. Figure 2 gives the trend in representation for the studied period. While representation remained significantly lower than the share of Arabs as a proportion of eligible voters (which is about 20%), it is still time-variant. Therefore, we also include it into our basic model:

$$Vote\ share_{i,t} = \alpha + \beta X_{i,t} + \rho Representation_t + \gamma_i + \varepsilon_{i,t}$$

Finally, to account for other political factors that might be correlated with economic factors and affect vote share, we include time indicators that coincide with turbulent political periods. Two dummy variables are added for this purpose. The first is the variable $Intifada$ which is equal to zero for elections held before October 2000 (the 1996 and 1999 elections) and to one otherwise:

$$Vote\ share_{i,t} = \alpha + \beta X_{i,t} + \rho Representation_t + \lambda Intifada_t + \gamma_i + \varepsilon_{i,t}$$

The second variable is $Clashes$, an indicator that receives the value of one for localities in which civilians clashed with police forces during the October 2000 disturbances [20], and zero otherwise. Because $Clashes$ is time-invariant, we run the variation which includes $Clashes$ and an interaction term between $Intifada$ and $Clashes$ as an OLS regression (as well as indicators for religion):

$$Vote\ share_{i,t} = \alpha + \beta X_{i,t} + \rho Representation_t + \lambda Intifada_t + \mu Clashes_i + \eta Intifada_t \cdot Clashes_i + \theta Druze_i + \kappa Christian_i + \varepsilon_{i,t}$$

5. Results

Descriptive statistics are shown in Table 1. In addition to descriptive statistics, we present, in Figure D, a dot matrix of the localities by household income per capita and by share of support for each political block, with dots weighted by population size, but with no other controls taken into account.[21] The relationship between nonvoting and income is slightly U-shaped, (Figure D1), while the relationship between nonvoting and support for Arab parties appears to be monotonically decreasing (Figure D2). The

bias in our index. To account for this possibility, we also constructed this index with $Arabs\ 11-20_{p,t}$ considered for the three largest parties, but this did not produce a significant change (in the index).

[20] We use the same localities as Miaari, Zussman and Zussman (2012).

[21] we average all variables across elections and survey years.

relationship exhibited between nonvoting and support for Jewish-majority parties is slightly hump-shaped (Figure D3).

The results for the baseline regression are presented in Table 2. The results show that there is a negative relationship between income and voting for Jewish majority parties, but no statistically significant effect on the percentage who voted for Arab political parties. These results are significantly altered by the inclusion of the representation index, which has a substantial impact on voter turnout and support for Arab parties. Specifically, an increase of one standard deviation in this index is associated with a decrease of 1.44 percentage points (pp) in the share of Nonvoters and a 1.23 pp increase in the share who voted for Arab parties. The inclusion of the representation index resulted in a statistically significant impact of income on the share voting for Arab political parties. This is due to the fact that during periods when Arab localities experienced a rise in income, there was also less Arab representation in Jewish-majority party lists, which led to less support for Arab parties. Thus, the zero correlation between income and Arab vote share in Arab localities found in the second column is spurious and can be attributed to the omission of the representation index. Meanwhile, an increase in income continued to have a negative effect on the share of Arabs voting for Jewish-majority parties.

The baseline results also show that localities with higher shares of older voters, low wage earners and welfare recipients are more likely to have low voter turnout, and are less likely to vote for either Arab or Jewish-majority parties; this is consistent with theories that explain how low voter turnout is affected by groups who are economically excluded. Note that, unlike the case of the income parameter, the parameters of these variables are not affected by the inclusion of the representation index. Likewise, those localities with a high dependency ratio are less (more) likely to vote for Arab (Jewish-majority) parties, which is consistent with a model where a minority group depends on the majority group for public goods provision.[22] As shown by the adjusted R^2 statistic, our model explains much of the variation in the share of nonvoters and in the vote share of Jewish-majority parties, but little of the variation in the vote share of Arab Parties.

[22] Another possible explanation is the negative correlation between dependency ratio and household income.

These results are not completely robust for the first-difference fixed-effects regression (see columns 1-6 of Table C4 for details). However, the positive and negative effect of income on Arab and Jewish-majority parties, respectively, remains statistically and economically significant (columns 5 and 6). Moreover, as argued in the theoretical and empirical literature, income is negatively associated with the extent of nonvoting.

In Table 3, we include an indicator for post-Intifada elections in the main regression. Accounting for post-Intifada elections significantly increases the explanatory power of our model, especially for Nonvoters. It also renders the coefficients for median age and income maintenance recipients statistically insignificant for all political blocks. The coefficient for the Intifada indicator suggests that there was a difference in the pattern of voting before and after this tumultuous period. In particular, the coefficient for the Intifada indicator is 18.5 pp when the dependent variable is the share of nonvoters (column 1). This suggests that there is a significant increase in the proportion of nonvoters after the Intifada period. Additionally, the coefficients of economic and demographic explanatory variables for nonvoters become statistically insignificant. Columns (2) and (3) show that the post-Intifada period is associated with a significant decrease in the share of the vote going to Arab and Jewish-majority parties. Another change in this specification is that the representation index becomes positively associated with the vote share of Arab parties. This model is more robust to the first differencing method (Table C4, columns 7-9), with the differences being those regarding the dependency ratio and the effect of subminimum wage earners (column 8). Replacing the fixed effects and post-Intifada trend variable with a dummy variable for localities that experienced clashes with the police in October 2000, we see that these localities have a higher share of voters supporting Arab parties and lower shares of nonvoters and voters supporting Jewish-majority parties (Table C6, columns 4-6). When we use the trend variable along with the clashes and interaction variables, we find that, following the Intifada, the share of nonvoters increased by 20.3 pp (column 7), and the shares of votes cast for Arab and Jewish majority parties decreased (columns 8-9). There was no statistically significant difference in the post-Intifada trend between localities that experienced clashes and localities that did not. However, when we run a first difference fixed effects model on these localities separately, we find a difference in the post-Intifada trend (Table C7): In

all localities there was an increase in nonvoting, but while in localities with no clashes this was at the expense of support for both Arab and Jewish-majority parties (columns 2-3), in localities with clashes the effect on Jewish-majority parties was statistically insignificant (column 6).

In Table 4, we include the locality unemployment rate as an explanatory variable. An increase in unemployment is associated with nonvoting (column 1) and a decrease in the vote share of Arab Parties (column 2). The inclusion of the unemployment variable does not affect the other coefficients dramatically. The association between unemployment and vote shares is not robust to the inclusion of the post-Intifada indicator (columns 4-6).

Table C5 shows that removing Druze localities from our analysis does not alter the results, with a few exceptions, including the associations between the median age variable and the vote share of Jewish-majority Parties (column 3), and between subminimum wage earners and the vote share of Arab Parties (column 2). The results with the post-Intifada indicator (Table C5, columns 4-6), are similar to those in Table 3. These results are reasonably robust to first differencing, with differences being the effect of median age and the post-Intifada indicator on Jewish-majority parties' support and the effect of the representation index on Arab parties' support (Table C4, columns 10-12). Some of the post-Intifada variable's effect remains robust even when we limit our analysis to Druze localities alone, as turnout in general and support of Jewish-majority parties there decrease significantly in the post-Intifada years (Table C8). When using indicators for religion instead of fixed effects, the share of votes for Jewish majority parties is 36.6-38pp higher in Druze localities when compared to Muslim localities (Table C6, columns 3, 6, and 9). By comparison, the share of votes for Arab parties is 33.8-35.6 pp lower in Druze localities (columns 2, 5, and 8).[23]

In Tables C9 and C10, we include additional locality level time-varying characteristics to test the robustness of our results. Table C9 shows that there is no correlation between the share of adults of prime working-age, (aged 25-54) and in possession of a BA or higher qualification and voting patterns. Table C10 shows that there is no correlation between the share of women of prime working age who are not

[23] Christian localities have a lower rate of nonvoters (Table C6, columns 1 and 4) and a higher rate of Jewish-majority party voters (Table C6, columns 3 and 6), compared to Muslim localities, but this effect is not robust to the inclusion of the post-Intifada variable.

in paid employment and voting patterns. Similar results are found when the share of women outside the labor force is included in the regression (not shown).[24]

6. Discussion

The results of our analysis provide evidence to support some of the hypotheses we posed. Regarding voter turnout, we find evidence for H1a and weaker evidence for H1b. Decreases in unemployment and in the shares of subminimum wage earners and of income maintenance recipients, are all weakly associated with an increase in voter turnout, but this is not the case for an increase in household income. Furthermore, we show that the fact that Second Intifada marked a breaking point in Arab political participation has gained strong empirical backing, becoming the strongest explanatory variable for the drastic increase in the share of nonvoters in the years following this crisis. In particular, our regressions indicate significant trend breaks when the post-Intifada indicator is included in the regression. However, we have reasons to believe that the change is not necessarily due to the exposure of Arab voters to political violence. First, these trend breaks are similar in all Arab localities, regardless of whether there were clashes with the police in October 2000 (Table C6). Second, the Intifada's effect is robust to limiting the analysis to only Druze localities (Table C8). We would expect the vote pattern for Druze, who are more accepting of the Zionist narrative (Nisan, 2010) to behave differently. Finally, previous research on turnout between 1996 and 2006 (Afriat & Dahan, 2010) suggests that the post-Intifada elections saw a decrease in turnout for all localities in Israel and, after controlling for socio-economic variables, the decrease in Arab localities was not significantly different from that seen in Jewish ones.

It is more difficult to test H1c, since our analysis ends in 2015, when the Joint list first ran. However, we can interpret the aggregate voting patterns during 2015-2021 (Figure 1) as constituting a preference for substantive representation in the form of the Joint List. During that time, turnout increased whenever all major Arab parties ran together and decreased otherwise. Regarding party preferences, we find evidence that supports H2a and H2c over H2b. An increase in household income, is associated with a rise in the share of voters supporting Arab Parties and a decline in support for Jewish-majority

[24] For both gender and higher education specifications, we exclude the post-Intifada indicator, because both specifications include either only pre-Intifada elections or only post-Intifada elections.

parties. The same is true for a decrease in the dependency ratio and partly for an increase in the median age.

Relating these findings to our theoretical framework, we show that over the studied period some Arab voters moved from instrumental voting for Jewish-majority parties to substantive representation-motivated voting for Arab parties. After the events of the Second Intifada, many Arabs abstained from voting, but whether this was due to these events remains unclear. The rise in turnout, at the end of, and in the years following, the period studied might reflect an increase in the opportunity for substantive representation afforded by the formation of the Joint List. The shift from instrumental voting to voting motivated by the desire for substantive representation is associated with improvements in standards of living and in socio-economic status. These improvements decreased the dependence on public goods provided by Jewish-majority parties and allowed voters to support parties offering substantive representation.

7. Concluding remarks

Our analysis provides a coherent narrative that connects the socio-economic trends in Arab society to important political outcomes. These finding are especially important in the context of the latest political developments: the transition of Arab parties from an eternal opposition, outside the Israeli political consensus, to a position of influence. Their growing political power is evidenced by the fact that one of the Arab parties, Ra'am, has recently become part of a governing coalition. This novel development will allow us to observe whether and how its voters reward or punish it based on deeds, rather than declarations and aspirations expressed when in opposition.

Our findings raise the question of whether other ethnic minorities experienced the same process. Two ethnic groups of immigrant Jews in Israel, Sephardic Jews in the 1950s and Russian-speaking Jews in the 1990s, also changed their voting behavior: initially tending to support ruling Zionist Left parties, and later switching their support to sectoral parties. The political allegiances of members of these groups have, however, become more diverse over time and now include support for left-wing, right-wing and sectoral parties. It is also unclear whether these changes resulted from the same economic and demographic changes affecting Israeli Arabs. It is even less clear how our findings relate to ethnic minorities outside Israel, and further research is needed.

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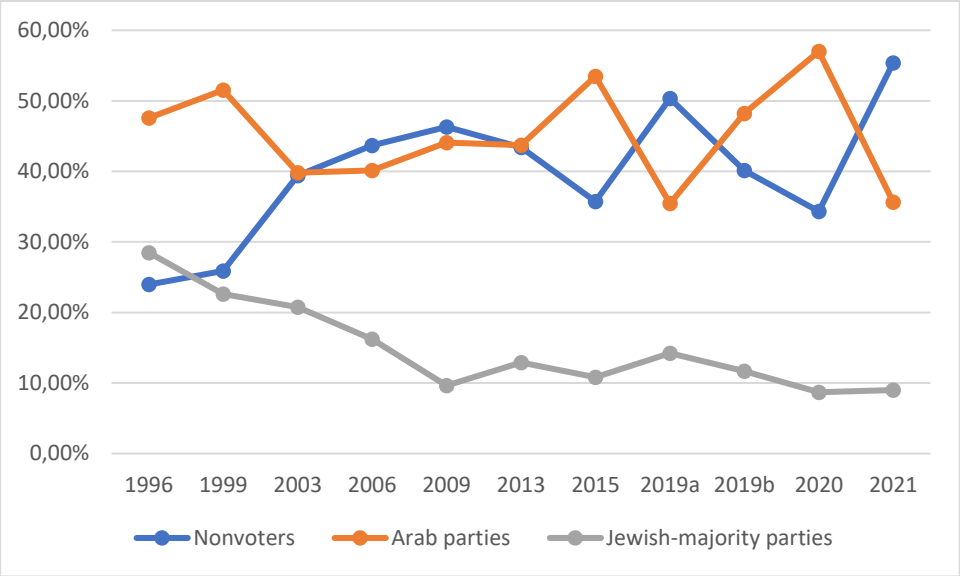
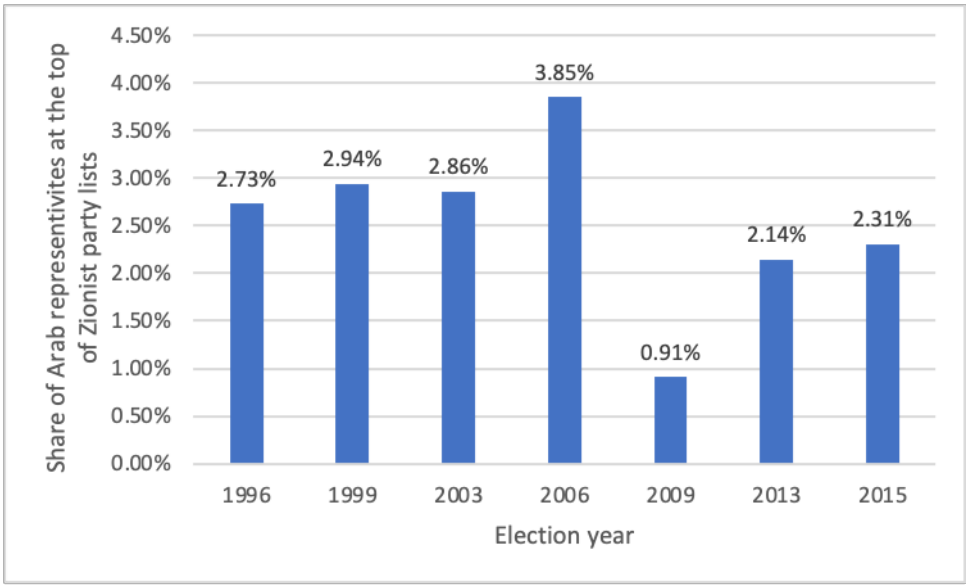
Figures and Tables

Figure 1: Voting trends in Arab localities, 1996-2021



Source: Israel's central elections commission
This is the share of voters in each political block as a proportion of eligible voters in all Arab localities, including smaller localities that are not included in the statistical analysis. Two general elections were held in 2019, in April and September, marked 2019a and 2019b, respectively. See the Data and Methods section for further information on the composition and division of political blocks.

Figure 2: Representation of Arabs in Jewish-majority party lists, 1996-2015



***Source**: Authors' calculations based on Israel's central elections commission data.*
See the Data and Methods section for more details on how the figures are calculated.

Table 1: descriptive statistics

Variable	*Observations*	*Mean*	*Std. Dev.*	*Min*	*Max*
Nonvoters	501	0.372	0.141	0.067	0.780
Arab parties	501	0.420	0.202	0.004	0.833
Jewish-majority parties	501	0.208	0.182	0.008	0.831
Representation index	501	0.025	0.008	0.009	0.038
Lagged vote share of interior minister's party	426	0.026	0.042	0.000	0.248
Median age	501	21	4	12	33
Dependency ratio	501	1.107	0.293	0.524	2.252
Real household income per capita in NIS (2008 prices)	501	1,957	661	705	4,684
Share of wage earners on subminimum wages	501	0.505	0.059	0.322	0.680
Share of population in receipt of income maintenance	501	0.035	0.023	0.000	0.133
Unemployment rate[B]	217	0.150	0.063	0.008	0.407
Share of 25-54 year old with a BA or more[B]	285	0.060	0.032	0.000	0.198
Share of women aged 20-60 not in civilian labor force[B]	68	0.573	0.081	0.315	0.765
Share of women aged 25-54 not in civilian labor force[B]	71	0.685	0.158	0.251	0.936
Share of women aged 25-54 with no labor income[B]	146	0.462	0.125	0.113	0.779

Source: ICBS, Israeli Election Commission. Variables marked with [B] are described in appendix B.

Table 2: Baseline Regression results

Variables	*Nonvoters*	*Arab parties*	*Jewish-majority Parties*	*Nonvoters*	*Arab parties*	*Jewish-majority Parties*
	(1)	(2)	(3)	(4)	(5)	(6)
Median age	0.0163***	-0.00882*	-0.00746**	0.0181***	-0.0104**	-0.00773**
	(0.00521)	(0.00482)	(0.00368)	(0.00525)	(0.00487)	(0.00373)
Dependency ratio	0.0452	-0.217***	0.172***	0.0401	-0.213***	0.173***
	(0.0660)	(0.0611)	(0.0466)	(0.0657)	(0.0609)	(0.0467)
ln(Income per capita)	0.0530	0.0446	-0.0977***	6.74e-05	0.0899**	-0.0899***
	(0.0330)	(0.0306)	(0.0233)	(0.0406)	(0.0376)	(0.0288)
Share of wage earners on subminimum wages	0.658***	-0.188*	-0.470***	0.649***	-0.180	-0.469***
	(0.121)	(0.112)	(0.0855)	(0.121)	(0.112)	(0.0856)
Share of population in receipt of income maintenance	1.530***	-0.466	-1.064***	1.469***	-0.414	-1.055***
	(0.397)	(0.368)	(0.280)	(0.396)	(0.367)	(0.281)
Representation index				-1.716**	1.466**	0.250
				(0.770)	(0.714)	(0.547)
Constant	-0.804***	0.621**	1.184***	-0.389	0.266	1.123***
	(0.309)	(0.286)	(0.218)	(0.360)	(0.333)	(0.255)
Observations	501	501	501	501	501	501
Number of localities	73	73	73	73	73	73
Adjusted R-squared	0.223	-0.086	0.489	0.230	-0.077	0.488

*Standard errors in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.*

Table 3: Results with time trend for post-Intifada elections

Variables	*Nonvoters*	*Arab parties*	*Jewish-majority parties*
	(1)	(2)	(3)
Median age	-0.00259	0.00216	0.000432
	(0.00429)	(0.00465)	(0.00366)
Dependency ratio	0.0432	-0.214***	0.171***
	(0.0513)	(0.0556)	(0.0438)
ln(Income per capita)	-0.00877	0.0952***	-0.0865***
	(0.0317)	(0.0344)	(0.0271)
Share of wage earners on subminimum wages	0.0214	0.201*	-0.222**
	(0.102)	(0.110)	(0.0868)
Share of population in receipt of income maintenance	-0.273	0.643*	-0.370
	(0.327)	(0.354)	(0.279)
Representation index	-2.180***	1.747***	0.433
	(0.602)	(0.653)	(0.514)
Post-Intifada	0.185***	-0.112***	-0.0729***
	(0.0112)	(0.0122)	(0.00961)
Constant	0.365	-0.192	0.827***
	(0.285)	(0.309)	(0.243)
Observations	501	501	501
Number of localities	73	73	73
Adjusted R-squared	0.530	0.101	0.549

*Standard errors in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.*

Table 4: Results with unemployment

Variables	*Nonvoters*	*Arab parties*	*Jewish-majority parties*	*Nonvoters*	*Arab parties*	*Jewish-majority parties*
	(1)	(2)	(3)	(4)	(5)	(6)
Unemployment rate	0.845***	-0.926***	0.0814	-0.0249	-0.291	0.316
	(0.249)	(0.272)	(0.213)	(0.213)	(0.269)	(0.226)
Median age	0.0366***	-0.0216**	-0.0150*	-0.000246	0.00530	-0.00506
	(0.00922)	(0.0101)	(0.00792)	(0.00808)	(0.0102)	(0.00857)
Dependency ratio	0.140	-0.355***	0.215**	-0.0204	-0.238**	0.258***
	(0.104)	(0.114)	(0.0897)	(0.0845)	(0.106)	(0.0896)
ln(Income per capita)	-0.0890	0.125	-0.0357	-0.0484	0.0950	-0.0466
	(0.0730)	(0.0800)	(0.0627)	(0.0583)	(0.0734)	(0.0618)
Share of wage earners on subminimum wages	0.327**	-0.0342	-0.293**	-0.109	0.284*	-0.176
	(0.157)	(0.172)	(0.135)	(0.131)	(0.166)	(0.139)
Share of population in receipt of income maintenance	1.483**	0.167	-1.650***	0.754	0.700	-1.454**
	(0.670)	(0.733)	(0.575)	(0.537)	(0.677)	(0.570)
Representation index	5.923***	-2.622*	-3.301***	3.671***	-0.977	-2.695**
	(1.246)	(1.365)	(1.070)	(1.014)	(1.278)	(1.076)
Post-Intifada				0.140***	-0.102***	-0.0378***
				(0.0128)	(0.0162)	(0.0136)
Constant	-0.344	0.495	0.849	0.569	-0.172	0.603
	(0.630)	(0.689)	(0.541)	(0.508)	(0.641)	(0.539)
Observations	285	285	285	285	285	285
Number of localities	73	73	73	73	73	73

Adjusted R-squared	0.454	-0.139	0.350	0.654	0.043	0.370

*Standard errors in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.*

Appendix

A. Background Appendix

Table A1: Merging of election years with survey years

Election year	*Survey year*
1996	1995
1999	1999
2003	2003
2006	2006
2009	2008
2013	2013
2015	2015

Table A2: Identification of Arab parties

Election	*Arab Parties*
1996	**Hadash (ו)**, **Mada (ע)**, Arab Union (נ), Da'am (ד)
1999	**Hadash (ו)**, **Ra'am (עם)**, **Balad (ד)**, Da'am (קם), New Arab (קפ)
2003	**Hadash (ו)**, **Ra'am (עם)**, **Balad (ד)**, Da'am (ק)
2006	**Hadash (ו)**, **Ra'am-Ta'al (עם)**, **Balad (ד)**, Da'am (ק), National Arab Party (קפ)
2009	**Hadash (ו)**, **Ra'am-Ta'al (עם)**, **Balad (ד)**, Da'am (ק)
2013	**Hadash (ו)**, **Ra'am-Ta'al (עם)**, **Balad (ד)**, Da'am (ק), Hope for Change (הק)
2015	**Joint List (ודעם)**, Arab List (ע), Hope for Change (יץ)
2019a	**Hadash-Ta'al (ום), Ra'am-Balad (דעם)**, Arab List (ר) Da'am (ץ), Hope for Change (דק)
2019b	**Joint List (ודעם)**, Popular Union (כי), Respect and Equality (נך), Da'am (ץ)
2020	**Joint List (ודעם)**, Da'am (ץ)
2021	**Joint List (ודעם)**, **Ra'am (עם)**, Da'am (ץ), Ma'an (צכ)

The Hebrew letters in brackets are the letters used to identify a party ballot in the Israeli elections. All parties not described in the table are considered part of the political block 'Jewish-majority'. See the data section for more information about how the identification was made. Parties that received at least 1% of the total votes in the election are highlighted.

Table A3: List of localities included in the data

Abu Ghosh	Jish(Gush Halav)	Peqi'in (Buqei'a)
Abu Sinan	Jisr Az-Zarqa	Qalansawe
Ar'ara	Judeide-Maker	Rahat
Ar'ara-BaNegev	Julis	Rame
Arrabe	Ka'abiyye-Tabbash-Hajajre	Reine
Baqa Al-Gharbiyye and Jatt*	Kabul	Sajur
Basma	Kafar Bara	Sakhnin
Basmat Tab'un	Kafar Kama	Segev-Shalom
Beit Jann	Kafar Kanna	Sha'ab
Bir El-Maksur	Kafar Manda	Shefar'am
Bu'eine-Nujeidat	Kafar Qara	Shibli-Umm Al-Ghanam
Daburiyya	Kafar Qasem	Tamra
Daliyat Al-Karmel and Isifya*	Kafar Yasif	Tayibe
Deir Hanna	Kaokab Abu Al-Hija	Tel Sheva
Eilabun	Kisra-Sumei	Tire
Ein Mahel	Kuseife	Tuba-Zangariyye
Fassuta	Laqye	Tur'an
Fureidis	Ma'ale Iron	Umm al-Fahm
Ghajar	Majd al-Kurum, Bi'ne and Deir Al-Asad*	Yafi
Hura	Mazra'a	Yanuh-Jat
Hurfeish	Meshhed	Yirka
I'billin	Mi'elya	Zarzir
Iksal	Mughar	Zemer
Ilut	Nahef	
Jaljulye	Nazareth	

67 of the localities appear in all time periods. 4 localities appear in six time periods: Ar'ara-BaNegev, Ka'abiyye-Tabbash-Hajajre, and Laqye, were not included in the 1995 ICBS survey, and Tuba-Zangariyye, was not included in the 2008 ICBS survey. Kafar Bara was not included in the 1995 and 1999 ICBS surveys, and appears in only five periods. The locality of Ghajar does not appear in the ICBS surveys of 1995, 1999, 2003 and 2008, and thus appears in only three periods. In most cases, these were small localities that were under the minimum population threshold (see footnote 15 in the main text) in earlier surveys and were included only later.

*During the period described in the data, several municipalities were merged and/or split. The localities of Basma and Ma'ale Iron were both created in 1996, each as a union of several smaller localities. In both cases, the 1996 elections data appears separately for each of the smaller original localities, but only data on the merged locality appears in the 1995 ICBS survey. We therefore pooled the 1996 voting data from each group of small localities to form observations that match the merged locality. Shibli-Umm Al-Ghanam was formed in 1999 as a union of larger Shibli with smaller Umm Al-Ghanam. Shibli was surveyed separately in the 1995 ICBS survey while Umm Al-Ghanam was not surveyed at all. We therefore use only the ICBS and voting data for Shibli for the first time period, and use the data for the merged locality for the rest of the time periods. In 2003, Baqa Al-Gharbiyye and Jatt were merged to form Baqa-Jatt, Daliyat Al-Karmel and Isifya were merged to form Karmel City, and Majd al-Kurum, Bi'ne and Deir Al-Asad were merged into Shaghur. All three unions were dissolved in 2008. However, the localities in each union were not surveyed separately in the 2003 and 2006 ICBS surveys. We therefore kept the unions for all time periods by pooling the votes of the relevant localities and using a population-weighted average of the socioeconomic variables in the ICBS surveys. The symbol * represents localities that were merged between 2003 and 2008 and are thus treated as a single locality.*

We excluded three Druze localities located in the Golan Heights: Buq'ata, Majdal Shams and Mas'ade. Following the annexation of the Golan Heights in 1981, only a handful of the residents in these localities were granted Israeli citizenship, making the number of eligible voters there very small, and unrepresentative of their locality. For example, in 2015, only about 1,100 out of an overall population

of about 20,000 were eligible. It should be noted that our results are robust to the inclusion of the three Golan Druze localities. On the other hand, we include in our data the locality of Ghajar (the part under Israeli control), also annexed at that time. The majority of Ghajar's residents under Israeli control are Israeli citizens. In 2015, for example, there were about 1,370 eligible voters out of a total population of about 2,000.

Table A4: Parties of Prime Minister and Interior Minister and coalition parties

Election Year	***Knesset before election year***	***Interior Minister's party***	***Prime Minister's party***	***Coalition parties***
1999	14 (1996-1999)	Shas (שס)	Likud (מחל)	Likud (מחל), Shas (שס), Mafdal (ב), Yisrael BaAliyah (כן) United Torah Judaism (ג), Third Way (הד)
2003	15 (1999-2003)	Shas (שס)	Likud (מחל)	One Israel (אמת), Likud (מחל), Shas (שס), Mafdal (ב), Yisrael BaAliyah (כן), Center Party (פה), United Torah Judaism (ג)
2006	16 (2003-2006)	Shinui (יש)	Likud (מחל)	Likud (מחל), Shinui (יש), Mafdal (ב), Yisrael BaAliyah (כן)
2009	17 (2006-2009)	Kadima (כן)	Kadima (כן)	Kadima (כן), Israeli Labor Party (אמת), Shas (שס), Gil - Pensioners Party (זד)
2013	18 (2009-2013)	Shas (שס)	Likud (מחל)	Likud (מחל), Shas (שס), Yisrael Beiteinu (ל) United Torah Judaism (ג), Jewish Home (ב)
2015	19 (2013-2015)	Likud (מחל)	Likud (מחל)	Likud-Yisrael Beiteinu (מחל), Yesh Atid (פה), Jewish Home (ב), Hatnua (צפ)

Source*: The Knesset website*

The Hebrew letters in brackets are the letters used to identify a party ballot in the Israeli elections. In cases where the Minister resigned or was replaced before the end of the term, we used the vote share of the party whose members held the position for the greatest proportion of the term. The composition of most coalitions changed during the terms, so we include only parties who were part of the coalition for the majority of the term. We consider a party as a coalition party if it had ministers or deputy ministers.

Table A5: Arab representation in Jewish-majority Parties

Election Year	*Party*	*Arabs in places 1-10*	*Arabs in places 11-20*
1996	**Israeli Labor Party** (אמת)	**0**	**1**
	Meretz (מרצ)	1	0
	Third Way (הד)	1	0
	Likud (מחל), *Shas* (שס), Mafdal (ב), Yisrael BaAliyah (כן) United Torah Judaism (ג), Moledet (ט)	0	0
1999	**One Israel** (אמת)	**0**	**1**
	Likud (מחל)	**0**	**1**
	Meretz (מרצ)	1	1
	Center Party (פה)	0	2
	One Nation (ם)	1	1
	Power to the Pensioners (פז)	1	0
	Shas (שס), Mafdal (ב), Yisrael BaAliyah (כן), Shinui (פה) United Torah Judaism (ג), National Union (יט), Yisrael Beiteinu (ל) Pnina Rosenblum (פ), Ale Yarok (קנ)	0	0
2003	**Israeli Labor Party** (אמת)	**0**	**1**
	Shinui (פה)	*0*	*1*
	National Union-Yisrael Beiteinu (ל)	0	1
	Meretz (מרצ)	1	0
	One Nation (ם)	2	2
	Yisrael BaAliyah (כן)	0	2
	Likud (מחל), Shas (שס), Mafdal (ב), United Torah Judaism (ג), Ale Yarok (קנ), Herut (נץ)	0	0
2006	**Kadima** (כן)	**0**	**1**
	Israeli Labor Party (אמת)	**0**	**3**
	Meretz (מרצ)	1	2
	Shas (שס), Likud (מחל), Yisrael Beiteinu (ל), Mafdal-National Union (טב), Gil - Pensioners Party (זד), United Torah Judaism (ג), Green Party (רק), Ale Yarok (קנ)	0	0
2009	*Yisrael Beiteinu* (ל)	*0*	*1*
	Israeli Labor Party (אמת)	0	2
	Meretz (מרצ)	1	3
	Kadima (כן) **Likud** (מחל), Shas (שס), United Torah Judaism (ג), National Union (ט), Jewish Home (ב)	0	0
2013	*Israeli Labor Party* (אמת)	*0*	*2*
	Meretz (מרצ)	1	0
	Kadima (כן)	2	0
	Likud-Yisrael Beiteinu (מחל), **Yesh Atid** (פה), Jewish Home (טב), Shas (שס), United Torah Judaism (ג), Hatnua (צפ), Otzma LeYisrael (נץ), Am Shalem (ץ), Ale Yarok (קנ)	0	0
2015	**Zionist Union** (אמת)	**0**	**1**
	Kulanu (כ)	0	2
	Yisrael Beiteinu (ל)	1	1
	Meretz (מרצ)	1	0
	Likud (מחל), *Yesh Atid* (פה), Jewish Home (טב), Shas (שס), United Torah Judaism (ג), Yachad (קץ) Ale Yarok (קנ)	0	0

***Source**: Israeli Election Commission*

The Hebrew letters in brackets are the letters used to identify a party ballot in the Israeli elections. The two largest parties in each election are highlighted, and the third is italicized. For brevity, all parties with no Arab representation in the first 20 places of the party list are grouped in a single line.

B. Data Appendix

In some of our regressions in the main paper, we include additional indicators that are relevant but were not published consistently. These additional indicators include:

(1) The unemployment rate of the population over 15 (published only in the 1995, 1999, 2003 and 2006 surveys).

(2) The share of individuals aged 25-54 in possession of a BA or a higher degree (published only in the 2008, 2013, and 2015 surveys).

(3) Three indicators for women's labor force participation: (a) the share of women aged 20-60 not in the civilian labor force (1995 survey only); (b) the share of women aged 25-54 not in the civilian labor force (2008 survey only); (3) the share of women aged 25-54 with no labor income (2013 and 2015 surveys only).

C. Additional Tables

Table C1: Main variables' correlation matrix

	Median age	*Dependency ratio*	*Real household income per capita in NIS (2008 prices)*	*Share of wage earners on subminimu m wages*	*Share of population in receipt of income maintenance*
Median age	1	-	-	-	-
Dependency ratio	-0.8811	1	-	-	-
Real household income per capita in NIS (2008 prices)	0.7447	-0.595	1	-	-
Share of wage earners on subminimum wages	-0.461	0.271	-0.5838	1	-
Share of population in receipt of income maintenance	-0.3967	0.4434	-0.2981	0.3397	1

Table C2: additional variables' correlation matrix

	Unemployment rate	*Share of 25-54 year olds with a BA or more*	*Share of 20-60 women not in civilian labor force*	*Share of 25-54 women not in civilian labor force*	*Share of 25-54 women with no labor income*
Median age	-0.2897	0.672	-0.7142	-0.7417	-0.7836
Dependency ratio	0.296	-0.4558	0.5399	0.5481	0.6661
Real household income per capita in NIS (2008 prices)	-0.3759	0.6978	-0.7287	-0.7856	-0.848

Share of wage earners on subminimum wages	0.341	-0.5577	-0.0563	0.3366	0.566
Share of population in receipt of income maintenance	0.7719	-0.2469	-0.036	0.355	0.3956
Unemployment rate	1	-	0.0361	-	-
Share of 25-54 year olds with a BA or more	-	1	-	-0.6908	-0.6345
Share of women aged 20-60not in civilian labor force	-	-	1	-	-
Share of women aged 25-54 not in civilian labor force	-	-	-	1	-
Share of women aged 25-54 with no labor income	-	-	-	-	1

Note that some variables do not have a correlation value because they do not appear in the same periods.

C3. Testing for reverse causality

To test whether this is a serious threat, we estimate the following regression:

$$S_{i,t} = \alpha + \delta Interior_{i,t-1} + \eta D_{i,t} + \gamma_i + \varepsilon_{i,t}$$

The variable $S_{i,t}$ represents one of our three main economic variables: natural logarithm of real average household income per capita, share of subminimum wage earners, and share of individuals receiving income maintenance. The variable $Interior$ is equal to the vote share of the Interior Minister's party in the previous election. The variable $D_{i,t}$ represents a vector of our main demographic variables: median age and dependency ratio. We provide the results for the test in Table C3. The vote share of the Interior Minister's party is positively associated with the average household income per capita and the share of individuals receiving income maintenance, but not with the share of subminimum wage earners. This suggests a potential reverse causality bias in which the vote share of the Interior Minister's party is associated with a future change in the localities' socio-economic status.

Nevertheless, we do not view this as a serious cause for concern. This is because our model is not identified using the vote share for separate parties, but rather by the vote share for three political blocks: Nonvoters, Arab Parties, and Jewish-majority parties. Since 1996 at the latest, all Interior Ministers, (and for that matter, all ministers and coalition members), were of the Jewish-majority block. The fact that the Interior minister is always from the same political block reduces the concern that reverse causality may bias our results.

Table C3: Reverse causality test

Variables	***ln(Income per capita)***	**Share of wage earners on subminimum wages**	**Share of population in receipt of income maintenance**
	(1)	(2)	(3)
Lagged vote share of interior minister's party	1.862***	-0.0319	0.0623***
	(0.299)	(0.0535)	(0.0196)
Median age	0.110***	-0.0127***	0.00430***
	(0.0115)	(0.00206)	(0.000751)
Dependency ratio	0.110	-0.0256	0.00906
	(0.170)	(0.0305)	(0.0111)
Constant	5.031***	0.813***	-0.0636**
	(0.415)	(0.0744)	(0.0272)
Observations	426	426	426
Number of localities	73	73	73
Adjusted R-squared	0.449	0.120	0.110

*This data examines whether voting patterns affect economic outcomes. Robust standard errors are reported in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.*

Table C4: First difference regression results

Variables	*Nonvoters*	*Arab parties*	*Jewish-majority parties*	*Nonvoters*	*Arab parties*	*Jewish-majority parties*	*Nonvoters*	*Arab parties*	*Jewish-majority parties*	*Nonvoters*	*Arab parties*	*Jewish-majority parties*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Median age	0.000985	-0.00570	0.00472	-0.00192	-0.00349	0.00541	-0.00537	-0.000628	0.00600	-0.0101	-0.00499	0.0151**
	(0.00728)	(0.00748)	(0.00506)	(0.00703)	(0.00735)	(0.00506)	(0.00614)	(0.00679)	(0.00504)	(0.00846)	(0.00939)	(0.00644)
Dependency ratio	0.225**	-0.303***	0.0780	0.263***	-0.332***	0.0689	0.138*	-0.229**	0.0902	0.118	-0.267**	0.149**
	(0.0942)	(0.0967)	(0.0654)	(0.0909)	(0.0951)	(0.0654)	(0.0801)	(0.0886)	(0.0658)	(0.0962)	(0.107)	(0.0733)
ln(Income per capita)	-0.00448	0.100***	-0.0959***	-0.119***	0.187***	-0.0687***	-0.0257	0.110***	-0.0846***	-0.0170	0.116***	-0.0992***
	(0.0296)	(0.0304)	(0.0206)	(0.0356)	(0.0373)	(0.0256)	(0.0323)	(0.0357)	(0.0265)	(0.0366)	(0.0406)	(0.0279)
Share of wage earners on subminimum wages	0.191	0.125	-0.316***	0.0765	0.212	-0.289***	-0.0290	0.300**	-0.271***	-0.0370	0.282*	-0.245**
	(0.129)	(0.132)	(0.0893)	(0.126)	(0.131)	(0.0904)	(0.110)	(0.122)	(0.0902)	(0.129)	(0.143)	(0.0984)
Share of population in receipt of income maintenance	0.280	-0.0512	-0.229	-0.188	0.306	-0.117	-0.313	0.409	-0.0962	-0.417	0.317	0.0999
	(0.445)	(0.457)	(0.309)	(0.438)	(0.458)	(0.315)	(0.382)	(0.422)	(0.313)	(0.414)	(0.460)	(0.315)
Representation index				-3.197***	2.436***	0.762*	-1.763***	1.246**	0.517	-1.706***	1.072	0.634
				(0.600)	(0.627)	(0.432)	(0.540)	(0.597)	(0.443)	(0.604)	(0.670)	(0.460)
Post-Intifada							0.135***	-0.112***	-0.0231**	0.139***	-0.126***	-0.0136
							(0.0129)	(0.0142)	(0.0106)	(0.0151)	(0.0168)	(0.0115)
Constant	0.0290***	-0.00833	-0.0206***	0.0437***	-0.0196**	-0.0241***	0.0128*	0.00602	-0.0189***	0.0115	0.0130	-0.0245***
	(0.00810)	(0.00832)	(0.00563)	(0.00828)	(0.00866)	(0.00596)	(0.00779)	(0.00861)	(0.00639)	(0.00870)	(0.00966)	(0.00663)
Observations	426	426	426	426	426	426	426	426	426	366	366	366
Number of localities	73	73	73	73	73	73	73	73	73	63	63	63
Adjusted R-squared	-0.166	-0.136	-0.052	-0.081	-0.091	-0.046	0.179	0.073	-0.035	0.171	0.110	0.012

*Standard errors in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels. All independent and dependent variables are first-difference versions of the variables in Tables 4 and 5. The regression results in columns 10-12 do not include Druze localities.*

Table C5: Regression results, Muslim and Christian localities only

Variables	*Nonvoters*	*Arab parties*	*Jewish-majority parties*	*Nonvoters*	*Arab parties*	*Jewish-majority parties*
	(1)	(2)	(3)	(4)	(5)	(6)
Median age	0.0223***	-0.0164***	-0.00591	-0.00648	0.00149	0.00500
	(0.00608)	(0.00564)	(0.00419)	(0.00503)	(0.00548)	(0.00422)
Dependency ratio	0.118	-0.321***	0.203***	0.0479	-0.277***	0.229***
	(0.0764)	(0.0709)	(0.0527)	(0.0591)	(0.0644)	(0.0495)
ln(Income per capita)	-0.0397	0.139***	-0.0995***	-0.0211	0.128***	-0.107***
	(0.0455)	(0.0422)	(0.0314)	(0.0351)	(0.0383)	(0.0294)
Share of wage earners on subminimum wages	0.718***	-0.249**	-0.469***	-0.0137	0.206*	-0.192**
	(0.133)	(0.123)	(0.0917)	(0.113)	(0.123)	(0.0944)
Share of population in receipt of income maintenance	1.633***	-0.597	-1.036***	-0.259	0.579	-0.320
	(0.425)	(0.394)	(0.293)	(0.349)	(0.380)	(0.292)
Representation index	-2.130**	1.959**	0.171	-2.424***	2.142***	0.282
	(0.836)	(0.776)	(0.576)	(0.645)	(0.703)	(0.541)
Post-Intifada				0.196***	-0.122***	-0.0741***
				(0.0124)	(0.0135)	(0.0104)
Constant	-0.291	0.226	1.065***	0.551*	-0.298	0.746***
	(0.402)	(0.373)	(0.277)	(0.314)	(0.342)	(0.263)
Observations	431	431	431	431	431	431
Number of localities	63	63	63	63	63	63
Adjusted R-squared	0.212	-0.005	0.489	0.531	0.176	0.551

*Standard errors in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.*

Table C6: Results for models with no fixed effects

Variables	*Nonvoters*	*Arab parties*	*Jewish-majority parties*	*Nonvoters*	*Arab parties*	*Jewish-majority parties*	*Nonvoters*	*Arab parties*	*Jewish-majority parties*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Median age	0.0163***	-0.0162***	-6.24e-05	0.0156***	-0.0150**	-0.000605	0.00413	-0.00918	0.00505
	(0.00528)	(0.00598)	(0.00389)	(0.00528)	(0.00594)	(0.00389)	(0.00462)	(0.00589)	(0.00371)
Dependency ratio	0.201***	-0.288***	0.0868**	0.179***	-0.249***	0.0700	0.110**	-0.214***	0.104**
	(0.0585)	(0.0663)	(0.0431)	(0.0593)	(0.0668)	(0.0437)	(0.0513)	(0.0654)	(0.0412)
ln(Income per capita)	0.0495	-0.0387	-0.0108	0.0427	-0.0266	-0.0161	-0.0439	0.0170	0.0269
	(0.0455)	(0.0515)	(0.0335)	(0.0454)	(0.0512)	(0.0335)	(0.0396)	(0.0506)	(0.0318)
Share of wage earners on subminimum wages	0.425***	-0.387**	-0.0378	0.443***	-0.420***	-0.0236	-0.189	-0.0978	0.287***
	(0.136)	(0.154)	(0.100)	(0.136)	(0.153)	(0.100)	(0.127)	(0.161)	(0.102)
Share of population in receipt of income maintenance	0.870**	1.672***	-2.541***	0.907***	1.605***	-2.512***	-0.445	2.299***	-1.854***
	(0.337)	(0.382)	(0.248)	(0.336)	(0.379)	(0.248)	(0.307)	(0.392)	(0.247)
Representation index	-1.698	0.677	1.021	-1.799*	0.858	0.941	-2.280**	1.100	1.179
	(1.073)	(1.215)	(0.791)	(1.071)	(1.206)	(0.789)	(0.921)	(1.176)	(0.740)
Druze	-0.0241	-0.356***	0.380***	-0.0338*	-0.338***	0.372***	-0.0222	-0.344***	0.366***
	(0.0188)	(0.0213)	(0.0138)	(0.0193)	(0.0217)	(0.0142)	(0.0166)	(0.0212)	(0.0133)
Christian	-0.0881***	0.0168	0.0713***	-0.0897***	0.0196	0.0701***	-0.0325	-0.00896	0.0414**
	(0.0295)	(0.0334)	(0.0217)	(0.0294)	(0.0331)	(0.0217)	(0.0256)	(0.0327)	(0.0206)
Post-Intifada							0.203***	-0.0942***	-0.109***
							(0.0164)	(0.0209)	(0.0131)
October 2000 clashes				-0.0297**	0.0528***	-0.0231**	0.00384	0.0596**	-0.0634***
				(0.0147)	(0.0165)	(0.0108)	(0.0226)	(0.0288)	(0.0181)
Post-Intifada * October 2000 clashes							-0.0152	-0.0254	0.0406*
							(0.0260)	(0.0332)	(0.0209)
Constant	-0.756*	1.538***	0.218	-0.665	1.377***	0.288	0.524	0.768	-0.292
	(0.410)	(0.465)	(0.302)	(0.411)	(0.463)	(0.303)	(0.365)	(0.466)	(0.293)
Observations	501	501	501	501	501	501	501	501	501
Adjusted R-squared	0.109	0.446	0.712	0.115	0.456	0.714	0.345	0.483	0.749

*Standard errors in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.*

Table C7: First difference regression results, by exposure to October 2000 clashes

Variables	*Nonvoters*	*Arab parties*	*Jewish-majority parties*	*Nonvoters*	*Arab parties*	*Jewish-majority parties*
	(1)	(2)	(3)	(4)	(5)	(6)
Median age	-0.00151	-0.00109	0.00260	-0.0294*	-0.00380	0.0332**
	(0.00665)	(0.00717)	(0.00519)	(0.0167)	(0.0195)	(0.0152)
Dependency ratio	0.162*	-0.229**	0.0668	-0.183	0.113	0.0700
	(0.0837)	(0.0901)	(0.0653)	(0.352)	(0.411)	(0.320)
ln(Income per capita)	-0.0346	0.133***	-0.0988***	-0.00838	0.00749	0.000891
	(0.0366)	(0.0395)	(0.0286)	(0.0727)	(0.0850)	(0.0663)
Share of wage earners on subminimum wages	-0.0271	0.319**	-0.292***	-0.104	0.183	-0.0795
	(0.122)	(0.131)	(0.0950)	(0.265)	(0.310)	(0.242)
Share of population in receipt of income maintenance	0.0844	-0.0222	-0.0622	-1.037	1.312	-0.275
	(0.440)	(0.474)	(0.343)	(0.829)	(0.969)	(0.755)
Representation index	-2.051***	1.703**	0.348	-1.035	-0.315	1.350
	(0.631)	(0.680)	(0.492)	(1.070)	(1.251)	(0.975)
Post-Intifada	0.134***	-0.0909***	-0.0428***	0.147***	-0.196***	0.0497*
	(0.0149)	(0.0160)	(0.0116)	(0.0293)	(0.0342)	(0.0267)
Constant	0.0126	0.00189	-0.0145**	0.00868	0.0432	-0.0518**
	(0.00878)	(0.00946)	(0.00685)	(0.0227)	(0.0265)	(0.0206)
Observations	318	318	318	108	108	108
Number of localities	55	55	55	18	18	18
Adjusted R-squared	0.188	0.024	0.009	0.188	0.245	-0.033

*Standard errors in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels. Columns 1-3 include only localities that did not experience clashes with the police in October 2000, while columns 4-6 include only those that did.*

Table C8: Regression results, Druze localities and the Intifada

Variables	*Nonvoters*	*Arab parties*	*Jewish-majority parties*	*Nonvoters*	*Arab parties*	*Jewish-majority parties*
	(1)	(2)	(3)	(4)	(5)	(6)
Median age	0.0141*	-0.00138	-0.0127	0.00636	-0.00545	-0.000914
	(0.00752)	(0.00587)	(0.00835)	(0.00771)	(0.00511)	(0.00884)
Dependency ratio	-0.00647	0.00482	0.00165	0.0213	0.203*	-0.224
	(0.0965)	(0.0753)	(0.107)	(0.171)	(0.113)	(0.196)
ln(Income per capita)	-0.00923	0.0356	-0.0264	-0.0704	-0.0638	0.134
	(0.0696)	(0.0544)	(0.0773)	(0.0743)	(0.0492)	(0.0852)
Share of wage earners on subminimum wages	-0.0882	0.323*	-0.235	-0.238	0.188	0.0509
	(0.222)	(0.173)	(0.246)	(0.225)	(0.149)	(0.258)
Share of population in receipt of income maintenance	0.387	-1.308	0.920	0.654	0.135	-0.788
	(1.214)	(0.948)	(1.348)	(1.479)	(0.980)	(1.695)
Representation index	-1.490	0.171	1.320	-2.222*	-0.275	2.497*
	(1.487)	(1.161)	(1.651)	(1.235)	(0.819)	(1.416)
Post-Intifada	0.103***	0.00540	-0.109***	0.116***	-0.00766	-0.109***
	(0.0255)	(0.0199)	(0.0283)	(0.0235)	(0.0156)	(0.0269)
Constant	0.112	-0.290	1.178*	0.0121	0.0271*	-0.0392
	(0.599)	(0.468)	(0.665)	(0.0212)	(0.0141)	(0.0243)
Observations	70	70	70	60	60	60
Number of localities	10	10	10	10	10	10
Adjusted R-squared	0.666	-0.107	0.571	0.238	0.066	0.074

*Standard errors in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels. In columns 4-6, All independent and dependent variables are first-difference versions of the variables in columns 1-3. The regression results in this table include only Druze localities.*

Table C9: Regression results, higher education

Variables	*Nonvoters*	*Arab parties*	*Jewish-majority parties*
	(1)	(2)	(3)
Share of those aged 25-54 with a BA or more	0.271	-0.209	-0.0618
	(0.228)	(0.239)	(0.132)
Median age	-0.000432	0.00160	-0.00117
	(0.00901)	(0.00943)	(0.00521)
Dependency ratio	0.0959	-0.100	0.00454
	(0.123)	(0.129)	(0.0710)
ln(Income per capita)	-0.161***	0.261***	-0.0992***
	(0.0516)	(0.0540)	(0.0298)
Share of wage earners on subminimum wages	0.234	0.170	-0.404***
	(0.250)	(0.262)	(0.144)
Share of population in receipt of income maintenance	0.00138	-0.464	0.463
	(0.637)	(0.667)	(0.368)
Representation index	-6.601***	5.455***	1.146
	(1.944)	(2.035)	(1.124)
Constant	1.556***	-1.657***	1.101***
	(0.465)	(0.486)	(0.269)
Observations	217	217	217
Number of localities	73	73	73
Adjusted R-squared	0.040	-0.027	-0.233

*Standard errors in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.*

Table C10: Regression results, women employment status

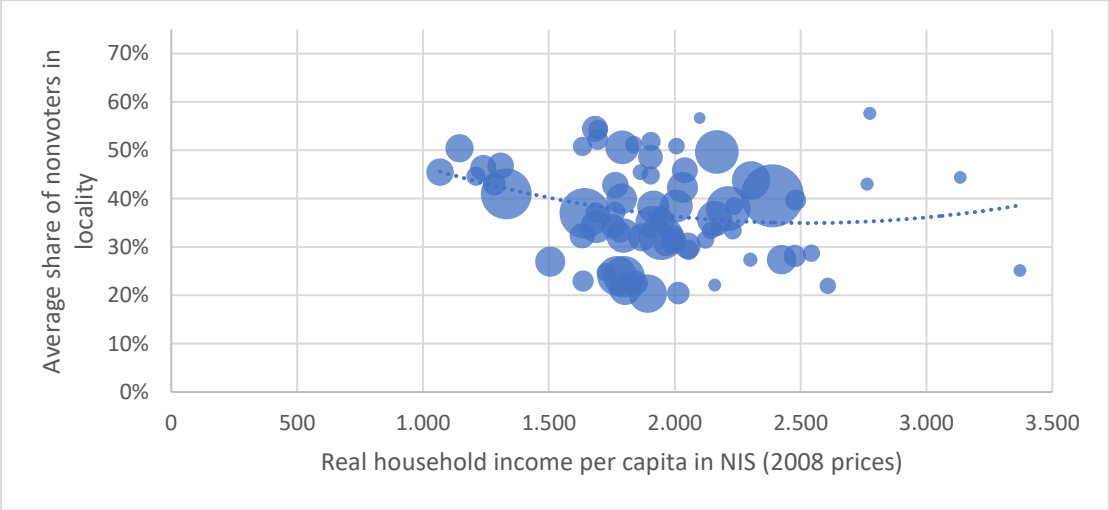
Variables	*Nonvoters*	*Arab parties*	*Jewish-majority parties*
	(1)	(2)	(3)
Share of women aged 25-54 with no labor income	0.0731	0.178	-0.251
	(0.395)	(0.449)	(0.229)
Median age	0.00567	0.00798	-0.0136
	(0.0166)	(0.0188)	(0.00962)
Dependency ratio	-0.859*	0.457	0.402
	(0.448)	(0.509)	(0.260)
ln(Income per capita)	0.221	-0.375	0.154
	(0.285)	(0.324)	(0.165)
Share of wage earners on subminimum wages	-0.318	0.557	-0.238
	(0.690)	(0.785)	(0.401)
Share of population in receipt of income maintenance	-0.842	-0.352	1.194
	(1.377)	(1.565)	(0.799)
Representation index	-88.49**	133.1***	-44.61*
	(41.69)	(47.41)	(24.20)
Constant	1.521	-0.586	0.0651
	(1.442)	(1.640)	(0.837)
Observations	146	146	146
Number of localities	73	73	73
Adjusted R-squared	-0.273	-0.117	-0.603

*Standard errors in parentheses. The symbols *, **, *** represent statistical significance at the 10, 5, and 1 percent levels.*

D. Additional Figures

Figure D: Voting patterns by income, dot matrix

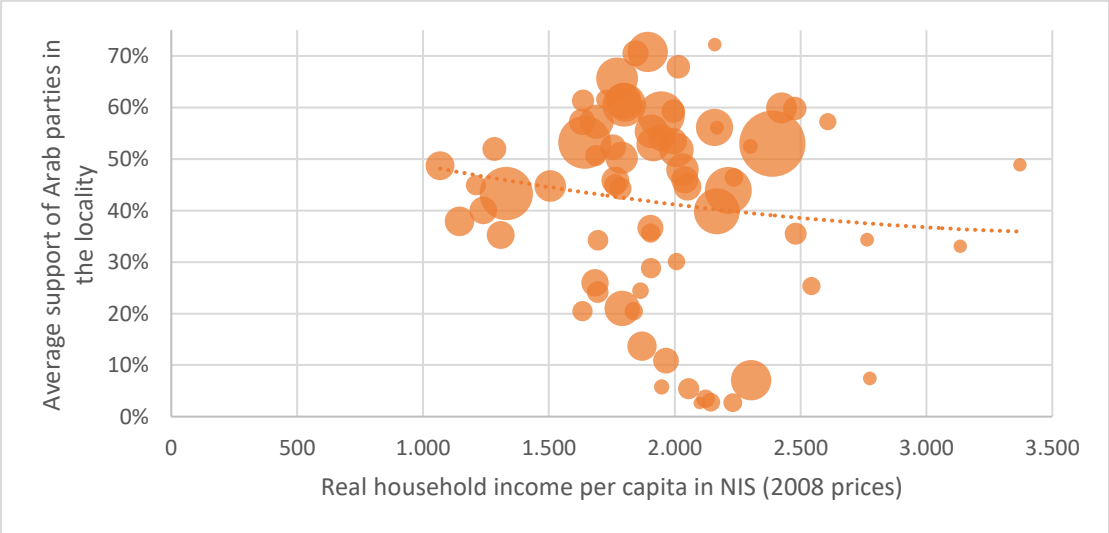
Figure D1: Nonvoters



$y = 5E\text{-}08x^2 - 0.0003x + 0.6701$

$R^2 = 0.0562$

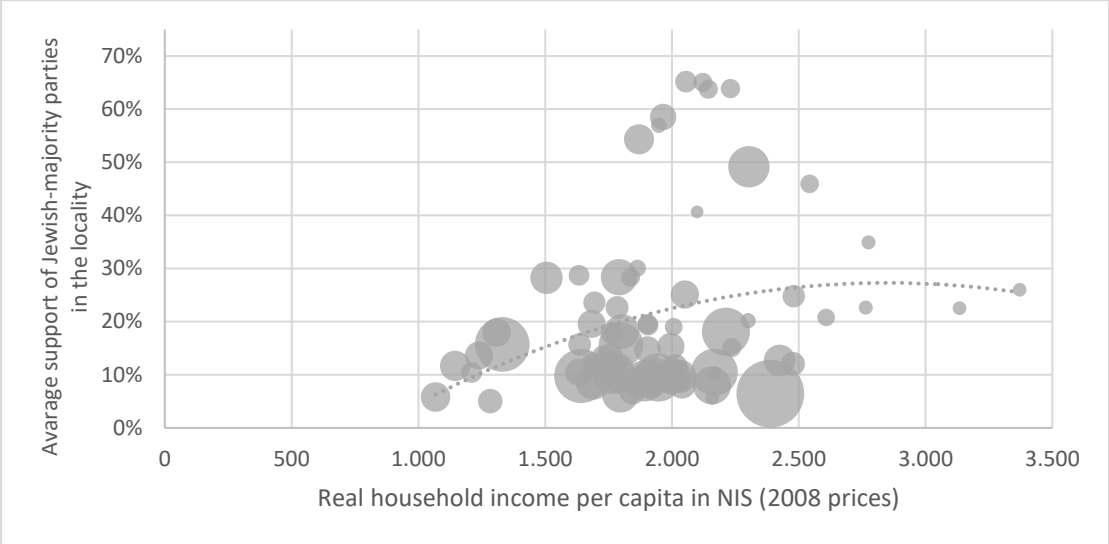
Figure D2: Arab parties



$y = 2E\text{-}08x^2 - 0.0001x + 0.5943$

$R^2 = 0.0162$

Figure D3: Jewish-majority parties



$y = -7E\text{-}08x^2 + 0.0004x - 0.2644$

$R^2 = 0.0822$

Source: Authors' calculations from ICBS and Israeli election commission data.
X-axis values are the locality's household income per capita, averaged across the survey years described in Table 1. Y-axis values are the locality's support share of each political block, averaged across the election years described in Table 1. Dot size represents population size, also averaged across survey years. No other controls are used or accounted for. Dotted line represents a best-fit line, along with its equation and R-squared below each figure.