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The 2018 Lebanese Parliamentary Elections:
What Do the Numbers Say?
North 3 Electoral District: Batroun, Bcharre, Koura, and Zgharta

Georgia Dagher

Koura

Zgharta

Bcharre

Batroun

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Executive Summary

In the Lebanese parliamentary elections of 2018, the electoral district of North 3, which combined Batroun, Bcharre, Koura, and Zgharta, saw a competitive race, leading to more diverse representation—although Bcharre remained the Lebanese Forces' stronghold, and Zgharta the Marada Movement's. While participation rates varied across districts, one common trend was the higher mobilization of women voters, as well as the generally higher turnouts among Sunni and Shia voters, who were not represented by any seats. North 3 did not see significant variations in preferences for electoral lists across genders and confessional groups, although overall, Maronite voters tended to vote more for the Lebanese Forces and Kataeb list, Greek Orthodox voters for the Marada and Syrian Social Nationalist Party list, and Sunni voters for the Free Patriotic Movement and Independence Movement list. Similar to other districts, emerging political groups had limited success, and all women candidates, with the exception of winner Sethrida Geagea, were highly unsuccessful.

There were signs of irregularities in Batroun that benefited the Lebanese Forces and Kataeb list, and in Koura that benefited the Free Patriotic Movement and Independence Movement list. Irregular patterns were observed in the results: The Lebanese Forces and Kataeb list in Batroun, and the Free Patriotic Movement and Independence Movement list in Koura received better results in polling stations that recorded very high turnouts, and their number of votes across polling stations were distributed in a non-uniform manner—all of which are results 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 and electoral district levels. Using the official elections results at the polling station level published by the Ministry of Interior,[1] the analysis unpacks the election 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 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.
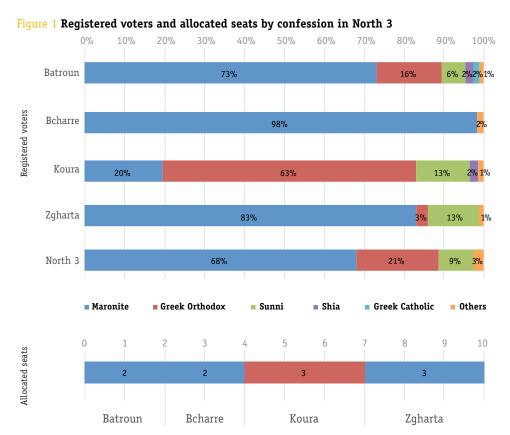
This report unpacks the results in the electoral district of North 3, which includes Batroun, Bcharre, Koura, and Zgharta. North 3 is allocated 10 parliamentary seats—two Maronite in each of Batroun and Bcharre, three Maronite seats in Zgharta, and three Greek Orthodox seats in Koura. The report is divided into seven sections. First, we present the demographic distribution of registered voters in North 3. The second section analyzes voter turnout, which varied across and within districts, and across confessional groups and genders. 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 North 3, and how these preferences were affected by cadaster-level characteristics. The fourth section looks at the performance of women candidates, and the fifth examines the performance of Kulluna Watani and each of its candidates. In the final section of this report, we identify 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 Lebanese parliamentary elections of May 2018, over 250,000 Lebanese were registered to vote in the electoral districts of Batroun, Bcharre, Koura, and Zgharta (North 3). Among them, 248,747 were registered in Lebanon[7] and 11,245 registered from abroad. Out of a total of 128 parliamentary seats, there were 10 seats at stake in North 3. Batroun and Bcharre have two Maronite seats each, Zgharta has three Maronite seats, and Koura has three Greek Orthodox seats.

North 3 and each of its minor districts have a low degree of confessional fragmentation. In total, about 70% of registered voters are Maronite and 20% are Greek Orthodox, and most of the remaining voters are Sunni. In Batroun, about three-quarters of the registered voters are Maronite (73%) and most others are Greek Orthodox and Sunni (16% and 6%, respectively). Bcharre is nearly fully Maronite (98%), while similarly, in Zgharta, Maronites constitute the largest group (83%), followed by Sunnis (13%). Finally, about two-thirds of the registered voters in Koura are Greek Orthodox (63%), while most others are Maronite and Sunni (20% and 13%, respectively). North 3 is also home to Shia, Greek Catholic, Alawite, Armenian Orthodox, Armenian Catholic, Christian minorities, and Druze voters (about 6,000 voters combined).[8]

Figure 1 **Registered voters and allocated seats by confession in North 3**

Note **Percentages have been rounded up.**

Considering the confessional allocation of seats, Maronite voters in Batroun, Bcharre, and Zgharta have a similar level of representation. Each of the Maronite seats in North 3 represents between 21,000 and 24,500 Maronite voters. Each of the Greek Orthodox seats in Koura represents about 13,000 Greek Orthodox voters. Apart from the confessional quota, each seat in Koura also represents a lower number of voters overall (about 20,000 voters from all confessions) than each seat in Batroun (about 30,000 voters), while the number in Bcharre and Zgharta falls in between (about 25,000 voters per seat) (table 1).

Table 1 **Confessional composition of North 3 and allocated seats by confessional group**

	Batroun				Bcharre			
	Number of voters	Percentage	Number of seats	Voters per seat	Number of voters	Percentage	Number of seats	Voters per seat
Maronite	44,076	73%	2	22,038	48,623	98%	2	24,312
Greek Orthodox	9,929	16%			233	0%		
Sunni	3,467	6%			2	0%		
Shia	1,083	2%						
Greek Catholic	1,261	2%			613	1%		
Alawite	44	0%						
Armenian Orthodox	250	0%			3	0%		
Christian minorities	159	0%						
Armenian Catholic	34	0%						
Druze	3	0%						
Total	60,306	100%	2		49,474	100%	2	
Public employees	297				84			
Diaspora	3,044				1,542			
Total	63,647				51,100			

	Koura				Zgharta			
	Number of voters	Percentage	Number of seats	Voters per seat	Number of voters	Percentage	Number of seats	Voters per seat
Maronite	11,992	20%			64,198	83%	3	21,399
Greek Orthodox	38,485	63%	3	12,828	2,426	3%		
Sunni	8,082	13%			10,149	13%		
Shia	1,351	2%			36	0%		
Greek Catholic	170	0%			314	0%		
Alawite	507	1%			71	0%		
Armenian Orthodox	66	0%			45	0%		
Christian minorities	83	0%			70	0%		
Armenian Catholic					68	0%		
Druze					3	0%		
Total	60,736	100%	3		77,380	100%	3	
Public employees	222				248			
Diaspora	2,381				4,278			
Total	63,339				81,906			

Note **Percentages have been rounded up.**

Registered voters were generally divided into electoral centers depending on their gender and confession. In North 3, a majority of voters were in Maronite-only polling stations (52% in total), with the second-largest share in Greek Orthodox stations (11%), followed by Sunni stations (5%). Thirty-one percent of voters, or nearly 80,000, were registered in polling stations servicing voters from multiple groups—thus inhibiting a comprehensive analysis of voter behavior by confessional group.

A few polling stations were reserved for Shia and Greek Catholic voters (about 1%), all in Batroun and Koura.
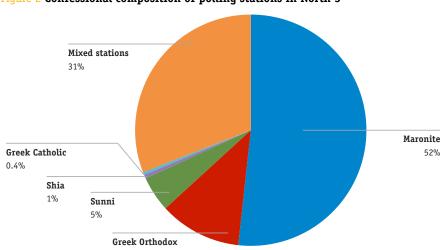
Figure 2 **Confessional composition of polling stations in North 3**

Note **Percentages have been rounded up.**

A comparison between the total number of registered voters by confession to the number of voters registered in stations exclusively servicing voters from their confession shows that in each of the districts, the majority of voters from each represented group were registered in their own polling stations, thus enabling a representative analysis of voting behavior. About 75% of Maronite voters in Batroun, over 90% of those in Bcharre, and about 70% of those in Zgharta were registered in their own stations, and about 60% of Greek Orthodox voters in Koura were registered in their own polling stations. The remaining voters from these confessions were registered in mixed stations. Among the confessional groups not represented by a seat, the majority of each were generally registered in their own polling stations, with only the minority groups (those representing less than 1% in a district) being registered in mixed stations.[9]

It is also possible to determine the confessional composition of mixed polling stations.[10] Among the nearly 20,000 voters in Batroun registered in mixed stations, the majority were Maronite, followed by Greek Orthodox and Sunni (about 25% and 15%), with the remainder

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All these numbers are calculated by comparing the number of voters registered in single-confession stations to the total number of voters by confessional group. Among non-represented groups in each district, in Batroun, from 50% to 75% of Greek Orthodox, Shia, and Greek Catholic voters were in their own polling stations, while 30% of Sunnis were. In Bcharre, the few non-Maronite voters, or less than 1,000 in total, were all registered in mixed stations. In Koura, about half of Maronite, Sunni, and Shia voters were registered in their own polling stations. Finally, in Zgharta, about 75% of Sunnis and 15% of Greek Orthodox voters were registered in their own stations.

10
This is calculated by comparing the number of voters registered in homogeneous versus mixed polling stations to the total number of voters by confessional group.

comprising other minority groups (about 1,200 voters). In Bcharre, there were slightly less than 5,000 voters registered in mixed stations: 80% Maronite, 15% Greek Catholic, and 5% Greek Orthodox. In Koura, slightly more than 27,000 voters were registered in mixed stations: 60% Greek Orthodox, 20% Maronite, 20% Sunni, and about 5% Shia and Alawite combined. Finally, in Zgharta, among the nearly 26,000 voters registered in mixed stations, about 80% were Maronite, and nearly 10% were Greek Orthodox and Sunni each, with about 600 voters belonging to other minority groups.

II Who voted?

Turnout in North 3 was 45%, lower than the national average of 49%. Among the 259,992 Lebanese registered in the district, 117,811 cast a vote while the remaining 142,181 did not. There were large variations in turnouts across minor districts: Turnout was highest in Batroun (53%), and lowest in Bcharre (39%), while turnout in Koura and Zgharta fell in between (44% in each).

There were also significant changes in turnouts compared to the 2009 elections, with most districts seeing a drop in participation rates. Despite having the lowest turnout, Bcharre was the only district that experienced an increase in turnout from the 2009 elections (37%). In each of the three other districts, participation rates in 2018 were between 3% and 4% lower than they were in 2009 (56% in Batroun, 48% in Zgharta, and 47% in Koura).

Constituents in the diaspora had a much higher participation rate than those residing in Lebanon. Among the 11,245 Lebanese emigrants who registered to vote in 2018, 67% decided to vote, compared to 44% of Lebanese registered to vote in the country. The diaspora had a turnout rate that was about 20% higher than the turnout among residents in each of the districts except for Bcharre, where it was 30% higher.[11]

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In Batroun, 3,044 Lebanese emigrants registered to vote, in Bcharre, 1,542, in Koura, 2,381, and in Zgharta, 4,278.
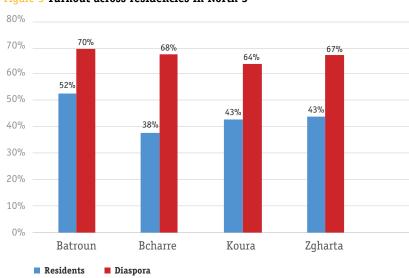
Figure 3 **Turnout across residencies in North 3**

Note **Percentages have been rounded up.**

Women voters were more mobilized in each of the districts, and the Sunni and Shia communities tended to vote more than others

One common trend across all minor districts was a higher mobilization among women than men, as well as a higher mobilization among Sunni and Shia voters than Christian communities, although there were some exceptions—particularly in Batroun. Participation rates among voters in confessionally mixed polling stations also tended to be lower than those in homogeneous stations.

In Batroun, 56% of Maronite voters, who are represented by all seats in the district, voted. Turnout was much higher among the few Shia voters registered in their own polling stations (62%). Sunni voters followed Maronites, with a 54% turnout. Participation rates among Greek Orthodox and Greek Catholic voters were much lower (45% and 31%), with mixed stations also seeing low turnouts (48%). These variations across confessional groups are statistically significant even after controlling for voters' gender, as well as some characteristics of the cadasters in which they were registered—such as level of economic development, confessional fragmentation, and poverty rates.

Across genders, women voted in much higher numbers, with 52% of women deciding to vote compared to 49% of men. Turnout was even higher in stations that had both genders (57%). Women from most confessional groups were more mobilized than their male counterparts, with, for example, 56% of Maronite women registered in their own stations voting, compared to 54% of Maronite men. Only Sunni men had a higher turnout than their women counterparts, with 56% of those registered in their own stations casting a ballot, compared to 52% of women.

Table 2 **Turnout by confessional group and gender in Batroun**

| | | Voters' gender | | | |
		Men	Women	Mixed gender	Total
Voters' confession	Maronite	54%	56%	60%	56%
	Greek Orthodox	44%	46%		45%
	Sunni	56%	52%		54%
	Greek Catholic	30%	31%		31%
	Shia			62%	62%
	Mixed confession	41%	46%	53%	48%
	Total	49%	52%	57%	52%

Note **Percentages have been rounded up.**

In Bcharre, which only had Maronite and mixed polling stations, 39% of Maronite voters cast a ballot, while 31% of those registered in mixed stations, most of whom were Maronite, did so. A fifth of voters in mixed stations belong to other confessional groups, with most being Greek Catholic, which could explain the lower turnout. Turnout was also higher among women voters, with 41% voting, compared to 38% of men.

In Koura, Greek Orthodox voters, who are represented by all seats, had a much lower turnout than all other groups. Only 43% of Greek Orthodox voters registered in their own stations decided to cast a ballot, and they were overall the least likely to vote, even after controlling for gender and certain characteristics of the cadasters in which they were registered, such as level of economic development and confessional fragmentation. Sunnis had the highest turnout (57%), followed by the few Shia voters (53%), and Maronites (46%). In mixed stations, turnouts were lowest (40%), which might be explained by the fact that Greek Orthodox comprised 60% of those who voted in these stations, with the remainder being mostly split between Maronites and Sunnis. Women voters from all confessional groups had much higher turnouts than men, with their participation rate being between 5% and 6% higher in each case. In total, 46% of women voters cast a ballot, while only 40% of men did so. Greek Orthodox women registered in their own stations had a 45% turnout, while Greek Orthodox men had a 40% turnout. These variations across genders are also statistically significant.

Table 3 **Turnout by confessional group and gender in Koura**

| | | Voters' gender | | | |
		Men	Women	Mixed gender	Total
Voters' confession	Maronite	44%	50%	38%	46%
	Greek Orthodox	40%	45%	38%	43%
	Sunni	53%	59%	60%	57%
	Shia			53%	53%
	Mixed confession	36%	42%	42%	40%
	Total	40%	46%	43%	43%

Note **Percentages have been rounded up.**

Finally, in Zgharta, 44% of Maronite voters cast a ballot. Turnout was highest in the single Greek Orthodox polling station (64%, where less than 350 voters were registered), while among Sunnis, who constitute a large share of voters in Zgharta, it was 46%. In mixed stations, turnout was lowest (41%), despite the fact that the vast majority of voters in these stations were Maronite (80%). Most of the remainder was split between Sunni and Greek Orthodox, and only 3% belong to minority groups. When controlling for voters' gender, as well as characteristics of the cadasters in which they were registered, voters in the Greek Orthodox polling station were overall the most likely to vote, while there was no significant variation between Maronite and Sunni voters. Similar to the other districts, turnout was higher among women, or 46% compared to 41% among men. Maronite women had a 48% turnout, while Maronite men had a 42% one. These variations across genders are statistically significant.

Table 4 **Turnout by confessional group and gender in Zgharta**

| | | Voters' gender | | | |
		Men	Women	Mixed gender	Total
Voters' confession	Maronite	42%	48%	34%	44%
	Greek Orthodox			64%	64%
	Sunni	47%	45%		46%
	Mixed confession	38%	44%	43%	41%
	Total	41%	46%	39%	43%

Note **Percentages have been rounded up.**

Participation rates varied across cadasters within each district

In Batroun, some cadasters reported turnouts higher than 70%, while in others, turnouts were lower than 40%. Most of the high-turnout cadasters were in the southeastern area of Batroun. The cadasters with the highest turnouts were Jebla and Edde El-Batroun (78% and 77%). Rachana, Mrah Chdid, and Thoum—all adjacent to Edde El-Batroun— also saw high turnouts (from 70% to 74%). The other neighboring cadasters of Mahmerch, Douk, Ram El-Batroun, Sghar, and Dahr Abi Yaghi, all reported 70% turnouts. Kour also saw a high turnout (71%). Cadasters with the lowest turnouts were the neighboring ones of Hardine (24%), Kfar Hilda (28%), Kfour El-Arabi, Niha, and Beit Chlale (from 35% to 40%). Hamat also reported a turnout below 40%, although the cadasters around it did not see particularly low turnouts. This could be explained by the fact that nearly all voters registered in Hamat are Greek Orthodox.

Generally, a higher share of Maronite voters registered in a cadaster was associated with higher turnout rates in Batroun. In all of the high-turnout cadasters, all registered voters were Maronite, with the exception of Mahmerch, where 85% were. Although some of the low-turnout cadasters are fully or nearly fully Maronite—such as Hardine, Niha, and Beit Chlale—on average in Batroun, turnouts by cadaster tended to increase as the share of Maronite voters registered increased. Conversely, turnouts tended to decrease as the share of Greek Orthodox voters registered in a cadaster increased.[12]

Moreover, beyond the prevalence of a specific confessional group, turnout was largely affected by the level of confessional homogeneity in a cadaster, that is, whether many different confessional groups cohabit or there is a high predominance of one, regardless of which.[13] In Batroun, the more homogenous the cadaster is, the higher the participation rate in the elections. On average, turnout rates by cadaster steadily increased from 47% in the most heterogeneous to 56% in the most homogenous cadasters. This relationship is statistically significant even after controlling for voters' gender, confession, as well as certain characteristics of the cadasters in which they were registered such as level of economic development and poverty rates.

[12] While Sunni and Shia voters had high turnouts, they were registered in only a few cadasters. Greek Catholic voters, who had the lowest turnouts, were registered in an even lower number of cadasters, meaning that the relationship between the share of registered voters from each of these groups and turnout by cadaster cannot be accurately calculated.

[13] We use an index of confessional homogeneity (IH) = $\sum_{i=1}^{n} Sij^2$, where S_{ij}^2 is the sum of the square root of the share of each confessional group in the total number of registered voters in a cadaster. The index goes from 0.4 (most heterogeneous) to 1 (fully homogenous—only one confessional group is present in the cadaster).
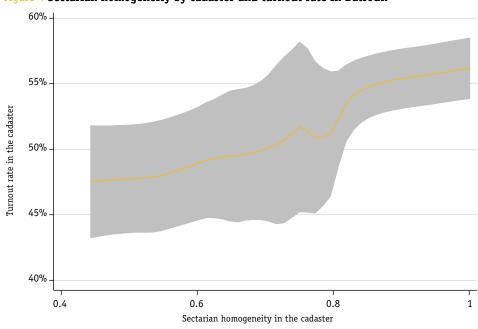
Figure 4 **Sectarian homogeneity by cadaster and turnout rate in Batroun**

In Bcharre, no cadaster reported a turnout above 60%. Only three cadasters saw over half of registered voters cast a vote. Those were Aabdine (57%) and the neighboring cadaster of Billa (52%), as well as the cadaster of Bqaa Kafra (54%). In seven cadasters, turnouts were lower than 30%.

The cadasters with the lowest turnouts are all geographically condensed in the northern part of Bcharre, on the border with the district of Zgharta. Those were Tourza (14%), Bane (16%), and Blaouza (19%), followed by Wadi Qannoubine, Hadath El-Jebbeh, Qnaiouer, and Dimane (between 20% and 25% each). The same pattern was observed in Zgharta, with some of the neighborhoods on the border with Bcharre reporting the lowest turnouts.

Turnout rates in Bcharre did not vary according to the prevalence of a specific confessional group, and were not affected by the level of confessional homogeneity in a cadaster due to the fact that Bcharre is a largely homogeneous district.

In Koura, turnouts across cadasters varied from less than 30% to over 60%. The highest turnouts were in Bednayel (65%), Zakroun (64%), Zgharta El-Mtaouleh (61%), and Majdel (60%). Over half of voters (between 51% and 54%) also voted in Bednayel's neighboring cadasters of Ejdabrine and Kefraiya El-Koura, and Zakroun's neighboring cadasters of Barghoun, Enfeh, and Deddeh. Some other cadasters where over half of voters cast a ballot were Rechdebbine, Ain Aakrine, and Nakhleh. Most of these had no Greek Orthodox registered to vote. The exceptions were Deddeh and Enfeh, where over half of registered voters were Greek Orthodox (over 60%), and the remaining were Sunni.

The cadasters with the lowest turnouts—below 30%—were Metrit (19%), followed by Btorram (27%) and Kfar Kahel (30%). The cadasters next to Btorram, such as Aaba, Bdebba, Batroumine, Bechmizzine, and Amioun all also saw low turnouts (below 35%). In these neighboring cadasters, nearly all registered voters are Greek Orthodox. However, Metrit is fully Maronite, and Kfar Kahel is majority Sunni, although a significant share of registered voters is Greek Orthodox (over 30%).

Although Greek Orthodox voters are represented by all seats in Koura, generally, a higher share of Greek Orthodox voters registered in a cadaster was associated with lower turnouts, with average turnouts by cadaster tending to decrease as the share of Greek Orthodox voters in a cadaster increased. Conversely, a higher share of Sunni voters registered to vote was associated with higher turnouts. Aside from this, turnouts by cadaster were not affected by the level of confessional homogeneity in Koura, in contrast to Batroun.

Finally, in Zgharta, turnouts across cadasters varied from above 60% to below 25%. In one cadaster, Kfarfou, which only had one polling station, all voters voted (164 Maronite voters registered). The second-highest turnout was 65%, in Bchannine, with turnouts varying between 60% and 64% in Harf Miziara and the neighboring areas of Bousit, Kafraiya Zgharta, and Haret El-Fouar.

Many cadasters saw turnouts below 30%, with the lowest being in Kfarsghab (14%). The neighborhoods next to it, Seraal and Aintourine were also among those with the lowest turnouts—these are on the border between Zgharta and Bcharre, and are adjacent to the cadasters in Bcharre that saw the lowest turnouts. Turnout was also low (between 20% and 25%) in Basloukit, Sebaal, Qarah Bach, and Aarjes.

In contrast to Batroun, turnouts by cadaster in Zgharta tended to decrease as the level of confessional homogeneity in a cadaster increased. This factor was statistically significant, even after controlling for voters' confession, gender, as well as some characteristics of the cadasters in which they were registered, such as level of economic development and poverty rates.
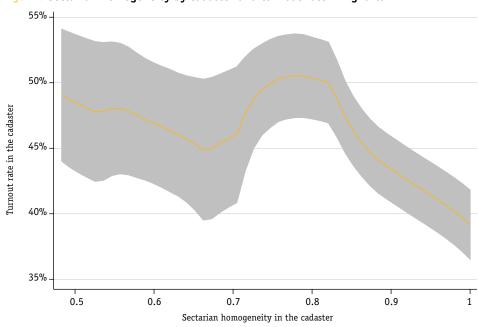
Figure 5 **Sectarian homogeneity by cadaster and turnout rate in Zgharta**

What are the drivers of turnout in North 3?

In North 3, overall, voters in more economically developed cadasters tended to vote more compared to those in less developed cadasters. Voters registered in polling stations that had more than one confessional group registered to vote were significantly less likely to vote than those in homogeneous stations. Moreover, those in larger polling stations were also less likely to vote. Both these results could point toward voter rigging. Previous evidence suggests that smaller polling stations, as well as those where voters are easily identifiable, are more attractive for politicians buying votes, given that the smaller number of registered voters facilitates the monitoring of their behavior, such as whether they turned out to vote and for whom.

Regarding voters' characteristics, women were more likely to vote than men. Across confessional groups, Shia voters were the most likely to vote. They were followed by Maronite and Sunni voters. Comparatively, Greek Orthodox voters were slightly less likely to vote, while Greek Catholics were the least likely.
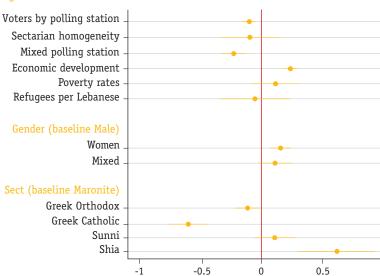
Figure 6 **Drivers of turnout in North 3**

Different factors affected turnouts in each of the minor districts. None of the analyzed factors affected turnout rates in Bcharre, likely due to the low number of cadasters, as well as the very high level of confessional homogeneity in the district. Moreover, none of the cadaster level characteristics seems to have significantly affected turnouts in Koura, in contrast to Batroun and Zgharta.
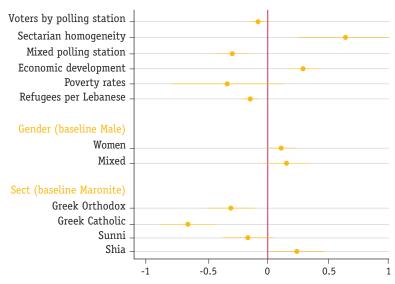
Across cadasters, in both Batroun and Zgharta, voters in more economically developed cadasters were more likely to vote. As mentioned above, higher levels of sectarian homogeneity in a cadaster were associated with higher turnout rates in Batroun, while in Zgharta, voters in more heterogeneous cadasters were more likely to vote. Interestingly, a higher concentration of refugees in a cadaster tended to be associated with lower turnouts in Batroun, while it was associated with higher ones in Zgharta. Across polling stations, in both Batroun and Koura, those that were confessionally homogeneous tended to see significantly higher turnouts than mixed ones, and in Batroun, voters in smaller polling stations were more likely to vote compared to those in larger stations. Both these results in Batroun could point toward pressure on voters to vote, as parties may have higher interest in mobilizing voters with easily identifiable characteristics and in smaller polling stations, as the smaller number of voters facilitates the monitoring of their behavior.

In Batroun, Koura, and Zgharta, women voters were significantly more likely to vote than men—a result that is statistically significant even after controlling for confession and characteristics of the cadasters. Finally, across confessional groups, in Batroun, Maronite, Sunni, and Shia voters were the most likely to vote, with no significant variations between them, while Greek Catholic voters were the least likely, and Greek Orthodox voters fell in between. In
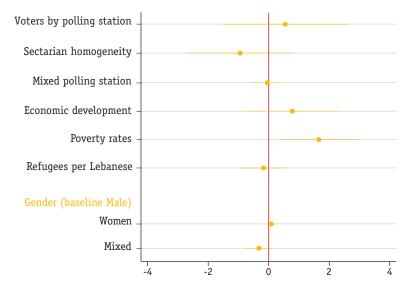
Koura, Shia voters were the most likely to vote. They were followed by Maronite and Sunni voters. Greek Orthodox voters, despite being represented by all seats in the district, were the least likely to vote. Finally, in Zgharta, Greek Orthodox voters were significantly more likely to vote than Maronite and Sunnis, among whom no variations existed.

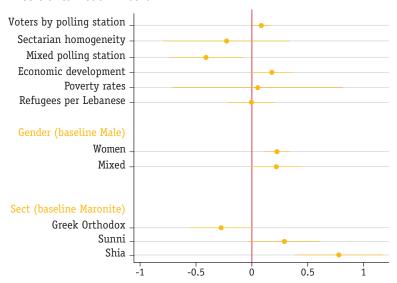Figure 7 **Drivers of turnout in each of the North 3 districts**
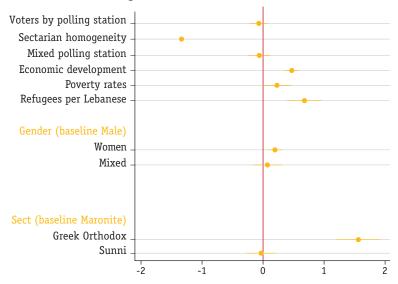
a **Drivers of turnout in Batroun**

b **Drivers of turnout in Bcharre**

c   **Drivers of turnout in Koura**

d   **Drivers of turnout in Zgharta**

III Who voted for whom?

Four lists competed in North 3, with a total of 38 candidates. Seven candidates competed for two seats in Batroun, eight candidates competed for two seats in Bcharre, 11 candidates competed for three seats in Koura, and 12 candidates competed for three seats in Zgharta.

The race was competitive and there were some changes in power

Three of the four competing lists in North 3 won seats.

The list formed by the Marada Movement and the Syrian Social Nationalist Party (SSNP) won four seats, with 36% of the vote (40,788 votes). The list won two seats in each of Koura and Zgharta (39% and 53% of the votes, respectively). The winners in Koura were SSNP

candidate Salim Saadeh (5,263 votes), who had been an MP in the 1992-1996 and 2000-2005 parliaments, and Marada candidate Fayez Ghosn (4,224 votes) who was also an MP in the 2000-2005 parliament, as well as a former Minister of Defense (from 2011 to 2014). The winners in Zgharta were Marada candidates Tony Frangieh (11,407 votes)—who inherited the seat from his father Suleiman Frangieh—and the incumbent Istfan Douaihy (5,435 votes).

The second winning list was the one formed by the Lebanese Forces (LF) and Kataeb party, which won 33% of the vote (37,376 votes) and three seats for the LF. The list won one of the seats in Batroun (where it won 38% of the votes), obtained by Fadi Saad (9,842 votes), and both seats in Bcharre (67% of the votes) which went to Sethrida Geagea (6,677 votes)—the incumbent MP who has represented Bcharre since 2005—and Joseph Ishac (5,990 votes).

Finally, the third winning list was the one formed by the Free Patriotic Movement (FPM) and the Independence Movement (IM). With 29% of the votes (33,342 votes), the list obtained the three remaining seats—one each in Batroun, Koura, and Zgharta. In Batroun, the seat went to FPM leader, and son in law of current President Michel Aoun, Gebran Bassil (12,269 votes) who was the serving Minister of Foreign Affairs and Emigrants at the time of the elections, and had also served as Minister of Energy and Water and Minister of Telecommunications. In Koura, the seat was won by FPM candidate Georges Atallah (3,383 votes), and in Zgharta, where the list obtained 36%, the seat was won by Independence Movement leader Michel Moawad (8,571 votes), son of former President René Moawad and Nayla Moawad, who served as an MP representing Zgharta between 1992 and 2009.

The only losing list was Kulluna Watani, the coalition between emerging and independent actors. The list obtained less than 3% of votes in North 3 (3,160 votes).

There were some shifts in power compared to the previous parliament. While the LF kept both of its seats in Bcharre, it lost its previous seat in Koura to the FPM, and maintained its seat in Batroun, while the second one, which was previously held by the LF's ally, was taken by the FPM. Candidates from and backed by the Future Movement (FM) (one of them, Nicolas Ghosn, ran on the FPM-IM list in 2018), which had previously occupied two seats in Koura, lost to Marada and the SSNP. Finally, Marada, which occupied all seats in Zgharta in the previous parliament, kept two of its seats and lost one to the IM.

There were variations in the votes received by each list across minor districts, with the race being much more competitive in Batroun and Koura than it was in Bcharre and Zgharta.

The race was highly contested between the FPM-IM and LF-Kataeb

lists in Batroun, and between Marada-SSNP and LF-Kataeb in Koura, while LF-Kataeb and Marada-SSNP received the majority of the votes in Bcharre and Zgharta, respectively.
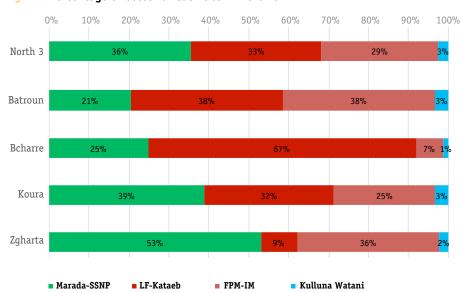
Figure 8 **Percentage of votes for each list in North 3**

Note **Percentages have been rounded up.**

   In Batroun, the FPM-IM and LF-Kataeb lists both received 38% of votes, while the Marada-SSNP list received 21%—its lowest share across the four minor districts—and Kulluna Watani received 3%. Gebran Bassil won 38% of the preferential votes by himself (12,269 votes). Over one-third of the total preferential votes that were obtained by the FPM-IM list in North 3 went to Bassil alone. The other FPM candidate, Nehme Ibrahim, won 0.4% (118 preferential votes). The candidate that came in second in Batroun was LF winner Fadi Saad, who won 31% (9,842 votes), while the second candidate on his list, Samer Saade from the Kataeb party, won 8% of preferential votes (2,470 votes). Boutros Harb, the incumbent MP and lone candidate running on the Marada-SSNP list (independent, previously allied with March 14), won 19% of preferential votes (6,155 votes), failing to beat the winners who both ran for the first time. Finally, the last two candidates were from Kulluna Watani, Layal Bou Moussa (952 votes, 3%), and Antoun Khoury Harb (88 votes, 0.3%).

   There were some variations in preferences for candidates across residencies.[14] Lebanese emigrants who registered to vote in Batroun showed higher support for Fadi Saad (whose share of votes were 4% higher among emigrants than they were among residents), and lower support for Kataeb candidate Samer Saade, who was running on the same list (3% lower). Emigrants also voted slightly less for Boutros

14
2,005 Lebanese emigrants who registered to vote in Batroun cast a preferential vote.

Harb (with their share of votes being 2% lower than it was among residents), and slightly more for Gebran Bassil (1% higher).

In Bcharre, the LF-Kataeb list won an overwhelming majority of the votes, or 67%. One-quarter of votes went to Marada-SSNP (25%), while FPM-IM won 7% and Kulluna Watani 1%—both lists' lowest share across the four minor districts. Both of the winners in Bcharre were from the LF, and won an almost similar share of preferential votes. Sethrida Geagea ranked first with 36% of preferential votes (6,677 votes), while Joseph Ishac received 32% (5,990 votes). The third candidate in the district was Melhem Tawk (4,649 votes, 25%), independent on the Marada-SSNP list. The second candidate on his list, Roy Issa El Khoury (also independent), won 0.1% (or 25 preferential votes), making him the least successful candidate in North 3 overall. On the FPM-IM list, where both candidates were also independent, Said Taouk won 6% of preferential votes (1,112 votes), while Georges Boutros won 0.4% (76 votes). Finally, on the Kulluna Watani list, Edmond Taouk won 0.7% (122 votes), and Maurice Koura won 0.4% (73 votes).

The success of candidates in Bcharre significantly varied between the diaspora and Lebanese residents.[15] The share of preferential votes obtained by Joseph Ishac was 15% higher among the Lebanese diaspora than it was among resident voters (46% compared to 31%), and those for Sethrida Geagea were 5% higher (40% compared to 35%). Emigrants showed much lower support for Melhem Tawk, whose share of votes was 19% lower among emigrants than it was among residents (7% compared to 26%).

In Koura, the Marada-SSNP list was most successful (39%), and was followed by LF-Kataeb (32%), with FPM-IM also winning a high share (25%), and Kulluna Watani coming in last at 3%. On the Marada-SSNP list, which won two seats, winner Salim Saadeh won one-fifth of the preferential votes (5,263, 20%), and Fayez Ghosn won 16% (4,224 votes). The third candidate on the Marada-SSNP list, Abdallah Zakhem (independent), won 3% (779 votes). On the FPM-IM list, which won the third seat in Koura, FPM winner Georges Atallah won 13% of preferential votes (3,383 votes) and was closely followed by Nicolas Ghosn (3,190, 12%), who was the previous MP and backed by the Future Movement. The third candidate on the list was Greta Saab (97 votes, 0.4%), who ranked last in Koura.

The most successful candidate in the district did not win a seat, despite winning a much higher share of preferential votes than all the winners in Koura. Fadi Karam (LF), who was the incumbent, ranked first with 30% of preferential votes (7,822 votes). The two other candidates on the list won a low share of preferential votes: Albert Andraos from Kataeb (442 votes, 2%) and Georges Mansour (Democratic Left Movement, 305 votes, 1%). Finally, the two Kulluna

15
950 Lebanese emigrants who were registered in Bcharre cast a preferential vote.

Watani candidates in Koura were Fadwa Nassif (463 votes, 2%) and Bassam Ghantos (352 votes, 1%).

The votes also varied across residencies.[16] Emigrants voted much more for Fadi Karam, with the share of preferential votes he received among emigrants being 16% higher than that among residents (45% compared to 29%). Georges Atallah also received greater support among the diaspora (6% higher, 18% compared to 12%). Conversely, Fayez Ghosn's share of preferential votes among the diaspora was 12% lower than it was among residents (5% compared to 17%), and the share for Nicolas Ghosn was 10% lower (3% compared to 13%).

In Zgharta, the majority of the vote went to the Marada-SSNP list (53%), which was followed, although by far, by FPM-IM (36%). LF-Kataeb won 9%—its lowest share in North 3—while Kulluna Watani won 2%. By candidate, one-third of preferential votes in Zgharta were won by Tony Frangieh (11,407 votes, 33%). The second Marada winner, Istfan Douaihy, won 16% (5,435 votes). The third Marada candidate, former MP Salim Karam, won 5% (1,590 votes), or less than many other candidates, despite being the incumbent. On the FPM-IM list, winner Michel Moawad won one-quarter of preferential votes (8,571 votes, 25%), FPM candidate Pierre Raffoul won 11% (3,749 votes), and the second candidate from the IM, Jawad Boulos, won 0.3% (109 votes). On the LF-Kataeb list, Marius Beaini won 8% (LF, 2,776 votes), while the two other candidates in the list won a very low share of votes—Michel Douaihy won 0.6% (Kataeb, 194 votes) and Kayssar Mawad 0.1% (independent, 31 votes), making him the least successful candidate in Zgharta. Finally, the Kulluna Watani candidates obtained between 0.4% and 0.8% of preferential votes each: Riad Ghazali won 293 votes, Antoine Yammine won 243, and Antonia Ghamra won 149.

Similar to the other districts, voting patterns differed across residencies.[17] Compared to residents, diaspora voters voted more for Michel Moawad (who received 32% of their preferential vote compared to 24% among residents)—who ranked first among them. Emigrants also voted more for Marius Beaini (15% compared to 7% of residents) and Pierre Raffoul (14% compared to 11%). Conversely, they showed much lower support for Tony Frangieh (who received 23% of emigrants' preferential votes, compared to 34% among residents) and Istfan Douaihy (8% compared to 16%).

Moreover, apart from the percentage of votes received by each list in each of the minor districts, some lists received more votes from certain districts than others. For example, the LF-Kataeb list was able to rely more on voters in Bcharre than on those in other districts, with 35% of the votes it obtained in North 3 coming from Bcharre. By contrast, other lists won 12% or less of their total votes from Bcharre. The FPM-IM list was able to rely more on voters in Batroun and Zgharta, winning 38% of its total votes in each—largely driven by

16
1,437 emigrants who registered to vote in Koura cast a preferential vote.

17
2,668 emigrants who registered to vote in Zgharta cast a preferential vote.

the popularity of the two main candidates, Gebran Bassil and Michel Moawad. The Marada-SSNP list received nearly half of its votes from voters in Zgharta (46%). Compared to other lists, Kulluna Watani received relatively higher support from voters in Koura, with 29% of its votes coming from the district, and also received relatively high support from Batroun (36% of its total votes in North 3), but lower in Zgharta, and similarly to most other lists, much lower in Bcharre.
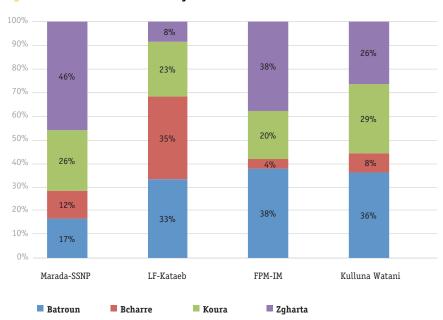
Figure 9 **Share of votes received by each list that came from each district in North 3**

Note **Percentages have been rounded up.**

The process of seat allocation—after ballots were counted— determined who made it to parliament

Under the proportional representation system, combined with the option to cast a preferential vote, candidates who receive the highest number of preferential votes do not necessarily win. Had seats been obtained by the most successful candidates in North 3, regardless of lists, Fadi Karam (LF) would have won a seat in Koura instead of Georges Atallah (FPM). In fact, Karam obtained over twice as many preferential votes as Atallah—over 7,800 preferential votes compared to less than 3,400.

While these results are based on who would win under a non-list system, even the process of seat allocation under the proportional representation system—i.e. the selection of candidates from each winning list that would make it to parliament—created competition across and within lists: Candidates were competing not just against those on opposing lists, but also against candidates on their own lists. This means that significant weight was given to the preferential vote, rather than the list or party vote.

The process of seat allocation in the 2018 elections followed a 'vertical' distribution. Once the results were counted and the number of seats obtained by each list determined, all candidates from the winning lists in the district were ranked from highest to lowest, regardless of the list. The most voted for candidate then won their seat, regardless of the list to which they belonged. Accordingly, the list to which this candidate belonged would then have one less seat left to win. In addition, as North 3 is divided into four sub-districts, one of the seats allocated to the sub-district in which this winner ran would also be filled. In North 3, Gebran Bassil ranked first, thus filling one of the two seats in Batroun and one of the three seats obtained by the FPM-IM list. Tony Frangieh ranked second, thus filling one of the three seats in Zgharta and one of the four seats won by the Marada-SSNP list. All seats are allocated following the same method, i.e. based on rank, but constrained by the number of seats allocated to each of the sub-districts and the number of seats won by each list. This process of distributing seats was not specified in the electoral law: It was a method actively selected, and an alternative one could have been used. The vertical distribution of seats prioritized the preferential vote—i.e. the candidate—over the proportional vote, which would be the support for a party or list. Indeed, the FPM-IM list won less than the Marada-SSNP one, but was the first one to win a seat.

Another process of seat allocation that could have been adopted under the same electoral system is a 'horizontal' distribution of seats. Under such a distribution, candidates within each list—rather than across all lists—are ranked, with seats being won by the most successful candidates in each winning list, but again constrained by the number of seats assigned to each sub-district. The first seat would then go to the most successful candidate from the first winning list. In North 3, that would be Tony Frangieh in Zgharta. The second winner would be the most successful candidate from the second winning list: Fadi Saad (LF) in Batroun. The third would be the most successful candidate from the third winning list: Gebran Bassil in Batroun. The fourth seat would then go to the second-ranking candidate on the Marada-SSNP list, with the remaining seats being distributed following the same method. While all of these three candidates won, the results would change further down the lists.

Had seats been allocated this way in the 2018 elections, there would be changes in seats between the Marada-SSNP and LF-Kataeb lists. First, Fayez Ghosn, Marada winner in Koura, would have lost to Fadi Karam (LF); and second, in Bcharre, Joseph Ishac (LF) would have lost to Melhem Tawk (independent running on the Marada-SSNP list).

There were minor voting variations across voters' genders, but large ones across confessional groups
In North 3, the difference in the share of votes given to each list across genders was of less than 1%. Preferences for lists, however, varied across confessional groups. There was a very high level of competition between lists in capturing each confessional group's vote, although each group tended to vote more for certain lists than others.

In North 3 overall, among the main confessional groups, Maronite voters tended to vote more for LF-Kataeb, Greek Orthodox voters for Marada-SSNP, and Sunni voters for FPM-IM.

In Batroun, Maronite voters gave an almost similar share of their vote to the LF-Kataeb and the FPM-IM lists (40% and 38%, respectively). The LF-Kataeb list ranked first only among Maronite voters, with the FPM-IM list receiving the highest share of all other confessional groups' votes, although it was more successful among some than others. Greek Orthodox voters and the few voters in Greek Catholic stations voted similarly, with the highest share going to FPM-IM (42% and 46%), followed by LF-Kataeb (35% and 37%). The few Sunni and Shia voters registered in their own stations also voted similarly, although the former's vote was more divided. The majority of voters in Shia stations cast ballots for FPM-IM (54%), with Marada-SSNP receiving 36%, while 37% of voters in Sunni stations voted for the former list, with the latter receiving 32%. The Marada-SSNP list came in third among all Christian voters, receiving between 16% and 19% of each group's vote. Kulluna Watani was more successful among Shia voters (8%), followed by Sunni and Greek Orthodox voters (6% and 5%, respectively).

Table 5 **Percentage of votes for each list by confessional group in Batroun**

	Marada-SSNP	LF-Kataeb	FPM-IM	Kulluna Watani
Maronite	19%	40%	38%	3%
Greek Orthodox	19%	35%	42%	5%
Sunni	32%	25%	37%	6%
Greek Catholic	16%	37%	46%	2%
Shia	36%	2%	54%	8%
Mixed confession	24%	36%	37%	3%

Note **Percentages have been rounded up.**

Among the candidates in Batroun, Gebran Bassil (FPM) received the highest share of each confessional group's preferential vote, and ranked first among each by at least a 6% margin. He was followed by Fadi Saad (LF) among all three Christian groups, while Sunnis and Shias cast more preferential votes for Boutros Harb (independent on the Marada-SSNP list). Bassil won 38% of preferential votes among Maronite voters, 44% among Greek Orthodox, and 45% among Greek

Catholics. Fadi Saad won 32% of each of the Maronite and Greek Orthodox preferential votes and 34% among Greek Catholics. The candidate who ranked third among the three groups was Boutros Harb, who obtained between 14% and 18% of each group's preferential votes. Among non-Christian groups, Bassil received 38% of the Sunni preferential vote and 56% of the Shia one, while Harb received 30% and 34%, respectively. Saad also ranked third among Sunnis (23%), while he barely received any votes from Shias (less than 1% of their vote). Most of the remaining of the Shia vote went to Layal Bou Moussa from Kulluna Watani (8%). The Kataeb candidate Samer Saade received some support from Maronite (9%) and to some extent Greek Orthodox voters (5%). The last two candidates in Batroun, Nehme Ibrahim (FPM) and Antoun Khoury Harb (Kulluna Watani), obtained less than 1% of every confessional group's preferential votes.
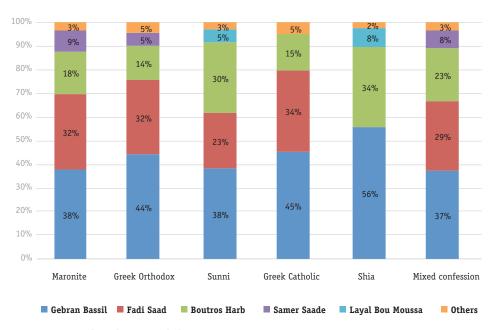
Figure 10 **Main candidates by confessional group in Batroun**

Note **Percentages have been rounded up.**

In most cases, there were no large variations in preferences for each candidate across genders. The largest variation was in votes for Gebran Bassil, who was particularly more successful among women (39%, 4,426 votes) than he was among men (36%, 3,702 votes). Fadi Saad received a slightly lower share of women's preferential votes than men's (1% lower)—however, the number of votes he received was still higher in women-only polling stations (3,337 votes, compared to 3,191 votes in men-only stations). While among other candidates, the differences across genders were less than 1%, one notable result was in support for Nehme Ibrahim (FPM), who obtained most of his votes from men (1%, 89 votes), and barely received any from women

(0.1%, 13 votes). Some variations were observed among voters in gender-mixed stations. In particular, the number of preferential votes for Boutros Harb was much lower in gender-mixed stations than it was in gender-specific stations (5% lower), while those for both Fadi Saad and Samer Saade were slightly higher (1% higher on average, compared to those in gender-specific polling stations).

In Bcharre, where there were only Maronite and mixed stations, the LF-Kataeb list was more successful than others in both types of stations (66% in Maronite and 63% in mixed ones), and the Marada-SSNP list came in second (26% in Maronite and 27% in mixed stations). Sethrida Geagea (LF) ranked first in both, and won 35% of votes in Maronite polling stations, and 39% in mixed ones. Joseph Ishac (LF) came in second among voters in Maronite polling stations (32%), with Melhem Tawk (independent on the Marada-SSNP list) ranking third (26%). In mixed stations the results differed, with Tawk performing slightly better than Ishac (28% and 24%). The other candidate on the Marada-SSNP list, Roy Issa El Khoury (independent), barely received any preferential votes (0.1% in both types of stations). Among those who voted for the FPM-IM list, most chose Said Taouk (independent, 6% of votes in Maronite stations and 8% in mixed ones), with Georges Boutros (independent) barely receiving any preferential votes (0.4% and 0.3%, respectively). Both Kulluna Watani candidates received 1% of preferential votes combined in each of the polling stations.

Similar to Batroun, there were no large variations across genders. Although Sethrida Geagea received a lower share of women's than men's votes (2% lower), she obtained a higher number of votes from women-only polling stations (3,036 votes, compared to 2,671 votes in men-only stations). Melhem Tawk in particular received a much higher number of votes from women (2,115 votes) than he did from men (1,698 votes). Among other candidates, the differences across genders were less than 0.5%. Significant variations in preferences for candidates were observed between gender-mixed and gender-specific stations. In gender-mixed stations, Joseph Ishac ranked first by a large margin (44% of votes). He was followed by Melhem Tawk (26%), with Sethrida Geagea—who outperformed all other candidates in gender-specific stations—coming in third (20%).

Figure 11 **Main candidates by confessional group and gender in Bcharre**

Note **Percentages have been rounded up.**

In Koura, there were significant variations in preferences for lists across confessional groups. The main group, Greek Orthodox, gave the highest share of their votes to the Marada-SSNP list (39%), while the LF-Kataeb list followed (32%). Maronite voters gave the majority of their votes to the LF-Kataeb list (58%), while Sunnis gave a near majority to the FPM-IM list (47%). The few Shia voters who had their own polling stations gave nearly all of their votes to Marada-SSNP (97%).

Table 6 **Percentage of votes for each list by confessional group in Koura**

	Marada-SSNP	LF-Kataeb	FPM-IM	Kulluna Watani
Maronite	25%	58%	16%	2%
Greek Orthodox	39%	32%	24%	4%
Sunni	35%	16%	47%	2%
Shia	97%	0%	1%	2%
Mixed confession	43%	28%	26%	3%

Note **Percentages have been rounded up.**

In some cases, there were variations in the success of candidates even among voters who voted for the same list. For example, in contrast to voters in Batroun and Bcharre, each candidate was not always the most successful among voters from all confessional groups that voted for their list. Moreover, the most successful candidates among each group were from different lists. Overall,

Fadi Karam (LF), Fayez Ghosn (Marada), Salim Saadeh (SSNP), and Georges Atallah (FPM) were the preferred candidates among most confessional groups.

The Greek Orthodox vote was the most fragmented. Although the Marada-SSNP list was the most successful among Greek Orthodox voters, the candidate who received the highest share of their preferential votes was Fadi Karam (28%). The second candidate among the group was Salim Saadeh (23%), followed by Georges Atallah (16%) and Fayez Ghosn (13%). Nicolas Ghosn (independent backed by FM) was also successful (8%), while each of the other candidates received between 1% and 4% of the Greek Orthodox vote.

Maronite voters gave the majority of their preferential votes to Fadi Karam (55%). The second candidate among Maronites was Fayez Ghosn (17%), followed by Georges Atallah, Salim Saadeh, and Nicolas Ghosn (between 6% and 10% each).

Among Sunni voters, Nicolas Ghosn received nearly the majority (45%), while most of the remainder of their preferential votes was divided between Fayez Ghosn, Fadi Karam, and Salim Saadeh (between 13% and 16% each). Nicolas Ghosn was also the only candidate to win a higher share of his preferential votes from Sunni polling stations than from Greek Orthodox stations (876 votes, compared to 761). Finally, the few Shia voters in their own polling stations gave, as mentioned above, nearly all of their votes to the Marada-SSNP list. Fayez Ghosn received 86% of their preferential votes by himself, with the rest being split almost equally between Salim Saadeh and Abdallah Zakhem (independent on the Marada-SSNP list).

The two Kulluna Watani candidates received between 1% and 4% of each confessional group's votes. They received higher support from Greek Orthodox voters, with both Fadwa Nassif and Bassam Ghantous winning 2% of the Greek Orthodox vote, compared to 1% of the Maronite and Sunni preferential votes.

Figure 12 **Main candidates by confessional group in Koura**

Note **Percentages have been rounded up.**

There were no large variations across genders, though, as previously noted, the votes varied between gender-mixed and gender-specific stations. Compared to voters in gender-specific stations, on average, those in gender-mixed stations voted more for Fayez Ghosn (7% more) and Nicolas Ghosn (5% more), while they voted less for Fadi Karam, Georges Atallah, and Salim Saadeh (between 3% and 4% less).

Finally, in Zgharta, a large majority of Maronite and Greek Orthodox voters voted for Marada-SSNP (60% and 58%, respectively), with the remainder voting mostly for FPM-IM (30%). Those two lists received a similar share of the Sunni vote, with FPM-IM being only slightly more successful (48% compared to 47% for Marada-SSNP).

Table 7 **Percentage of votes for each list by confessional group in Zgharta**

	Marada-SSNP	LF-Kataeb	FPM-IM	Kulluna Watani
Maronite	60%	7%	30%	3%
Greek Orthodox	58%	12%	30%	0%
Sunni	47%	5%	48%	1%
Mixed confession	48%	11%	39%	2%

Note **Percentages have been rounded up.**

Tony Frangieh (Marada) was the most successful candidate among Maronite voters (39%), while he received much lower support from Greek Orthodox voters (7%). The second candidate among Maronite

voters was Michel Moawad (IM, 22%), with Istfan Douaihy (Marada) winning a significant share as well (15%). All other candidates won less than 10% of the Maronite vote, most of the remainder of which was divided between Pierre Raffoul (FPM), Marius Beaini (LF), and Salim Karam (Marada) (between 6% and 8% each). All six other candidates in Zgharta received a combined 3% of Maronite voters' preferential vote. A majority of the few voters in Greek Orthodox stations who cast a preferential vote (only 212 voters) chose Istfan Douaihy (106 votes, 50%). Michel Moawad came in second (60 votes, 28%), followed by Marius Beaini (25 votes, 12%), with Tony Frangieh being less successful (15 votes, 7%). Among Sunni voters, Michel Moawad received one-third of preferential votes (33%), and was followed by Istfan Douaihy and Tony Frangieh (22% each). The last candidate who won a substantial share of the Sunni vote was Pierre Raffoul (14%), with all other candidates in Zgharta winning 8% combined.

The three Kulluna Watani candidates were highly unsuccessful in Zgharta. Combined, they won 2% of the Maronite preferential vote, as well as 2% in mixed stations, but less than 1% among Sunnis and no votes from Greek Orthodox voters.

Figure 13 **Main candidates by confessional group in Zgharta**

Note **Percentages have been rounded up.**

Across genders, women gave a slightly higher share of their preferential vote to Tony Frangieh (2% more than men), and Michel Moawad (1% more), while they gave a lower one to Istfan Douaihy and Marius Beaini (2% and 1% less, respectively). In gender-mixed

stations, Frangieh obtained a significantly higher share of votes—with his votes being, on average, 7% higher than they were in gender-specific stations. Votes for Beaini were also slightly higher (3% higher). Those for Douaihy, Salim Karam, and Pierre Raffoul were lower (from 2% to 3% lower).

Support for political parties and candidates largely varied across cadasters within each district

In Batroun, the LF-Kataeb list managed to win over 70% of votes in a few cadasters, while the highest share obtained by other lists was 65%.

The LF-Kataeb list won over 70% of votes in Niha (329 votes, 81%), Ram El-Batroun (109 votes), Aalali (66 votes), and Hadtoun (153 votes) (between 70% and 72% in each). The list also won over 60% in Hardine (176 votes), Kour (427 votes), Jebla (127 votes), Sghar (84 votes), and Kfour El-Arabi (309 votes). It was least successful (less than 20% of votes) in Harbouna (10 votes, 16%), Rachkida (six votes, 2%), and Daael (one vote, 1%), where the FPM list was most successful.

LF winner Fadi Saad received the majority of his preferential votes in seven cadasters. He won 82% of preferential votes in Niha (324 votes), and between 61% and 64% in Ram El-Batroun (97 votes), Hardine (158 votes), and Jebla (120 votes). He also won the majority in Hadtoun (129 votes, 59%), Douk (84 votes, 56%), and Dahr Abi Yaghi (53 votes, 52%). Fadi Saad, who won 9,089 preferential votes among residents, managed to win over 500 in Chekka (962 votes, 40%), Tannourine El-Faouqa (649 votes, 21%, where he was less successful than Gebran Bassil and Boutros Harb), and the cadaster of Batroun (517 votes, 19%, where he was much less successful than Bassil). He won 10 votes or less only in Daael, Rachkida, Nahle, Harbouna, and Kfar Chleiman, where Bassil tended to be more successful.

The Kataeb candidate Samer Saade managed to win over 20% of preferential votes in only six cadasters, with his highest being in Aalali (35 votes, 38%) and Chabtine (205 votes, 37%). They were followed by Sghar and Mar Mama (38 and 27 votes, 29% in each), and Kour and Mrah Chdid (155 and 30 votes, 24% in each). He won 2,344 preferential votes among residents, and over 100 in six cadasters, while less than 10 in 19 cadasters. In addition to Chabtine and Kour, Saade won over 100 preferential votes in Chekka (247 votes, 10%), Kfar Aabida (153 votes, 17%), Bchaaleh (127 votes, 16%), and Aabrine (114 votes, 11%).

The FPM-IM list won over 60% of votes in four cadasters: Harbouna (42 votes, 66%), Wajh El-Hajar (135 votes, 63%), the cadaster of Batroun (1,776 votes, 61%), and Daael (52 votes, 60%). It won the majority in eight other cadasters.

Among candidates on the list, nearly all of the preferential votes in the four cadasters referenced above went to Gebran Bassil (41

votes in Harbouna, 69%; 134 votes in Wajh El-Hajar, 64%; 1,750 votes in Batroun, 63%; and 51 votes in Daael, 61%). Bassil, who won 11,370 preferential votes among residents, received over one-tenth of these from voters in the cadaster of Batroun. He also won over 500 preferential votes in Tannourine El-Faouqa (825 votes, 27%, beating Fadi Saad), Chekka (741 votes, 31%, less successful than Saad), and Douma (513 votes, 45%, beating all other candidates).

The second candidate on the list, Nehme Ibrahim, won 113 preferential votes among residents, and well over half of these came from voters in Tannourine El-Faouqa (80 votes, 3%), which was the highest share he won across all cadasters in Batroun. In all other cadasters, he won three preferential votes or less.

The Marada-SSNP list was most successful in Nahle, winning 60% (30 votes), followed by Tannourine El-Tahta (539 votes, 55%), and Deir Billa (190 votes, 49%). The list managed to win over 40% in three other cadasters: Tannourine El-Faouqa (1,408 votes), Wata Houb (284 votes), and Mrah El-Haj (32 votes). The only candidate on the list, Boutros Harb, who won 5,740 preferential votes among residents, received one-third of these from Tannourine: In Tannourine El-Faouqa, 45% of voters chose Harb (1,379 votes), and in Tannourine El-Tahta 55% did so (536 votes).

Kulluna Watani won over 5% of votes in 18 cadasters, with its highest share being in Aabrine and Kfar Hilda (9% each, 90 and 29 votes). All preferential votes in these two cadasters went to Layal Bou Moussa. The list, which won 1,052 votes among residents in Batroun, managed to win over 50 votes in the cadaster of Batroun (88 votes, 3%), Chekka (77 votes, 3%), Tannourine El-Faouqa (65 votes, 2%), and Hamat (58 votes, 7%), in addition to Aabrine.

In Bcharre, LF-Kataeb won the majority of the votes in nearly all cadasters and neighborhoods, and in fact, came ahead of all other lists in all but one, Bane, where the Marada-SSNP list was more successful. The LF-Kataeb list won over 75% in Bqaa Kafra (1,523 votes, 89%), Hasroun (1,295 votes, 84%), Qnat (470 votes, 79%), and Wadi Qannoubine (173 votes, 77%).

Among candidates on the list, Sethrida Geagea won over 70% of preferential votes in Bqaa Kafra (1,458 votes, 87%) and the Bcharre neighborhoods of El-Muqademeen (152 votes, 73%) and Mar Saba (1,235 votes, 71%). She also won a high share in Mar Youhanna (881 votes, 69%), the cadaster of Hadchit (1,176 votes, 60%), and the neighborhood of El-Sayde (1,303 votes, 48%). The preferential votes she obtained in these areas total 6,205 votes, comprising 99% of the preferential votes she won among residents.

Joseph Ishac won the majority of his preferential votes in more cadasters (15) than Geagea, as his support was more widespread across the district. Ishac received over 70% of preferential votes in Hasroun

(1,268 votes, 86%), Qnat (459 votes, 79%), and Wadi Qannoubine (162 votes, 75%). While he also won the majority in 12 other cadasters, those he received a high number of his votes from (over 200) were Bqerqacha (745 votes, 59%) and Bazaoun (651 votes, 64%), followed by Aabdine (352 votes, 66%), Hadath El-Jebbeh (324 votes, 60%), and Blaouza (202 votes, 64%).

The Marada-SSNP list received a lower share of votes than LF-Kataeb in all cadasters except for Bane, where it won 45% of votes (128 votes), compared to 32% for LF-Kataeb (90 votes). The highest share of preferential votes Melhem Tawk won was in the Bcharre neighborhood of El-Sayde, where he won 46% of preferential votes (1,247 votes), slightly less than Sethrida Geagea. He also won 44% of votes in Bane (121 votes), where he beat all other candidates. In addition to El-Sayde, Tawk received a high number of his votes from the cadaster of Hadchit (591 votes, 30%, although Geagea won twice as much), while he won less than 500 votes in all other cadasters and neighborhoods in Bcharre. The second candidate on the list, Roy Issa El Khoury, only won 22 votes among residents.

The FPM-IM list won over 20% of votes in only four cadasters, with its highest share being in Dimane (28%, only 85 votes). The others were Tourza, Bane, and Braissat (between 20% and 23% in each). The list was less successful than LF-Kataeb in all cadasters and neighborhoods, but slightly more successful than Marada-SSNP in some, although in all cases by a very small margin. Said Taouk's highest share of preferential votes (between 20% and 22%) was in Bane, Braissat, and Dimane (only 59, 24, and 56 preferential votes, respectively). The candidate won over 100 only in the neighborhood of El-Sayde (142 votes, 5%). The second candidate on the list, Georges Boutros, who won 67 preferential votes among residents, received over one-third of these from voters in Qnat (23 votes, 4%). He won less than 10 votes in all other cadasters and neighborhoods.

Finally, Kulluna Watani won a very low number of votes in Bcharre (244 among residents). The highest share it obtained was 7% in Mazraat Aassaf, which is equivalent to eight votes. The list won its highest number of votes in Hadchit (46 votes), where most of these went to Maurice Koura. The candidate, who won 69 preferential votes among residents, received over half of these from voters in Hadchit (39 preferential votes, 2%). The second candidate, Edmond Taouk (116 votes), did not win most of his votes from one specific area. He won over 10 votes in Bcharre's neighborhoods of Mar Saba (21 votes), Mar Youhanna (15 votes), El-Sayde (13 votes), and the cadaster of Bqerqacha (10 votes).

In Koura, the LF-Kataeb list won the majority of votes in Zakroun (80%), Ain Aakrine (70%), Rechdebbine (66%), Metrit, Bziza, and Barsa (from 50% to 55% each). In most of these, the majority of

preferential votes went to Fadi Karam (LF). He won 78% in Zakroun (135 votes), 67% in Ain Aakrine (420 votes), 61% in Rechdebbine (260 votes), 52% in Metrit (76 votes), and 51% in Bziza (241 votes). In terms of number of preferential votes, he won his highest numbers in Enfeh (631 votes, 26%), Deddeh (584 votes, 27%), and Kfaraakka (524 votes, 34%), where he was also the most successful candidate. The second candidate on the list, Albert Andraos (Kataeb), received 411 preferential votes among residents and won over one-third of these from Kfaraakka (146 votes, 9%). He was also able to obtain over 5% of preferential votes in Bechmizzine (42 votes, 6%) and Bhabbouch (12 votes, 5%). The third candidate on the list, Georges Mansour from the Democratic Left Movement (290 votes among residents), won 27% in Batroumine—or over a third of his votes (104 votes)—where he was also more successful than all other candidates except Salim Saadeh. He only won over 5% of preferential votes in Badbhoun (five votes, 6%) and Fih (34 votes, 5%). In addition to Batroumine and Fih, a high number of the total votes received by Mansour came from voters in Enfeh (35 votes, 1%).

The Marada-SSNP list won nearly all of the votes in Zgharta El-Mtaouleh (98%) and Bnehrane (97%). It also won the majority in Amioun (62%), Kfar Kahel (61%), Aafsdiq, Btaaboura, and Bdebba (between 53% and 56%). Among the candidates on the list, SSNP winner Salim Saadeh won his highest share in Amioun (57%), and over 40% in Kaftoun and Kfar Kahel (46% and 43%). Nearly one-third of his preferential votes came from Amioun alone, accounting for 1,335 out of the 4,961 he won among residents (in Kaftoun and Kfar Kahel, he won 81 and 100 preferential votes, respectively). Although Saadeh was not the most successful candidate in these cadasters, he also won a high number of his votes from Deddeh (442 votes, 21%), Enfeh (321 votes, 13%), and Kfarhazir (304 votes, 32%). The second candidate, Fayez Ghosn from Marada (4,117 preferential votes, 17% among residents), won a high share of preferential votes in Bnehrane (180 votes, 89%) and Zgharta El-Mtaouleh (89 votes, 79%). He managed to win over 40% in Kousba (728 votes, 41%) and Ras Masqa (199 votes, 40%). In addition to Kousba, where he won 728 preferential votes, Ghosn was able to obtain over 200 only in Enfeh (258 votes, 11%) and Deddeh (213 votes, 10%). The third candidate, non-party member Abdallah Zakhem, won over 10% of preferential votes in Barghoun (23%), Deddeh (17%), and Zgharta El-Mtaouleh (11%). Nearly half of his votes came from Deddeh—359 of the 743 votes he won among residents—while he won less than 50 votes in all other cadasters.

The FPM-IM list won the majority of votes in Btouratij and Bednayel (56% in each) and over 40% in Bkeftine, Enfeh, Ejdabrine, Kefraiya El-Koura, and Barghoun (between 41% and 46%). Among

the candidates on the list, Nicolas Ghosn (who won 3,120 votes among residents, 13%) won the majority of preferential votes in both Bednayel (155 votes, 54%) and Btouratij (191 votes, 52%). He also won over 30% in Kefraiya El-Koura, Barghoun, and Ejdabrine (between 33% and 38%). He won a high number of preferential votes in Enfeh (600 votes, or 25%, slightly less than LF candidate Fadi Karam), Deddeh (406 votes, 19%), Kousba (301 votes, 17%), and Kefraiya El-Koura (281 votes, 38%), but less than 200 preferential votes in all other cadasters. FPM winner Georges Atallah (3,099 preferential votes among residents, 12% of preferential votes) won his highest share of votes in Darchmezzine (34%), followed by Kfaraakka (30%). He was able to win over 200 preferential votes in Enfeh (497 votes, 20%), Kfaraakka (467 votes, 30%), and Amioun (226 votes, 10%), and less than 150 in all other cadasters. Finally, Greta Saab (80 votes among residents, 0.3%) received her highest share of votes in Ksouba (2%), from where over one-third of her preferential votes came, or 31 out of the 80 she won among residents.

Kulluna Watani managed to win over 5% of votes in eight cadasters, with the highest share being 14% in Kaftoun (although only 24 votes). The list won 8% in Amioun (201 votes) and Badbhoun (six votes), 7% in Bechmizzine (49 votes), Qalhat (29 votes), and Darchmezzine (10 votes), and 5% in Ras Masqa (25 votes) and Btaaboura (11 votes). Fadwa Nassif's highest share of preferential votes was 11% in Kaftoun (representing only 19 votes), followed by 5% in Amioun—where she received 114 out of the 423 preferential votes she won among residents. She also won over 20 preferential votes in Kousba, Enfeh, Bechmizzine, Darbechtar, and Deddeh (between 20 and 31 preferential votes in each), for a total of 129 preferential votes. The second candidate, Bassam Ghantous (who won 329 preferential votes among residents), received 8% of preferential votes in Badbhoun and 5% in Darchmezzine, although both of these were equivalent to a very low number of votes (13 in total). He received his highest number of preferential votes in Amioun (67 votes, 3%) and Kousba (25 votes, 1%), while he won less than 20 preferential votes in all other cadasters.

In Zgharta, the LF-Kataeb list was less successful than in the other minor districts, but managed to win over 20% of votes in eight cadasters/neighborhoods. The highest share it obtained was 26% in Mazraat El-Toufah (110 votes). LF candidate Marius Beaini (who won 2,345 preferential votes among residents) won between 20% and 22% of votes in seven cadasters. This, however, did not translate into a high number of votes in all instances. He managed to win over 100 preferential votes in five cadasters: Rachiine (279 votes), Ardeh (with Haref Ardeh) (242 votes), Haret El-Fouar (133 votes), Aachach (119 votes), and Aalma (118 votes), totaling nearly 900 preferential votes.

In all of these, he won between 10% and 15% of preferential votes, except in Aachach, where he won 21%.

Kataeb candidate Michel Douaihy (174 preferential votes among residents) obtained his highest share in Beit Aabeid (4%) and Aitou (3%). However, these totalled 10 preferential votes only. Overall, most of his votes were cast in the cadaster of Zgharta, given the higher number of voters in the cadaster. He received his highest number in the neighborhood of Salib El-Jnoubi (27 votes), and between 10 and 20 preferential votes in Saide El-Charki (18 votes), Saide El-Gharbi, and Salib El-Chmali (11 votes in each), as well as the cadaster of Aalma (19 votes). The third candidate on the list, non-party member Kayssar Mawad (who won 21 preferential votes among residents), managed to win 1% of preferential votes in Basloukit and Hilane (for a total, however, of only five preferential votes).

The Marada-SSNP list, which was the most successful in Zgharta, won the majority of votes in 30 cadasters and neighborhoods. It won over 70% in Bnachii (82%), Kfar Chakhna, Bchannine, Mazraet El-Fradis, and the Zgharta neighborhood of Maaser (between 73% and 78%). The list won less than 20% of votes only in Kafraiya Zgharta (17%, where the FPM-IM list was most successful). Tony Frangieh (who won 10,731 preferential votes among residents) won the majority of preferential votes in eight cadasters/neighborhoods. He won 82% in Bnachii (only 79 preferential votes), and 74% in Kfar Chakhna (60 votes). He won 57% in the neighborhood of Maaser, representing 1,912 preferential votes. He also won over 1,000 preferential votes in the neighborhood of Salib El-Jnoubi (1,151 votes, 42%) and over 500 in Salib El-Chmali (892 votes, 43%), Saide El-Charki (737 votes, 39%), and the cadaster of Miziara (637 votes, 46%). Istfan Douaihy (5,203 preferential votes among residents) won half of the preferential votes cast in Bousit (106 votes, 50%), but less than 40% in all other cadasters. He was able to win between 31% and 38% in Qarah Bach (66 votes), Kfar Dlaqous (175 votes), Aarjes (62 votes), Beit Aabeid (19 votes), and Miryata (286 votes), where he was also the most successful candidate (except in Aarjes, where Frangieh won two more preferential votes). The highest number of preferential votes he won came from Rachiine (546 votes, 26%), followed by Ardeh (405 votes, 23%), and Saide El-Gharbi (403 votes, 26%). Douaihy won a higher number of votes than the two main candidates, Frangieh and Moawad, in Qarah Bach, Kfar Dlaqous, Mejdlaya, Miryata, and Bousit. The third candidate on the list, Salim Karam (1,471 preferential votes among residents), won between 10% and 12% of preferential votes in Asnoun (26 votes), and the neighborhoods of Salib El-Jnoubi (283 votes) and Saide El-Gharbi (160 votes). He won over 100 preferential votes in the five neighborhoods of the cadaster of Zgharta, but less than 60 in all others, which in total represents 1,019 of his preferential votes.

The FPM-IM list managed to win the majority of votes in Qadriyeh, Kafraiya Zgharta (66% and 65%), and Haret El-Fouar (56%). Although he ranked second in Zgharta, Michel Moawad (7,646 preferential votes among residents) only won the majority of preferential votes in Kafraiya Zgharta (58 votes, 58%), and over 40% in Qadriyeh (317 votes, 44%) and Iaal (120 votes, 41%). Similar to many candidates, he won a high number of votes from voters in the larger cadaster of Zgharta. The highest number of preferential votes he won came from Salib El-Jnoubi (748 votes, 28%), followed by Salib El-Chmali (546 votes, 27%) and Maaser (520 votes, 15%), while he also won a high number in Rachehine (683 votes, 33%). Moawad was able to win a higher share of preferential votes than the main candidate, Tony Frangieh, as well as his other competitor, Istfan Douaihy, in Rachiine, Ardeh, Aalma, Toula, Aachach, Qadriyeh, and Kafraiya Zgharta.

FPM candidate Pierre Raffoul (3,346 votes among residents) won less than 30% of votes in all cadasters but Harf Miziara, where he received 61% (277 votes). He managed to win over 25% in Haret El-Fouar (324 votes, making him the most successful candidate), Miziara (362 votes), and Karm Saddeh (112 votes). In addition to these, Raffoul only managed to win over 200 preferential votes in Aalma (218 votes, 19%) and Ardeh (206, 12%). The third candidate on the FPM-IM list in Zgharta, Jawad Boulos (IM, 94 preferential votes among residents), won 2% of preferential votes in Aalma, which was also the highest number of preferential votes he managed to obtain in any cadaster (17 votes).

Finally, Kulluna Watani won its highest share in Raskifa (20 votes, 10%). It managed to win over 5% in six other cadasters, with the highest number of votes (between 20 and 30 votes) being in Bhairet Toula, Karm Saddeh, and Toula. Among the candidates in the list, Riad Ghazali (who won 264 preferential votes among residents, 0.8%), managed to win 3% in Aarjes, representing, however, only five preferential votes. Similar to other candidates, most of his preferential votes came from the cadaster of Zgharta, where he won 135 preferential votes overall (and between 1% and 2% of preferential votes in each of the neighborhoods). The second candidate, Antoine Yammine (228 votes among residents, 0.7%) won 5% of preferential votes in the neighborhood of Beit Aaoukar (seven votes). Eighty-five of his votes came from the cadaster of Zgharta, while he also managed to win over 10 preferential votes in Rachiine (19 votes) and Bhairet Toula (11 votes). Antonia Ghamra (134 preferential votes, 0.4%) managed to win over 5% in Ejbeh and Raskifa (7% and 6%)— which represent 15 preferential votes. Her 12 preferential votes in Raskifa was the highest number she obtained across all cadasters and neighborhoods in Zgharta. She also won 37 preferential votes in total across all the neighborhoods in the cadaster of Zgharta.

What are the drivers of votes for each list and party in North 3?

In North 3, the Marada-SSNP list tended to perform better in cadasters with higher levels of confessional homogeneity. It also tended to receive better results in cadasters with higher levels of economic development, as well as those with higher poverty rates. Across polling stations, voters in larger, and those in mixed polling stations, were slightly more likely to vote for the list. There were no significant variations across confessional groups, with only the few Greek Catholic voters being less likely to vote for the list compared to others.

However, there were variations across districts. In Batroun, the Marada-SSNP list tended to be more successful in cadasters with lower levels of economic development, and those with higher poverty rates. It was also more successful in large polling stations. Across confessional groups, the few Shia voters were the most likely to vote for the list. They were followed by Sunnis, while Greek Catholics were the least likely to vote for the list. There were no variations between Maronites and Greek Orthodox.

In Bcharre, the list was also more successful in large polling stations. It also tended to receive better results in cadasters with higher levels of economic development.

In Koura, the Marada-SSNP list tended to receive better results in cadasters with lower levels of confessional homogeneity. It also generally performed better in cadasters with lower levels of economic development, as well as in those with lower poverty rates. Across polling stations, voters in confessionally mixed polling stations tended to vote more for the list, compared to those in homogeneous stations. Shias were significantly more likely to vote for the list than others, while Maronite voters were the least likely to do so. When looking at each party-affiliated candidate, Salim Saadeh (SSNP) generally received better results in cadasters with lower levels of economic development, as well as those with lower poverty rates. He also performed better in large and mixed polling stations, and Greek Orthodox voters were the most likely to vote for him. Marada candidate Fayez Ghosn was generally more successful in cadasters with lower levels of confessional homogeneity. He was also more successful in cadasters with higher levels of economic development, as well as those with higher poverty rates. Across confessional groups, the few voters registered in Shia polling stations were the most likely to vote for him.

Finally, in Zgharta, voters in cadasters with higher levels of economic development were more likely to vote for the Marada-SSNP list. Those in cadasters with a lower ratio of refugees per Lebanese were also more likely to vote for the list. None of the other factors seem to have had a significant impact on the list's results.
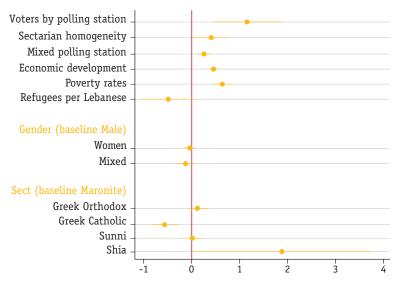
Figure 14 **Drivers of votes for the Marada-SSNP list in North 3**

The LF-Kataeb list was more successful in cadasters with lower levels of confessional homogeneity. The list tended to receive better results in cadasters with lower levels of economic development, as well as those with lower poverty rates. The list tended to perform slightly better in cadasters with a higher ratio of refugees per Lebanese. Across polling stations, voters in mixed polling stations were slightly less likely to vote for the list. Moreover, Maronite voters were significantly more likely to vote for the list compared to others, and were followed by Greek Catholic and Greek Orthodox voters, while Shias were significantly less likely to do so. Sunnis fell in between.

Across districts, in Batroun, LF-Kataeb tended to be more successful in cadasters with lower poverty rates, as well as those with a lower ratio of refugees per Lebanese. Across confessional groups, Maronite voters were the most likely to vote for the list, while the few Shia voters were the least likely to do so.

In Bcharre, the list tended to perform much better in more homogeneous cadasters, as well as those with higher poverty rates. Voters in small polling stations were also more likely to vote for the list.

In Koura, none of the cadasters' characteristics had a significant impact on the LF-Kataeb list's results. Across polling stations, the list tended to perform better in homogeneous stations, and Maronite voters were significantly more likely to vote for the list compared to others, while the few Shia voters were significantly less likely to do so.

Finally, in Zgharta, the LF-Kataeb list tended to receive better results in less homogeneous cadasters. It was also more successful in those with lower levels of economic development, as well as those with a higher ratio of refugees per Lebanese. Across polling stations, voters in homogeneous stations were more likely to vote for the list,

and among those, Maronite voters were the most likely, while Sunnis were the least likely to do so.

Figure 15 **Drivers of votes for the LF-Kataeb list in North 3**

The FPM-IM list tended to receive better results in cadasters with higher levels of economic development. It also tended to perform better in those with a lower share of refugees. Across polling stations, voters in smaller polling stations, as well as those in mixed stations, were more likely to vote for the list. Across confessional groups, Sunni and Greek Catholic voters were the most likely to vote for the list, while there were no significant variations among other groups.

In Batroun, the FPM-IM list was generally more successful in more homogeneous cadasters, as well as in those with higher levels of economic development, and a higher share of refugees. The list tended to receive better results in small polling stations. Across confessional groups, the few Greek Catholic voters were the most likely to vote for the list, and while there were no large variations among other groups, Maronite voters were slightly less likely to vote for the list compared to others.

In Bcharre, voters in cadasters with lower poverty rates, and those in cadasters with a lower share of refugees tended to vote more for the list. None of the other factors were statistically significant.

In Koura, FPM-IM tended to receive better results in cadasters with higher levels of confessional homogeneity. It was also more successful in those with higher levels of economic development, as well as those with higher poverty rates. Voters in mixed polling stations generally voted slightly more for the list compared to those in homogeneous stations, while across confessional groups, Sunnis were the most likely to vote for the list, while Shias were the least likely to do so. Among the specific candidates, FM-backed Nicolas Ghosn tended to perform

better in cadasters with higher levels of economic development, as well as those with higher poverty rates. He was also generally more successful in large polling stations and mixed ones. Across confessional groups, Sunnis were the most likely to vote for Ghosn, while Shias were the least likely to do so. FPM winner Georges Atallah tended to perform better in more homogeneous cadasters. Voters in small polling stations, as well as those in mixed polling stations were more likely to vote for him. Across confessional groups, Greek Orthodox and Maronite voters were the most likely to vote for Atallah, while Shias were the least likely to do so.

In Zgharta, voters in cadasters with higher levels of economic development generally voted more for FPM-IM. The list tended to be slightly more successful in mixed polling stations. Across confessional groups, Sunni voters were the most likely to vote for the list, while there were no variations between Maronite and Greek Orthodox voters. Among the parties, FPM candidate Pierre Raffoul generally performed better in cadasters with lower levels of economic development, as well as those with a higher share of refugees. The few Greek Orthodox voters were less likely to vote for Raffoul compared to Maronite and Sunni voters. Finally, the candidates from the IM were generally more successful in cadasters with a lower share of refugees. Across polling stations, voters in mixed stations tended to vote more for IM candidates: Sunnis were the most likely to vote for IM candidates, while Maronites were the least likely to do so.
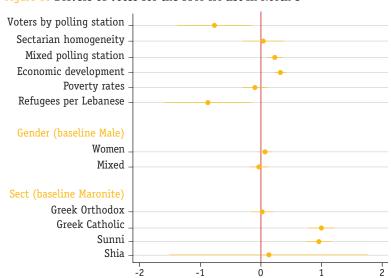
Figure 16 **Drivers of votes for the FPM-IM list in North 3**

IV How did women candidates perform?

Five women candidates ran in North 3 and won 7% of the vote overall (8,338 votes). Sethrida Geagea won her seat with 6,677 votes (6%). One woman ran in each of Batroun, Bcharre, and Zgharta, and two ran in Koura. The candidates were Layal Bou Moussa (Kulluna Watani, 952 votes) in Batroun, Sethrida Geagea (LF, 6,677 votes) in Bcharre, Antonia Ghamra (Kulluna Watani, 149 votes) in Zgharta, and Fadwa Nassif (Kulluna Watani, 463 votes) and Greta Saab (independent on FPM-IM list, 97 votes) in Koura.

There were large variations in the success of each woman candidate
Winner Sethrida Geagea in Bcharre ranked first in the district, with 6,677 votes, or 36% of preferential votes. She won a slightly higher share of emigrants' preferential votes (381 votes, 40%). Nearly all of the votes received by Geagea came from the larger cadaster of Bcharre (3,571 votes), as well as the two cadasters of Bqaa Kafra (1,458 votes) and Hadchit (1,176 votes)—support for her was therefore concentrated in some areas rather than being more widespread across the district. Across genders, Geagea received a higher share of men's preferential votes than women's, or 39% compared to slightly less than 38%. However, a much higher number of women voted for her (3,036 women compared to 2,671 men).

Table 8 **Number and percentage of votes for Sethrida Geagea by confessional group and gender**

		Number of votes	Percentage of preferential votes
Voters' confession	Maronite	5,725	35%
	Mixed confession	552	39%
Voters' gender	Men	2,671	39%
	Women	3,036	38%
	Mixed gender	570	20%

Note **Percentages have been rounded up.**

In Batroun, Layal Bou Moussa won 952 preferential votes, or 3% (and 1% in North 3 overall). Nearly one-third of the votes received by Kulluna Watani in North 3 were cast for her. Bou Moussa received a slightly higher share of votes among the diaspora (73 votes, 4%). Across confessional groups, the highest share Bou Moussa received was among Shia voters (8%, only 33 votes), followed by Sunni (5%, 27 votes) and Greek Orthodox voters (4%, 91 votes). While only 3% of Maronite voters

cast their preferential vote for the candidate, over half of her votes came from Maronite stations (465 votes) given that the vast majority of voters in Batroun were Maronite. The votes she received did not significantly vary across genders (3% among both women and men), although a slightly higher number of her votes came from women voters (335 votes, compared to 289 votes from men-only stations). Across geographical areas, support for Bou Moussa was highest in Aabrine (9%), Chekka (3%), the cadaster of Batroun (2%), and Hamat (7%), winning between 50 and 90 preferential votes in each.

Table 9 **Number and percentage of votes for Layal Bou Moussa by confessional group and gender**

		Number of votes	Percentage of preferential votes
Voters' confession	Maronite	465	3%
	Greek Orthodox	91	4%
	Sunni	27	5%
	Greek Catholic	5	2%
	Shia	33	8%
	Mixed confession	253	3%
Voters' gender	Men	289	3%
	Women	335	3%
	Mixed gender	250	3%

Note **Percentages have been rounded up.**

Fadwa Nassif in Koura won 463 votes (2% of preferential votes), and a slightly higher share among emigrants (35 votes, 2.4%). Across confessional groups, Nassif performed better among Greek Orthodox voters (219 votes, 2%), while she received only 1% of votes among Maronite and Sunni voters (30 and 13 votes, respectively). A high number of her votes came from confessionally mixed polling stations (164 votes, 2%). Similar to Layal Bou Moussa, Nassif was slightly more successful among women voters, winning 2% (199 votes) compared to 1.5% of men's preferential votes (141 votes). Across the district of Koura, the candidate won over one-quarter of her votes from Amioun (114 votes, representing 5% of preferential votes in Amioun). The second woman candidate in Koura, Greta Saab, won 97 votes in Koura overall (0.4%) and ranked last in the district by a significant margin.[18] Most of her votes came from Greek Orthodox voters (50 votes, 0.5%), followed by those in mixed stations (26 votes, 0.3%). There were no significant variations in the support she obtained across genders, with women only giving a slightly higher share of their vote to Saab. Across the district, one-third of the total votes obtained by Saab came from the cadaster of Ksouba (31 votes, 2%).

18
Greta Saab won 17 votes from emigrants and 80 votes from residents.

Table 10 **Number and percentage of preferential votes for Fadwa Nassif and Greta Saab by confessional group and gender**

| | | Votes for Fadwa Nassif | | Votes for Greta Saab | |
		Number of votes	Percentage of preferential votes	Number of votes	Percentage of preferential votes
Voters' confession	Maronite	30	1%	3	0%
	Greek Orthodox	219	2%	50	0.5%
	Sunni	13	1%	1	0%
	Shia	0	0%	0	0%
	Mixed confession	164	2%	26	0.3%
Voters' gender	Men	141	2%	34	0.4%
	Women	199	2%	40	0.4%
	Mixed gender	86	2%	6	0.1%

Note **Percentages have been rounded up.**

The last woman candidate in North 3 was Antonia Ghamra, who ran with Kulluna Watani in Zgharta. Ghamra won 149 preferential votes (0.4% in Zgharta), with 15 coming from emigrants, and ranked last in her list in the district. Nearly all of her votes came from voters in Maronite (66 votes) and mixed polling stations (64 votes). Across genders, Ghamra was much more successful among women voters, and the number of votes she received from women-only polling stations was nearly twice as high as the number of votes she received from men (73 votes compared to 40 votes).

Table 11 **Number and percentage of votes for Antonia Ghamra by confessional group and gender**

		Number of votes	Percentage of preferential votes
Voters' confession	Maronite	66	0.4%
	Greek Orthodox	0	0.0%
	Sunni	4	0.1%
	Mixed confession	64	0.6%
Voters' gender	Men	40	0.3%
	Women	73	0.5%
	Mixed gender	21	0.5%

Note **Percentages have been rounded up.**

What are the drivers of votes for women candidates?
Overall, in North 3, women candidates tended to perform better in cadasters with higher levels of confessional homogeneity, those with lower levels of economic development, as well as those with a higher share of refugees. Across polling stations, women candidates

generally received better results in larger polling stations, as well as in homogeneous ones. Maronite, Greek Orthodox, and Shia voters were the most likely to vote for a woman candidate, while Sunnis were the least likely to do so.
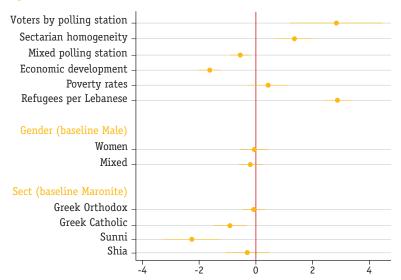
Figure 17 **Drivers of votes for women candidates in North 3**

V How did emerging political groups perform?

Kulluna Watani, the coalition between independent and emerging groups, received 3% of votes in North 3 (3,160 votes). Nine candidates ran in the district—two in each of Batroun, Bcharre, and Koura, and three in Zgharta.

Compared to residents, voters in the diaspora voted slightly more for the list (231 votes, 3.1%, compared to 2,929 votes, 2.7%). Moreover, there were large variations in the percentage of votes received by the Kulluna Watani list across small districts. The list was more successful in Batroun and Koura (1,143 and 923 votes respectively, over 3%) than it was in Zgharta (834 votes, 2%) and Bcharre (260 votes, 1%).

The candidates in Batroun were Layal Bou Moussa from Mouwatinoun wa Mouwatinat fi Dawla (Citizens in a State), who won 952 preferential votes (3%), and Antoun Khoury Harb who won 88 votes (0.3%). In Bcharre, the candidates were Edmond Taouk (122 votes, 0.7%) and Maurice Koura (73 votes, 0.4%), both from the Saba'a Party. The candidates in Koura were Fadwa Nassif (463 votes, 1.8%) and Bassam Ghantous (352 votes, 1.3%) also from the Saba'a Party. In Zgharta, the candidates were Riad Ghazali (293 votes, 0.8%), Antoine Yammine (Saba'a Party, 243 votes, 0.7%), and Antonia Ghamra (149 votes, 0.4%).

There were variations in the percentage of votes cast for Kulluna Watani across confessional groups. In North 3, the highest share of votes for the list was among Shia voters (5%), followed by Greek Orthodox voters (4%). Maronite, Sunni, and Greek Catholic voters gave 2% of their votes to the list, while in confessionally mixed stations, 3% of voters did so. Support for the list did not vary across genders: The share of votes given to Kulluna Watani was only 0.2% higher among women.

In Batroun, Kulluna Watani received 3.5% of the vote (1,143 votes), which represents over one third of the votes it won in North 3 overall. Across the district, the list managed to win over 5% of votes in 18 cadasters, with its highest share being in Aabrine and Kfar Hilda (90 and 29 votes, 9% in each). In addition to Aabrine, Kulluna Watani won over 50 votes in the cadaster of Batroun (88 votes, 3%), Chekka (77 votes, 3%), Tannourine El-Faouqa (65 votes, 2%), and Hamat (58 votes, 7%).

Layal Bou Moussa was more successful than Antoun Khoury Harb. She received 90% of the preferential votes that went to her list, and ranked fifth out of the seven candidates in Batroun, while Khoury Harb ranked last.

Layal Bou Moussa won 8% of Shia voters' preferential votes, 5% among Sunni voters, and 4% among Greek Orthodox voters. In Maronite and mixed stations, she won nearly 3% of preferential votes, while she won less than 2% in Greek Catholic stations. Given the unequal share of voters in each type of station, the majority of her preferential votes came from Maronite polling stations (465 votes). Across genders, she was slightly more successful among women, with 335 of her votes coming from women-only polling stations and 289 coming from men-only stations. She also won a high number in gender-mixed stations (250 preferential votes).[19]

Antoun Khoury Harb did not win more than 0.4% of votes in any type of polling station. The vast majority of his votes came from voters in Maronite stations (57 votes, 0.3%), while he received no votes from Shias and Greek Catholics. Across genders, he won a higher share of votes in men-only polling stations—with 35 men and 28 women voting for him.[20]

[19]
In addition, five public employees and 73 voters in the diaspora voted for her.

[20]
He also received four votes from emigrants.

Table 12 **Number and percentage of preferential votes for Kulluna Watani candidates by confessional group and gender in Batroun**

		Layal Bou Moussa		Antoun Khoury Harb	
		Number of votes	Percentage of preferential votes	Number of votes	Percentage of preferential votes
Voters' confession	Maronite	465	3%	57	0.3%
	Greek Orthodox	91	4%	6	0.3%
	Sunni	27	5%	2	0.4%
	Greek Catholic	5	2%	0	0%
	Shia	33	8%	0	0%
	Mixed confession	253	3%	19	0.2%
Voters' gender	Men	289	3%	35	0.3%
	Women	335	3%	28	0.2%
	Mixed gender	250	3%	21	0.3%

Note **Percentages have been rounded up.**

In Bcharre, Kulluna Watani won 1% of the vote, or only 260 votes—its lowest share across the four minor districts. The highest share of votes the list obtained across cadasters in the district was in Mazraat Aassaf (7%, which is equivalent to eight votes), and the highest number of votes it won was in Hadchit (46 votes).

Among the candidates on the list, Edmond Taouk was more successful than Maurice Koura. Out of the eight candidates in Bcharre, Taouk ranked fifth while Koura ranked seventh. Most of the votes received by each of the candidates came from Maronite polling stations. Across genders, both candidates were slightly more successful in women-only stations, with Taouk winning 58 votes from women-only stations compared to 36 from men-only stations, and Koura winning 36 from women-only and 27 from men-only stations. Across geographical areas, Taouk did not win a significant share of his preferential votes from one specific area, but rather won between 10 and 20 preferential votes in a few. He won over 10 preferential votes in Bcharre's neighborhoods of Mar Saba (21 votes, 1%), Mar Youhanna (15 votes, 1%), El-Sayde (13, 0.5%), and the cadaster of Bqerqacha (10 votes, 1%). Koura received over half of his preferential votes among residents from voters in Hadchit (39 votes, 2% of preferential votes, out of the 69 he won among residents).[21]

21
Edmond Taouk won six votes from emigrants and no single vote from public employees; and Maurice Koura won one vote from public employees, and three from emigrants.

Table 13 **Number and percentage of preferential votes for Kulluna Watani candidates by confessional group and gender in Bcharre**

		Edmond Taouk		Maurice Koura	
		Number of votes	Percentage of preferential votes	Number of votes	Percentage of preferential votes
Voters' confession	Maronite	105	0.6%	65	0.4%
	Mixed confession	11	0.8%	4	0.3%
Voters' gender	Men	36	0.5%	27	0.4%
	Women	58	0.7%	36	0.4%
	Mixed gender	22	0.8%	6	0.2%

Note **Percentages have been rounded up.**

In Koura, Kulluna Watani won 3%, or 923 votes. Nearly one-quarter of the votes the list won among residents (854 votes) came from voters in Amioun (201 votes, representing 8% of votes in Amioun). While the list won 14% in Kaftoun, these only represent 24 votes.

Fadwa Nassif was slightly more successful than Bassam Ghantous. Out of the 11 candidates in Koura, she ranked seventh, while he ranked ninth. Nassif won 2% of Greek Orthodox preferential votes (219 votes), while she won 1% in Maronite polling stations, 0.7% in Sunni stations, and 1.6% in mixed ones. The latter accounted for her second-highest share of preferential votes (164 votes). Across genders, Nassif was more successful among women, with 199 women registered in their own polling stations voting for her, compared to 141 men.[22]

Across the district, one-quarter of Nassif's preferential votes came from Amioun (114 out of the 423 preferential votes she won among residents, 5%). She also won 11% of preferential votes in Kfartoun (19 votes), and over 20 votes in Kousba, Enfeh, Bechmizzine, Darbechtar, and Deddeh (between 20 and 31 votes in each), for a total of 129 preferential votes.

Bassam Ghantous was also more successful among Greek Orthodox voters than he was among other groups, winning nearly 2% of their preferential votes (156 votes). He also won 1% among Maronites and voters in mixed stations (127 votes). Across genders, Ghantous was only slightly more successful among women voters, winning 144 votes from women compared to 123 from men. Similar to Nassif, his highest number of votes was in Amioun (67 votes, 3%). While he won over 5% in Badbhoun and Darchmezzine, these were equal to 13 votes in total. The second-highest number of preferential votes he managed to obtain was 25 in Kousba (1%), while he won less than 20 in all other cadasters.[23]

22
Two public employees and 35 voters in the diaspora voted for Nassif.

23
Three public employees and 20 voters in the diaspora voted for Ghantous.

Table 14 **Number and percentage of preferential votes for Kulluna Watani candidates by confessional group and gender in Koura**

		Fadwa Nassif		Bassam Ghantous	
		Number of votes	Percentage of preferential votes	Number of votes	Percentage of preferential votes
Voters' confession	Maronite	30	1%	22	1%
	Greek Orthodox	219	2%	156	2%
	Sunni	13	1%	20	1%
	Shia	0	0%	4	1%
	Mixed confession	164	2%	127	1%
Voters' gender	Men	141	2%	123	1%
	Women	199	2%	144	1%
	Mixed gender	86	2%	62	1%

Note **Percentages have been rounded up.**

In Zgharta, Kulluna Watani won 2% of votes, or 834 votes. Across the district, the list won its highest share of votes in Raskifa (20 votes, 10%). It managed to win over 5% in six other cadasters, with the highest number of votes (between 20 and 30 votes) being in Bhairet Toula, Karm Saddeh, and Toula.

Riad Ghazali was the most successful candidate on the list though Antoine Yammine won a slightly lower share of preferential votes. Out of the 12 candidates in Zgharta, Ghazali ranked seventh, Yammine ranked eighth, and Antonia Ghamra ranked tenth.

Ghazali was most successful among Maronite voters (181 votes, 1%), and received very few votes from Sunnis (seven votes, 0.2%), while in mixed stations, he won 0.7% (76 votes). He received a similar level of support across genders—with 119 women and 114 men voting for him.[24]

Across the district, the highest share of preferential votes he was able to obtain was in Aarjes (3%, only five votes). Similar to most candidates in Zgharta, most of his votes came from the cadaster of Zgharta, where he won 135 votes overall (between 1% and 2% of preferential votes in each of the five neighborhoods).

Antoine Yammine was also most successful among Maronite voters, winning 1% (156 votes), while he won slightly less than 0.3% of Sunnis' preferential votes (eight votes) and 0.6% of the preferential votes in mixed polling stations (64 votes). Across genders, he received a slightly higher number of votes from women (109 votes) than he did from men (90 votes). He won 5% of preferential votes in the neighborhood of Beit Aaoukar, accounting for only seven votes in total. Eighty-five of his preferential votes came from the cadaster of Zgharta, while he also managed to win over 10 in Rachiine (19 votes) and Bhairet Toula (11 votes).[25]

24
One public employees and 28 voters in the diaspora voted for Ghazale.

25
15 voters in the diaspora, but no single public employee, voted for Yammine.

The last Kulluna Watani candidate, Antonia Ghamra, won a similar share of her preferential votes from Maronite and mixed stations, with 0.4% of those in Maronite stations voting for her (66 votes) as well as 0.6% of those in mixed stations (64 votes). She only won four preferential votes from Sunni voters. Across genders, she was also more successful among women voters (73 women voted for her compared to 40 men). Across the district, Ghamra managed to win over 5% in Ejbeh (7%) and Raskifa (6%), accounting for only 15 votes in total. Her vote tally in Raskifa (12 votes) was the highest she obtained across all cadasters and neighborhoods in Zgharta. She also won 37 preferential votes in total across all the neighborhoods in the cadaster of Zgharta.[26]

26
15 voters in the diaspora, but no single public employee, voted for Ghamra.

Table 15 **Number and percentage of preferential votes for Kulluna Watani candidates by confessional group and gender in Zgharta**

		Riad Ghazali		Antoine Yammine		Antonia Ghamra	
		Number of votes	Percentage of preferential votes	Number of votes	Percentage of preferential votes	Number of votes	Percentage of preferential votes
Voters' confession	Maronite	181	1%	156	1%	0.4%	66
	Greek Orthodox	0	0%	0	0%	0%	0
	Sunni	7	0.2%	8	0.3%	0.1%	4
	Mixed confession	76	1%	64	1%	1%	64
Voters' gender	Men	115	1%	90	1%	0.3%	40
	Women	119	1%	109	1%	0.5%	73
	Mixed gender	30	1%	29	1%	0.5%	21

Note **Percentages have been rounded up.**

What are the drivers of votes for Kulluna Watani in North 3?

Overall, in North 3, Kulluna Watani surprisingly tended to receive better results in cadasters with higher levels of confessional homogeneity. The list was generally more successful in cadasters with higher levels of economic development, as well as those with lower poverty rates.

Voters in mixed polling stations generally tended to vote more for the list. There were no significant variations across confessional groups, with only Greek Orthodox voters being more likely to vote for Kulluna Watani compared to others.

The impact of each factor varied by minor district. In both Batroun and Koura, Kulluna Watani tended to be more successful in more homogeneous cadasters, as well as those with lower poverty rates. One factor that also affected the votes for the list in Koura was turnout: Polling stations that saw lower turnouts generally saw a higher share

of votes go to Kulluna Watani in Koura. This may suggest that the list performed better among constituents who were not targeted by political parties. In contrast to voters in Batroun and Koura, in Bcharre, voters in more homogeneous cadasters were significantly less likely to vote for Kulluna Watani. Moreover, in both Bcharre and Zgharta, higher levels of economic development were associated with a higher share of votes for the list.

Regarding voters' confession, in Batroun, Sunni, Shia, and Greek Orthodox voters were the most likely to vote for the list, while Maronite and Greek Catholic voters were the least likely to do so. In Koura, Greek Orthodox voters were the most likely to vote for the list, while Shias were the least likely, while in Zgharta, Maronite voters were the most likely to vote for the list, while Greek Orthodox voters were the least likely to do so.

Figure 18 **Drivers of votes for Kulluna Watani in North 3**

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 (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 signs of voter rigging in North 3

Turnout usually has a normal shape, with the majority of electoral centers having turnouts near the average and a small number of centers having a very high or very low turnout rate. The distribution of turnouts by polling station in North 3 did not significantly diverge from the normal distribution, with only a slightly higher number than expected of polling stations seeing significantly higher turnouts. However, the polling stations that had the highest turnouts tended to be smaller than those with lower turnouts. This relationship hints at voter rigging.

Voter rigging occurs when political parties employ coercion to prompt voters to vote or not. The literature on election irregularities distinguishes vote from voter rigging, as coercion is not apparent in the latter case. However, there are some ways to detect potential instances of voter rigging through statistical methods.

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 for politicians buying votes, or exerting some kind of pressure on voters to vote, because smaller groups of voters facilitate aggregate monitoring of whether voters cast their ballots, and for whom.[27]

In North 3, turnouts by polling station tended to decrease as the size of the polling station increased, from an average of 60%-70% in the smallest stations to only 40% in the largest ones. We can also see how turnout in small stations, or those that were one standard deviation below the mean polling station size in each of the minor districts, was much higher in Batroun and Koura, while there was no difference in Bcharre and Zgharta. In Batroun, turnout in small stations was 10% higher than that in non-small stations, and in Koura, it was 7% higher. These relationships between turnout and polling station size provide some suggestive evidence of voter rigging.
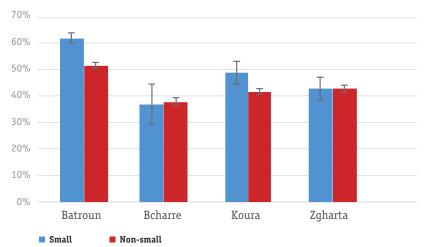
27
Rueda, M. R. 2016. 'Small Aggregates, Big Manipulation: Vote Buying Enforcement and Collective Monitoring.' *American Journal of Political Science*, 61(1): 163-177.

Figure 19 Polling station size and turnout rates in North 3

a   **Correlation between the size of a polling station and turnouts**

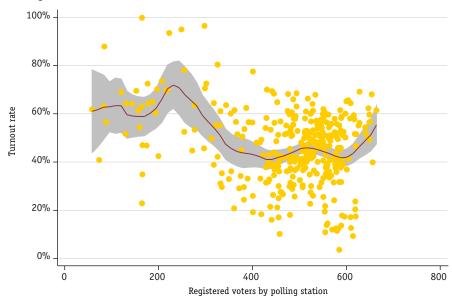b   **Turnout in small polling stations compared to non-small ones**[28]
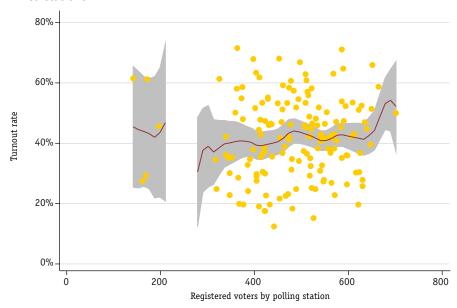

■ Small   ■ Non-small

28
Small polling stations are defined as those whose size was one standard deviation below the mean polling station size in each of the four districts.

Given that registered voters are segregated by confession and gender, political parties may have greater interest in targeting voters in specific polling stations where their constituents are registered to vote—for example Maronite voters in Batroun, Bcharre, and Zgharta, and Greek Orthodox ones in Koura. Comparing the relationship between the size of the polling station and turnouts across homogeneous and mixed stations shows a clear negative relationship in homogeneous stations, suggesting a targeted mobilization of voters.

Figure 20 **Polling station size and turnout rates by type of polling station in North 3**

a   **Homogeneous stations**

b   **Mixed stations**

In each of the minor districts, turnouts in homogeneous stations were significantly higher than those in mixed stations. This relationship is not driven by the confessional composition of mixed stations: Although many minority groups in each district were registered in mixed stations, the majority of voters in mixed polling stations in each of the districts were those represented by a seat, suggesting, again, that specific constituents may have been targeted. Turnouts in homogeneous stations were between 6% and 8% higher in Batroun, Bcharre, and Koura than they were in mixed stations, while those in Zgharta were 3% higher.

Figure 21 **Turnout in homogeneous versus mixed polling stations in North 3**
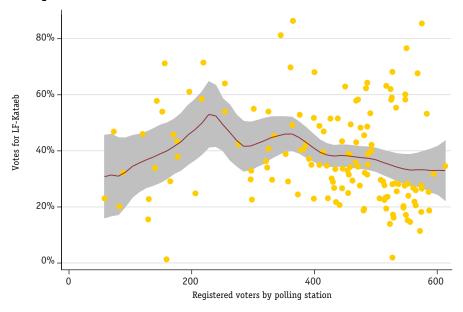

■ Homogeneous stations   ■ Mixed stations

Given the relationship between the size of the polling station and turnouts, it is possible to determine whether one specific list benefited from smaller polling stations in any specific district.

The LF-Kataeb list seems to have benefited from smaller polling stations in Batroun and Bcharre, with its share of votes in Batroun decreasing from an average of 50% in the smallest polling stations to 30% in the largest ones, and those in Bcharre decreasing from over 70% in the smallest polling stations to below 40% in the largest ones. No relationships were observed in Koura and Zgharta, suggesting potential pressure to vote for the list in Batroun and Bcharre.
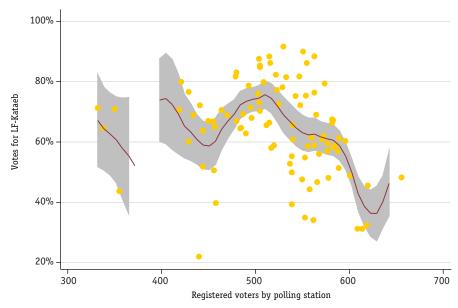
None of the other lists seem to have benefited from smaller polling stations.

Figure 22 **Polling station size and votes for the LF-Kataeb list in Batroun and Bcharre**

a   **Polling station size and votes for the LF-Kataeb list in Batroun**

b **Polling station size and votes for the LF-Kataeb list in Bcharre**

There is some evidence of pressure to vote for the LF-Kataeb list in Batroun and for the FPM-IM list in Koura

Apart from the votes received by each list across polling station size, another way to test for voter rigging would be to look at the relationship between turnout by polling stations and votes for a particular list. Normally, if there was a lack of pressure on voters to vote, votes for each list should be more or less similar regardless of turnout by polling station.[29]

In order to take into consideration differences across sects and votes for a list, we created standardized variables of turnout rates and percentage of votes for each 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. Taking into account the differences in votes for each list and turnouts among each confessional group, we observe significant variations in the percentage of votes obtained by each list between polling stations that had abnormally low (1 standard deviation below the mean turnout), normal, and abnormally high turnouts (1 standard deviation above the mean).

In Batroun, the LF-Kataeb list benefited from both very low and very high turnouts, while this was the opposite for the Marada-SSNP

29
Myagkov, M., P.C. Ordeshook, and D. Shakin. 2009. 'The Forensics of Election Fraud.' Cambridge University Press.

and FPM-IM lists. Compared to its average percentage of votes in polling stations that had normal turnouts (34%), the votes received by the LF-Kataeb list were over 10% higher in both very low and very high turnout stations (45% and 46%, respectively). Compared to the average share of votes the Marada-SSNP list obtained in normal turnout polling stations (22%), its share of votes in stations with very low turnouts was 4% lower, and that in stations with very high turnouts was 8% lower (18% and 14%, respectively). Similarly, compared to the average share of votes the FPM-IM list obtained in normal turnout stations in Batroun (39%), its share of votes in very low turnout stations was 6% lower, and that in very high turnout stations was 3% lower (33% and 36%). This could potentially point toward pressure to vote for candidates on the LF-Kataeb list, or even pressure not to vote for their opponents. It could also suggest ballot stuffing, as a list adding ballots would increase both turnouts and votes for this list in a polling station.
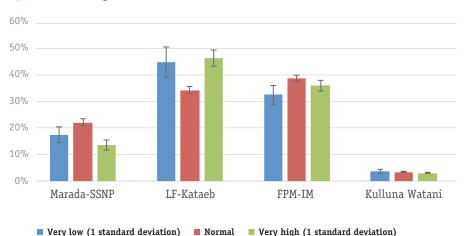
Figure 23 **Percentage of votes for lists and standardized turnout rates in Batroun**

In Bcharre, however, the LF-Kataeb list performed better in polling stations that had both normal and very high turnouts than it did in those that had very low turnouts, with, on average, its share of votes in the latter being 9% lower than they were in the former two (57% and 66%). This may point toward the LF candidates' successful mobilization of voters, but does not point toward voter rigging, given that they did not particularly benefit from very high turnouts. Very low turnouts significantly benefited candidates on the FPM-IM list, whose votes on average were 7% higher than they were in normal turnout stations (14% compared to 7%). This suggests that these candidates were unsuccessful in their mobilization of voters.
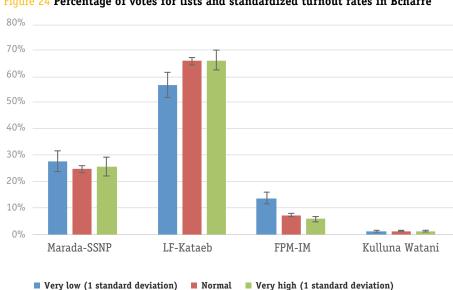
Figure 24 **Percentage of votes for lists and standardized turnout rates in Bcharre**

■ Very low (1 standard deviation)   ■ Normal   ■ Very high (1 standard deviation)

In Koura, higher turnouts benefited candidates on the FPM-IM list, whose votes in very high turnout stations were on average 12% higher than those in normal turnout stations (34% compared to 22%). High turnouts harmed candidates on the Marada-SSNP list: Compared to the average share of votes the Marada-SSNP list obtained in polling stations that had normal turnouts (42%), its share of votes in very high turnout stations was 8% lower (34%). This was driven by the performance of the SSNP candidate Salim Saadeh, who performed significantly worse in polling stations that had very high turnouts, rather than that of the Marada candidate. Kulluna Watani also performed slightly worse in stations that had very high turnouts, with its share of votes being on average 2% lower than they were in polling stations that had normal turnouts (2% compared to 4%). Regarding low turnouts, the LF-Kataeb list generally performed slightly better in polling stations that had very low turnouts, with its votes being 5% higher than they were in normal turnout stations (36% compared to 31%). This was driven by the performance of the LF candidate, who received significantly better results in polling stations that had very low turnouts. The FPM-IM list performed slightly worse, with its share of votes being 2% lower (20% compared to 22%).

The results observed for the FPM-IM list were driven by the performance of the FM-backed candidate, rather the FPM candidate. Nicolas Ghosn performed significantly better in polling stations that had very high turnouts and significantly worse in those that had very low turnouts.

These results point toward potential pressure to vote for candidates on the FPM-IM list, particularly Nicolas Ghosn, which translated into a lower share of votes for those on the Marada-SSNP list, particularly Salim Saadeh, as well as Kulluna Watani. It may however simply be

due to the Marada-SSNP and Kulluna Watani lists' weaker mobilization of voters. Moreover, these results could also suggest that LF-Kataeb performed better among voters who were not specifically targeted by FPM-IM (given that the former performed slightly better in very-low turnout stations, while the latter performed slightly worse). It could also provide evidence of ballot stuffing, as candidates on the FPM-IM list adding ballots would increase both their share of votes and turnouts in a polling station.
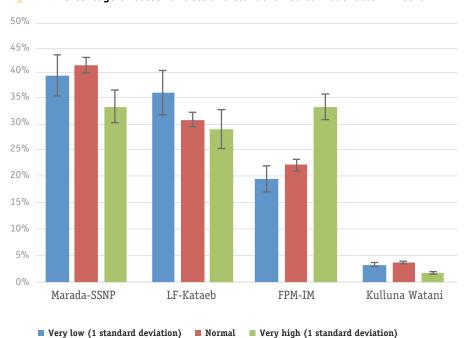
Figure 25 **Percentage of votes for lists and standardized turnout rates in Koura**

■ Very low (1 standard deviation)   ■ Normal   ■ Very high (1 standard deviation)

In Zgharta, there were no significant variations in votes for each list across turnouts by polling station. The LF-Kataeb list performed only slightly better in polling stations that had very low turnouts, with its votes being 4% higher in these than they were in stations that had very low turnouts (12% compared to 8%). The FPM-IM list performed slightly worse in very low turnout stations. However, when separating FPM from IM candidates, no significant variations were observed. Moreover, just as in Koura, Kulluna Watani performed, although only slightly, worse in very high turnout stations where its votes were 1% lower. These very small variations do not provide evidence of irregularities in Zgharta.
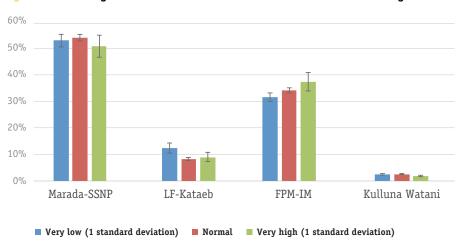
Figure 26 **Percentage of votes for lists and standardized turnout rates in Zgharta**

■ **Very low (1 standard deviation)**   ■ **Normal**   ■ **Very high (1 standard deviation)**

Overall, the LF-Kataeb list performed much better in polling stations that had very high turnouts in Batroun. It also benefited from lower turnouts in Batroun, Koura, and Zgharta. The LF-Kataeb list tended to perform slightly worse in low turnout stations in Bcharre, where the FPM-IM list tended to perform slightly better. The Marada-SSNP list performed significantly worse in very high turnout stations in both Batroun and Koura. Regarding the FPM-IM list, it performed much better in very high turnout stations in Koura, and slightly better in Zgharta.

These results suggest potential voter rigging on the part of LF-Kataeb in Batroun and FPM-IM in Koura, to the detriment of Marada-SSNP. They may also point toward ballot stuffing, as adding ballots for a list would increase both turnout and votes for this list in a polling station.

There are no signs of ballot stuffing, but some signs of vote counting manipulations

One way to test for signs of ballot stuffing is to see how the percentage of null votes in a polling station correlates with the 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.[30] Therefore, to observe these irregular behaviors, we would need to see that the lower the percentage of invalid votes in a polling station, the higher the turnout and the higher the percentage of votes for the list or party we think could have manipulated the vote count. However, a negative correlation is not enough to suggest ballot stuffing—as null votes could instead be 'protest' ones. Stronger evidence of ballot stuffing would be to see that the increase in the share of null votes is smaller than the decrease in the percentage of votes for a list or party.

30
Friesen, P. 2019. 'Strategic Ballot Removal: An Unexplored Form of Electoral Manipulation in Hybrid Regimes.' *Democratization*, 26(4): 709-729.

In North 3, there was no relationship between turnout and the percentage of null votes by polling station. Even when focusing on each of the minor districts, no relationship was present, providing no evidence of ballot stuffing.

We can also look at the relationship between the percentage of null votes and votes for each list in a polling station. While some negative relationships existed between the percentage of votes received by the LF-Kataeb list and the percentage of null votes in a polling station in Batroun and Bcharre, as well as between the percentage of votes received by the Marada-SSNP list and the percentage of null votes in a polling station in Koura and Zgharta, the differences were not large enough to suggest ballot stuffing.

Another form of vote rigging would be 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.[31] The last-digits test is based on the hypothesis that humans tend to be bad at making up numbers, which would result into 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).
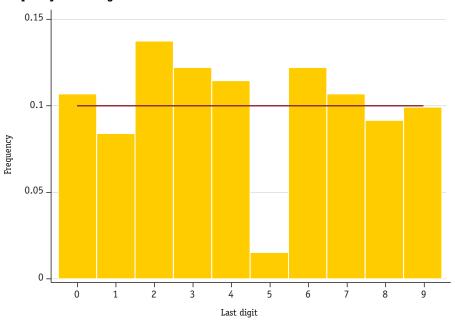
Restricting the sample of voting centers where each list obtained at least 30 votes, as a small vote count may lead to an oversample of zeros and ones, shows no signs of vote rigging in Bcharre and Zgharta, and no signs of vote rigging on the part of Marada-SSNP in neither of the four districts. However, in Batroun, the last digits in the number of votes for the LF-Kataeb list deviated from the uniform line, with a much lower number of votes ending in five than expected.

Regarding the FPM-IM list, the last digits in its number of votes also deviated from the uniform line in Koura, but in none of the other districts. There was a higher number of votes for the list ending in zero, and a lower number ending in five.

31
Beber, B. and A. Scacco. 2012. 'What the Numbers Say: A Digit-Based Test for Election Fraud.' *Political Analysis*, 20(2): 211-234.

Figure 27 **Distribution of the last digits in the number of votes for the LF-Kataeb list in Batroun**

a **Frequency of last digits in the number of votes for the LF-Kataeb list**

b **Distribution of last digits in the number of votes for the LF-Kataeb list compared to the uniform distribution**
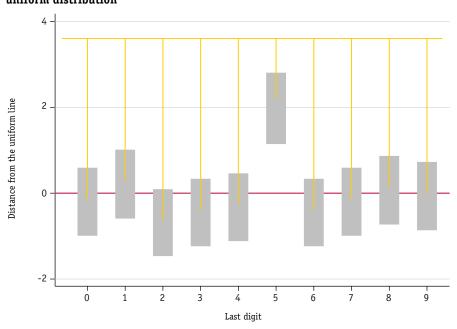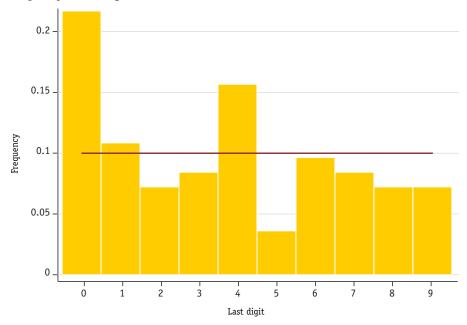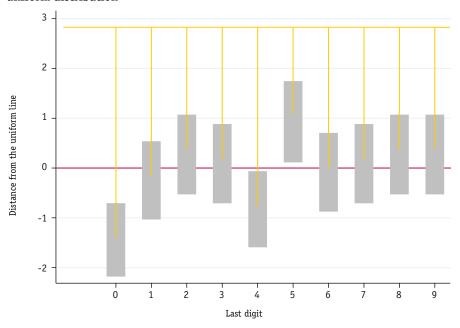
Figure 28 **Distribution of the last digits in the number of votes for the FPM-IM list in Koura**

a   **Frequency of last digits in the number of votes for the FPM-IM list**

b   **Distribution of last digits in the number of votes for the FPM-IM list compared to the uniform distribution**

These deviations from the uniform line in the last digits of votes for the LF-Kataeb list in Batroun and the FPM-IM list in Koura provide potential evidence of ballot stuffing or vote counting manipulations. Moreover, each of these, in each of the districts, also performed much better in polling stations that had very high turnouts. As a list adding ballots would increase both turnouts and votes for this list, this provides further evidence of vote rigging on their part.

There are signs of both voter and votes rigging in Batroun and Koura

In North 3, turnout by polling station tended to decrease as the size of polling stations increased. Previous evidence shows that polling stations with fewer voters are more attractive for politicians buying votes as the smaller number of registered voters facilitates aggregate monitoring of their behavior. This relationship could therefore suggest that politicians may have exerted pressure on voters to vote. In particular, small polling stations in Batroun and Koura had significantly higher turnouts than non-small ones, while this was not the case in Bcharre and Zgharta. Looking at the votes for each list across each of the minor districts shows that candidates on the LF-Kataeb list benefited from small polling stations in Batroun and Bcharre, suggesting that they may have exerted pressure on voters to vote for them, through vote buying and monitoring. There was no such relationship in votes for other lists.

Beyond the size of the polling station, in regular elections, votes for a list or party should not significantly vary across turnouts by polling station. However, variations were observed in each of the districts. In Batroun, the LF-Kataeb list performed significantly better in polling stations that had abnormally high turnout rates, while both the FPM-IM and Marada-SSNP lists performed worse. Moreover, in Koura, the FPM-IM list performed significantly better in polling stations that had very high turnout rates, while Marada-SSNP performed significantly worse in those. These results could suggest pressure to vote, through for example vote buying, or ballot stuffing on the part of the two lists. It also shows that any potential irregularities by both LF-Kataeb in Batroun and FPM-IM in Koura harmed the Marada-SSNP list's results.

A party or list benefiting from very high turnouts could also point toward ballot stuffing, as when ballots are added, both turnouts and votes for a list would increase. One way to detect signs of ballot stuffing is to look at the correlation between the percentage of null votes and votes for a party or list in a polling station. Previous evidence shows that when political parties add ballots, they tend to forget to include a similar share of invalid votes. Seeing a significant decrease in 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. This was not observed in North 3. However, another way to test for 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. In Batroun, the last digits of votes for the LF-Kataeb list diverged from the uniform line, while in Koura, the last digits in the number of votes for the FPM-IM list diverged from the uniform line. No such relationship was observed in other districts, or in votes for Marada-SSNP. This suggests that ballots for the LF-Kataeb list in Batroun, and the FPM-IM list in Koura, were added.

All of these tests provide some evidence of voter and votes rigging on the part of LF-Kataeb in Batroun, and votes rigging on the part of FPM-IM in Koura.