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Report

The 2018 Lebanese Parliamentary Elections:
What Do the Numbers Say?

South 2 Electoral District: Sour and Zahrani

Georgia Dagher

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Zahrani

Sour

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South 2 Electoral District: Sour and Zahrani

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Executive Summary

The Lebanese parliament agreed to hold parliamentary elections in 2018—nine years after the previous ones, and two mandate extensions later. While Lebanese citizens were finally given the opportunity to renew their political representation, voters in Sour and Zahrani reiterated their support for the same political parties: The Amal Movement and Hezbollah. The two parties, however, depended on their sectarian community, with Shia voters casting most of their votes for them, and turning out to vote in much higher numbers than other groups. The second and only other electoral list, which included a candidate backed by the Christian Free Patriotic Movement party, found its highest levels of support among the Christian community—which, in turn, was much less mobilized. Voters showed to be sectarian not only in their preferences for electoral lists, but also in their preferences for specific candidates: The vast majority of each of the represented sectarian groups—Shias and Greek Catholics—gave their preferential vote to a candidate of their same confession. Apart from voters' preferences, there were signs of ballot stuffing pointing at candidates on the Amal and Hezbollah list. First, the list generally performed better in polling stations that recorded a lower share of invalid votes; and second, the list's number of votes across polling stations were distributed in an irregular, non-uniform pattern—both things that do not normally occur in clean elections.

Introduction

After passing a new electoral law in 2017, the Lebanese parliament finally agreed to hold elections in 2018—nine years after the previous ones, and two mandate extensions later. The new electoral law established a proportional representation system for the first time in the country's history, paving the way for increased competition. This new system however led to little changes in political representation, with voters in 2018 reiterating their support for the main established political parties. Nevertheless, these results must not be taken at face value and require a closer analysis, as voting patterns across and within electoral districts, as well as across voters' demographic characteristics, still showed variations.

As part of a larger study on the 2018 elections, LCPS has analyzed voter behavior at the national level and the electoral district level. Using the official elections results at the polling station level, published by the Ministry of Interior,¹ the analysis unpacks the elections results and examines differing patterns in voting behavior across demographic characteristics and geographical areas. The results at the polling station level were merged with a series of potential explanatory factors at the individual and cadastral levels. First, based on the ministry's list of

¹

Available at: <http://elections.gov.lb>.

registered voters by confession and gender in each of the polling stations,² we identified the demographic characteristics of registered voters in each of the polling stations. The results at the polling station level were also merged with a series of factors that may have affected voters' choices at the cadastral level in each electoral district. These factors include the level of economic development in a cadaster, approximated by the night-time light intensity;³ the poverty rate in a cadaster, approximated by the ratio of beneficiaries of the National Poverty Targeting Program over the population in the cadaster;⁴ the level of sectarian homogeneity in a cadaster, constructed by LCPS and based on the distribution of voters by confession in each cadaster;⁵ and, finally, the share of refugees over the number of registered voters in a cadaster.⁶ Through the use of multivariate regression analyses, the explanatory significance of each of these factors on voter behavior is identified.

Apart from voters' preferences, the study also examines incidents of electoral fraud. We seek to identify evidence of voter rigging, such as vote buying, and vote rigging, such as ballot stuffing and vote counting manipulations.

This report unpacks the results in the electoral district of South 2, which combined Sour and Zahrani, and is allocated seven parliamentary seats—four Shia seats in Sour, and two Shia and one Greek Catholic seat in Zahrani. The report is divided into six sections. First, we present the demographic distribution of registered voters in Sour and Zahrani. The second section is concerned with voter turnout, which showed to vary across confessional groups, gender, and cadastral areas. The third section of this report delves into voters' preferences for political parties and candidates. Going beyond the results at the aggregate level, we shed light on the varying preferences for parties and candidates across voters' sect and gender and across geographical areas in South 2, and how these were affected by cadaster-level characteristics. In the fourth section, we examine voters' sectarian behavior—i.e. their preferences for candidates of their same sectarian group. The fifth section looks at the performance of women candidates. Similar to the other sections of this report, we identify each woman's constituents and strongholds. The sixth and final section of this report identifies incidents of electoral fraud. Using a number of statistical methods—which include analyzing the distribution of results at the polling station-level, such as turnouts, votes for each list and party, and the share of invalid ballots—we test for voter and vote rigging, such as pressure to vote through vote buying, or manipulations in the vote counting process.

² Note that some polling stations had voters from multiple confessional groups registered to vote. Similarly, some had both men and women registered to vote.

³ Obtained from the National Oceanic and Atmospheric Administration.

⁴ Data on National Poverty Targeting Program beneficiaries was obtained from the Ministry of Social Affairs.

⁵ Based on electoral data on the sect of voters per polling station, we constructed an index of homogeneity (IH) = $\sum_{i=1}^n S_{ij}^2$, where S_{ij}^2 is the sum of the square root of the share of each sectarian group in the total number of registered voters in a cadaster. The index ranges between 0 (when the cadaster is fully heterogeneous) and 1 (when the cadaster is fully homogeneous, or only one sectarian group is present).

⁶ Data on the refugee population is collected from UNHCR.

I Who are the voters?

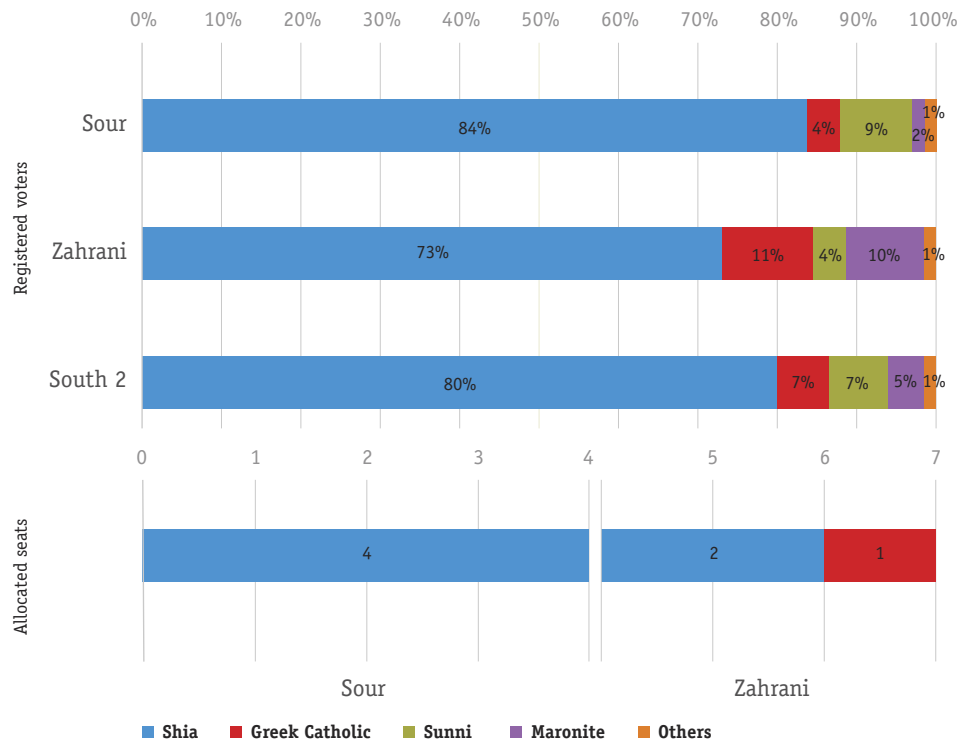
In the May 2018 parliamentary elections, over 300,000 Lebanese were registered to vote in the electoral district of South 2, which combined the districts of Sour and Zahrani. Among these, 304,221 were registered in Lebanon⁷ and 7,732 registered from abroad. Compared to other districts, South 2 has a low level of confessional fragmentation. Shias represent almost 80% of registered voters, while Greek Catholics and Sunnis represent 7% each, and Maronites 5%. The remaining 1% is split between Armenian Orthodox, Christian minorities, Greek Orthodox, Armenian Catholic, and Druze voters (figure 1).⁸

Seven seats were contested in South 2—four of them in Sour and three in Zahrani. All four seats in Sour, as well as two of the seats in Zahrani, are allocated to the Shia community, and the remaining seat in Zahrani is reserved for Greek Catholics.

⁷ Including 1,452 public employees.

⁸ We calculate the number of registered voters by confession using the official election results published by the Ministry of Interior, as well as the ministry's list of registered voters by confession in each of the polling station. Our approximation of the confessional composition of each district excludes public employees and diaspora voters, whose confessions were not specified.

Figure 1 Registered voters and allocated seats by confession in South 2



Note Percentages have been rounded up.

Given the confessional allocation of seats, representation is not equal for each voter. Rather, it depends on the confessional group to which they belong. In Zahrani, Greek Catholics benefit significantly more from the quota than Shias. The Greek Catholic seat represents 12,862 voters—over three times less than the number of voters per Shia seat (41,192 Shia constituents per seat) (table 1).

Table 1 Confessional composition of South 2 and allocated seats by confessional group

	Sour				Zahrani			
	Number of voters	Percentage	Number of seats	Voters per seat	Number of voters	Percentage*	Number of seats	Voters per seat
Shia	159,342	84%	4	39,836	82,384	73%	2	41,192
Greek Catholic	7,754	4%			12,862	11%	1	12,862
Sunni	17,418	9%			4,588	4%		
Maronite	2,872	2%			11,221	10%		
Christian minorities	975	0.5%			855	0.8%		
Greek Orthodox	661	0.3%			536	0.5%		
Armenian Orthodox	1,003	0.5%			67	0.1%		
Armenian Catholic	129	0.1%			37	0.0%		
Druze					66	0.1%		
Total	190,153	100%	4		112,616	100%	3	
Public employees	875				577			
Diaspora	4,857				2,875			
Total	195,885				116,068			

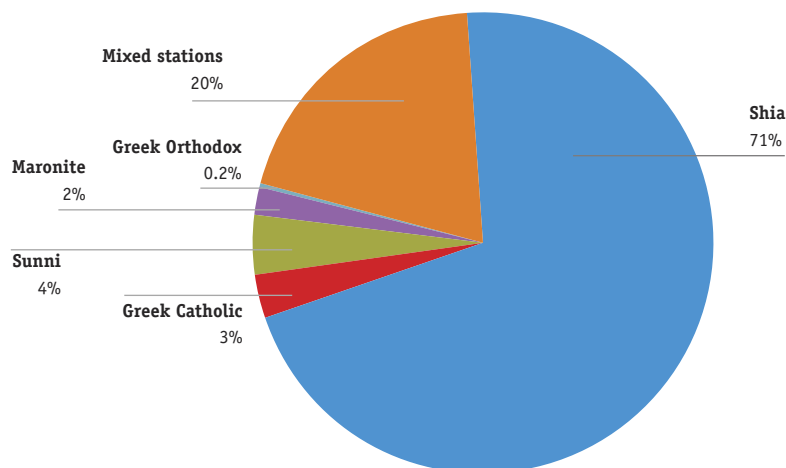
Note Percentages have been rounded up.

Registered voters were generally divided among electoral centers depending on their gender and confession.

The largest share of polling stations had Shia voters registered (71%), followed by Sunnis (4% of polling stations), Greek Catholics (3%), and Maronites (2%). Twenty percent of polling stations serviced voters from multiple groups—thus inhibiting a comprehensive analysis of voter behavior by confessional group. These polling stations serviced slightly over 60,000 voters.⁹

⁹ Almost 34,000 in Sour and 27,000 in Zahrani.

Figure 2 Confessional composition of polling stations in South 2



Note Percentages have been rounded up.

10

These percentages are calculated by comparing the total number of registered voters by confession to the number of voters registered in their own stations. On the same basis, it is also possible to calculate the confessional composition of mixed stations. In Sour, half of registered voters in mixed stations were Shia, 20% were Sunni, 15% were Greek Catholic, and from 1% to 5% were Maronite, Christian minorities, Greek Orthodox, and Armenian Orthodox. In Zahrani, from 20% to 30% of voters in mixed stations were Shia, Greek Catholic, and Maronite, each, and about 10% were Sunni. The remaining 5% was split between the other minoritarian groups.

11

145,817 out of the 304,221 registered voters residing in Lebanon decided to vote, while 4,447 out of the 7,732 who registered from abroad did so.

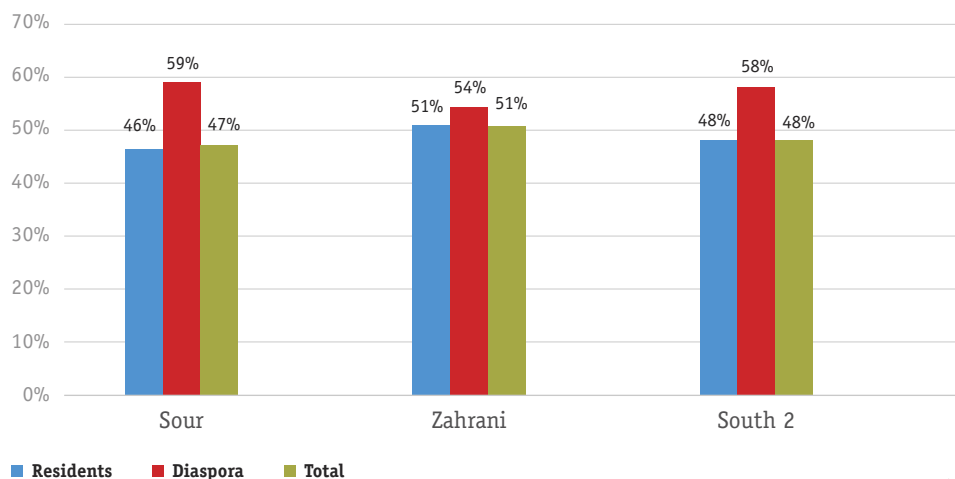
A comparison of the total number of registered voters by confession to the number of voters registered in stations exclusively servicing voters of their confession shows that about 90% of Shia voters in both Sour and Zahrani were registered in their own stations. Only 53% of Greek Catholics in Zahrani—where they are represented by a seat—were registered in Greek Catholic-only stations. Regarding other groups in each of the minor districts, about 40% of Greek Catholics, 60% of Sunnis, and 35% of Maronites in Sour were registered in their own stations; and about 35% of Sunnis and Maronites, each, were registered in their own stations in Zahrani.¹⁰

II Who voted?

Turnout in South 2 was slightly lower than the national average—48.2% compared to 49%. It was much higher in Zahrani (50.7%) than it was in Sour (46.6%). Among the 311,953 voters registered in South 2, 150,264 cast a vote and 161,689 did not.¹¹ Both Sour and Zahrani saw a drop in turnout from 2009: In the 2009 elections, turnout in Sour was 48%, while in Zahrani it was 54%.

Similar to trends in other districts, turnout was significantly higher among diaspora voters. The turnout rate was almost 10% higher among diaspora voters than it was among residents (58% compared to 48%). The difference was particularly large in Sour—where turnout among the diaspora was 13% higher than it was among residents (46% among residents compared to 59% among emigrants). In Zahrani, it was slightly less than 4% higher (51% among residents compared to 54% among emigrants).

Figure 3 Turnout by residency in South 2



Note Percentages have been rounded up.

The Shia community and women voters were the most mobilized

Turnout varied across confessional groups. In both Sour and Zahrani, Shias were the most mobilized while Maronites were the least mobilized.

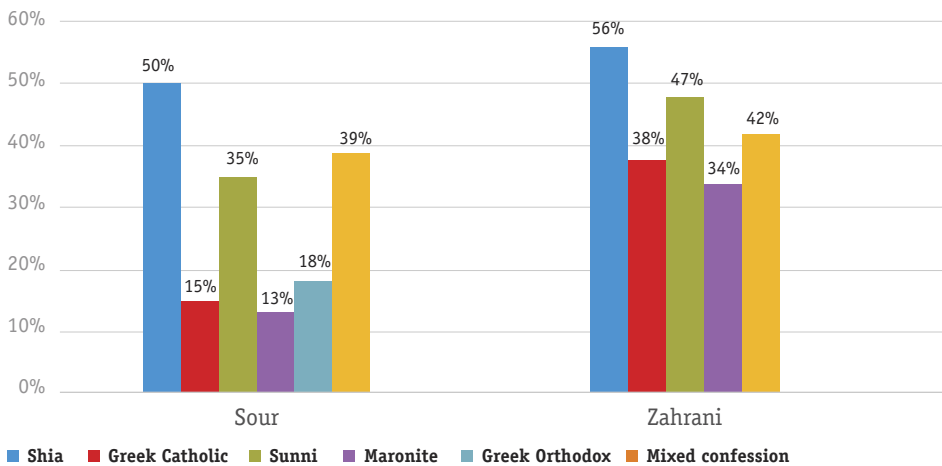
In Sour, turnout among the Shia community stood at 50%, with Sunnis following at 35%. Other communities had much lower turnout rates: 18% of Greek Orthodox, 15% of Greek Catholics, and 13% of Maronites voted. Turnout among voters registered in mixed polling stations was slightly lower than 39%. Lower turnouts among Christians in Sour reflect a trend observed across the majority of districts: Minoritarian groups—Greek Catholics, Greek Orthodox, and Maronites in this case—tended to have lower turnouts.¹²

In Zahrani, turnout among Shias was nearly 56%, followed by Sunnis with 47% of them voting. The lowest turnouts were observed among Greek Catholic (38%) and Maronite voters (34%). The low turnout among Greek Catholic voters is surprising given that a seat is allocated to them in the district. In mixed stations, turnout stood at 41%.¹³ When controlling for voters’ gender, as well as characteristics of the cadasters in which they registered—such as level of economic development, poverty rates, and degree of confessional fragmentation—these variations in turnout across confessional groups are statistically significant.

12
In Sour, about 142,000 Shia, 9,700 Sunni, 3,200 Greek Catholic, 1,000 Maronite, and 470 Greek Orthodox voters were registered in their own polling stations. Mixed stations had almost 34,000 voters registered to vote.

13
In Zahrani, about 74,000 Shia, 6,800 Greek Catholic, 3,800 Maronite, and 1,600 Sunni voters were registered in their own polling stations. Mixed stations had nearly 11,500 voters registered to vote.

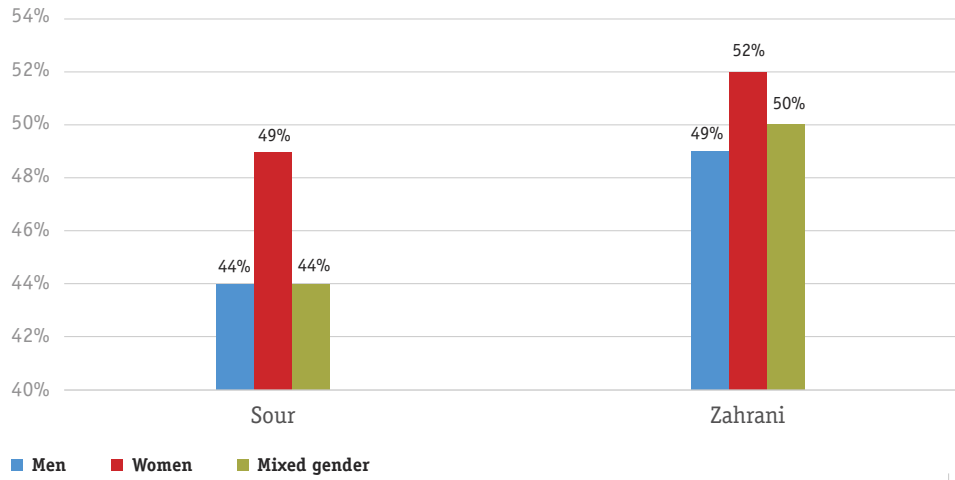
Figure 4 Turnout by confessional group in South 2



Note Percentages have been rounded up.

Turnout also varied across genders, with women voters having a significantly higher turnout rate than men in both Sour and Zahrani. In Sour, turnout among women was almost 49%, compared to 44% among both men and voters registered in gender-mixed stations. In Zahrani, turnout among women was 52%, while that among men as well as voters in gender-mixed stations was 49%. These variations across genders are statistically significant, even after controlling for voters’ confession as well as characteristics of the cadasters in which they were registered.

Figure 5 Turnout by gender in South 2



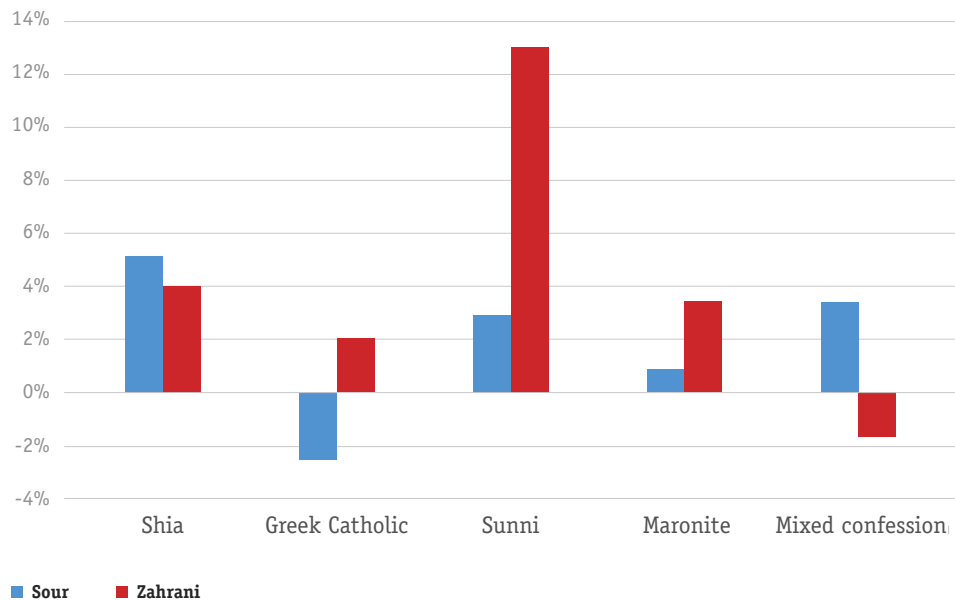
Note Percentages have been rounded up.

14

Note that there was only one Greek Orthodox polling station in South 2 which had both genders registered to vote.

Moreover, women voters from all confessional groups in both Sour and Zahrani—except Greek Catholic women in Sour—had higher turnout rates than their male counterparts.

Figure 6 Difference in turnouts between men and women voters among each confessional group in South 2



Geographical variations in turnout are explained by the confessional composition of cadasters

There were large geographical variations in turnouts within each of the minor districts, with turnouts across cadasters varying from below 20% to above 60%.

In Sour, where overall turnout among residents stood at 46%, the cadasters with the lowest turnouts were Derdghaya (10%), Aalma El-Chaab (13%), Neffahiyeh (27%), and Boughliyah (28%). Those with the highest were Arzoun (71%) and Wadi Jilou (70%), followed by Bedias, Borj Rahal, and Halloussiyeh (62% each). In all of these high-turnout cadasters, only Shias were registered to vote. The three lowest-turnout cadasters had an overwhelming majority of Christians registered, with the fourth being almost fully Sunni.

Table 2 Sour: Lowest and highest turnout cadasters

Cadaster	Registered voters	Voters	Turnout	Majoritarian confessional group
Derdghaya	941	98	10%	Greek Catholic (93%)
Aalma El-Chaab	2,320	312	13%	Maronite (47%), Greek Catholic (31%), Christian minorities (18%)
Neffahiyeh	252	67	27%	Greek Catholic (87%), Shia (13%)
Boughliyah	2,708	750	28%	Sunni (98%)
Arzoun	531	375	71%	Shia
Wadi Jilou	698	489	70%	Shia
Bedias	1,177	735	62%	Shia
Borj Rahal	3,136	1,955	62%	Shia
Halloussiyeh	2,021	1,245	62%	Shia

Note Percentages have been rounded up.

In Zahrani, where turnout among residents was 51%, Hlaliyah (19%) was the only cadaster with a turnout below 20%. Four other cadasters saw turnouts below 25%—Bramiyeh, Salhiyah, Miyeh w Miyeh, and Darb El-Sim—all with an overwhelming majority of Greek Catholics and Maronites registered to vote. While overall turnout in Zahrani was higher than it was in Sour, the highest turnout in a cadaster in Zahrani was only 66% (compared to 71% in Sour). The cadaster with the highest turnout was Zaita (66%), followed by El-Hara, Qaaqaiyet El-Snoubar, Aarab El-Jall, Ansariyah, Saksakiyah, and Baissariye (over 60% each). Similar to Sour, all of these high-turnout cadasters are fully Shia, with the exception of El-Hara, Aarab El-Jall, and Baissariye, which had a significant share of Sunnis registered to vote.

Table 3 Zahrani: Lowest and highest turnout cadasters

Cadaster	Registered voters	Voters	Turnout	Majoritarian confessional group
Hlaliyeh	836	161	19%	Greek Catholic (63%), Maronite (16%)
Bramiyeh	1,179	271	23%	Maronite (56%), Greek Catholic (27%)
Salhiyeh	874	201	23%	Greek Catholic (90%), Maronite (10%)
Miyeh w Miyeh	2,949	685	23%	Greek Catholic
Darb El-Sim	2,276	529	23%	Maronite (83%), other Christians (15%)
Zaita	607	403	66%	Shia
El-Hara	3,206	2,053	64%	Shia (85%), Sunni (15%)
Qaaqaiyet El-Snoubar	1,246	790	63%	Shia
Aarab El-Jall	291	182	63%	Sunni (55%), Shia (45%)
Ansariyeh	2,719	1,686	62%	Shia
Saksakiyeh	5,352	3,239	61%	Shia
Baissariye	3,083	1,852	60%	Shia (70%), Sunni (30%)

Note Percentages have been rounded up.

Geographical variations in turnout are driven by inter-sect differences. In line with the higher turnouts among Shias, a higher share of Shia voters registered in a cadaster was associated with higher turnout rates.

In Sour, in all cadasters with the highest turnouts, over 95% of registered voters were Shia. On average, turnout tended to increase as the percentage of Shia voters registered in a cadaster increased. Moreover, fully Shia cadasters had an average turnout rate of 54%, while, for example, those where Shias constituted less than 50% of registered voters had an average turnout rate of 32%. Cadasters with lower turnouts had a high prevalence of other confessional groups, in particular Christians.

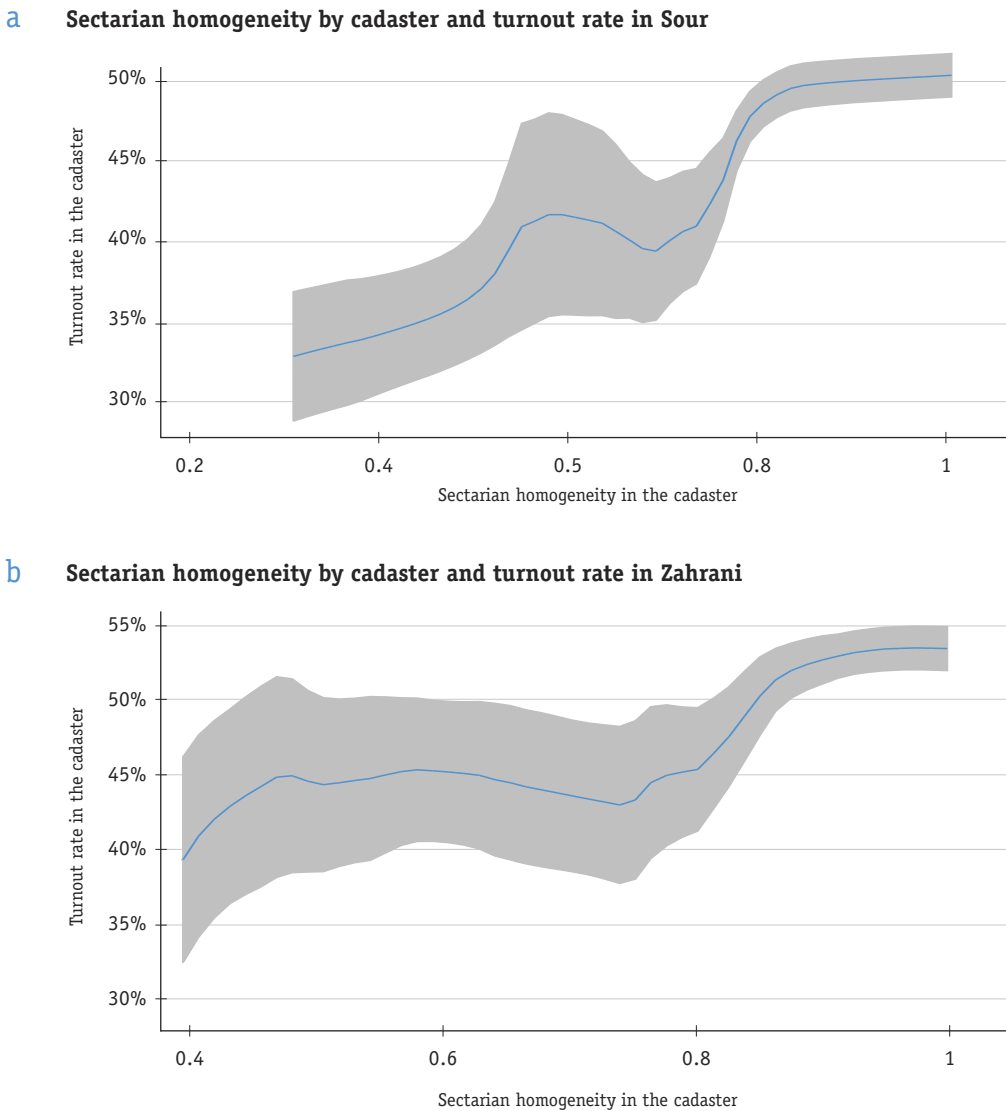
Similarly, in Zahrani, most cadasters with the highest turnouts—apart from two—were fully or nearly Shia. The exceptions are Aarab El-Jall, in which 55% of registered voters were Sunni (with the remaining 45% being Shia), and Baissariye (30% Sunni, 70% Shia). Moreover, on average, when Shias constituted less than half of registered voters in a cadaster, average turnouts stood at 36%. When they constituted the majority of registered voters, turnouts by cadaster averaged 52%. On average, when Greek Catholic or Maronite voters comprised over half of registered voters, turnout tended to be

42%, showing that a higher prevalence of Christians registered in a cadaster was associated with lower turnout rates.

Beyond the prevalence of any specific confessional group in a cadaster, turnout may be affected by the level of confessional homogeneity in a cadaster—that is, whether many different groups cohabit or there is a high predominance of one, regardless of which.¹⁵ In Sour, the more homogenous the cadaster, the higher the participation rate in the elections. This relationship is statistically significant even when controlling for voters’ gender, confession, and characteristics of the cadasters in which they were registered, such as level of economic development and poverty rates. This points toward sectarian parties’ higher capacity in mobilizing voters in more homogeneous areas—Amal and Hezbollah in this case. However, this relationship was not significant in Zahrani.

15 We use an index of confessional homogeneity (IH) = $\sum_{i=1}^n S_{ij}^2$, where S_{ij}^2 is the sum of the square root of the share of each sectarian group in the total number of registered voters in a cadaster. The index ranges between 0.3 (when the cadaster is fully heterogeneous) and 1 (when the cadaster is fully homogeneous, or only one sectarian group is present).

Figure 7 Sectarian homogeneity by cadaster and turnout rate

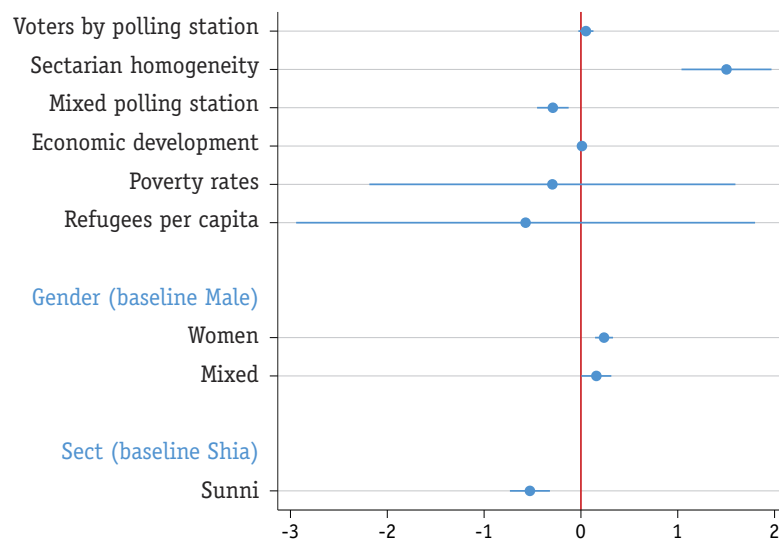


What are the main drivers of turnout in South 2?

A multivariate analysis highlights the impact of different individual and geographic characteristics of constituents on turnout rates. Factors that affected turnout include the individual characteristics of voters, as well as characteristics of the cadasters and polling stations in which they were registered.

In Sour, the level of sectarian homogeneity in a cadaster is a significant determinant of turnout: Voters in more homogeneous cadasters were more likely to vote. This factor is statistically significant even after controlling for voters' confession and gender. This points to sectarian parties' higher capacity to mobilize voters in more homogeneous areas—for example, in this case, Amal mobilizing Shia voters. Moreover, voters registered in confessionally mixed polling stations were less likely to vote than those in homogeneous stations. This points toward parties' targeted mobilization of voters based on their confession. Across confessional groups, Shias were the most likely to vote. This may be because they are represented by all seats in the district. Women voters were also more likely to vote than men.

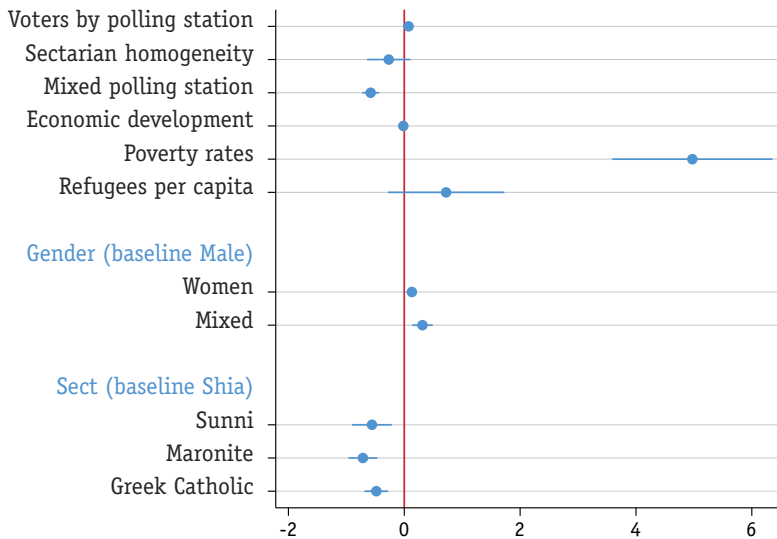
Figure 8 Drivers of turnout in Sour



In Zahrani, voters registered in cadasters with higher levels of economic development were slightly less likely to vote, and those in cadasters with higher poverty rates were significantly more likely to vote. This could suggest that candidates were able to mobilize voters by offering benefits in exchange of votes. By sect, controlling for all cadaster-level characteristics, Shias were the most likely to vote. There were no significant variations between other groups, although Maronites were slightly less likely to vote compared to other groups. Moreover, voters registered in confessionally mixed polling stations were less

likely to vote than those in homogeneous stations—this points toward parties’ targeted mobilization of voters based on their confession.

Figure 9 Drivers of turnout in Zahrani



In both districts, voters registered in mixed polling stations were less likely to vote. This may be due to parties’ higher interest in focusing on polling stations where their main support base was registered to vote. Given the sectarian nature of the Lebanese political system, parties’ targeted mobilization of a specific confessional group may guarantee them a higher percentage of votes. More specifically, in both Sour and Zahrani, Amal and Hezbollah may have targeted or pressured Shia voters to vote, while in Zahrani, the opposing list, backed by the Free Patriotic Movement (FPM) may have targeted Greek Catholic and Maronite voters registered in their own polling stations. Regarding voters’ individual characteristics, women were more likely to vote than men in both Sour and Zahrani. Across confessional groups, Shias were significantly more likely to vote than others.

III Who voted for whom?

Only two lists ran in South 2, with a total of 13 candidates competing for the seven seats. There were eight candidates competing for the four Shia seats in Sour, three candidates competing for the two Shia seats in Zahrani, and two candidates competing for the Greek Catholic seat in Zahrani.

The race was uncompetitive, with one list obtaining an overwhelming majority of the votes and all seat

Overall, the results in South 2 in 2018 were not different from those in 2009, with the same parties retaining their seats.

16

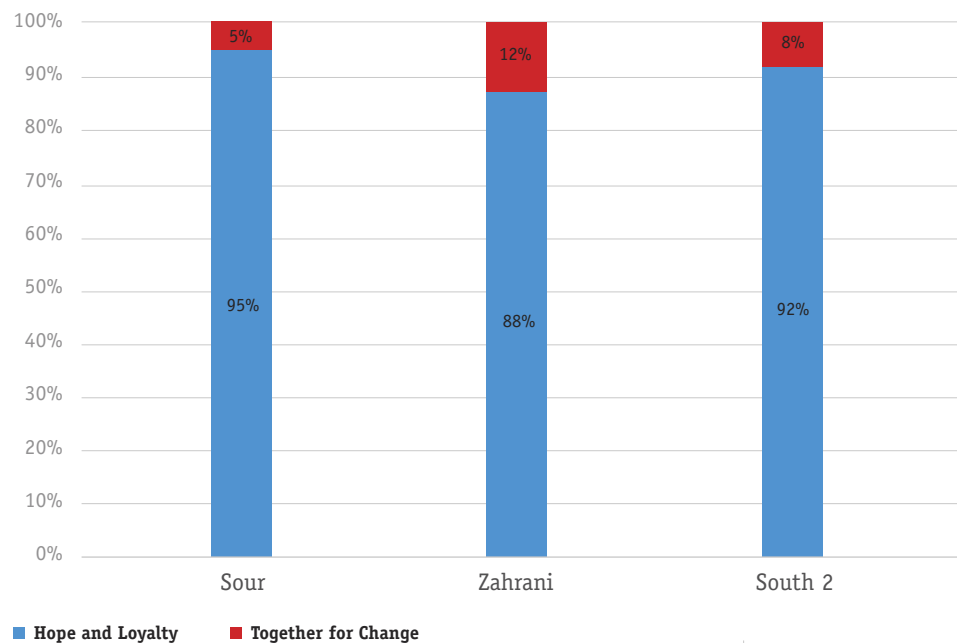
Nawwaf Moussawi resigned on 18 July 2019. Hassan Ezzeddine from Hezbollah won his seat in the by-elections of September 15, 2019. Ezzeddine ran unopposed.

The ‘Hope and Loyalty’ list, formed by the Amal Movement and Hezbollah, obtained 92% of the vote, winning all seven seats. Its percentage of votes was higher in Sour (95%) than in Zahrani (88%). In Sour, the four Shia seats were obtained by Nawwaf Moussawi (Hezbollah, 24,379 votes),¹⁶ Hussein Jechi (Hezbollah, 23,864 votes), Ali Khreiss (Amal, 15,672 votes), and Inaya Ezzeddine (Amal, 18,815 votes). In Zahrani, the two Shia seats were won by Nabih Berri (Amal, 42,137 votes) and Ali Osseiran (Amal, 2,203 votes), and the Greek Catholic seat by Michel Moussa (Amal, 4,162 votes).

All winners in Zahrani were the incumbents, while in Sour, Ali Khreiss and Nawwaf Moussawi were also reelected. The two other winners, Hussein Jechi and Inaya Ezeddine, ran for the first time, with the incumbents not running for reelection.

The second list, ‘Together for Change’, included a candidate backed by the Free Patriotic Movement (FPM), one from the Communist party, and independents. The list fielded six candidates—four in Sour and two in Zahrani—and won only 8% of the vote in South 2. Its percentage of votes was much higher in Zahrani (12%) than Sour (5%). This is due to the higher success of Greek Catholic candidate Wissam Hajj in Zahrani, who received 4,729 preferential votes and ranked second in the district—ahead of two of the winning candidates.

Figure 10 Votes for each list in South 2

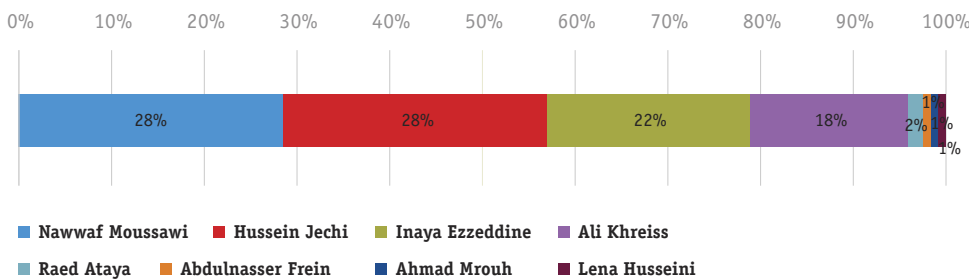


Amal, which ran five candidates, won 59% of the vote in South 2 overall, with its two candidates in Sour obtaining 40% of preferential votes, and its three candidates in Zahrani obtaining 88%. Two Hezbollah candidates ran in Sour, where they obtained 56% of preferential votes. The remaining preferential votes in Sour went to Communist party candidate Raed Ataya (2%), and three independents running on the same list.

The candidate backed by the FPM, Wissam Hajj, ran in Zahrani, where he obtained 9% of preferential votes. The last candidate in the district, Riad al Assaad, an independent on the same list, won 3% of preferential votes.

Overall, in Sour, Hezbollah candidates Nawwaf Moussawi—an incumbent MP—and Hussein Jechi were the most successful at mobilizing their voters (28% of preferential votes each). Inaya Ezzeddine (Amal), who ran for the first time, obtained 22% of preferential votes—performing better than incumbent MP Ali Khreiss (18%). The Communist party candidate Raed Ataya managed to capture only 2% of preferential votes, while the three independent candidates running on the same list won 3% combined. Those were Abdalnasser Frein (1%), Ahmad Mrouh (1%), and Lena Hussein (0.6%).

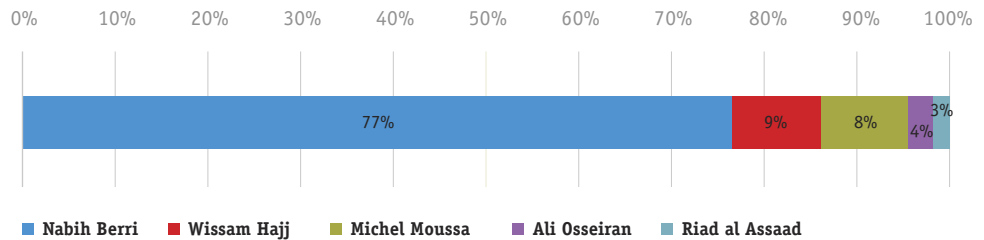
Figure 11 Votes for each candidate in Sour



Note Percentages have been rounded up.

In Zahrani, a majority of the votes went to the speaker of parliament and head of the Amal Movement Nabih Berri (77%). The two other Amal candidates, Michel Moussa and Ali Osseiran (8% and 4% respectively), were less successful than Wissam Hajj (9%), despite being both the incumbent MPs and winners. Finally, Riad al Assaad won 3% of preferential votes.

Figure 12 Votes for each candidate in Zahrani



Note Percentages have been rounded up.

The Lebanese diaspora voted differently. Preferences for certain candidates varied between voters residing in Lebanon and those who voted from abroad. Among those registered in Sour,¹⁷ diaspora voters voted less for Hussein Jechi (12% less) and Nawwaf Moussawi (4% less), and more for Inaya Ezzeddine and Ali Khreiss (10 and 6%, respectively). Among those registered in Zahrani,¹⁸ emigrants voted less for Nabih Berri (12% less), while they voted more for Wissam Hajj and Michel Moussa (6% and 5%, respectively).

17

2,677 emigrants cast a preferential vote in Sour.

18

1,441 emigrants cast a preferential vote in Zahrani.

The most successful candidates do not always win

Under Lebanon's electoral system—which entails elements of proportional representation and the option to cast a preferential vote, sectarian allocation of seats, and high electoral thresholds—candidates who receive the highest number of preferential votes do not necessarily win. Were seats obtained by the most successful candidates representing each sectarian group, regardless of list, Wissam Hajj would have won the Greek Catholic seat in Zahrani instead of Michel Moussa. While Moussa won with slightly less than 4,200 votes (2.9% of preferential votes in South 2), Hajj lost despite receiving over 4,700 votes (3.3%). With the electoral quotient—i.e. the minimum number of votes a list must receive in order to win a seat—in South 2 set at 14.3% of votes, Hajj's list fell short of slightly over 9,500 votes to win a seat.

Voting variations across confessional groups but not across genders

Preferences for political parties did not significantly vary across genders. The only difference was observed in votes for Hezbollah and Amal: Compared to male voters, women voted more for Hezbollah (3% more), and slightly less for Amal (3% less). By candidate, women voters had a much higher preference for Nawwaf Moussawi in Sour, who received 30% of their preferential votes compared to almost 27% among men. Women also voted slightly more for Inaya Ezzeddine (22% compared to 20% of men). Moreover, they voted significantly less for Ali Khreiss, who received 15% of their votes compared to 20% of men's (table 4). Regarding other candidates in Sour, preferences across genders did not

significantly vary. In Zahrani, women voted more for Nabih Berri (80% compared to 76% of men), and less for both Ali Osseiran (3% compared to 5%) and Michel Moussa (6% compared to 8% of men). Votes for other candidates did not significantly vary across gender.

Voters in gender-mixed stations had significantly different preferences:¹⁹ They tended to vote less for Hezbollah, and more for Amal and Wissam Hajj than voters in women-only and men-only stations. In particular, voters in gender-mixed stations voted less for Hussein Jechi (Hezbollah, 4% less on average than voters in gender-specific stations), and more for Inaya Ezzeddine (an average of 3% more compared to others). In Zahrani, they voted more for Wissam Hajj (4% more on average, compared to those in gender-specific stations), and Michel Moussa (3% more), and significantly less for Nabih Berri (8% less).

19

Note that about 10,000 voters in gender-mixed stations in Sour cast a preferential vote, and about 7,000 in Zahrani did so—in contrast with over 30,000 in each of the single-gender stations in Sour and over 20,000 in Zahrani.

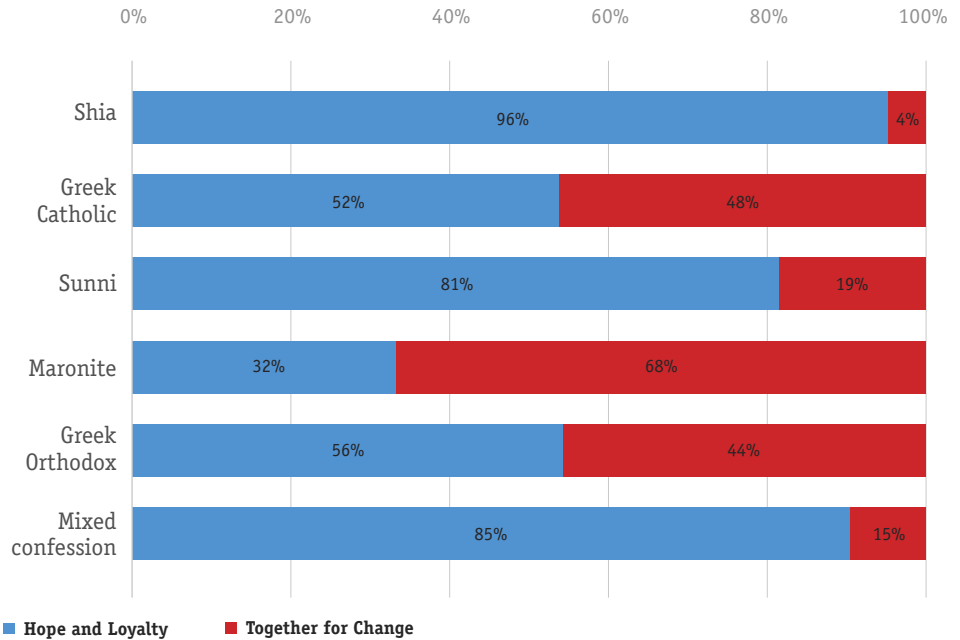
Table 4 Votes for each candidates by voters' gender South 2

	Men		Women		Mixed gender		
	Number of votes	Percentage of preferential votes	Number of votes	Percentage of preferential votes	Number of votes	Percentage of preferential votes	
Candidates in Sour	Nawwaf Moussawi	9,140	27%	11,642	30%	2,826	28%
	Hussein Jechi	9,660	28%	11,220	29%	2,422	24%
	Inaya Ezzeddine	6,913	20%	8,479	22%	2,401	24%
	Ali Khreiss	6,968	20%	5,974	15%	1,908	19%
	Raed Ataya	669	2%	527	1%	142	1%
	Abdulnasser Frein	470	1%	508	1%	225	2%
	Ahmad Mrouh	370	1%	356	1%	84	1%
	Lena Hussein	196	1%	181	0%	76	1%
Candidates in Zahrani	Nabih Berri	17,268	76%	19,090	80%	4,844	70%
	Ali Osseiran	1,034	5%	740	3%	366	5%
	Michel Moussa	1,752	8%	1,499	6%	725	10%
	Wissam Hajj	1,779	8%	1,920	8%	820	12%
	Riad al Assaad	755	3%	637	3%	181	3%

Note Percentages have been rounded up.

There were large variations in preferences for lists across confessional groups. Almost all Shia voters cast their ballots for the Hezbollah-Amal list (96%), which also received a majority of the Sunni vote (81%). The Christian vote overall was more contested. Both Greek Catholics and Orthodox gave the majority of their votes to Hezbollah-Amal (52% and 56%, respectively), while Maronites voted more for the other list (68%). Voters in mixed stations mostly cast their ballots for Hezbollah-Amal (85%).

Figure 13 Votes for each list by confessional group



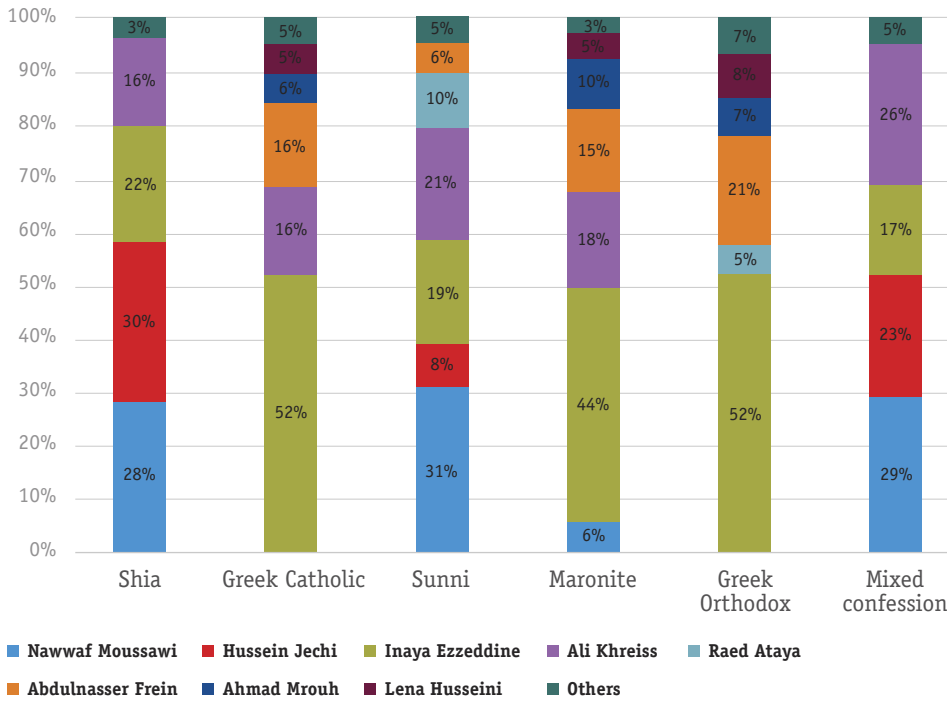
Note Percentages have been rounded up.

Looking at each party and candidate across minor districts, the majority of the Shia vote in Sour went to Hezbollah candidates (58%), with most of the remaining going to Amal candidates (38%). Hussein Jechi (Hezbollah) was most successful, receiving 30% of their preferential vote, followed by Nawwaf Moussawi (28%), Inaya Ezzeddine (22%), and Ali Khreiss (16%). Sunnis in the district gave the highest share of their vote to Nawwaf Moussawi (31%), followed by Ali Khreiss (21%), and Inaya Ezzeddine (19%). Their fourth preferred candidate was Raed Ataya (Communist party), who received 10%—meaning he was most successful among Sunnis compared to other confessional groups. Among Christians from all confessional groups, Inaya Ezzeddine received a significantly higher share of votes than other candidates—52% of each of the Greek Catholic and Orthodox vote, and 44% of the Maronite vote. Most of the remaining Greek Catholic and Maronite votes in Sour went to Ali Khreiss and Abdunnasser Frein (between 15% and 18% of each group's vote), while most of the remaining Greek Orthodox votes went to Abdunnasser Frein (21%).²⁰

20

Note that given the unequal number of voters registered in their own polling stations, as well as the unequal number who cast a preferential vote, these statistics are based on the approximately 67,000 Shia, 3,000 Sunni, 420 Greek Catholic, 100 Maronite, and 70 Greek Orthodox voters registered in their own stations who cast a preferential vote. Moreover, about 12,000 voters in mixed-confession stations cast a preferential vote.

Figure 14 Sour: Preferred candidates by confessional group

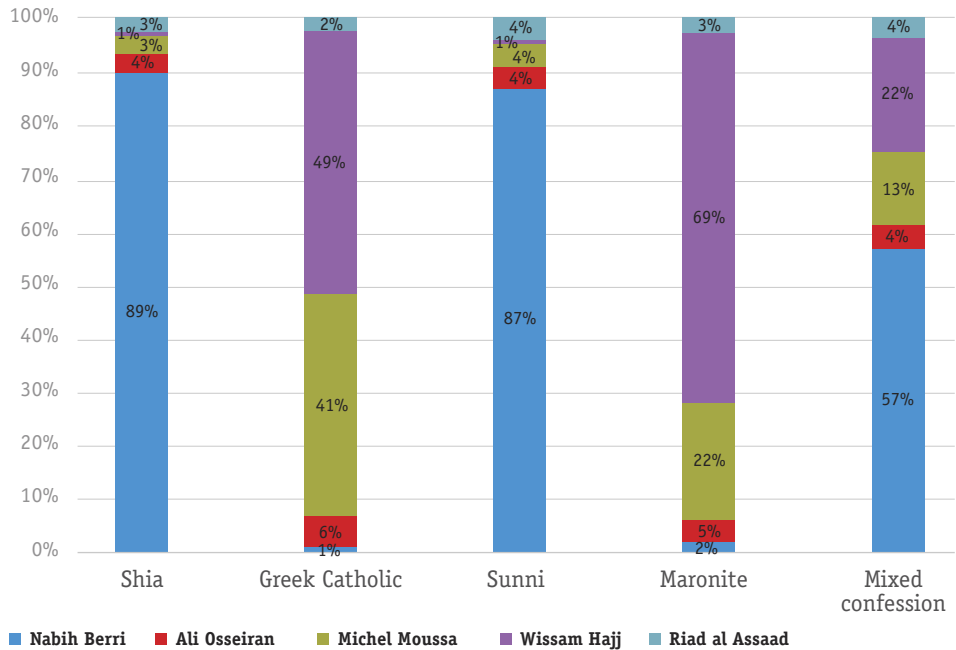


Note Percentages have been rounded up.

In Zahrani, nearly all Shia and Sunni votes went to Amal candidates—most of these were received by Nabih Berri alone. Berri won 89% of the Shia and 87% of the Sunni preferential vote in Zahrani. Ali Osseiran, Michel Moussa, and Riad al Assaad (independent) received the remainder of each group’s preferential vote, with each receiving a similar share. Wissam Hajj obtained less than 1% of Shia and Sunni preferential votes. Hajj was instead the preferred candidate among Greek Catholics Maronites, and won 49% of Greek Catholics’ preferential votes and 69% of Maronites’, with most of the remainder of each group’s votes going to Michel Moussa, who won 41% of Greek Catholics’ and 22% of Maronite voters’ votes. Christians therefore showed a high preference for Greek Catholic candidates. Among both groups, Nabih Berri was the least successful candidate.²¹

21 Note that, given the unequal number of voters registered in their own polling stations, as well as the unequal number who cast a preferential vote, these statistics are based on about 39,000 Shia, 2,400 Greek Catholic, 1,200 Maronite, and 660 Sunni voters registered in their own stations who cast a preferential vote. Moreover, in confession-mixed stations, about 10,000 voters cast a preferential vote.

Figure 15 Zahrani: Preferred candidates by confessional groups

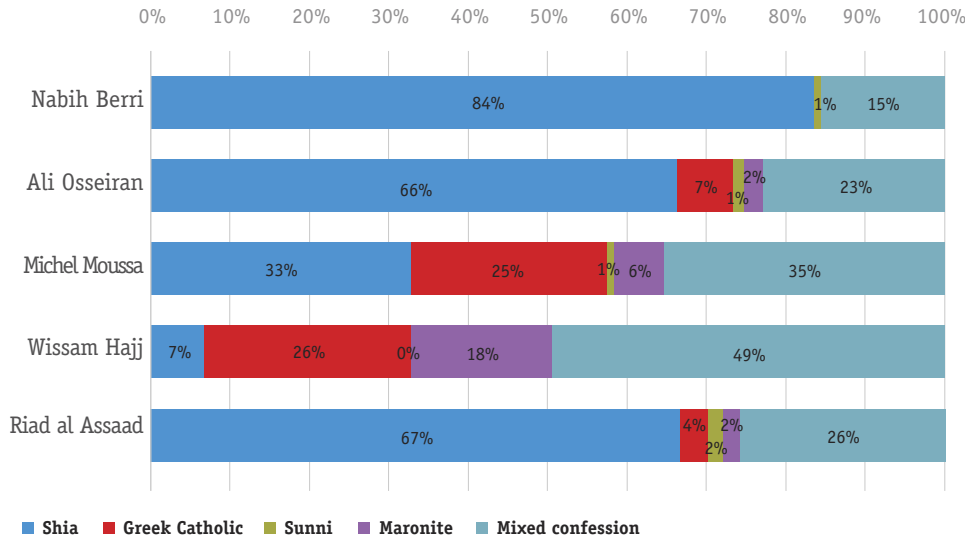


Note Percentages have been rounded up.

Moreover, compared to other candidates, Wissam Hajj and Michel Moussa received a significantly higher share of their preferential votes from Greek Catholic and Maronite voters, and a much lower one from Shia voters—showing that they were more able to rely on the Christian vote. Hajj received over 40% of his preferential votes from Christian stations, and Moussa over 30%. These shares are significant when considering that in total, less than 7% of total preferential votes came from Christian stations.

All three other candidates (Shia) received the majority of their preferential votes from Shia polling stations, with Nabih Berri, in particular, relying on this confessional group, as over 80% of his votes came from Shia polling stations.

Figure 16 Share of votes obtained by each candidate from each type of polling station in Zahrani



Note Percentages have been rounded up.

There were large geographical variations in the success of each party and candidate across cadasters

In Sour, Hezbollah candidates won over 70% of preferential votes in Neffahiyeh, Debaal, Jwaya (over 80%), Sela, and Maaroub (over 70%). All of these cadasters are fully Shia, with the exception of Neffahiyeh, which is nearly fully Greek Catholic. The two Hezbollah candidates were least successful in Dergaghaya (6% of preferential votes combined) where the majority of votes went to Amal candidates. Hezbollah was also unsuccessful in Aalma El-Chaab (14% of preferential votes), where Amal candidates won the highest share of votes (45%), and independents a significant share (17%).

Among Hezbollah candidates, Nawwaf Moussawi received over 1,000 votes in six cadasters. Those were Tyr (4,434 votes, 44% of preferential votes), Chehabieh (1,719 votes, 58%), Aabbassiyet Sour—which included the towns of Aabbassiyeh and Chabriha (1,279 votes, 43%), Maarakeh (1,207 votes, 39%), Chehour (1,102 votes, 49%), and Tayr Debba (1,078 votes, 58%).

The second Hezbollah candidate, Hussein Jechi, won his highest share of votes in Jwaya (3,192 votes, 79% of preferential votes), and over 1,000 votes in six other cadasters: Qana (1,515 votes, 61%), Bazouriyeh (1,417 votes, 60%), Srifa (1,387 votes, 49%), Deir Qanoun El-Nahr (1,242 votes, 63%), Majdel Zoun (1,036 votes, 64%), and Mjadel (1,006 votes, 65%).

Amal candidates in Sour won the highest percentage of votes in Kneisseh (73%), and from 60% to 70% in Borj Rahal, Dergghaya, Bedias, and Dhayra. The party won less than 20% of votes in Jwaya, Debaal, and Neffahiyeh (from 14% to 16% each), where most of the votes were

for Hezbollah. Overall, in most cadasters in Sour, the party obtained between 30% and 45% of votes. Similar to Hezbollah, Amal also tended to perform better in cadasters with a higher share of Shia voters.

Regarding Amal candidates in Sour, Inaya Ezzeddine received a high share of votes in Tyr (2,003 votes, 20% of preferential votes), Maarakeh (1,412 votes, 46%), Srafa (1,180 votes, 42%), and Chehour (1,021 votes, 46%). The second candidate, Ali Khreiss, won over 1,000 votes in Tyr (2,042 votes, 20%), Borj Rahal (1,237 votes, 65%), and Aabbassiyet Sour (1,172 votes, 39%). He also won over 500 votes in Toura (700 votes, 44%), Qana (658 votes, 27%), and Chehabieh (638 votes, 22%).

In Zahrani, Amal obtained over 90% of votes in 23 cadasters. The party won over 95% in eight Zahrani cadasters, including Kaouthariyet El-Siyad, Kfar Melki, Kfar Hatta, Kfar Beit, Qennarit, Ghassaniyeh, Khartoum, and Teffahta, all of which are fully, or almost fully, Shia (over 98%). Amal was unsuccessful only in Salhiyeh (15% of votes) and Bqosta (16% of votes), both of which were fully Greek Catholic and Maronite.

Among the candidates, Nabih Berri, who was by far the most successful candidate in Zahrani, won over 1,000 votes in 18 cadasters. He won over 2,000 votes in Sarafand (3,818 votes, 94%), Ghazieh (3,787 votes, 92%), Aadloun (2,680 votes, 86%), Saksakiyeh (2,495 votes, 82%), and Kharayeb Saida (2,139 votes, 93%).

The second candidate, Michel Moussa, won over 100 votes in 13 cadasters. He won nearly 900 votes in Maghdoucheh (887 votes, 52% of preferential votes), which was his highest share, and also won over 200 votes in Saksakiyeh (209 votes, 7%).

Ali Oseiran, who was the least successful on the list, only won over 50 votes in 15 cadasters. He managed to win over 100 in Saksakiyeh (192 votes, 6% of preferential votes), Aadloun (161 votes, 5%), Ghazieh (129 votes, 3%), Zrariyeh (126 votes, 5%), and Insariyeh (116 votes, 7%).

The independent list in Sour managed to win over 20% of votes in Zalloutiyeh (43%, although this represents only 36 votes), Aalma El-Chaab (31%), Yarine (27%), Boustane (25%), and Merouahine (22%). All of these cadasters are fully Sunni, with the exception of Aalma El-Chaab, which is Christian.

Among candidates on the independent list in Sour, Raed Ataya from the Communist party won over 100 votes in only four cadasters. He won his highest share in Yarine (184 votes, 23% of preferential votes), followed by Maarakeh (130 votes, 4%), Tyr (116 votes, 1%), and Ain Baal (100 votes, 8%).

The second candidate, Abdalnasser Frein, won the majority of his votes from voters in Tyr—or 746 votes out of the 1,203 he obtained among residents, representing 7% of preferential votes in the city. He managed to win over 40 votes in three other cadasters: Borj El-Chemali

(54 votes, 2% of preferential votes), Boughliyah (43 votes, 7%), and Tayr Debba (40 votes, 2%).

Ahmad Mrouh won over 50 votes only in Tyr (161 votes, 2% of preferential votes), Aaitit (124 votes, 9%), and Boustane (68 votes, 15%). Finally, Lena Husseini, who was the least successful candidate in the district, also won her highest share in Tyr (86 votes, only 0.1%), with her second-highest coming from voters in Chehour (37 votes, 2%). She won less than 20 votes in all other cadasters, and only over 10 in eight.

In Zahrani, the independent list was more successful, winning over 70% of votes in six cadasters. The highest share it obtained was in Bqosta (82%), followed by Salhiyah (79%), and Saida Kafraiya, Qraiya Saida, Tanbourit, and Ain El-Delb (from 70% to 75% each). Overall, all cadasters in which voters cast a high percentage of their votes for the independent list are majorly Greek Catholic or Maronite, reflecting the higher support it obtained from these groups.

Among the candidates in Zahrani, Wissam Hajj who was more successful than two of the winners, won a high number of votes in Maghdoucheh (762 votes, 45% of preferential votes) and Qraiya Saida (485 votes, 74%). He also won over 200 votes in Miyeh w Miyeh (384 votes, 59%), Ain El-Delb (345 votes, 70%), Darb El-Sim (282 votes, 59%), Tanbourit (245 votes, 67%), and Aabra (217 votes, 55%).

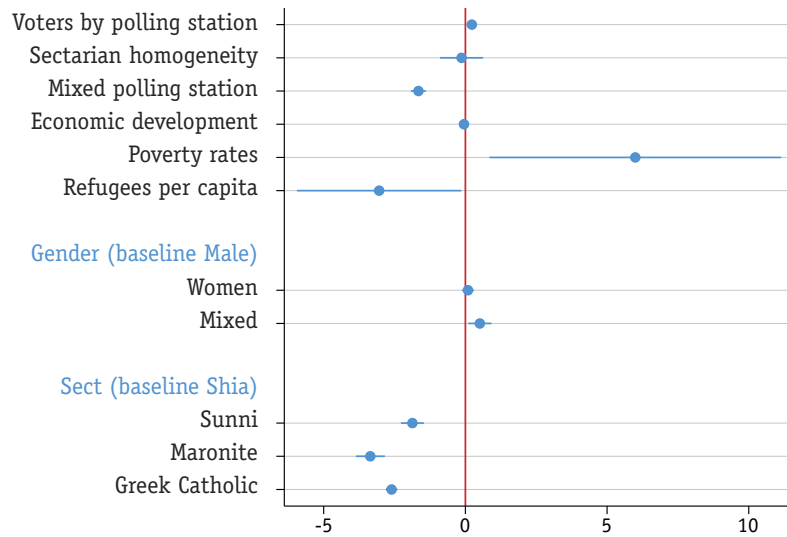
Finally, Riad al Assaad won over 50 votes in 10 cadasters. The highest number of votes he obtained came from voters in Zrariyah (323 votes, 14% of preferential votes), followed by those in Saksakiyah (129 votes, 4%).

What are the drivers of votes for each list and party?

A multivariate analysis highlights some of the geographical-level and individual characteristics that might have impacted votes for each list and party.

In South 2, the Hezbollah-Amal list tended to perform better in larger polling stations. It also performed better in homogeneous rather than mixed stations. Both these results could be due to the fact that most homogeneous stations were Shia, and that Shia stations tended to be larger. Regarding geographical-level characteristics, the list tended to perform slightly better in cadasters with lower levels of economic development, and much better in those with higher poverty rates. These results could suggest incidents of vote buying, as parties may be more inclined to offer benefits in exchange of votes in poorer areas. Finally, across confessional groups, Shia voters were significantly more likely to vote for the Hezbollah-Amal list, compared to others. There were no significant variations among other groups, although Maronite voters were slightly less likely to vote for the list compared to others.

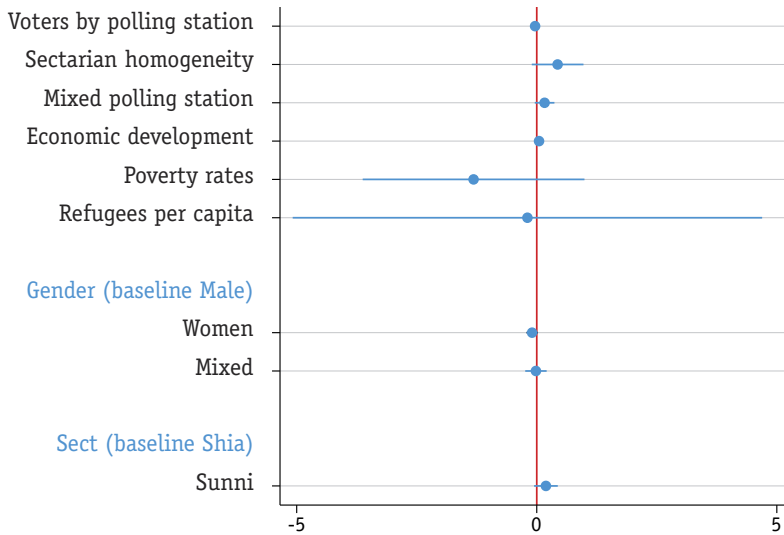
Figure 17 Driver of votes for the Hezbollah-Amal list in South 2



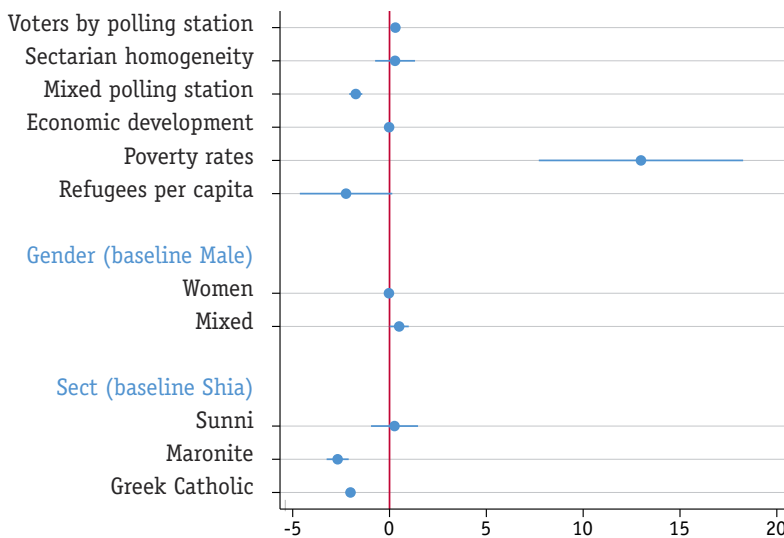
Regarding each party on the list across minor districts, Amal candidates in Sour tended to perform slightly better in cadasters with higher levels of economic development. This was the only statistically significant factor included in the multivariate analysis. In Zahrani, many more factors affected votes for the party. Voters in larger polling stations were more likely to cast their ballot for Amal candidates in Zahrani, and those in homogeneous stations were also more likely to vote for Amal. As mentioned above, this could be related to the fact that the majority of homogeneous stations were reserved for Shia voters, and that these stations also tended to be larger. Across geographical areas, Amal candidates tended to perform slightly better in cadasters with with lower levels of economic development, as well as those with higher poverty rates. These results could suggest incidents of vote buying, as parties may be more inclined to offer benefits in exchange for votes in poorer areas. Across confessional groups, Shias and Sunnis were more likely to vote for Amal, compared to Maronite and Greek Catholic voters.

Figure 18 Drivers of votes for Amal in Sour and Zahrani

a Drivers of votes for Amal in Sour

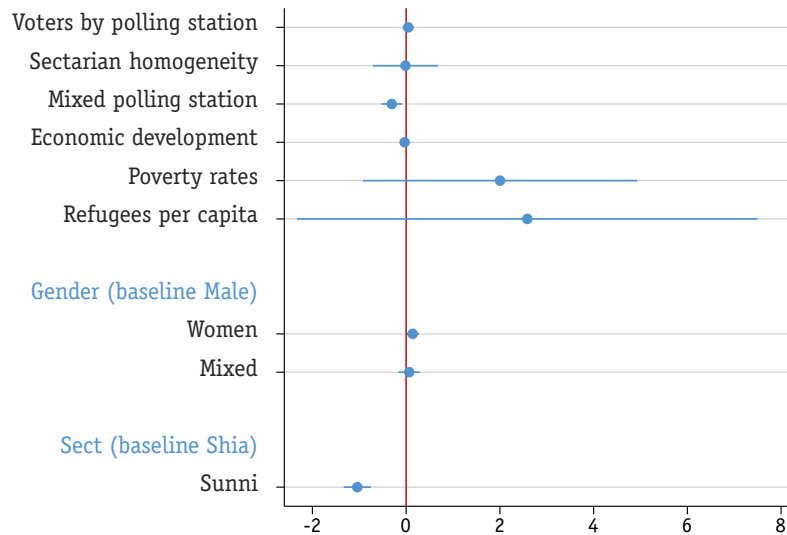


b Drivers of votes for Amal in Zahrani



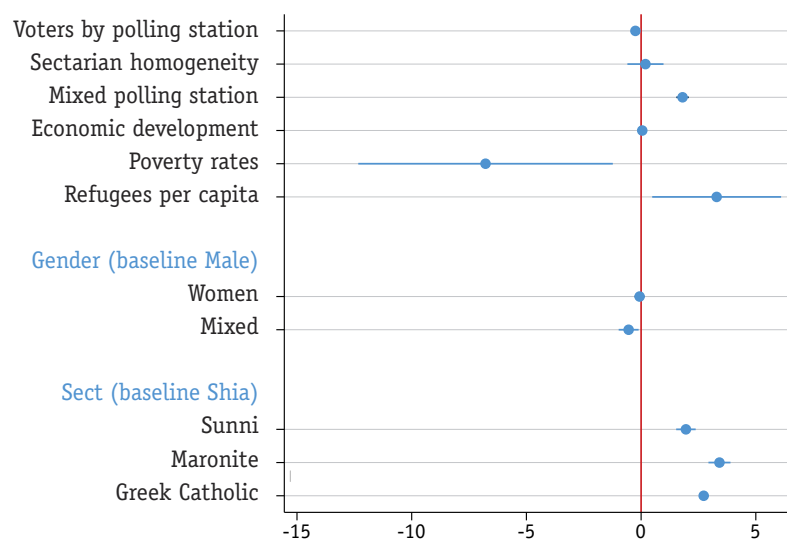
Hezbollah candidates, who only ran in Sour, tended to receive a significantly higher share of votes in homogeneous stations. Voters in less economically developed cadasters were also more likely to vote for Hezbollah. Across confessional groups, Shias were the most likely to vote for Hezbollah.

Figure 19 Drivers of votes for Hezbollah in Sour



The independent list, in contrast to Hezbollah-Amal, tended to perform better in smaller polling stations, as well as mixed ones. This might be related to the fact that polling stations servicing Christian voters tended to be smaller, and that a lower number of homogeneous stations were reserved for Christians, who voted much more for the list. Across geographical areas, the independent list tended to receive better results in cadasters with higher levels of economic development, as well as those with lower poverty rates. This was in contrast with the Hezbollah-Amal list, which tended to benefit from lower levels of economic development and higher poverty rates. Across confessional groups, Maronite voters were the most likely to vote for the list, followed by Greek Catholic and Sunni voters, while Shia voters were the least likely to vote for the list.

Figure 20 Drivers of votes for the independent list in South 2

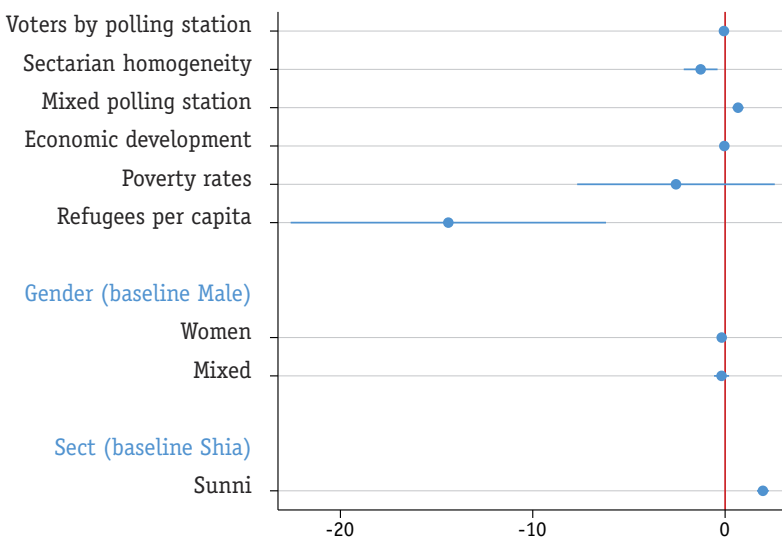


Across minor districts, in Sour, the independent list tended to perform better in cadasters with higher levels of confessional heterogeneity. It also tended to receive better results in mixed polling stations. Across confessional groups, Sunnis were significantly more likely to vote for the independent list, compared to Shia voters.

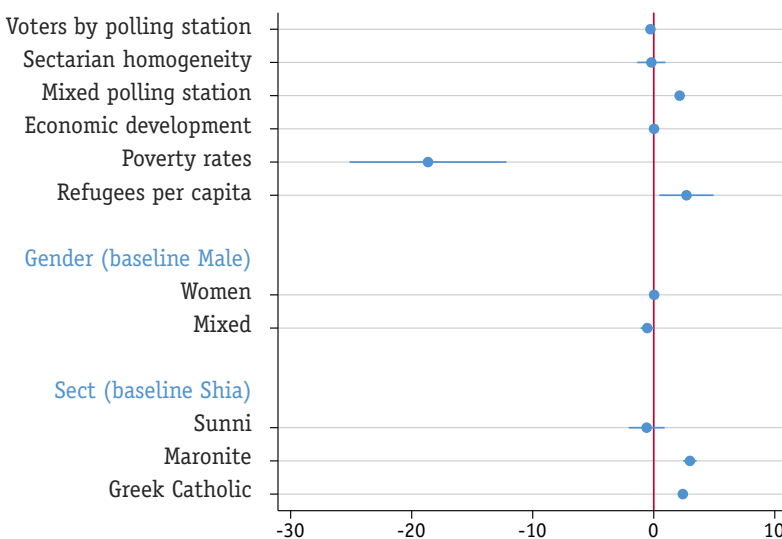
In Zahrani, voters in smaller polling stations, as well as those in mixed polling stations, were more likely to vote for the independent list. Across geographical areas, the independent list tended to receive better results in cadasters with higher levels of economic development, as well as those with lower poverty rates. Regarding confessional groups, Maronite voters, closely followed by Greek Catholics, were significantly more likely to vote for the list, compared to Shias and Sunnis.

Figure 21 Drivers of votes for the independent list in Sour and Zahrani

a Drivers of votes for the independent list in Sour



b Drivers of votes for the independent list in Zahrani



IV Do citizens cast preferential votes for candidates from their same confession?

In South 2, 97% of voters cast a preferential vote for a candidate within their selected list. In Zahrani, where represented voters could choose a candidate from their or another group (Shia and Greek Catholic), nearly 96% selected a candidate from their confessional group.

The Shia community had a stronger sectarian bias

A strong confessional bias was observed among both Shia and Greek Catholic voters, with 96% of Shia voters casting ballots for a Shia candidate and 91% of Greek Catholic voters opting for a Greek Catholic candidate. Shia voters were overall more likely to vote for a co-confessional candidate, when controlling for their gender and characteristics of the cadasters in which they were registered, such as level of confessional homogeneity and economic development.

Among non-represented groups, Maronite voters cast more ballots for a Greek Catholic candidate (91%), while Sunni voters opted for a Shia candidate (95%). Therefore, there seems to be a bias among Christians toward Christian candidates, and among Muslims toward Muslim candidates. In mixed centers, 66% of voters chose a Shia candidate, while 34% chose a Greek Catholic candidate.

Table 5 Votes for candidates from each confession by confessional group in Zahrani

		Candidate's confession	
		Shia	Greek Catholic
Represented	Voter's confession		
	Shia	96%	4%
Not represented	Greek Catholic	9%	91%
	Sunni	95%	5%
Mixed confession	Maronite	9%	91%
	Mixed confession	66%	34%

Note Percentages have been rounded up.

Across genders, women voters were slightly more sectarian than men. Overall, 96% of voters in women-only polling stations voted for a co-confessional candidate, while 95% of those in male-only polling stations did so. Women from both confessional groups exhibited a higher sectarian bias. Among Shia voters, nearly 97% of women voters cast ballots for a co-sectarian candidate, while 95% of men did so. Among Greek Catholics, 91% of women and 90% of men voted for a co-sectarian candidate. These variations across genders are statistically significant after controlling for voters' confession and characteristics of the cadasters in which they were registered.

Table 6 Votes for co-confessional candidates by confessional group and gender in Zahrani

Voter's confession	Voter's gender			Total
	Men	Women	Mixed gender	
Shia	95%	97%	94%	96%
Greek Catholic	90%	91%		91%
Total	95%	96%		96%

Note Percentages have been rounded up.

Some geographical variations in sectarian biases

There were no large variations in sectarian biases across cadasters. Looking at cadasters which had Shia-only and/or Greek Catholic-only polling stations, the cadaster with the lowest percentage of co-sectarian votes among Shias was Zaita (84%), where 14% voted for Greek Catholic winner Michel Moussa. In all other cadasters, over 90% of Shias chose a Shia candidate, with the highest percentages being in Tefahta, Qnaitra, and Kfar Hatta (97% each).

Greek Catholic voters' preferences for co-sectarian candidates can only be measured in three cadasters, given that they only had their own polling stations in these locations. The highest sectarian bias was observed in Maghdoucheh, where 96% of Greek Catholic voters gave their preferential vote to a Greek Catholic candidate. This share was lower in Aabra and Miyeh w Miyeh, where 81% of Greek Catholics cast a sectarian vote. In Aabra, most of the remainder of their vote was divided between Riad al Assaad and Ali Osseiran (10% and 8%), while in Miyeh w Miyeh, most of the remainder went to Osseiran (15%).

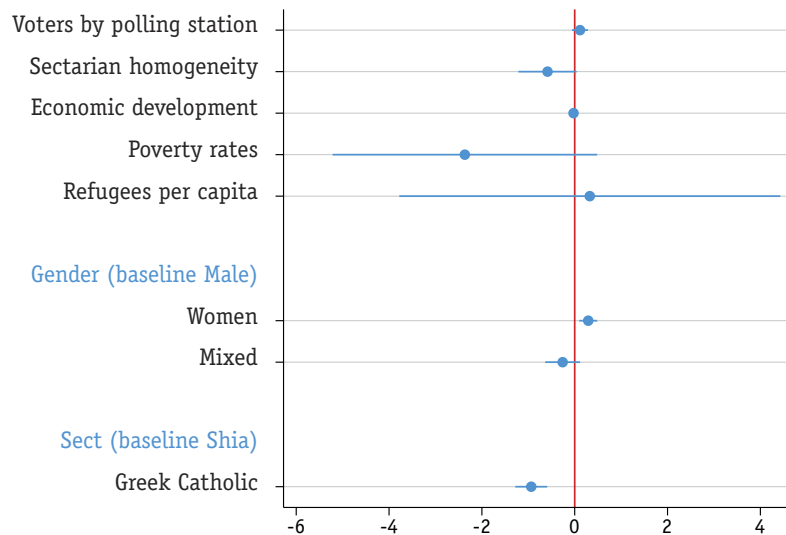
While Greek Catholic voters only had their own polling stations in three cadasters, they constituted the majority of voters in others. In all of these, a significantly high share of votes went to Greek Catholic candidates. Among the cadasters where the majority of registered voters were Greek Catholic (over 60%), the highest shares of votes for Greek Catholic candidates were in Aaddoussiyeh and Saida Kafraiya (91% and 90%, respectively), followed by Barti and Majdel Zoun (87% and 86%), while the lowest were in Salhiyeh and Hlaliyeh Saida (79% in each). In all of these, over 90% of registered voters were Christian.

What are the drivers of votes for co-sectarian candidates?

A multivariate analysis can highlight significant drivers of votes for co-sectarian candidates. As seen above, women were more likely to vote for co-sectarian candidates than men, while across confessions, Shia voters were significantly more likely to cast a sectarian vote, compared to Greek Catholics. Both voters' gender and confession are statistically significant, even after controlling for geographical characteristics, such as level of confessional fragmentation and economic development. Moreover, voters' sect is overall the strongest

factor that affects co-sectarian preferences. Voters registered in cadasters with lower levels of economic development were slightly more likely to vote for a co-sectarian candidate.

Figure 22 Drivers of votes for co-sectarian candidates in Zahrani



V How did women candidates perform?

Two women candidates ran in the district of South 2, both in Sour, where they received 22% of preferential votes (19,316 votes). Nearly all of these were received by winner Inaya Ezzeddine, who ranked third in Sour with 18,815 preferential votes. The other woman candidate, Lena Hussein (independent), won 0.6% (501 preferential votes), ranking last in Sour.

Both candidates were more successful among the diaspora, ranking first in their lists among emigrants who voted for each of their respective lists. Inaya Ezzeddine won 31% of votes among emigrants (834 preferential votes), compared to 21% among residents, while Lena Hussein won nearly 2% (44 preferential votes), compared to 0.5% among residents.

Women candidates had different constituents and strongholds

There were large variations in the percentage of votes received by women candidates across confessional groups, with Christian voters giving a higher share of their votes for each of the two women candidates, compared to both Shia and Sunnis—although the percentage was high among all groups, mostly driven by support for Inaya Ezzeddine. In total, the percentage was highest among Greek Orthodox voters (60%), followed by Greek Catholics (57%) and Maronites (49%). By contrast, 22% of Shia voters, 20% of Sunni voters, and 18% of those registered in mixed stations voted for a woman.

By gender, women voters registered in their own stations voted slightly more for women candidates compared to male voters (22% compared to 21%). In gender-mixed stations, the percentage was higher, at 25%.

Table 7 Votes for women candidates by confession and gender in Sour

Confession	Shia	22%
	Greek Catholic	57%
	Sunni	20%
	Greek Orthodox	60%
	Maronite	49%
	Mixed confession	18%
Gender	Men	21%
	Women	22%
	Mixed gender	25%

Note Percentages have been rounded up.

Christian voters gave a higher share of their preferential votes to women candidates. While Inaya Ezzeddine received most of these, Lena Husseini also performed much better among Christians than she did among Shia and Sunni voters.

Inaya Ezzeddine ranked first among Christians from all confessional groups, receiving 52% of each of the Greek Catholic and Greek Orthodox votes, and 44% of the Maronite vote. She beat the second-ranking candidates among each group by a significant margin—between 26% and 36% among each group.²² However, given the low number of voters registered in Christian stations who cast a preferential vote, Ezzeddine only received 220 of her votes from Greek Catholic stations, 38 from Greek Orthodox, and 46 from Maronite ones. Among Shia and Sunni voters registered in their own stations, Ezzeddine received the third-highest share of preferential votes. Shia voters, who constituted the largest group in Sour, gave 22% of their preferential vote to Ezzeddine (or 14,826 votes), while Sunnis gave 19% to Ezzeddine (or 567 votes). In confessionally mixed stations, Ezzeddine won 17% of votes (or 2,096 votes).²³ Across genders, Ezzeddine was more successful among women voters, winning 22% of their preferential votes and ranking third. In male stations, she won 20%, ranking fourth, while in gender-mixed stations, she won 24%. Overall, a much higher share of the preferential votes she won among residents came from women. Out of the 17,793 preferential votes she won among residents (excluding public employees), nearly 8,500 came from women stations, while about 6,900 came from male stations and 2,400 from gender-mixed stations—meaning that 1,566 more women voters cast a preferential vote for her.

22

The second-ranking candidate among Greek Catholics was Ali Kheiss, who received 16% of their preferential vote, or 36% less than Ezzeddine. Among Greek Orthodox voters, the second-ranking candidate Abdalnasser Frein received 21%, or 31% less than Ezzeddine, while among Maronites, the second candidate was Kheiss, who received 18%, or 26% less than Ezzeddine.

23

Ezzeddine also won 834 votes among the diaspora, performing better than other candidates in her list, and won 188 votes among public employees.

Her performance varied across geographical areas. Inaya Ezzeddine won the majority of preferential votes in Aalma El-Chaab (128 votes, 54%) and Dhayra (168 votes, 54%), Batoulay (404 votes, 53%), and Biyad (217 votes, 50%). However, the highest number of votes she obtained, or over 1,000 votes, came from other cadasters including Tyr (2,003 votes, 20% of preferential votes), Maarakeh (1,412 votes, 46%), Srifia (1,180 votes, 42%), and Chehour (1,021 votes, 46%).

Lena Hussein, who ranked last in Sour overall, was nevertheless more successful among all Christian groups. She won 5% of preferential votes among Greek Catholic voters (ranking fifth), 8% among Greek Orthodox (ranking third), and 5% among Maronites (ranking sixth). However, given the small number of voters who cast ballots in these stations, only 33 of her votes came from voters in Christian stations. She ranked last among voters from all other types of polling stations. Only 0.4% of Shia voters (280 votes), 1% of Sunni voters (30 votes), and 0.9% of those in mixed-confession stations voted for her (110 votes).²⁴ Across genders, in contrast to Ezzeddine, Hussein was more successful among voters in male stations, although only slightly, as 0.6% of male voters (or 196 voters) and 0.5% of women voters (or 181 voters) cast a preferential vote for her, while 0.8% of those in gender-mixed stations did so (76 voters).

Hussein's performance also varied across geographical areas. She won over 1% of preferential votes only in 14 cadasters, and over 2% in five. The highest percentage of preferential votes she won was in Derdghaya (12 votes, representing 13%), followed by Aalma El-Chaab (18 votes, 8%), Jennata (14 votes, 4.5%), Chehour (37 votes, 2%), and Zebqine (19 votes, 2%). Out of the 453 votes she won among residents (excluding public employees), the highest share was cast in Tyr (86 votes, although this represents only 0.1% of preferential votes), followed by Chehour (37 votes, 2%). She also won over 10 votes in 13 other cadasters. Those were Zebqine (19 votes, 2%), Maarakeh (19 votes, 0.06%), Aalma El-Chaab (18 votes, 8%), Jwaya (18 votes, 0.5%), Bazouriyeh (17 votes, 0.7%), Qana (15 votes, 0.6%), Jennata (14 votes, 4.5%), Yarine (13 votes, 1.4%), Halloussiyeh (13 votes, 1%), Derdghaya (12 votes, 13%), Chehabieh (12 votes, 0.4%), Boughliyah (10 votes, 1.7%), and Deir Qanoun El-Nahr (10 votes, 0.5%).

24

Hussein also won 44 votes among the diaspora, performing much better than other candidates in her list, and won only 4 votes among public employees.

Table 8 Votes for each woman candidate by confession and gender in Sour

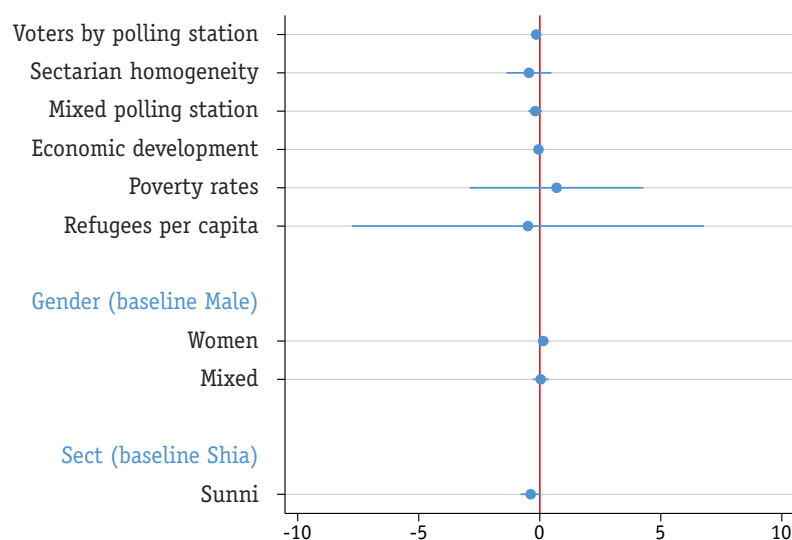
		Inaya Ezzeddine		Lena Hussein	
		Percentage of preferential votes	Number of votes	Percentage of preferential votes	Number of votes
Confession	Shia	22%	14,826	0.4%	280
	Greek Catholic	52%	220	5%	22
	Sunni	19%	567	1%	30
	Greek Orthodox	52%	38	8%	6
	Maronite	44%	46	5%	5
	Mixed confession	17%	2,096	1%	110
Gender	Men	20%	6,913	0.6%	196
	Women	22%	8,479	0.5%	181
	Mixed gender	24%	2,401	0.8%	76

Note Percentages have been rounded up.

What are the drivers of votes for women candidates?

Among the factors included in the multivariate analysis, only the size of the polling station and the level of economic development in a cadaster affected voters' choice to vote for women candidates. Voters in smaller polling stations, as well as those registered in cadasters with lower levels of economic development were more likely to vote for a woman. However, beyond that, the high share of votes for women candidates in South 2, which was driven by the success of Inaya Ezzeddine, is more likely due to the candidate's political affiliation, and the backing she obtained from Amal, in the party's stronghold.

Figure 23 Drivers of votes for women candidates in Sour



VI Were there any signs of irregularities?

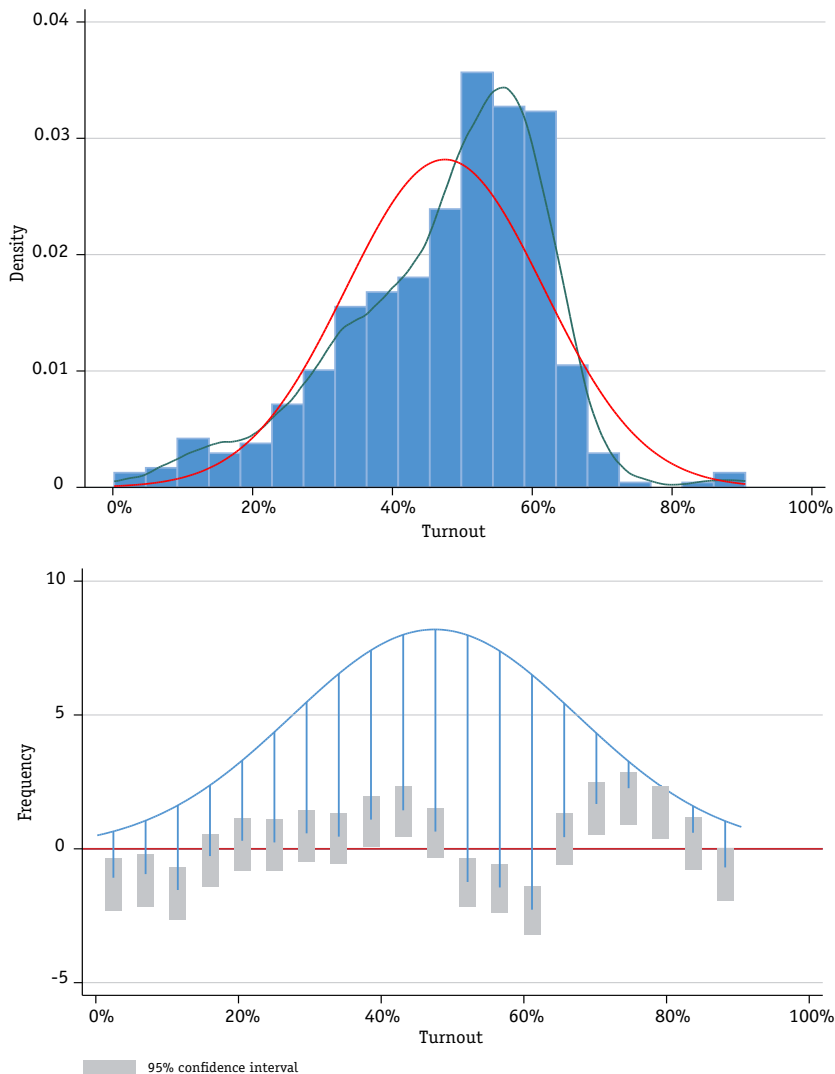
Irregularities can occur during the election process, through ballot stuffing that either increases the total number of votes or adds votes for one party at the expense of another. Fraud can also occur during the vote aggregation process when there is collusion between certain candidates—usually the more connected ones—and election officials. Voter rigging, or pressuring voters to cast ballots in a certain manner, tends to occur more in small polling stations, where it is easier to monitor voters' behavior. Therefore, testing whether turnout was abnormally higher in smaller voting centers can help approximate whether there was voter rigging or not. Another method of detecting signs of election fraud is by examining the distribution of turnout and vote numbers and testing whether they have a 'normal' shape. For example, an abnormally high number of voting centers with close to 100% turnout could suggest either voter or vote rigging at any stage of the election process. Other lines of research focus on statistical tests that examine the random nature of numbers to test whether numbers were manipulated in a non-random manner.

There are some irregular patterns in turnout

Turnout usually has a normal shape, with the majority of electoral centers having turnouts close to the average and a small number of centers having a very high or very low turnout rate.

Compared to a normal distribution, turnouts in South 2 significantly diverged from a normal distribution. There was a significantly higher number than expected of low-turnout centers (below 20%) and mid-high turnout centers (50-60%), and a lower number than expected of high turnout centers (70-80%) and mid-low turnout centers (30-50%). These patterns were observed in both Sour and Zahrani. When comparing the actual turnouts with a normal distribution, the differences are statistically significant.

Figure 24 Distribution of turnout rates by polling station in South 2



These results provide initial suggestive evidence of voter or vote rigging.

No evidence of voter rigging in South 2

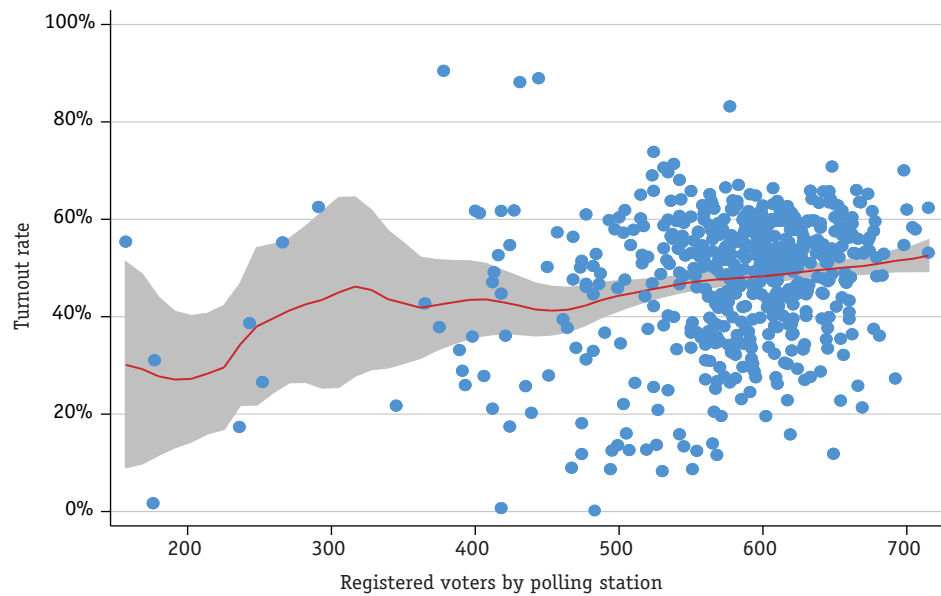
Voter rigging entails political parties pressuring or coercing voters with the intended aim of affecting turnout. The literature on election irregularities distinguishes vote rigging from voter rigging, as coercion is not apparent in the latter case. However, there are some ways to detect potential instances of voter rigging.

One way to test for voter rigging is by examining the correlation between turnouts and the size of a polling station. Previous evidence shows that polling stations with fewer voters are more attractive among politicians buying votes or exerting some kind of pressure on voters because smaller groups of voters facilitate aggregate monitoring of whether voters cast their ballots, and for whom.²⁵

²⁵ Rueda, M. R. 2016. 'Small Aggregates, Big Manipulation: Vote Buying Enforcement and Collective Monitoring.' *American Journal of Political Science*, 61(1): 163-177.

There is no prior evidence of voter rigging in South 2. In fact, when excluding polling stations with public employees registered to vote, the highest turnout by polling station was 90% (which had nearly 400 voters registered to vote), with the second highest being 75%. There was also no pattern across each of the two minor districts.

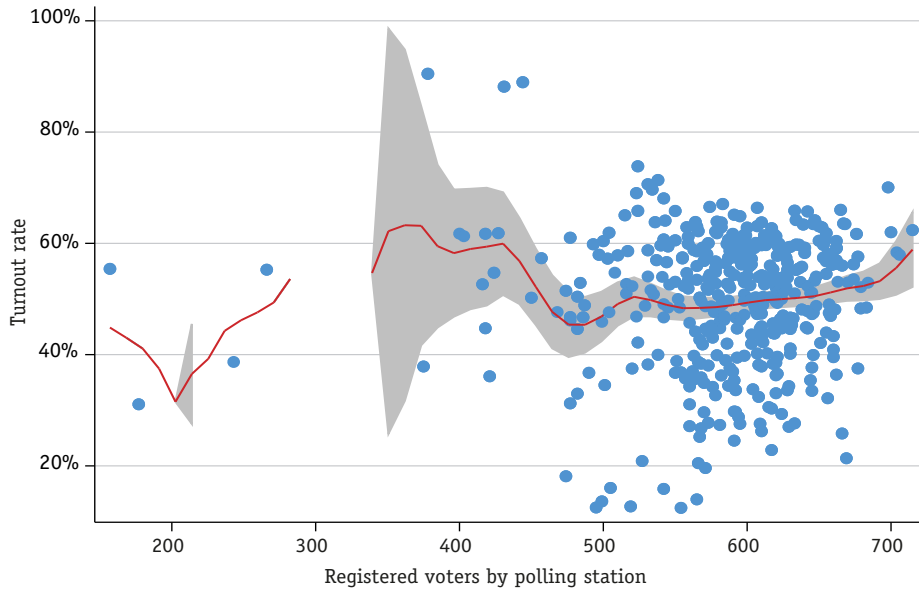
Figure 25 Polling station size and turnout rates in South 2



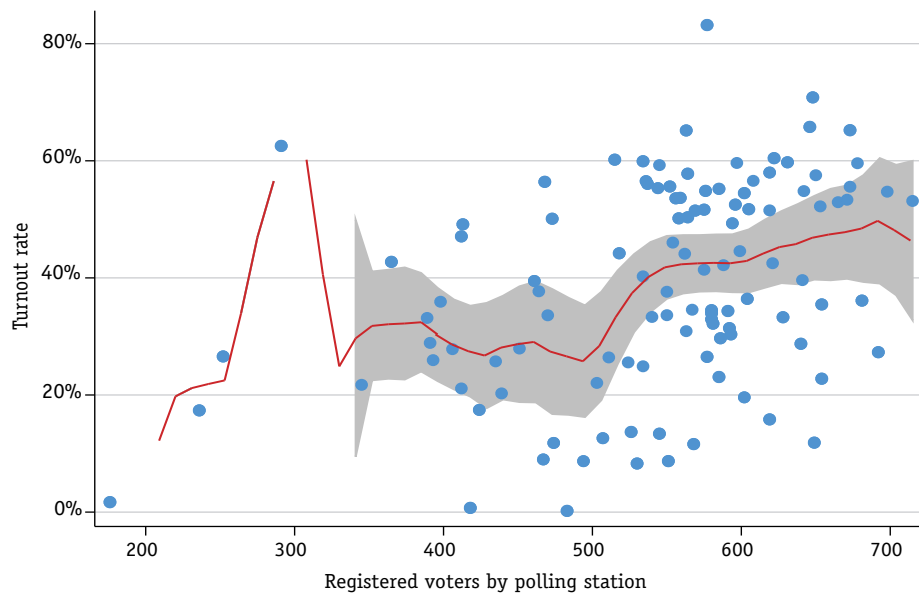
Given that registered voters are segregated by confession and gender, political parties may have higher interest in targeting voters in specific polling stations where their constituents are registered to vote. Comparing the relationship between the size of the polling station and turnouts across homogeneous and mixed stations again does not show a relationship between the size of the polling station and turnout rates.

Figure 26 Polling station size and turnout rates across types of polling stations

a Polling station size and turnout rates in homogeneous stations



b Polling station size and turnout rates in mixed stations



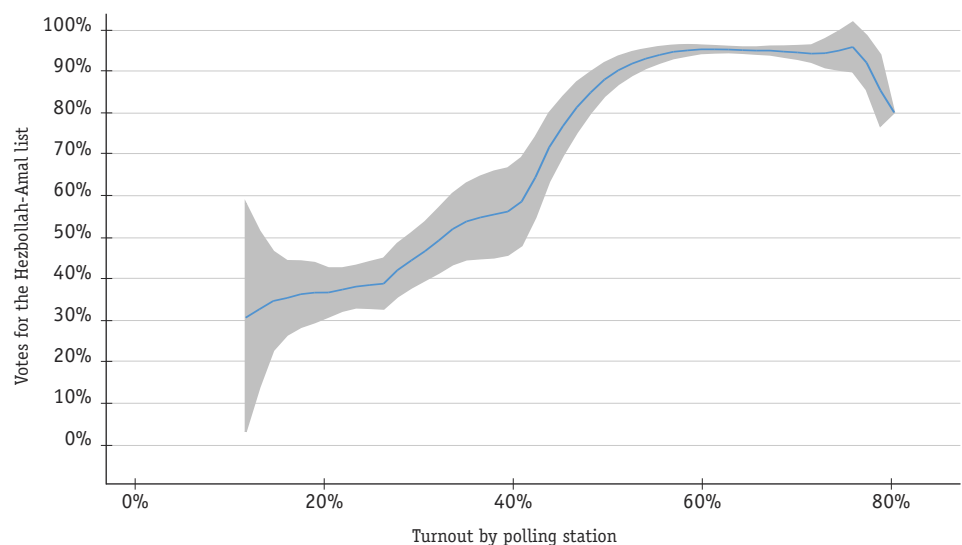
Although there was no relationship between turnouts and the size of the polling station, some parties still may have benefited from smaller stations. There was no clear correlation between the votes for each list and the size of the polling station. Although the Hezbollah-Amal list obtained a high share of votes in some small polling stations, it won over 90% in as many as 265 stations in Sour and 134 stations in Zahrani, not all of which were small. Similarly while the independent list performed well in some small polling stations, it also performed well in very large ones.

Beyond the size of a polling station, one list may have benefited from higher turnouts. A list benefiting from higher turnouts in a polling station could be due to more effective mobilization, possibly through voter rigging—as pressure to vote for a given list would increase both turnout and votes for this list in a polling station. A positive relationship between turnouts and votes for a list could also be due to vote rigging, such as ballot stuffing, as adding ballots for a list would increase turnout in a polling station.

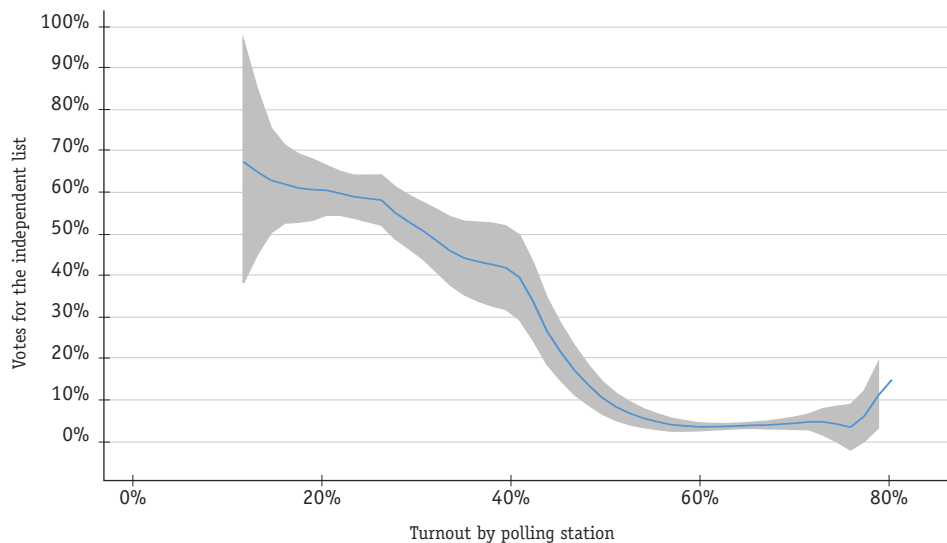
While in Sour there was no clear relationship between turnout by polling station and votes for each list, in Zahrani, the Hezbollah-Amal list significantly benefited from higher turnouts, while the independent list performed much worse in stations that exhibited higher turnouts. The percentage of votes for the Hezbollah-Amal list in Zahrani steadily increased from an average of 30% in stations that had the lowest turnouts, to over 90% in those that had the highest turnouts.

Figure 27 Turnout by polling station and votes for each list in Zahrani

a Turnout by polling station and votes for the Hezbollah-Amal list



b Turnout by polling station and votes for the independent list



Higher turnouts in a polling station associated with an increase in votes for a list could be due to its higher success in mobilizing specific constituents—in the case of Hezbollah-Amal, Shia voters, who had the highest turnout in South 2.

Hezbollah and Amal benefited from high turnouts, suggesting fraudulent behavior

Normally, if there was a lack of pressure on voters, votes for each party should be more or less similar in very low, normal, and very high turnout centers.²⁶ As seen above, Hezbollah-Amal benefited from higher turnouts, however, this could be related to the higher turnouts among Shia voters—their main constituents. In order to take into consideration differences across sects and votes for a list, standardized variables of turnout rates and percentage of votes were created for this list. For any polling station, the standardized turnout rate would be the turnout rate in the specific polling station minus the average turnout rate of all polling stations in its district with registered voters from the same sect, all of it divided by the variability (standard deviation) of the turnout rates in those centers. This measures how abnormally low or high the turnout in a polling station is compared to all other centers within the same sect. The standardized measures of share of votes for lists and parties follow the same procedure. As previous studies have found, no clear relation should be observed between turnouts and votes for a party in 'clean' elections.²⁷

Accounting for differences in votes for each list, as well as party and turnouts among each confessional group, provides weak evidence of voter or vote rigging.

²⁶

Myagkov, M., P.C. Ordeshook, and D. Shakin. 2009. *The Forensics of Election Fraud*. Cambridge University Press.

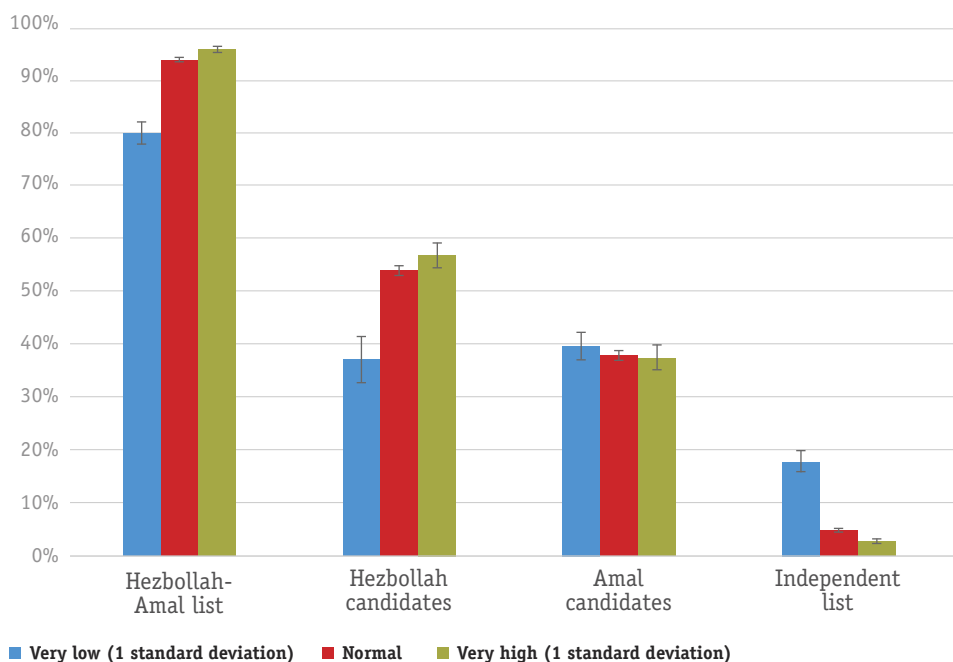
²⁷

Ibid.

In Sour, the Hezbollah-Amal list slightly benefited from very high turnouts, while it performed significantly worse in very low turnout centers. These variations were driven by the performance of the Hezbollah candidates, rather than those from Amal, whose results were not significantly affected by turnouts. Compared to the average share of votes Hezbollah candidates obtained in normal turnout centers (54%), their votes were 3% higher in very high turnout centers (57%), and as much as 17% lower in very low turnout centers (37%).

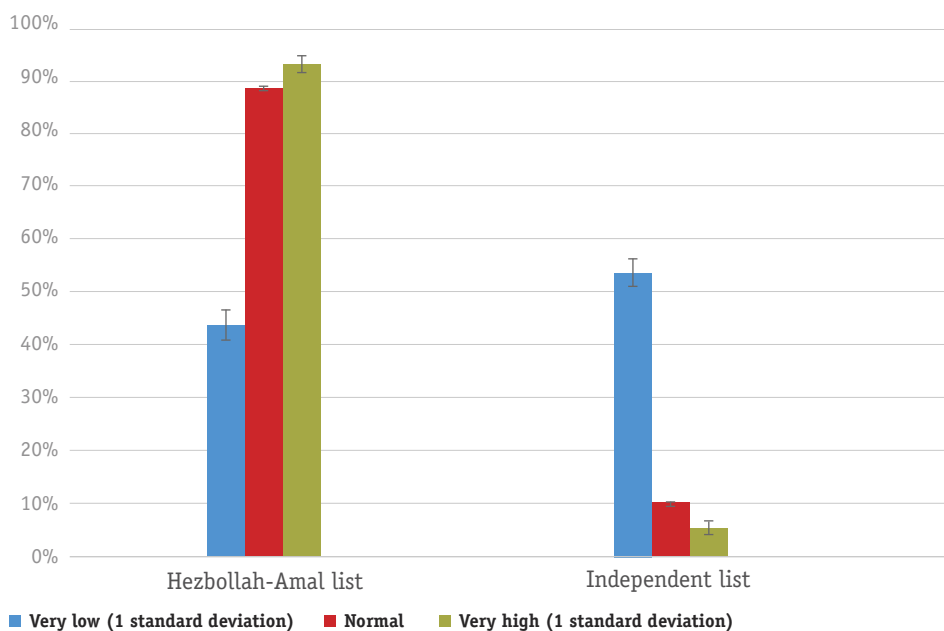
The independent list performed significantly better in stations that had very low turnouts, and slightly worse in those that had high turnouts. Compared to its average share of votes in normal turnout centers (5%), the independent list's votes in very low turnout centers was 13% higher (18%), while its share of votes in very high turnout centers was 2% lower (3%).

Figure 28 Percentage of votes for lists and parties and standardized turnout rate in Sour



The same patterns were observed in Zahrani, where the Hezbollah-Amal list performed slightly better in very high turnout centers and worse in very low turnout ones. Compared to its average share of votes in normal turnout centers (89%), the Hezbollah-Amal list's votes were 5% higher in very high turnout centers (94%) and 45% lower in very low turnout centers (44%). Compared to its share of votes in normal turnout centers (10%), the independent list's share of votes in very high turnout centers was 5% lower (5%), and its share of votes in very low turnout centers was 44% higher (54%).

Figure 29 Percentage of votes for lists and standardized turnout rate in Zahrani



The better performance of Hezbollah-Amal in very high turnout centers could suggest voter or vote rigging. However, the differences were not very large, thus not providing strong evidence. The Hezbollah-Amal list's poorer performance in very low turnout centers, which translated into significantly better results for the independent list, could suggest that the latter performed better when voters were not specifically targeted by Hezbollah-Amal candidates. The independent lists' better success in low turnout centers and poorer performance in very high turnout centers may also point toward its weak mobilization of voters.

There are signs of vote rigging on the part of Hezbollah and Amal

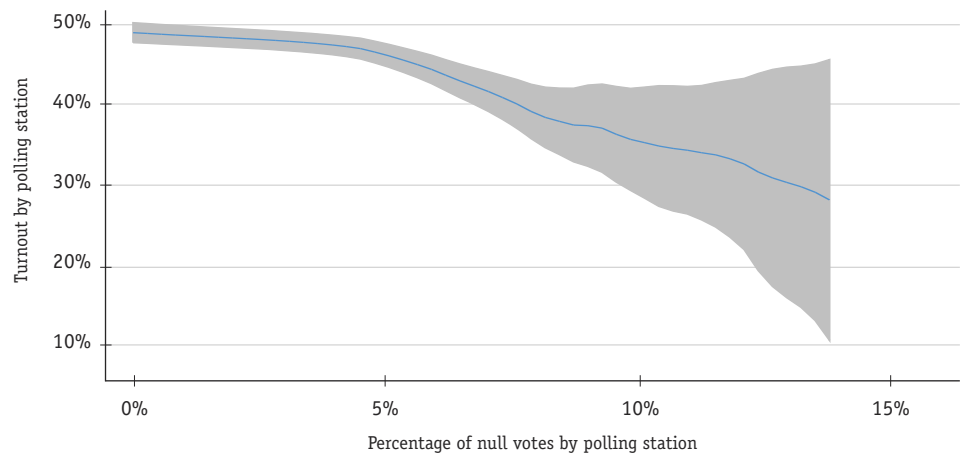
One method of testing for signs of ballot stuffing is determining how the percentage of null votes in a polling station correlates with turnout, as well as the percentage of votes that a party obtained. Previous evidence shows that when political parties add ballots they tend to forget to include a similar proportion of invalid votes.²⁸ Potential irregular behaviors can be identified by looking at the correlation between the percentage of null votes, turnouts, and votes for a list or party. A lower percentage of invalid votes in a polling station, associated with a higher turnout and a higher percentage of votes for a list or party would suggest manipulations in the vote count. However, a negative correlation is not enough to suggest ballot stuffing—as null votes could be 'protest' votes. Stronger evidence of ballot stuffing would be apparent in cases where the increase in the share of null votes is smaller than the decrease in the percentage of votes for a list or party.

28

Friesen, P. 2019. 'Strategic Ballot Removal: An Unexplored Form of Electoral Manipulation in Hybrid Regimes.' *Democratization*, 26(4): 709-729.

In South 2, there was a negative relationship between turnouts and the percentage of null votes per polling station. While polling stations where less than 1% of votes were null had average turnouts of 50%, that rate steadily decreased until reaching 30% in polling stations that had the highest percentage of null votes (nearly 15%). This suggests potential irregularities in the vote counting process.

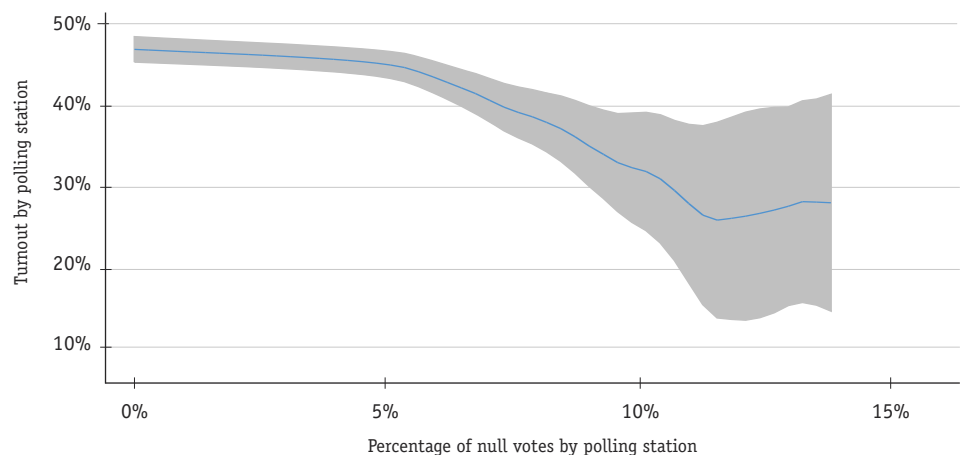
Figure 30 Turnout and percentage of null votes by polling station in South 2



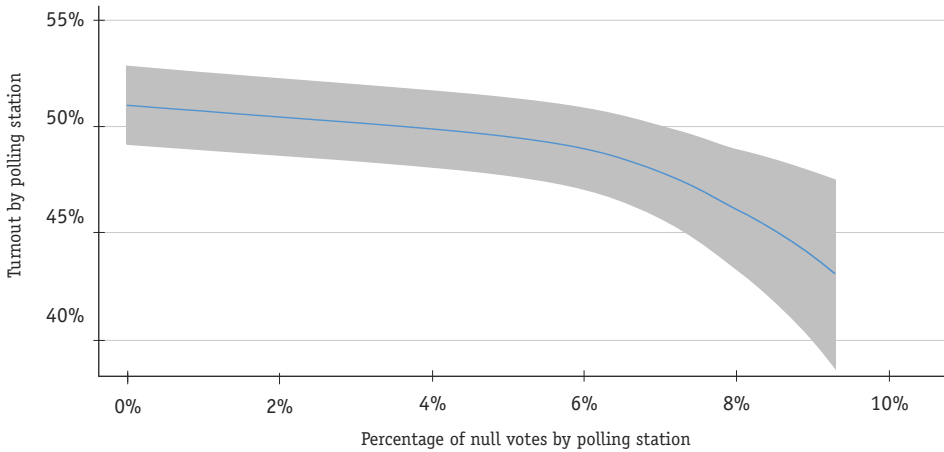
While a negative relationship existed in both Sour and Zahrani, the variation in Zahrani was much smaller. In Sour, however, turnouts decreased from 48% to 25% as the share of null votes increased from 0% to nearly 15%. This decrease (23%) was significantly higher than the increase in the share of null votes (15%). In Zahrani, turnouts decreased from 51% in stations where no votes were null to 43% in those where nearly 10% of votes were null, providing no strong evidence of ballot stuffing.

Figure 31 Turnout and percentage of null votes by polling station in Sour and Zahrani

a Turnout and percentage of null votes by polling station in Sour



b Turnout and percentage of null votes by polling station in Zahrani

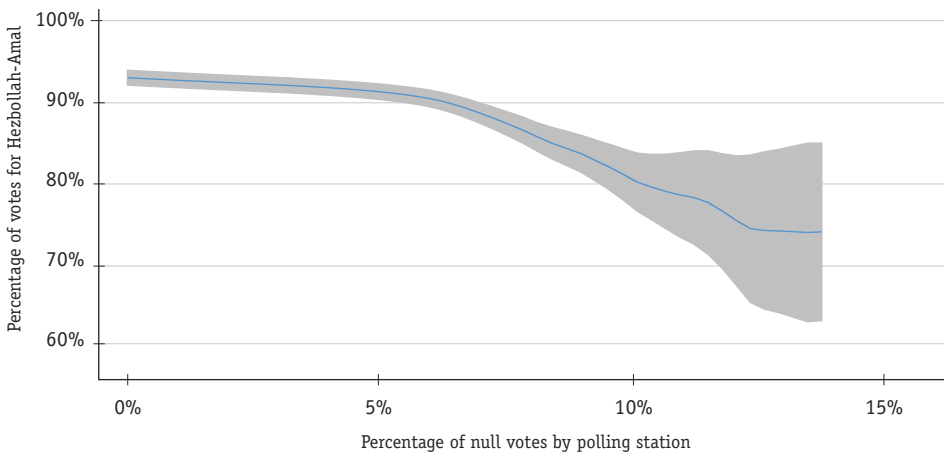


Examining the relationship between votes for a list or party and the share of null votes in a polling station can show whether one specific party benefited from ballot stuffing.

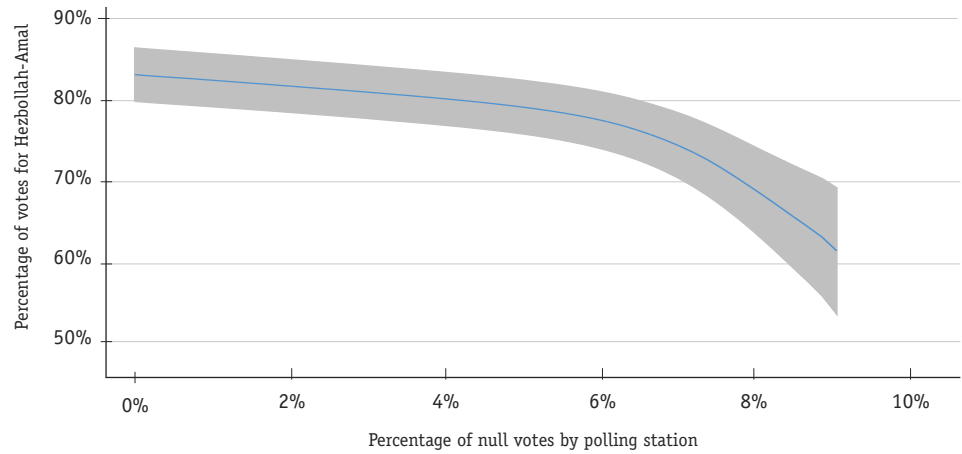
There is a clear negative relationship between the votes received by the Hezbollah-Amal list and the share of null votes per polling station in both Sour and Zahrani. In Sour, in stations where less than 5% of votes were null, the list received over 90% of votes. This percentage decreased until reaching less than 75% in stations where nearly 15% of votes were null (a difference of over 15%). In Zahrani, the list won over 80% of votes in stations where less than 2% of votes were null, while its share of votes decreased until reaching slightly over 60% in stations where nearly 10% of votes were null (a 20% difference).

Figure 32 Percentage of null votes and votes for the Hezbollah-Amal list by polling station

a Percentage of null votes and votes for the Hezbollah-Amal list in Sour



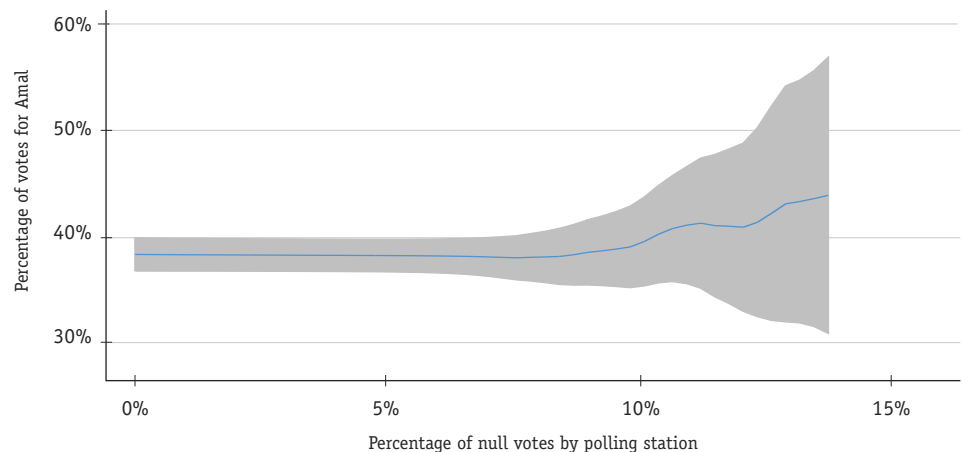
b Percentage of null votes and votes for the Hezbollah-Amal list in Zahrani



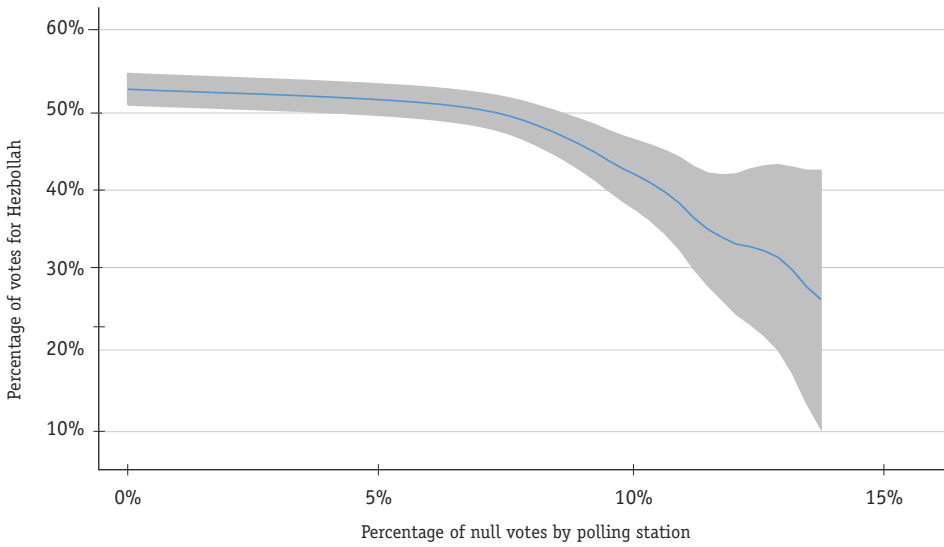
While all candidates on the list in Zahrani were from Amal, in Sour, the list included Hezbollah and Amal candidates. Looking at the share of votes for each party separately shows that Hezbollah rather than Amal candidates benefited from a low share of null votes, suggesting irregularities to the benefit of Hezbollah.

Figure 33 Percentage of null votes and votes for each of the parties in the Hezbollah-Amal list in Sour and Zahrani

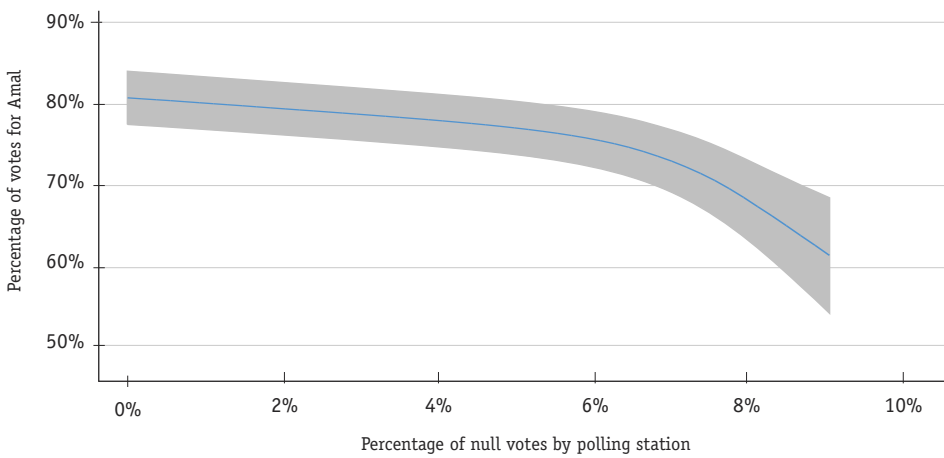
a Percentage of null votes and votes for Amal in Sour



b Percentage of null votes and votes for Hezbollah in Sour



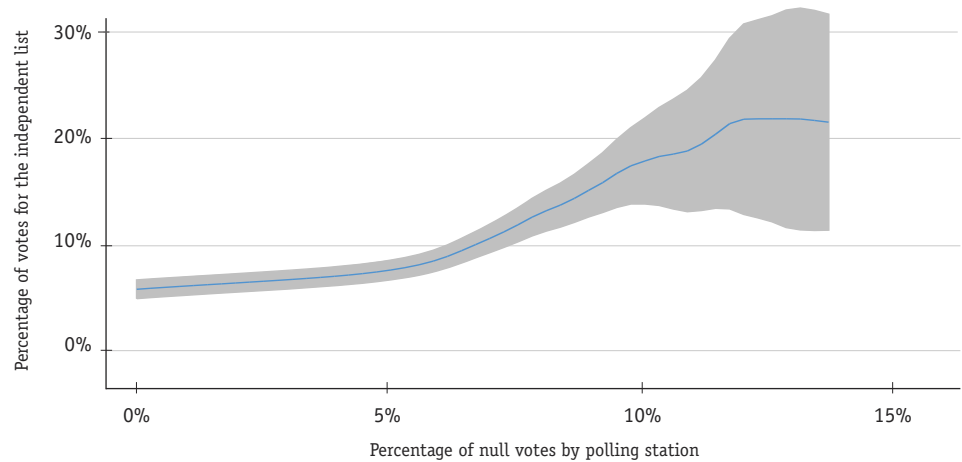
c Percentage of null votes and votes for Amal in Zahrani



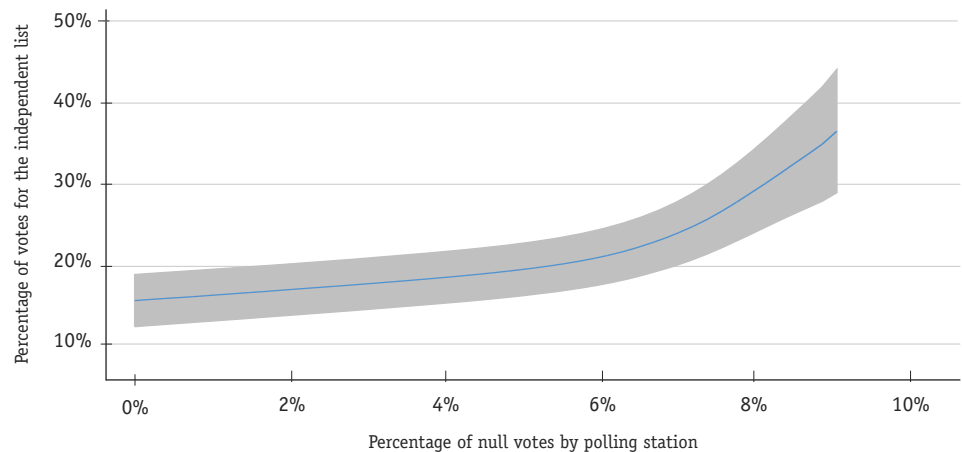
The independent list performed significantly worse in polling stations that had a low share of null votes. In Sour, its votes increased from 5% to over 20% as the percentage of null votes increased from 0% to nearly 15%, and in Zahrani, the list’s share of votes increased from 15% to 35% as the percentage of null votes increased from 0% to nearly 10%.

Figure 34 Percentage of null votes and votes for the independent list by polling station

a Percentage of null votes and votes for the independent list in Sour



b Percentage of null votes and votes for the independent list in Zahrani



Another form of vote rigging would entail parties ‘cooking’ the numbers, i.e. parties manipulating the vote count either by adding or subtracting votes for a list, or ‘re-shuffling’ votes within their list from one candidate to another. One way of detecting manipulations in the vote counting process is to look at the distribution of the last digits in votes for a party.²⁹ The last-digits test is based on the hypothesis that humans tend to be poor at making up numbers which would result in an abnormal distribution of numbers at the aggregate level. In ‘clean’ elections, last digits in votes for a party should be uniformly distributed, with an equal chance of every number (from 0 to 9) to appear (10% chance).

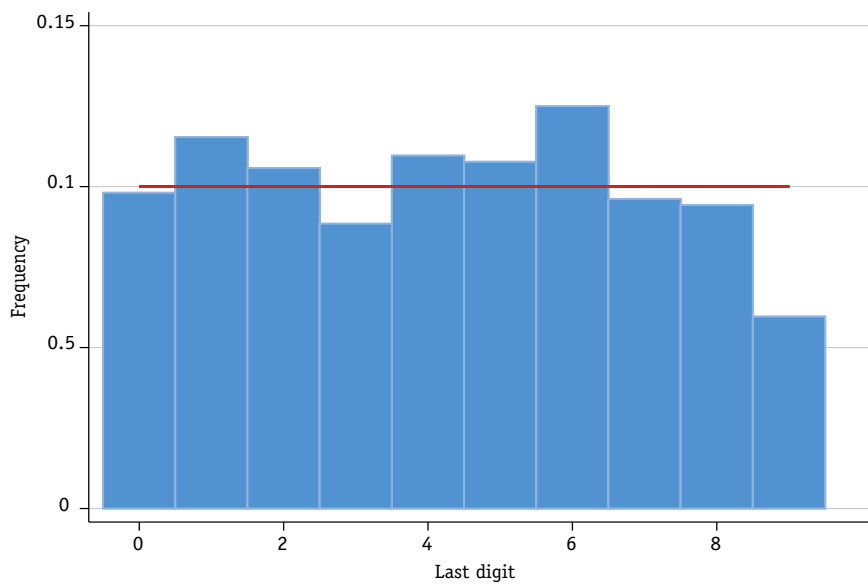
²⁹

Beber, B. and A. Scacco. 2012. ‘What the Numbers Say: A Digit-Based Test for Election Fraud.’ *Political Analysis*, 20(2): 211-234.

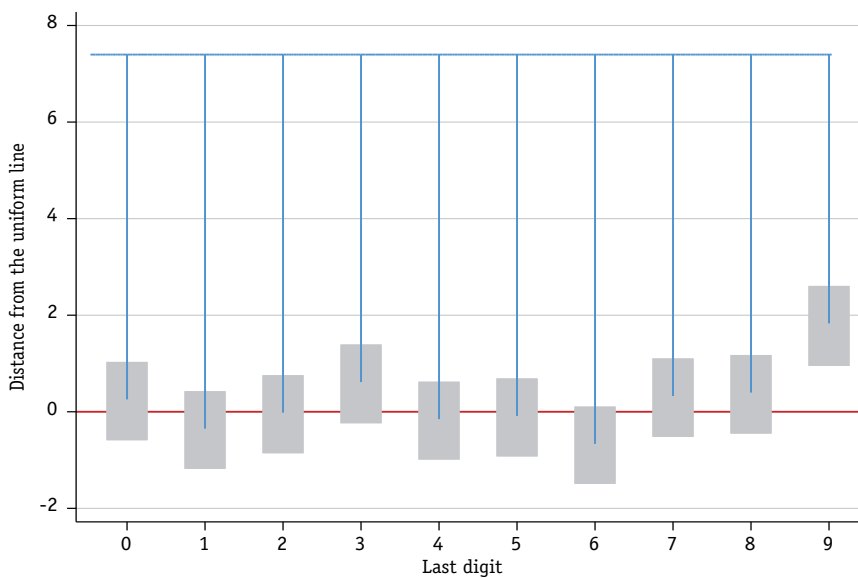
Restricting the sample of voting centers where at least 50 votes were valid, as a small vote count may lead to an oversample of zeros and ones, shows no evidence that the last digits in the valid votes were non-uniform, although there was a lower number of votes ending in nine than expected, these differences were not statistically significant.

Figure 35 Distribution of the last digits in the number of valid votes by polling station

a Frequency of last digits in the number of valid votes



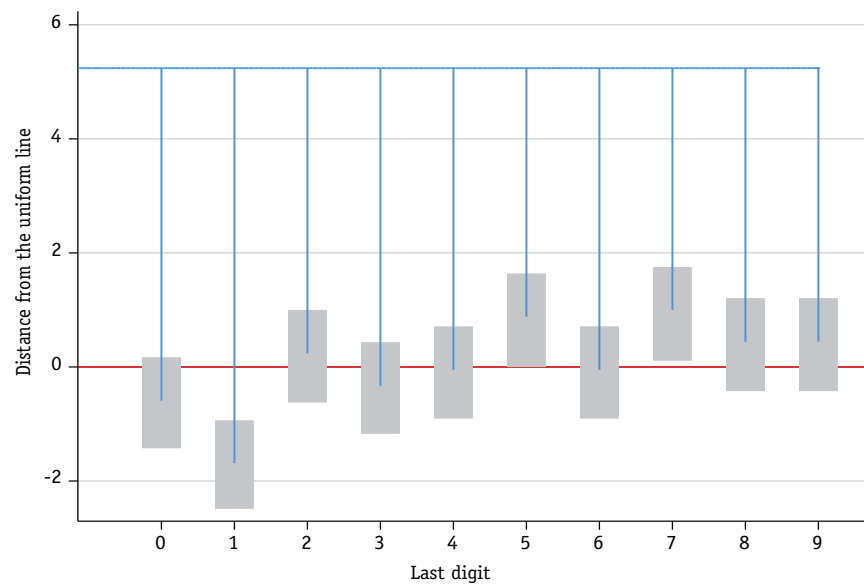
b Distribution of last digits in the number of valid votes compared to a uniform distribution



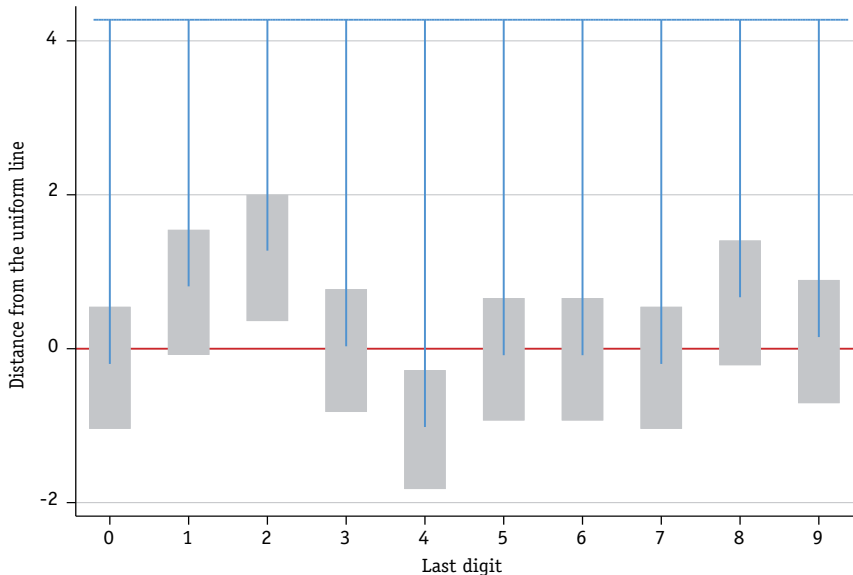
When looking at the distribution of last digits in the votes obtained by each list, there is no evidence of vote counting manipulations on the part of either list. However, looking at the last digits in the number of votes for each party shows that those for the Amal candidates diverged from the uniform distribution. This was not the case for any other party. In Sour, there was a higher number of votes for Amal candidates ending in one, while in Zahrani, there was a higher number of votes for Amal ending in four and a lower number of votes ending in two than expected. These deviations are statistically significant.

Figure 36 Distribution of the last digits in the number of votes for Amal compared to a uniform distribution

a Distribution of the last digits in the number of votes for Amal compared to a uniform distribution in Sour



b Distribution of the last digits in the number of votes for Amal compared to a uniform distribution in Zahrani



Overall, in South 2, there are signs of vote rigging on the part of Hezbollah and Amal

In South 2, there is no evidence of voter rigging. However, there are some signs of vote rigging that benefited candidates on the Hezbollah-Amal list.

In regular elections, votes for a party or list should not significantly vary across turnouts by polling station. In both Sour and Zahrani, the Hezbollah-Amal list performed slightly better in polling stations that had very high turnouts, driven by the performance of the Hezbollah candidates in Sour, while in Zahrani, only Amal candidates ran. Although their share of votes was slightly higher in very high turnout centers, this could provide some initial evidence of ballot stuffing, as adding ballots for a party would increase both turnouts and votes for this party in a polling station.

One way to test for ballot stuffing is to examine the correlation between the percentage of null votes, turnouts, and votes for a party. Previous evidence shows that when political parties add ballots, they tend to forget to include a similar share of invalid votes. Observing a significant decrease in both turnouts and votes for a party associated with an increase in the share of null votes in a polling station would provide some evidence of ballot stuffing. In South 2, there was a clear negative correlation between turnouts and the percentage of null votes by polling station. Looking at the results for each list and party shows that the Hezbollah-Amal list's votes significantly decreased as the percentage of null votes increased. While in Zahrani only Amal candidates ran, in Sour, where both Amal and Hezbollah candidates

ran, the negative relationship was driven by the performance of the Hezbollah candidates. This therefore suggests ballot stuffing to the benefit of Hezbollah candidates in Sour, and Amal in Zahrani.

Another way to detect ballot stuffing, or vote rigging more generally, is to look at the distribution in the last digits of votes for a list or party. Normally, if there was a lack of fraud, the distribution of last digits in votes for a list or party should be uniform, i.e. each last digit should have an equal chance to appear. In South 2, there is some evidence that the votes for Amal candidates, rather than others, diverged from the uniform line, again suggesting ballot stuffing.