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

Mount Lebanon 4 Electoral District: Aley and Chouf

Georgia Dagher

Aley

Chouf

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Executive Summary

The Lebanese parliament agreed to hold parliamentary elections in 2018—nine years after the previous ones. Voters in Aley and Chouf showed strong loyalty toward their sectarian parties and high preferences for candidates of their own sectarian group. The majority of Druze voters voted for the Progressive Socialist Party, the majority of Sunnis voted for the Future Movement, and the majority of all Christian groups voted for the Lebanese Forces and the Free Patriotic Movement. However, among voters who cast their ballot for a candidate from a different sect, the majority chose candidates affiliated with their sectarian party, again, highlighting party loyalty. Even those who voted for one of the anti-establishment lists—Kulluna Watani and Madaniyya—generally gave a higher share of their preferential vote to a co-sectarian candidate, which partly created variations in the performance of these candidates running on the same list. Apart from this, certain geographical factor affected the performance of anti-establishment lists: They both performed better in cadasters that were more confessionally mixed, had lower turnouts, and had lower poverty rates. This highlights these lists' weakness in mobilizing voters, and their difficulty in appealing to all socio-economic classes. Beyond this, the results of the votes provide some evidence of irregularities, in particular, voter rigging in Chouf that benefited LF and FPM candidates. Both parties generally performed better in polling stations with smaller numbers of registered voters and in stations that recorded significantly high turnout rates.

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 the electoral district levels. Using the official elections results at the polling station level, published by the Ministry of Interior,[1] the analysis unpacks the elections results and examines differing patterns in voting behavior across demographic characteristics and geographical areas. The results from the polling

stations 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 Mount Lebanon 4, which combined Aley and Chouf, and is allocated 13 parliamentary seats—five Maronite, four Druze, two Sunni, one Greek Orthodox, and one Greek Catholic. The report is divided into seven sections. First, we present the demographic distribution of registered voters in Aley and Chouf. The second section is concerned with voter turnout, which varied across confessional groups, genders, and cadastral areas. The third section of this report delves into voters' preferences for political parties and candidates. Going beyond the results at the aggregate level, we shed light on the varying preferences for parties and candidates across voters' sect and gender and across geographical areas in Mount Lebanon 4, and how these were affected by cadaster level characteristics. In the fourth section, we examine voters' sectarian behavior—i.e. their preferences for candidates of their same sectarian group. The fifth section looks at the performance of women candidates, and the sixth at the performance of emerging political groups. Similar to the other sections of this report, we identify their constituents and strongholds. The seventh and final section of this report identifies incidents of electoral fraud. Using a number of statistical methods—which include analyzing the distribution of results across polling stations, 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) = $\sum_{i=1}^{n} Sij^2$, 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 parliamentary elections of May 2018, over 330,000 Lebanese were registered to vote in the electoral district of Mount Lebanon 4, which combined Aley and Chouf. Among the total registered voters, 330,296 were registered in Lebanon[7] and 8,157 registered from abroad. There were 130,063 registered voters in Aley and 208,390 in Chouf. Compared to other districts, Mount Lebanon 4 has a high level of confessional fragmentation: 37% of registered voters are Druze, 29% Maronite, 18% Sunni, 7% Greek Orthodox and Greek Catholic each, and the remaining 3% is split between Shias, Christian minorities, Armenian Catholics, and Armenian Orthodox.[8] Out of the 128 seats in the Lebanese parliament, 13 are allocated to Mount Lebanon 4: Five in Aley and eight in Chouf.

In Aley, Druze comprise the largest group of registered voters (49%), followed by Maronites (26%), and Greek Orthodox (17%). Two parliamentary seats are reserved for the Druze community, two for Maronites, and one for Greek Orthodox. In Chouf, Druze, Maronites, and Sunnis represent a nearly equal share of registered voters (29% to 30% each), and Greek Catholics represent 8%. Three of the seats are reserved for Maronites, two for Druze voters, two for Sunnis, and one for Greek Catholics.

Figure 1 **Registered voters and allocated seats by confessional group in Mount Lebanon 4**
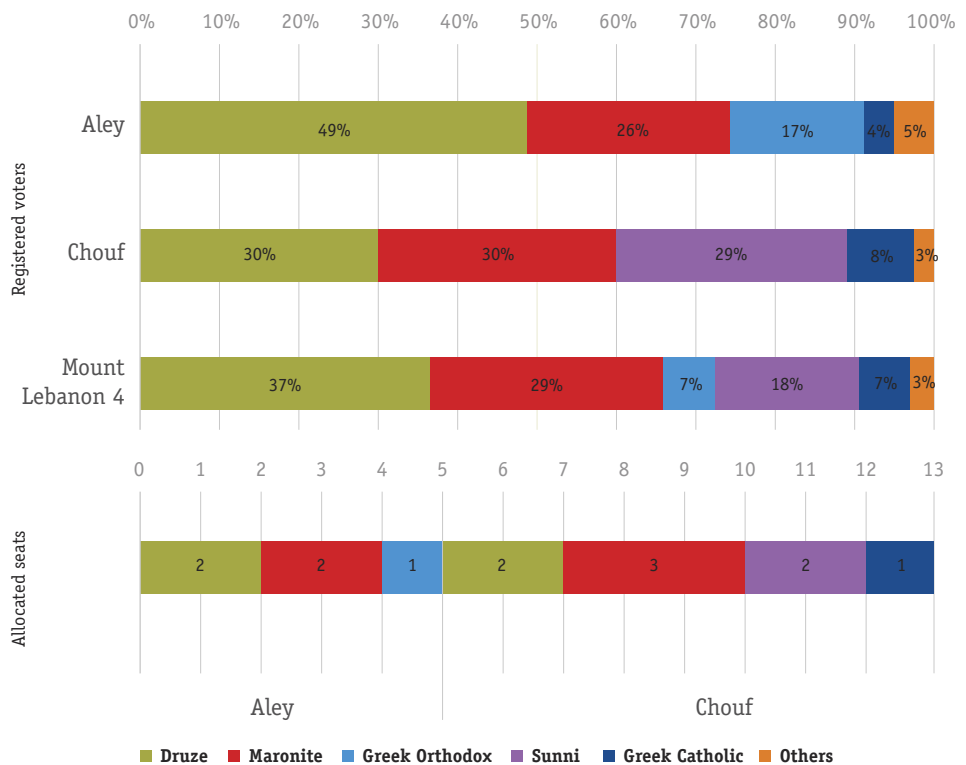
Note **Percentages have been rounded up.**

Given the confessional allocation of seats, representation is not equal for each voter. Rather, it depends on the confessional group to which they belong.

In Aley, Maronite voters benefit the most from the confessional quota, with each Maronite seat representing about 16,000 constituents. They are followed by Greek Orthodox voters, whose seat represents slightly less than 21,000 constituents. Almost twice as many Druze as Maronite voters are represented by each of their seats (nearly 31,000 Druze voters per Druze seat). In Chouf, Greek Catholic voters benefit the most from the quota, with their seat representing about 17,000 constituents. They are followed by Maronite voters (about 20,000 constituents per seat). Druze and Sunni voters benefit much less from the quota, with each of their seats representing about 30,000 voters (table 1).

Table 1 **Confessional composition of Mount Lebanon 4 and allocated seats by confessional group**

	Aley				Chouf			
	Number of voters	Percentage	Number of seats	Voters per seat	Number of voters	Percentage	Number of seats	Voters per seat
Druze	61,731	49%	2	30,866	59,885	30%	2	29,943
Maronite	32,685	26%	2	16,343	61,352	30%	3	20,451
Greek Orthodox	20,945	17%	1	20,945	737	0.4%		
Sunni	1,289	1%			58,710	29%	2	29,355
Greek Catholic	5,222	4%			16,724	8%	1	16,724
Shia	2,826	2%			3,333	2%		
Christian minorities	1,351	1%			1,024	0.5%		
Armenian Orthodox	644	0.5%			37	0%		
Armenian Catholic	86	0.1%			74	0%		
Total	126,779	100%	5		201,876	100%	8	
Public employees	346				1,295			
Diaspora	2,938				5,219			
Total	130,063				208,390			

Note **Percentages have been rounded up.**

Registered voters were generally divided into electoral centers based on their confession and gender. However, some centers were mixed in terms of confession—thus inhibiting a complete analysis of voter behavior by confessional group. In Mount Lebanon 4, 30% of polling stations serviced voters from more than one confessional group, overall representing slightly over 99,000 voters. Among the stations that serviced voters from a single sect, the largest share was reserved for Druze voters (33%), followed by Maronites and Sunnis (16% each). Between 1% and 2% each had Greek Orthodox, Shia, and Greek Catholic voters registered to vote.

Figure 2 **Confessional composition of polling stations in Mount Lebanon 4**
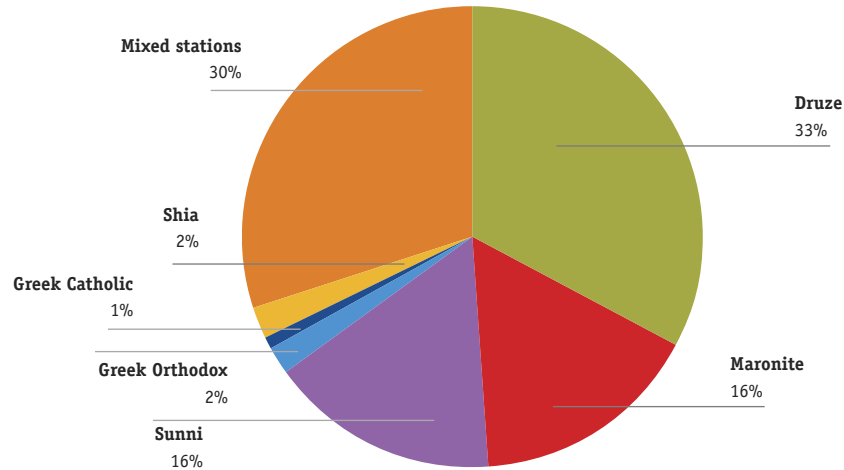
Note **Percentages have been rounded up.**

A comparison of 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 Aley, less than half of Maronite and Greek Orthodox voters were registered in their own stations (48% and 35%), while over 90% of Druze and 80% of Shia voters were. Moreover, among the 44,000 voters registered in mixed polling stations, the majority were Maronite and Greek Orthodox (39% and 31%).

In Chouf, the majority of Maronites (nearly 60%), Druze, and Sunnis (almost 90% each) were registered in their own stations, while only 25% of Greek Catholics were.[9] In addition, among the 55,000 voters registered in mixed stations, a near majority were Maronite (46%), followed by Greek Catholics (23%). About 15% and 12% were Druze and Sunni, respectively.

II   Who voted?

Overall turnout in Mount Lebanon 4 was higher than the national average (51% compared to 49%), and turnout in Chouf (52%) was higher than in Aley (49%). Among the 338,453 voters registered in Mount Lebanon 4,[10] 173,320 cast their vote, while the remaining 165,133 did not. Turnout in 2018 also varied from that observed in the 2009 parliamentary elections: In 2009, turnout in Aley was slightly higher (51%), while in Chouf it was slightly lower (50%).

Similar to trends in other districts, turnout was significantly higher among the diaspora.[11] In Mount Lebanon 4, the turnout rate among diaspora voters was 61%, compared to 51% among residents.

9
This is calculated by comparing the total number of registered voters by confessional group to the number of voters registered in their own stations. On the same basis, it is also possible to calculate the confessional composition of mixed stations, by looking at the share of each group that was registered in those stations.
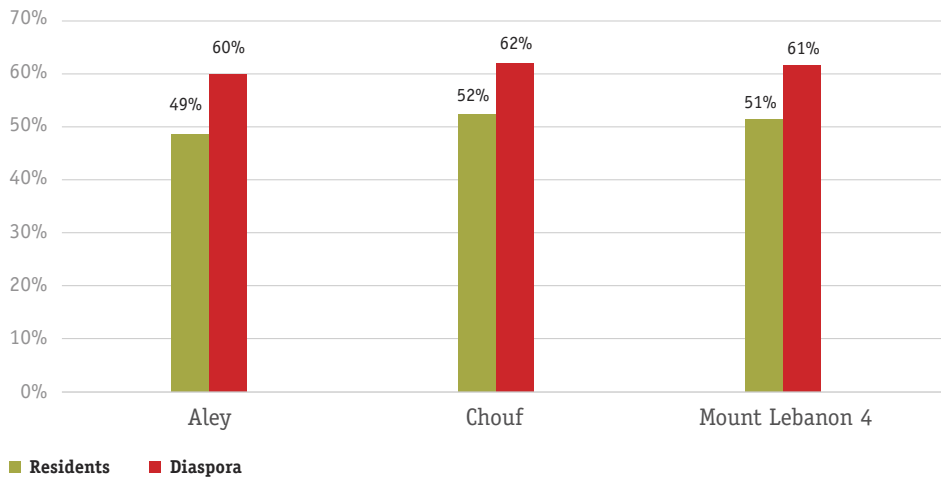
10
Including 1,641 public employees.

11
In total, 8,157 voters outside the country registered to vote and 4,987 of them voted.

Turnout by residency in Mount Lebanon 4

Residents **Diaspora**

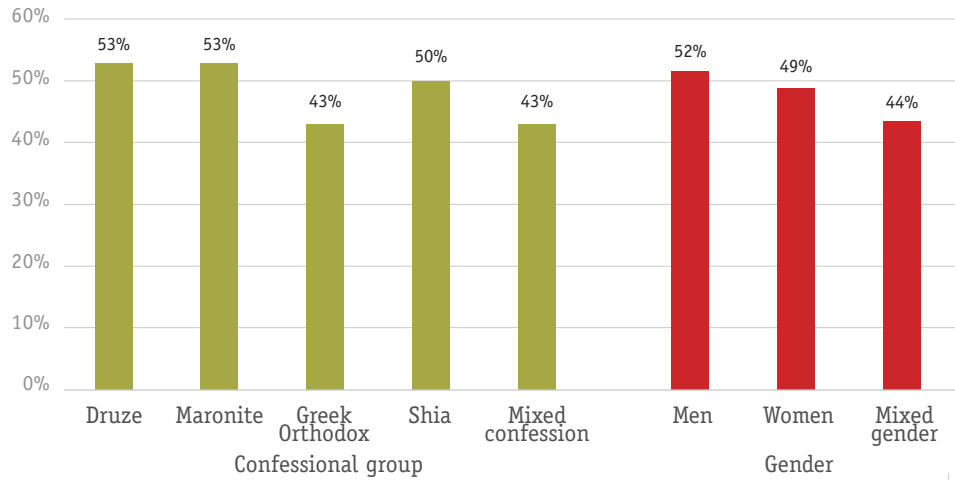Note **Percentages have been rounded up.**

In Aley, the Maronite and Druze communities, as well men voters, were the most mobilized

Turnout rates in Mount Lebanon 4 varied across confessional groups and gender.

Maronite and Druze voters had the highest participation rates in Aley (53%), followed by Greek Orthodox voters (43%) (figure 4). Shias, who are not represented by a seat in the district, had a turnout of 50%, and mixed stations, which had voters from multiple confessional groups registered to vote, saw a 43% turnout. When controlling for voters' gender as well as characteristics of the cadasters in which they were registered—such as level of confessional fragmentation, economic development, and poverty rates—Greek Orthodox voters were the least likely to vote, while there were no significant variations between other groups' likelihood to vote. Moreover, voters in homogeneous stations were significantly more likely to vote, compared to those in mixed stations.

Across genders, men voted in much higher numbers. In Aley, 52% of men and 49% of women voters voted, with turnout rates among voters in gender-mixed stations being lowest (44%).

Figure 4 **Turnout rates by confessional group and gender in Aley**

In Chouf, Sunni voters and women were the most mobilized

Sunni voters had a 59% turnout, followed by Shia voters who, although they are not represented by a seat, had a much higher turnout than other groups (57%) (figure 5). Among represented groups, the Druze followed (54%). Turnout among the Christian community was much lower, with 45% of Maronite voters and 41% of Greek Catholic voters heading to the polls; while turnout in mixed stations was 48%. All these variations across confessional groups are statistically significant: Sunnis and Shias, followed by Druze voters, were the most likely to vote, while Greek Catholics were the least likely to do so, and Maronites fell in between. Moreover, similar to Aley, voters in homogeneous stations were significantly more likely to vote compared to those registered in mixed stations.

Across genders, in contrast to voters in Aley, women were more mobilized than men, with 53% of them voting compared to 52% of men. Polling stations that had both genders registered saw the lowest turnouts (49%).

Figure 5 **Turnout rates by confessional group and gender in Chouf**
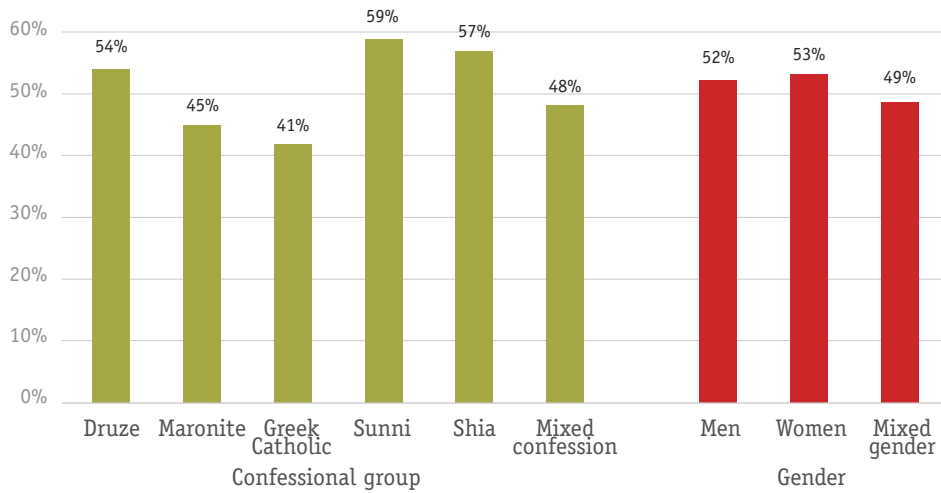
Note **Percentages have been rounded up.**

There were large geographical disparities in turnouts across cadasters, varying from 30% to 70%

In total, 15 cadasters had a participation rate below 40%, while 24 cadasters had one above 60%.

In Aley, the cadaster with the lowest turnout was Chamlan (27%), making it the only one with a turnout below 30% in Mount Lebanon 4. Eight cadasters saw turnouts that varied between 35% and 40%: Ain El-Remmaneh, Souq El-Gharb, Rechmaya, Ain Anoub, Mazraat El-Nahr, Choueifat El-Aamrousiyeh, Ain Ksour, and Aabey. The highest turnout was observed in Ghaboun (66%), with nine other cadasters having turnouts that varied between 60% and 65%. These were: Mechrefeh, Blaibel, Al-Azzounieh, Jisr El-Qadi, Maasraiti, Bnaiye, Bedghan, Ain El-Jdideh, and Mejdlaya.

In Aley, generally, a higher share of Christians registered in a cadaster tended to be associated with lower turnouts, while a higher share of Druze was associated with higher ones. For example, in the low-turnout cadasters of Chamlan, Ain El-Remmaneh, Souq El-Gharb, Rechmaya, and Mazraat El-Nahr, over 95% of registered voters were Christian. In another cadaster, Ain Ksour, the majority of registered voters were Christian, although a sizable share (almost 40%) were Druze. In the remaining low-turnout cadasters, Ain Anoub, Choueifat El-Aamrousiyeh, and Aabey, the majority of registered voters were Druze. Nevertheless, looking at the variation in turnouts in these cadasters between Druze-only and other polling stations shows that in all cases, Druze voters in these cadasters were the most mobilized. In Ain Anoub, Druze-only polling stations saw a 40% turnout, while mixed ones saw a turnout of 35%. In Choueifat El-Aamrousiyeh, Druze polling stations

saw a 42% turnout, while Greek Orthodox ones saw a 36% turnout and mixed stations a 33% turnout. Finally, in Aabey, Druze polling stations saw a 45% turnout, while mixed ones had a 29% turnout. This shows that lower turnouts in these cadasters were driven by lower turnouts among Christian voters, rather than Druze voters. Among the cadasters that saw the highest turnouts, Mechrefeh, Al-Azzounieh, Maasraiti, Bnaiye, and Bedghan are fully Druze. Ghaboun and Mejdlaya are also majorly Druze (about 80% and 90%, respectively), and in both, Druze polling stations saw much higher turnouts than other stations. In Ghaboun, 71% of Druze voters cast a ballot, while 46% of Maronites did so. In Mejdlaya, 64% of Druze voters cast a ballot, while 57% of those in mixed stations (about 80% Druze and 20% Maronite) did so. There were some exceptions, as some high-turnout cadasters had a high percentage of Christians registered: Blaibel (all Maronite), Jisr El-Qadi (90% Maronite and 10% Druze—although there were only 61 registered voters in this cadaster), and Ain El-Jdideh (almost fully Greek Orthodox).

In Chouf, turnout was above 30% in all cadasters. The lowest turnouts were observed in Jiyeh and Aainbal (32%), followed by Beit Eddine, Deir El-Mkhalles, and Majdalouna (34% each). Fourteen cadasters saw turnouts above 60%, with the highest being recorded in Dalhoun and Mristi (65% each). Other cadasters that had turnouts above 60% (between 60% and 64%) were: Jdaideh, Bire, Kfar Hay, Dmit, Haret Jandal, Daraya, Mghairiyeh El-Chouf, Kahlouniyeh, Zaarouriyeh, El-Fouara, Deir Baba, and Chhim.

Similar to Aley, in Chouf, a higher prevalence of Christians registered in a cadaster was associated with lower turnouts; and a higher share of Sunni and Druze was associated with higher ones. Among the low-turnout cadasters, Beit Eddine, Deir El-Mkhalles, and Majdalouna only had Christian voters registered to vote. While Jiyeh is majorly Maronite, it also has a sizable Sunni and Shia population. However, Maronite voters in Jiyeh had a much lower turnout than those registered in mixed stations, which included Shia and Sunni voters in the cadaster (17% turnout among Maronites, compared to 46% for Shias and Sunnis). Aainbal, in which the majority of registered voters were Druze, was the exception. However, Druze-only stations in the cadaster saw 38% turnouts, while mixed ones, where Christian voters in the cadaster were registered, saw a 28% turnout. In line with higher turnouts among Sunnis and Druze, a higher prevalence of those groups in a cadaster was associated with higher turnouts. Most of the high-turnout cadasters had only Druze voters registered to vote—such as Mristi, Jdaideh, Kfar Hay, Dmit, Haret Jandal, Kahlouniyeh, and Deir Baba. Other high-turnout cadasters were fully Sunni, such as Dalhoun, Daraya, and Chhim; while in Mghairiyeh El-Chouf and Zaarouriyeh, the vast majority were Sunnis, although both cadasters had a sizable share of Maronite voters. There

were also some exceptions: Two high-turnout cadasters, Bire and El-Fouara, only had Maronite voters registered to vote.
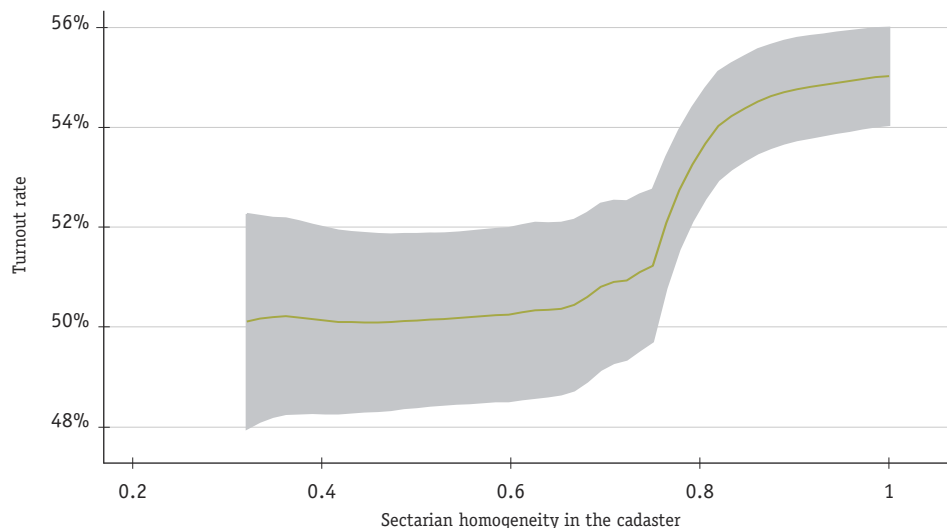
Turnouts tended to increase as the level of confessional homogeneity in a cadaster increased

Geographical variations in turnout were largely affected by the level of confessional homogeneity in a cadaster—that is, whether many different groups cohabit or there is a high predominance of one, regardless of which.[12] The more homogenous the cadaster is, the higher the participation rate in the elections (figure 6). This relationship was present in both Aley and Chouf. The turnout rate steadily increased from an average of 50% in the most heterogeneous cadasters to above 55% in the most homogenous ones. This relationship was statistically significant even after controlling for voters' gender and confession, as well as other characteristics of the cadasters, such as level of economic development and poverty rates. This means, for example, that on average, a Druze voter registered in a more homogeneous cadaster was more likely to vote than a Druze voter registered in a more heterogeneous cadaster. This result can point toward a higher capacity and interest of sectarian parties to mobilize the vote in more homogenous localities.

[12] We use an index of confessional homogeneity (IH) = $\Sigma_{i=1}^{n} Sij^2$, 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 goes from 0.3 (most heterogeneous) to 1 (fully homogeneous, or only one sectarian group is present).

Figure 6 **Sectarian homogeneity by cadaster and turnout rate in Mount Lebanon 4**

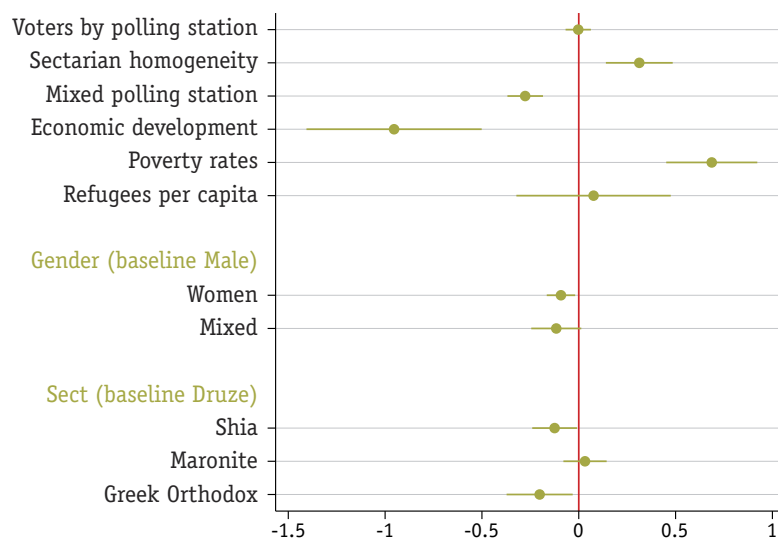## What are the main drivers of turnout in Mount Lebanon 4?

A multivariate analysis highlights the impact of individual and geographic characteristics of constituents on turnout rates. Factors that affected turnout include the level of confessional homogeneity in a cadaster, the level of economic development, and poverty rates. Voters' confession is also a significant factor in explaining variations in turnouts.

In both Aley and Chouf, as shown above, the higher the level of confessional homogeneity in a cadaster, the higher the turnout. Another significant factor was the confessional composition of polling stations (mixed or homogeneous): Constituents registered in polling stations servicing voters from multiple groups were less likely to vote. This may be related to the level of confessional homogeneity in a cadaster. First, mixed stations tend to be more prevalent in less homogeneous areas, and second, given that parties can identify which voters are registered in each polling station, they may focus on mobilizing those in homogeneous stations, whose decision to vote, and voting behavior more generally, are easier to monitor. Moreover, higher poverty rates in a cadaster tended to be associated with higher turnouts in both Aley and Chouf. This relationship could suggest that poorer constituents may be easier to mobilize by political parties offering benefits in exchange of votes. Related to this, only in Aley rather than Chouf, cadasters with lower levels of economic development tended to see higher turnout rates.

Regarding voters' confession, in Aley, Druze, Maronite, and Shia voters were the most likely to vote, with no significant variations between them, and Greek Orthodox voters were the least likely to do so. In Chouf, Shias, closely followed by Sunnis, were the most likely to vote. Greek Catholic voters, followed by Maronites, were the least likely to do so, while Druze fell in between.

Figure 7   **Drivers of turnout in Mount Lebanon 4**

a   **Drivers of turnout in Aley**

b **Drivers of turnout in Chouf**

Voters by polling station
Sectarian homogeneity
Mixed polling station
Economic development
Poverty rates
Refugees per capita

Gender (baseline Male)
Women
Mixed

Sect (baseline Druze)
Sunni
Shia
Maronite
Greek Catholic

-1.5   -1   -0.5   0   0.5   1
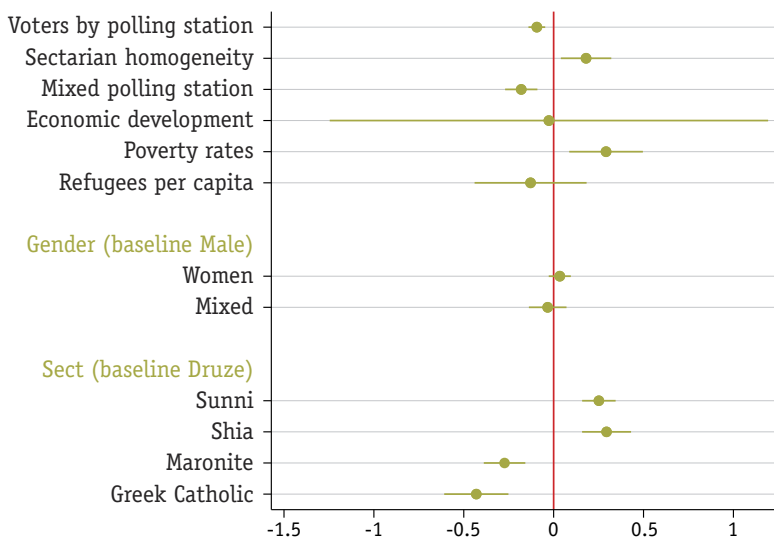
III Who voted for whom?

Six lists competed in Mount Lebanon 4, with a total of 64 candidates. Twenty-one candidates competed for the five seats in Aley, and 43 candidates competed for the eight seats in Chouf. In Aley, there were nine Maronite candidates, eight Druze, and four Greek Orthodox candidates. In Chouf, there were 16 Maronite candidates, 10 Druze, 11 Sunni, and six Greek Catholic candidates.

There were some changes in representation, although the majority of winners were incumbents

Out of the six lists that put themselves forward in Mount Lebanon 4, only two managed to win seats. The 'Reconciliation' list, formed by the Progressive Socialist Party (PSP), the Lebanese Forces (LF), and the Future Movement (FM), captured the highest share of votes (59%) and secured nine of the 13 seats. The list won three seats in Aley: One Druze seat which went to Akram Chehayeb (PSP, 14,088 votes), one Maronite seat which went to Henri Helou (affiliated with the PSP, 7,894 votes), as well as the Greek Orthodox seat which went to Anis Nassar (LF, 7,872 votes). In Chouf, the list won six seats: Two Druze seats won by Taymour Jumblatt (PSP, 11,478 votes) and Marwan Hamadeh (affiliated with the PSP, 7,266 votes), one Maronite seat won by Georges Adwan (LF, 9,956 votes), the two Sunni seats which went to Bilal Abdallah (PSP, 8,492 votes) and Mohammad El-Hajjar (FM, 10,003 votes), and the Greek Catholic seat which went to Nehme Tohme (affiliated with the PSP, 7,253 votes).

The second list, 'The Mountain's Security', formed by the Free Patriotic Movement (FPM) and the Lebanese Democratic Party (LDP), won 23% of the vote and secured the four remaining seats. In Aley, the list won one Maronite seat, which went to Cesar Abi Khalil (FPM, 8,124 votes), and one Druze seat, which went to Talal Arslan (LDP, 7,887 votes). In Chouf, the list obtained the two remaining Maronite seats, which went to Mario Aoun (FPM, 5,124 votes) and Farid Al Boustany (affiliated with the FPM, 2,657 votes).

A large majority of winners (10 out of 13) have strong political connections, with some being former MPs and others former ministers. Seven of the nine winners from the PSP-LF-FM list have a history of serving political positions. Akram Chehayeb (PSP, Druze), born in Aley, has been an MP in Aley since 1996 (and was also elected in Beirut in 1992). He has served as Minister of Environment, Minister of the Displaced, and Minister of Agriculture during that time. Taymour Jumblatt (PSP, Druze) was born in Moukhtara, Chouf, to the biggest Druze political family in the country. Grandson of PSP founder Kamal Jumblatt and son of PSP head and former MP Walid Jumblatt, he was put forward as a candidate following his father's decision not to run. Marwan Hamadeh (PSP, Druze), from Baakline, has served in different cabinets since 1982 (including as Minister of Telecommunications, Minister of Economy and Trade, Minister of Tourism, Minister of Public Health and Social affairs, and Minister for the Displaced) and was caretaker Minister of Education at the time of the elections. He has also previously served in parliament for two terms. Henri Helou (PSP, Maronite) belongs to a political family, is a former MP, and was nominated in the presidential elections in 2014. Georges Adwan (LF, Maronite) was born in Deir El Qamar and has been an MP since 2005. He is also vice-president of the executive committee of his party. Mohammad El-Hajjar (FM, Sunni) is also a former MP. Finally, Nehme Tohme (PSP, Greek Catholic) is a well-known businessman as well as a former minister and MP.

On the FPM-LDP list, three out of four winners have also served in political posts. Cesar Abi Khalil (FPM, Maronite), born in Aley, was the serving Minister of Energy and Water at the time of the elections. Mario Aoun (FPM, Maronite) is the former Minister of Social Affairs. Talal Arslan (LDP, Druze) is the head of his party and has been an MP representing Aley since 1991, with the exception of the 2005-2009 parliamentary term. He has previously served as Minister of Tourism, of Emigrants, of State, of the Displaced, and of Sports and Youth.

Among the losing lists, 'Tawhid' (Union Party), headed by Wiam Wahhab, won nearly 8% of votes and came very close to the threshold for winning a seat in Mount Lebanon 4,[13] falling only 330 votes short of winning a seat. Kulluna Watani, a coalition between emerging groups and independent candidates, obtained almost 6% of the votes. The

13
The threshold, or the electoral quotient, is equal to the number of valid votes divided by the number of seats in a district. In the case of Mount Lebanon 4, where the total number of valid votes was 170,637, the quotient was equal to slightly over 13,100 votes—or 7.7% of votes.

two remaining lists received a minor share of votes. 'The Free Decision', formed by the Kataeb and Ahrar (National Liberal Party), won 3% and the 'Madaniyya' list, made up of independents, won less than 2%.

Across minor districts, there were significant variations in the percentage of votes received by each list. The PSP-LF-FM list was much more successful in Chouf (63%) than it was in Aley (52%), while the FPM-LDP list was much more successful in Aley (31%) than it was in Chouf (18%). The higher success of PSP-LF-FM in Chouf was driven by the popularity of all candidates on the list—in contrast to other lists in Chouf, all candidates in this list received at least 5% of preferential votes in the district. Candidates from the list who performed particularly well in Chouf were Taymour Jumblatt (11% of preferential votes), Mohammad El-Hajjar (10%), and Georges Adwan (10%). The higher success of the FPM-LDP list in Aley was driven by the better performance of Cesar Abi Khalil and Talal Arslan (13% of preferential votes in Aley, each). Among other lists, Tawhid performed significantly better in Chouf (9%) than in Aley (6%)—mostly driven by the success of Wiam Wahhab (7% of preferential votes in Chouf). Madaniyya was more successful in Aley—driven by the good performance of Mark Daou (2% of preferential votes).

Figure 8 **Votes for each list in Mount Lebanon 4**
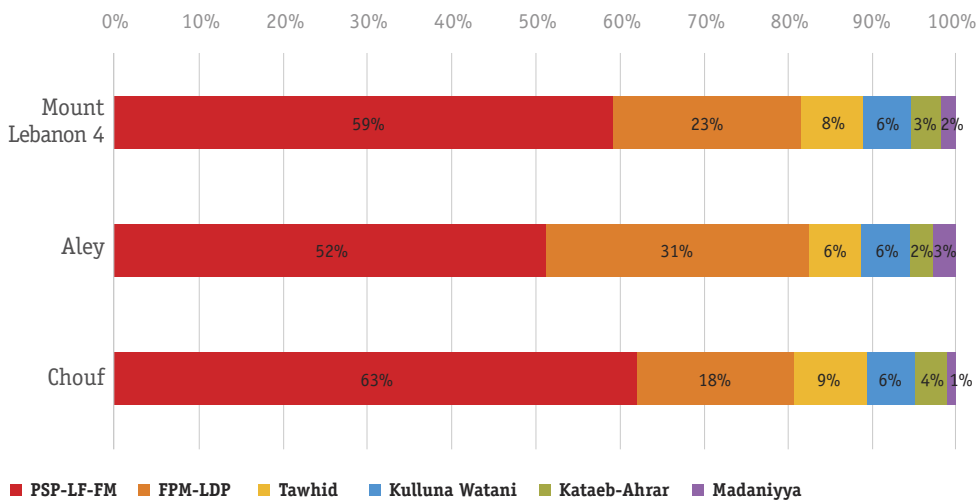
Note **Percentages have been rounded up.**

Apart from the total share of votes obtained by each list and candidate, there were variations in preferences across residencies.

## The diaspora's vote diverged from that of non-emigrants in Mount Lebanon 4

The diaspora showed particularly higher support for the two main Christian parties, LF and FPM (figure 9),[14] with the LF receiving 23% of the diaspora's vote, and candidates from or affiliated with the FPM receiving 20%, compared to the 10% and 15% they received among resident voters, respectively. One candidate on the PSP-LF-FM list, independent Ragy El Saad (Aley),[15] was one of the most successful among emigrants (9% of their total votes in Mount Lebanon 4, compared to 1% of residents'). Emigrants also voted more for candidates on Kulluna Watani (10%, compared to 6% of residents). On the other hand, PSP and affiliated candidates received lower support among the diaspora (24% compared to 38% of the resident vote)—with the exception of Nehme Tohme (affiliated with the PSP), who was the most successful among the diaspora registered in Chouf (25% of their vote). Among the other candidates, those from FM, LDP, and Tawhid, and their affiliated candidates, received much lower support from the diaspora.

Figure 9 **Votes for each party across residencies in Mount Lebanon 4**
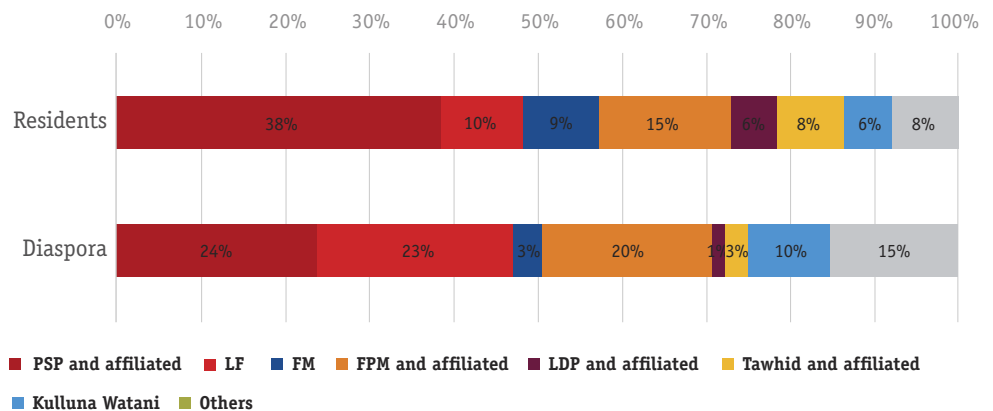
Note **Percentages have been rounded up.**

Another pattern found among the diaspora was in votes for candidates from specific sects. Emigrants on average voted much more for Christian candidates, and much less for Druze and Sunni candidates, regardless of the parties these candidates belonged to or were affiliated with. In Mount Lebanon 4, 12% of emigrants gave their preferential vote to a Druze candidate, compared to 34% of residents, and 7% voted for a Sunni candidate, compared to 18% of residents. In total, 82% of diaspora voters cast a preferential vote for a Christian candidate (including Maronite, Greek Orthodox, and Greek Catholic candidates), compared to 49% of residents. This could be due to the higher prevalence of Christians abroad, however, there is no way of evidencing this given the lack of data on the characteristics of emigrant voters.

Very few candidates won a significant share of votes

In Aley, only 11 candidates managed to win over 1,000 preferential votes (or over 2%). The top five candidates were those who made it to parliament. Akram Chehayeb was the most successful candidate by far—receiving 23% of preferential votes in the district—and being the only one to receive over 10,000 preferential votes in Aley. Chehayeb obtained slightly over 14,000 preferential votes, while the second-most-voted-for candidate, Cesar Abi Khalil, won slightly over 8,000. The other winners, Cesar Abi Khalil, Henri Helou, Anis Nassar, and Talal Arslan, each won 13% of preferential votes. Other successful candidates in Aley were Elias Hanna (FPM, 4%), Walid Khairallah (independent running on the Tawhid list, 4%), Ragy El Saad (independent running with PSP and LF, 3%), Zoya Jureidini (Kulluna Watani, 3%), Mark Daou (Madaniyya, 2%), and Theodora Bejjani (Kataeb, 2%). The 10 remaining candidates won 7% of votes, combined.

In Chouf, 15 out of the 43 candidates managed to win over 2% of preferential votes. The most successful candidate was Taymour Jumblatt (11% of preferential votes), followed by Mohammad El-Hajjar and Georges Adwan (10% each). Bilal Abdallah, Marwan Hamadeh, Nehme Tohme, and Wiam Wahhab each won between 7% and 8% of preferential votes, while Naji Boustany (affiliated with the PSP), Ghattas Khoury (FM), and Mario Aoun (FPM) each won 5%. Other successful candidates, who managed to win between 2% and 4% of preferential votes, were Ghassan Atallah (FPM), Farid Al Boustany, Ali Al-Hajj (independent with FPM-LDP), Tarek Al-Khatib (FPM), and Ghada Marouni (Kulluna Watani).

In contrast to Aley, not all of the candidates who received the highest number of votes in Chouf made it to parliament

Under the proportional representation system, combined with the option to cast a preferential vote, the sectarian allocation of seats, and the introduction of high electoral thresholds, candidates who receive the highest number of preferential votes do not necessarily win. Were seats obtained by the most successful candidates representing each sectarian group, regardless of list, two of the winners in Chouf would change.

First, Wiam Wahhab (Tawhid) would have won one of the Druze seats in Chouf instead of Marwan Hamadeh (PSP-backed). Wahhab received more votes than Hamadeh, although by a small margin (7,340 votes, compared to 7,266 votes), however, he did not win a seat due to his list's failure to pass the electoral threshold. With the electoral threshold or quotient—i.e. the minimum number of votes a list must receive in order to win a seat—in Mount Lebanon 4 set at 7.7% of votes, Wahhab's list fell short by 330 votes.[16] Second, Naji Boustany (PSP-backed) would have won one of the Maronite seats instead of Farid Al Boustany

(FPM-backed). While Farid Al Boustany won slightly less than 2,700 votes, Naji Boustany won over 5,200 votes.

The chosen process of seat allocation determined who made it to parliament

While these results above 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 list. The most voted for candidate would then win their seat, regardless of the list to which they belonged. However, as the electoral system is proportional, this winner's list would then have one less seat to win; and with the confessional allocation of seats, one of the seats reserved for this winner's sectarian group would get filled. In Mount Lebanon 4, Akram Chehayeb ranked first (PSP-LF-FM list), thus winning his seat (Druze, Aley). This meant that the PSP-LF-FM list, which won nine seats in Mount Lebanon 4, now had eight remaining seats to obtain. In addition, as Chehayeb is Druze and won in Aley, only one of the Druze seats in Aley would be left to fill. All seats are allocated following the same method, i.e. based on rank, but constrained by the number of seats allocated to each sect, the number of seats in each sub-district (Aley and Chouf), 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 that was actively chosen and an alternative one could have been used. The process chosen prioritized the preferential vote (the candidate) over the proportional vote (the support for a party or list).

Another process of seat allocation that could have been followed 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 won by the most successful candidates in each winning list, but again constrained by the sectarian quota and the number of seats in each sub-district. The first seat would then go to the most successful candidate from the most successful list—in Mount Lebanon 4, that would again be Akram Chehayeb from the PSP-LF-FM list in Aley. The second winner would be the most

successful candidate from the second winning list—Cesar Abi Khalil from the FPM-LDP list in Aley. The third would be the second-ranking candidate from the PSP-LF-FM list—Taymour Jumblatt in Chouf. The remaining distribution of seats would follow 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, two of the winners in Chouf would change, while results in Aley would have been the same. First, Farid Al Boustany (FPM-backed) would have lost his Maronite seat to Naji Boustany (PSP-backed). Second, Nehme Tohme (PSP-backed) would have lost the Greek Catholic seat to Ghassan Atallah (FPM).
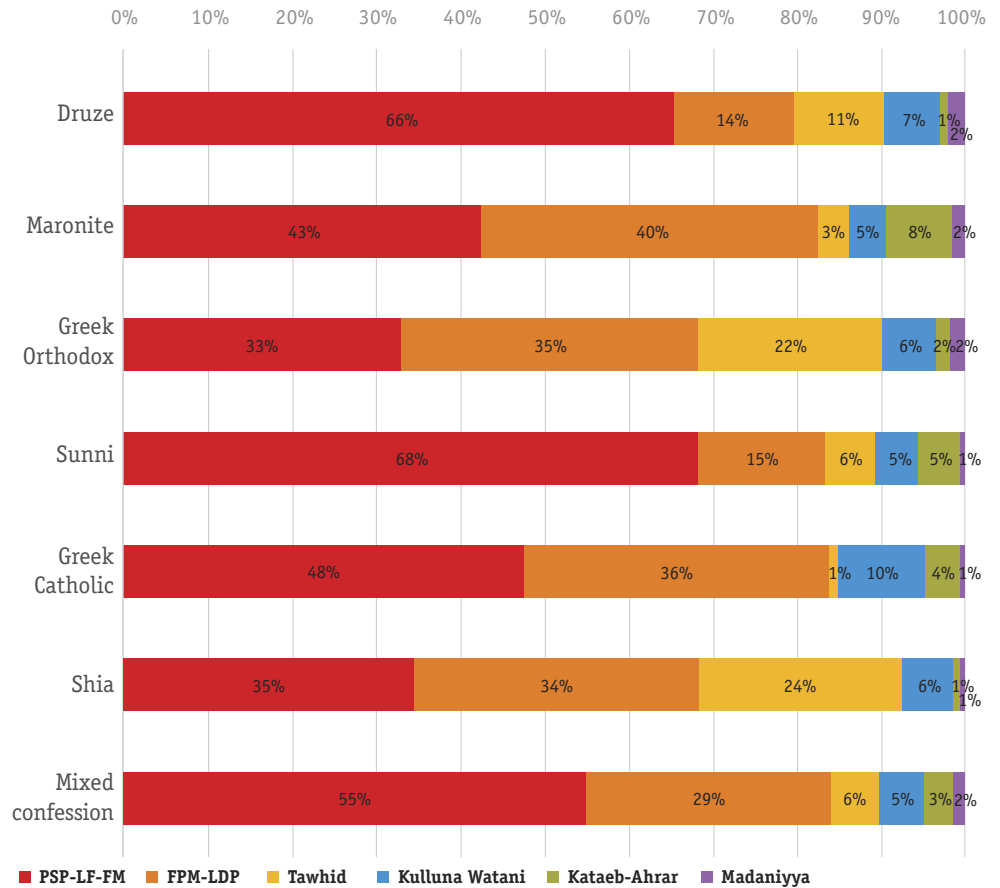
Preferences for lists and candidates did not significantly vary across genders

Comparing the share of votes given to each candidate among each gender shows that the highest difference was of 2%. Looking at the main differences in support for candidates, in Aley, women showed higher support for Cesar Abi Khalil (whose votes in women polling stations were about 550 votes higher than those in men-only stations) compared to men. Zoya Jureidini (Kulluna Watani) also received a particularly higher number of votes from women-only polling stations (nearly 240 votes more). In Chouf, a much higher number of women than men voted for Taymour Jumblatt (over 1,100 more) and Moham-mad El-Hajjar (nearly 770 more), while Georges Adwan received a particularly lower number of votes in women-only polling stations (about 520 votes lower than he did in men-only stations).

There were significant variations in preferences for lists and parties across confessional groups

In total, Druze and Sunni voters voted mostly for the PSP-LF-FM list (over 65% of each). Most Druze voters who voted for the list gave their preferential vote to PSP and affiliated candidates, while most of Sunnis gave their preferential vote to FM candidates, although a large share also voted for PSP. Among the Druze voters who voted for the FPM-LDP list, most preferential votes were cast for LDP candidates; while the remainder of the Druze vote went to Tawhid. The Maronite, Greek Orthodox, and Greek Catholic votes were more fragmented between the two main lists—with most Christians voting for the FPM-LDP list casting their preferential votes for candidates from or affiliated with the FPM, and most of those who voted for the PSP-LF-FM list choosing LF candidates.

Figure 10 **Votes for each list by confessional group in Mount Lebanon 4**

	PSP-LF-FM	FPM-LDP	Tawhid	Kulluna Watani	Kataeb-Ahrar	Madaniyya
Druze	66%	14%	11%	7%	1%	2%
Maronite	43%	40%	3%	5%	8%	2%
Greek Orthodox	33%	35%	22%	6%	2%	2%
Sunni	68%	15%	6%	5%	5%	1%
Greek Catholic	48%	36%	1%	10%	4%	1%
Shia	35%	34%	24%	6%	1%	1%
Mixed confession	55%	29%	6%	5%	3%	2%

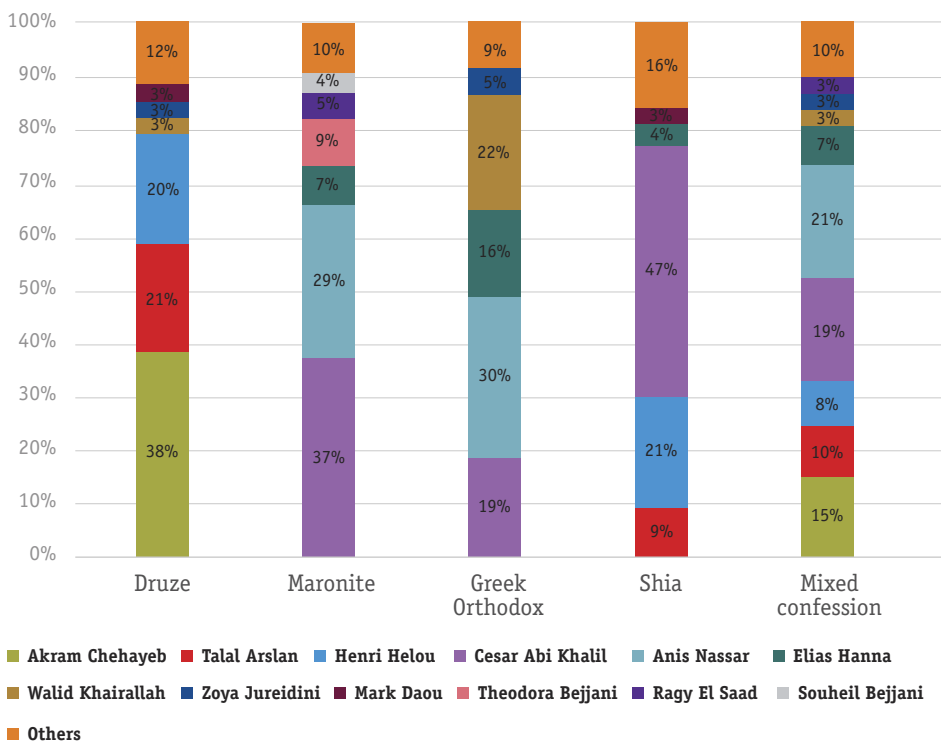Note **Percentages have been rounded up.**

In Aley, the PSP, including its affiliated candidates, won 59% of the Druze vote. It was followed by LDP, which received 21%. Among candidates, Akram Chehayeb was much more successful than other candidates among Druze voters, receiving 38% of their preferential votes by himself, while Talal Arslan received 21% and Henri Helou 20%. Only three other candidates managed to win over 3% of the Druze preferential vote: Walid Khairallah (independent on the Tawhid list), Zoya Jureidini (Kulluna Watani, 3%), and Mark Daou (Madaniyya, 3%).

The FPM and LF were the main parties among Maronite and Greek Orthodox voters, with 45% of Maronite and 35% of Greek Orthodox voting for FPM, and 29% of Maronite and 30% of Greek Orthodox voting for LF. Among candidates, Maronite voters gave 37% of their preferential votes to Cesar Abi Khalil, followed by 29% to Anis Nassar. Theodora Bejjani (Kataeb) followed with 9% of the Maronite preferential vote, and was only successful among this group. Elias Hanna (FPM), Ragy El Saad (independent with PSP-LF), and Souheil Bejjani (independent with Tawhid) also managed to win between 4% and 7% of the Maronite vote, each. Greek Orthodox voters had the most fragmented tally—with

more candidates receiving a high share of their preferential votes. The preferred candidate was Anis Nassar (LF, 30% of preferential votes), while Walid Khairallah (independent on the Tawhid list), Cesar Abi Khalil, and Elias Hanna (FPM) received between 16% and 22% of their preferential votes, each. Walid Khairallah and Elias Hanna were significantly more successful among Greek Orthodox voters than they were among other groups. Finally, Zoya Jureidini (Kulluna Watani) also received a share of the Greek Orthodox vote (5%).

Nearly the majority of Shias—who are not represented by a seat—cast their vote for Cesar Abi Khalil (47%), while most of the remaining chose Henri Helou (21%). Shias also gave a high share to Talal Arslan (9%), Elias Hanna (4%), and Mark Daou (3%).

Figure 11 **Main candidates by confessional group in Aley**

Note **Percentages have been rounded up.**

Similarly, in Chouf, an overwhelming majority of Druze voters voted for PSP and its affiliated candidates, followed by Tawhid. Among candidates, the highest share of the Druze preferential vote was cast for Taymour Jumblatt (27%), closely followed by Marwan Hamadeh (24%). Nehme Tohme and Wiam Wahhab received a similar share of the Druze vote (16%)—with the latter only being able to mobilize the Druze vote. Indeed, he received less than 3% of every other represented group's vote. No other candidate managed to win over 2% of Druze voters' votes.

Maronites and Greek Catholics were divided between FPM and LF candidates, although the former was slightly more successful. Among Maronite voters, Georges Adwan ranked first by a significant margin (28% of their preferential vote), while other candidates who received a high share of their vote were Mario Aoun (19%) and Naji Boustany (11%). Ghassan Attallah and Farid Al Boustany followed (8%), while the last three candidates who were able to capture over 3% of the Maronite vote were Ghattas Khoury (FM), Ghada Marouni (Kulluna Watani), and Camille Chamoun (Ahrar).[17] The latter was unsuccessful among other confessional groups, as he was unable to capture over 2% of their votes (he only won 2% of the Greek Catholic vote, and less than 0.2% of all other groups' vote).

Greek Catholics voted mostly for Georges Adwan (27%) and Ghassan Atallah (23%). Other successful candidates among Greek Catholics were Naji Boustany, Nehme Tohme, and Mario Aoun (between 8% and 9%, each). Three other candidates won over 4% of the Greek Catholic preferential vote: Farid Al Boustany, Ghada Marouni, and Antoine Fawaz (Kulluna Watani, who won less than 0.5% of other represented groups' votes).

The highest share of the Sunni preferential vote was received by FM candidates. Mohammad El-Hajjar (FM) ranked first (29%), while the second candidate among Sunnis was Bilal Abdallah from PSP (21%)—both of whom were only successful among this confessional group. The second FM candidate Ghattas Khoury ranked third (11%, also most successful among Sunnis) and was followed by Ali Al-Hajj (10%, independent running with FPM-LDP who was only successful among Sunnis). Other candidates who won over 3% of the Sunni preferential vote were Naji Boustany, Tarek Al-Khatib (FPM), Wiam Wahhab, and Mohamad Sami Alhajjar (Kulluna Watani, who won only less than 0.2% of every other group's votes).

Finally, Shias, who are not represented by a seat in Mount Lebanon 4, gave the highest share of their preferential vote to Wiam Wahhab (37%), followed by Bilal Abdallah (27%). Other candidates who won over 3% of their preferential votes were Nehme Tohme (9%), Ali Al-Hajj (6%), Antoine Fawaz (5%), and Ghassan Atallah (3%).

Figure 12 Main candidates by confessional group in Chouf
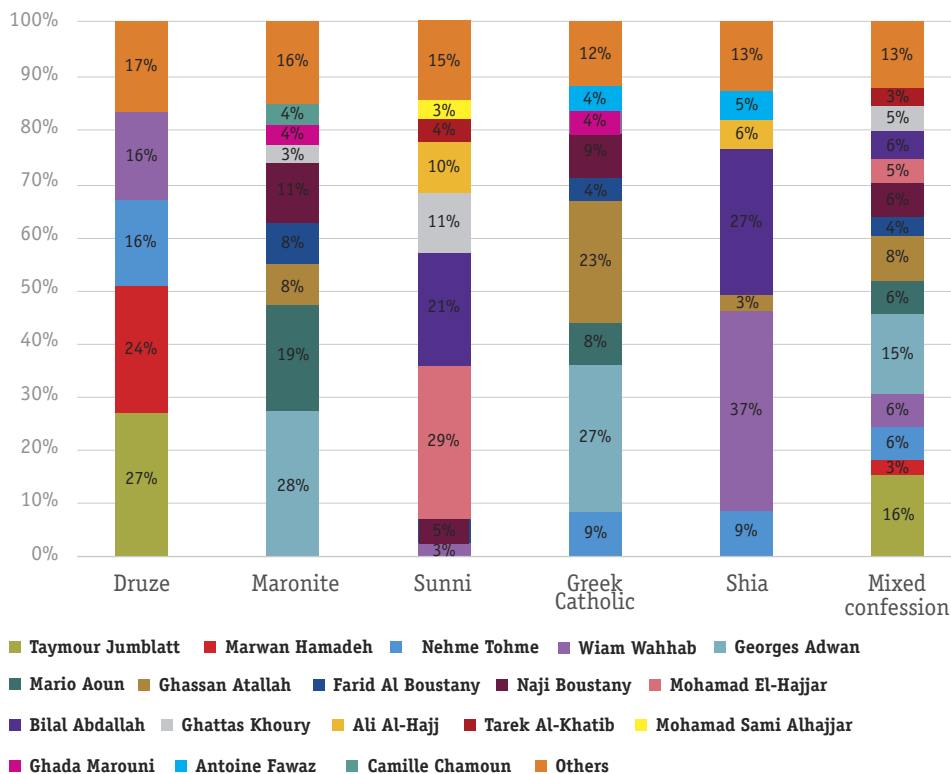
Note **Percentages have been rounded up.**

Political parties had different strongholds depending on the confessional composition of cadasters

PSP and affiliated candidates were the most successful in capturing votes across the district as they were the only ones who managed to win over 80% of votes in any cadaster or neighborhood. In Aley, the party won over 70% of votes in Btater and the neighborhood of Aley Qabli (81% and 70%), as well as over 60% in many other neighborhoods. In Chouf, where the PSP was significantly more successful than it was in Aley, the party and its affiliates won over 70% of votes in many more neighborhoods. The PSP won 88% of votes in the neighborhood of Boqaata, part of the larger area of Ain Ouzain where it won 73%. PSP also won 80% of the vote in the cadasters neighboring the Ain Ouzain, such as Jdaideh, Moukhtara, Haret Jandal, and Ain Qeni (between 82% and 86% of votes). The party also received over 70% of votes in the majority of cadasters around these ones. This high success is likely explained by the fact that Moukhtara is the hometown of the Jumblatt family.

Beyond the percentage of votes received by the party, among the PSP winners and successful candidates, in Aley, Akram Chehayeb, who ranked first in the district, managed to win over 1,000 preferential votes in Btater (1,999 votes), Aaramoun (1,398 votes), as well as the

two neighborhoods of Aley Chamali and Aley Qabli (nearly 1,100 votes in each). The Maronite winner Henri Helou won nearly 1,340 preferential votes in Bayssour, between 600 and 800 preferential votes in Ain Anoub, Aaitat, Mejdlaya, and Charoun. In all of these, he was significantly more successful than the other Maronite winner and his main competitor Cesar Abi Khalil (who won 51 preferential votes or less in all of these).

In Chouf, the most successful candidate Taymour Jumblatt did not win over 1,000 preferential votes in any neighborhood, although he came close to that number in Barouk and Niha El-Chouf (995 and 985 votes, respectively). While the support he obtained across the district was more widespread, Jumblatt managed to obtain between 700 and 800 preferential votes in Aammatour, Bater, and El-Khraibe. Marwan Hamadeh was highly successful in Baakline, particularly in the northern part, where he won nearly 1,200 preferential votes (and 1,888 in Baakline overall). This represents nearly one-third of the votes he obtained among residents. Hamadeh also won over 1,000 preferential votes in Mazraat El-Chouf (1,133 votes), and nearly as many in Gharife (936 votes). Nehme Tohme won over 500 preferential votes in three cadasters, with his highest tally being in Kfar Nabrakh (939 votes), followed by Ain Zhalta and Kfar Faqoud (580 and 567 votes, respectively). The last PSP winner, Bilal Abdallah, won over one-third of his preferential votes from voters in Chhim (about 3,200 votes). He also won a high share of his preferential votes from Barja (nearly 870 votes). Naji Boustany, who was backed by PSP but did not win a seat, won nearly 1,000 preferential votes in Deir El-Qamar (989 votes).

The main other Druze party, LDP, led by Talal Arslan who ran in Aley, received half of the votes in Kayfoun (247 votes, 45%). The party also won over 40% of the vote in the neighboring areas of Choueifat El-Aamrousiyeh (Talal Arslan's hometown), Choueifat El-Oumara, and Aaramoun. Accordingly, Arslan won his highest number of preferential votes in Choueifat (1,655 votes). Of note is that Akram Chehayeb received a higher number there (about 250 more votes). Arslan was able to win over 500 preferential votes only in Aaramoun, Bayssour, and Charoun, for a total of slightly over 1,900 votes. The LDP was significantly less successful in Chouf, only managing to win 10% of votes in Barouk.

The last Druze party, Tawhid, led by Wiam Wahhab, was more successful in Chouf where Wahhab ran. In Aley, the party nevertheless managed to win 16% of votes in Kahale, where both PSP and LDP won 2% of the votes combined. One of the candidates in the list in Aley, Walid Khairallah, was relatively successful in the district. Across the district of Aley, Khairallah managed to win nearly 800 preferential votes in Bhamdoun and the neighboring villages, or over one-third of

his total preferential votes among residents.

In Chouf, Tawhid won 63% of votes in Jahliyeh, with Arslan winning 1,017 preferential votes—his highest number across the district. He also managed to win 30% of preferential votes in Bchetfine, and between 25% and 30% in Deir Koucheh, Kfar Hai, Deir Baba, Wardaniyeh, Kfar Faqoud, and Kfar Him. He won over 350 votes in only one other town, Joun (354 votes).

Regarding Christian parties, the LF, which had one candidate in each of the districts, managed to win the majority of its votes in a number of neighborhoods, but never won over 70%. In Aley, the LF was most successful in Habramoun (64% of votes) and Ain Drafil (63%), while it also won the majority of votes in Bmekkine, Ain El-Saydeh, and Ain El-Halzoun (between 56% and 57% in each), and Bisrine (50%). However, these large percentages did not translate into a very high number of votes. Beyond the percentage of votes, winner Anis Nassar won his highest number of preferential votes from voters in Bhamdoun (670 votes, although he was less successful than Walid Khairallah). He won less than 500 preferential votes in all other neighborhoods, winning above 300 only in Ain Dara (461 preferential votes), Bdadoun, and Bsous (slightly over 300 in each).

In Chouf, the LF's highest share of votes was 69% in Dahr El-Mghara. The party only managed to win the majority in the El-Battal neighborhood of Dibbiyeh (43 votes, 51% of votes), although it won a much lower share in Dibbiyeh overall. Other areas in which the LF won over 40% of votes were El-Maaniyeh, Jleiliyeh (47% each), Kneisseh (43%), Bkifa, Rmaile, and Aalmane El-Chouf (between 40% and 41% each). Beyond these percentages, Georges Adwan won his highest number of preferential votes in Damour (1,033 votes) and also won over 900 votes in Deir El-Qamar.

Similar to the LF, the FPM won less than 70% of votes in all cadasters across Mount Lebanon 4, with the exception of Blaibel in Aley, where it won 75%. In Aley, the FPM won the majority of votes in five other cadasters: Mreijate (61%), Houmal (58%), Mazraat El-Nahr, Qmatiyeh, and Chamlan (between 50% and 52% each). Among these, Qmatiyeh was the only cadaster where the winner, Cesar Abi Khalil, received over 500 votes (537 votes). He also won over 500 preferential votes in Ain Dara (844 votes) and Kahale (722 votes). Counting the towns where Abi Khalil managed to win over 400 preferential votes, he was significantly more successful than the other Maronite winner Henri Helou in Qmatiyeh, Ain Dara, and Kahale, as well as Bdadoun (in fact, Helou won less than 20 preferential votes in all but Qmatiyeh, where he won about 240 preferential votes compared to the 537 won by Abi Khalil).

In Chouf, the FPM won over 60% of votes in Mazmourah (63%) and

about half of the vote in Hasrout, Damour, Majdalouna, and Marj Barja (between 49% and 51%). Regarding the main candidates, Mario Aoun won about one-third of his votes from Damour (1,598 votes). He captured a lower number of votes across the district, managing to obtain over 400 preferential votes only in Deir El-Qamar (401 votes). The second winner, Farid Al Boustany, also received the highest share of his preferential votes from these cadasters, winning 499 votes in Damour and 315 in Deir El-Qamar, while he only won over 200 preferential votes in one other, Deir Dourit (228 votes). FPM candidate Ghassan Atallah, who performed better than Al Boustany, was much less successful in these cadasters. In fact, he only won over 200 preferential votes in Rmaile and Joun (226 and 220 votes, respectively).

The last of the main parties, the FM, which fielded two candidates in Chouf, won a high share of votes in many neighborhoods and cadasters. The FM was highly successful in all of the neighborhoods in Chhim, winning between 20% and 40% of votes in each of them, while it managed to win 63% in the neighborhood of Chhim El-Sehle. FM also won 60% of votes in Klayle, and 52% in Baasir. Mohammad El-Hajjar won nearly one-third of his preferential votes in Chhim (3,205 votes, out of the nearly 9,690 he won among residents). Most of the remainder of his preferential votes came from Barja (nearly 2,500 votes). Losing candidate Ghattas Khoury was highly successful in Ketermaya, from where one-quarter of his preferential votes came (about 1,250 votes). He also managed to win over 500 preferential votes in Baasir (567 votes). Overall, in these two cadasters, he won about 40% of preferential votes.

Among the other parties, who had limited success, in Aley the Kataeb only won over 10% of votes in Chartoun (22%) and Kahale (16%). The candidate from the party, Theodora Bejjani, won her highest share of preferential votes from these two towns—winning 315 votes in Kahale and 151 in Chartoun. In Chouf, Kataeb's highest share of votes was in Baikoun (29%), while it obtained less than 10% in all other towns. Finally, Ahrar, which ran with Kataeb, received few votes in Mount Lebanon 4, but was able to obtain its highest share in Bire (8%).

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

Different geographical factors, polling stations characteristics, and voters' characteristics affected the votes for each list and party.

Across cadasters, voters in more confessionally homogeneous ones were less likely to vote for the PSP-LF-FM list, and tended to vote more for the FMP-LDP list. At the party level, voters in more homogeneous cadasters voted more for Tawhid, and the effect was slightly smaller but also positive for the LDP, FPM, and FM. Conversely, higher levels of confessional homogeneity in a cadaster were associated with a lower share of votes for PSP and LF.

Regarding the level of economic development in a cadaster, voters in cadasters with higher levels of economic development voted less for the PSP-LF-FM list and more for the FPM-LDP list. At the party level, higher levels of economic development in a cadaster were associated with better results for the FM, LDP, and Tawhid candidates; while the PSP and LF generally performed better in less economically developed cadasters.

Higher poverty rates in a cadaster were associated with a larger share of votes for the PSP-LF-FM list, and in particular for PSP and FM, while it had a negative effect on the LF. The opposite effect was observed regarding the FPM-LDP list, with voters in cadasters with higher poverty rates voting less for the list. A similar result was observed in votes for Tawhid.

Combining the impact of levels of economic development and poverty rates in a cadaster, the PSP seems to have benefited from both a higher prevalence of poverty and lower levels of economic development in a cadaster.

The size of polling stations (measured as the number of registered voters per polling station) had some minor effect on voters' behavior. Among the parties, PSP, LF, and FPM candidates tended to perform better in smaller polling stations, while the LDP, FM, and Tawhid candidates tended to receive better results in larger ones. Moreover, voters in mixed polling stations tended to vote significantly more for FPM, LF, and FM; while the Druze parties PSP, LDP, and Tawhid received better results in polling stations that had only one sect registered to vote.

Voters' sect was a significant factor in explaining their party preferences. Druze voters were the most likely to vote for the Druze parties PSP and LDP, while, compared to other sects, they were less likely to vote for the FM and FPM. All Christian sects, compared to others, were the most likely to vote for the Christian parties, LF and FPM, while they were the least likely to vote for the Druze parties, PSP and LDP. The only difference in Christian sects' party preferences was toward Tawhid. While Maronites and Greek Catholics were the least likely to vote for Tawhid, Greek Orthodox were among the most likely to vote for the party.

Sunni voters were the most likely to vote for FM, the traditionally Sunni party, and were among the least likely to vote for the Christian parties LF and FPM. Similarly, Shias were among the least likely to vote for LF. They were the most likely to vote for Tawhid, and more likely to vote for LDP compared to other confessional groups except the Druze. They were also as likely to vote for FPM as all Christian confessional groups.

All of these results show that, even after controlling for geographical-level characteristics such as level of confessional homogeneity, economic
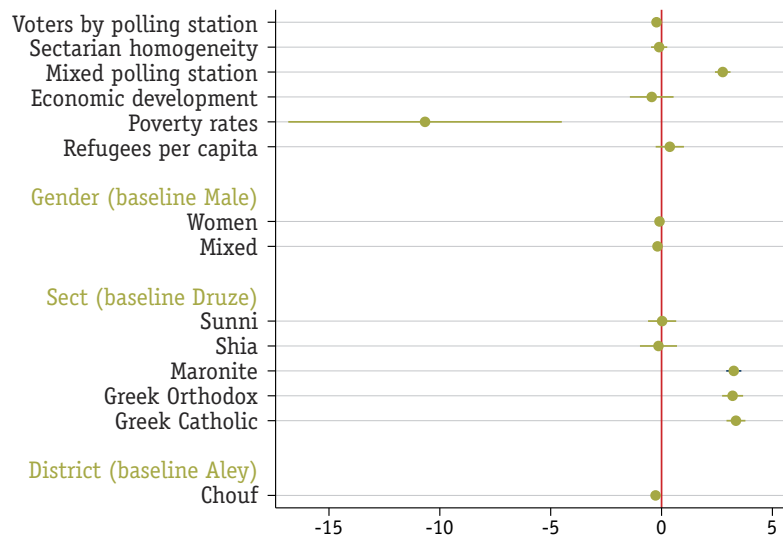
development, and poverty rates, Druze voters were the most likely to vote for a Druze party, Christian voters for a Christian party, and Sunni voters for the single Sunni party that ran.

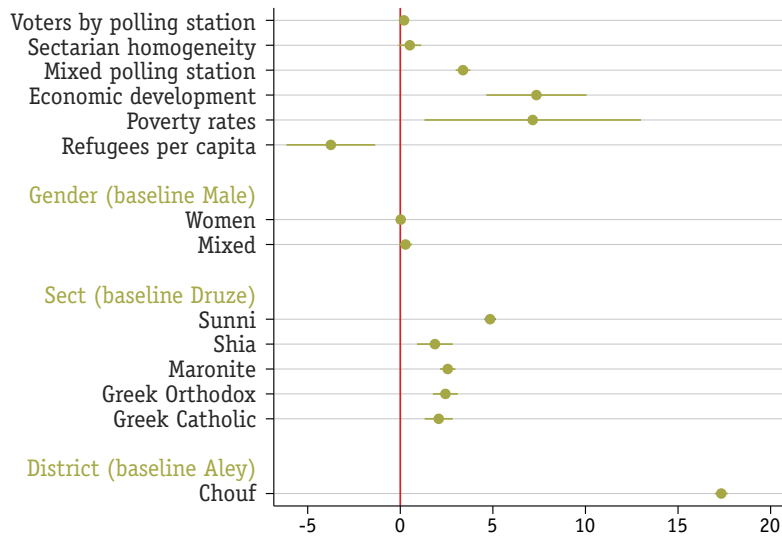Figure 13   **Drivers of votes for each party in Mount Lebanon 4**
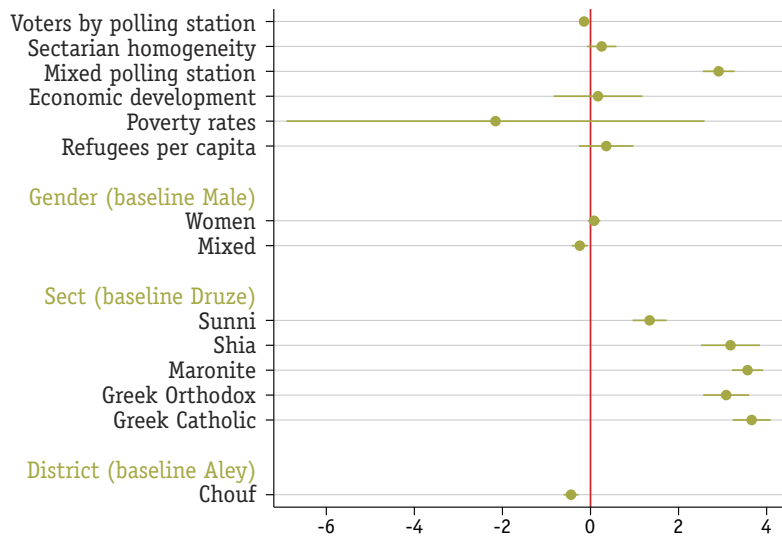
a   **Drivers of votes for the PSP**
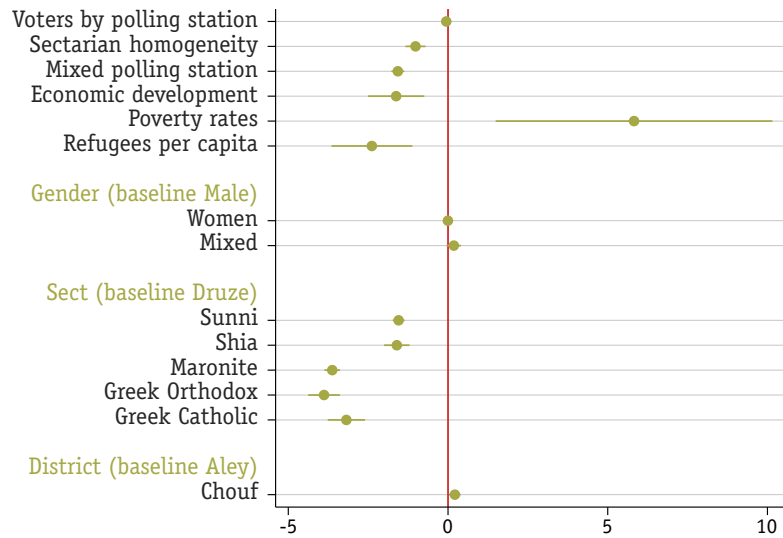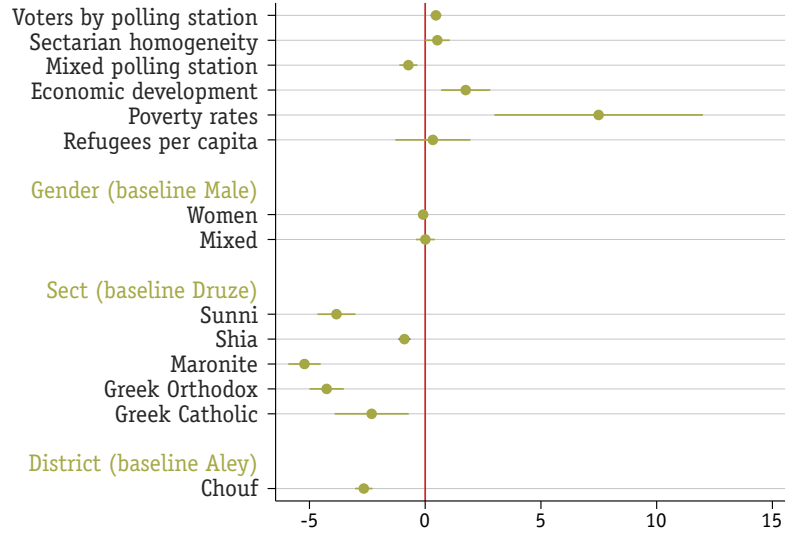

b   **Drivers of votes for the LF**
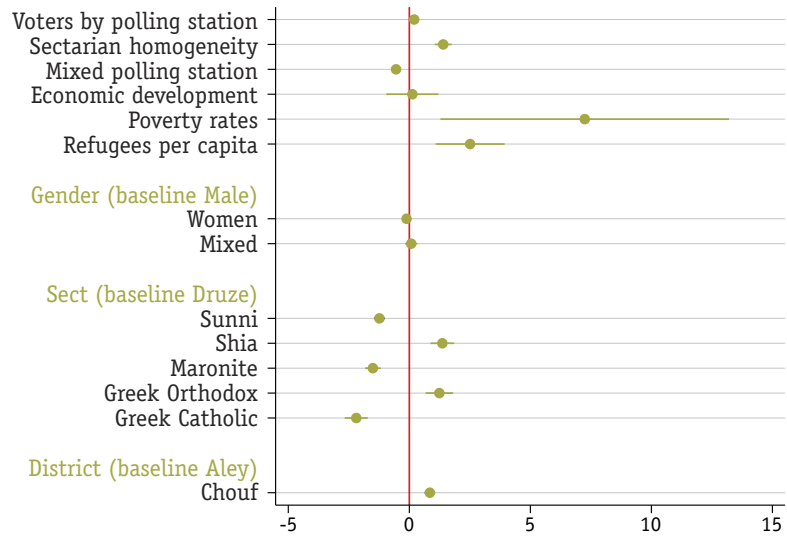
c   **Drivers of votes for the FM**

d   **Drivers of votes for the FPM**

e   **Drivers of votes for the LDP**

f   **Drivers of votes for Tawhid**

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

In Mount Lebanon 4, 97% of voters represented by a seat cast a preferential vote for one candidate within their selected list. Among those who cast a preferential vote, 72% chose a candidate from their confession. In Aley, 67% of represented voters cast a confessional vote, and in Chouf 76% did so.

All confessional groups except Greek Catholics gave the majority of their preferential vote to a co-confessional candidate

In Aley, the confessional bias was highest among Greek Orthodox voters (73%), followed by Druze voters (68%), while it was lowest among Maronites (60%). However, when combining all Christian candidates, 97% of Greek Orthodox and 98% of Maronites voted for a Christian candidate. In Chouf, the confessional bias was highest among Maronites (83%), followed by Sunnis and Druze (76% and 74%, respectively), while less than the majority of Greek Catholic voters voted for a Greek Catholic candidate (36%). Again, when combining all Christian candidates, 93% of Maronites and 94% of Greek Catholics voted for a Christian candidate (table 2).

Table 2 **Votes for candidates from each confession by confessional group in Mount Lebanon 4**

| | Candidate's confession | Aley | | | Chouf | | | |
		Druze	Maronite	Greek Orthodox	Druze	Maronite	Sunni	Greek Catholic
Voters' confession	Druze	68%	24%	8%	74%	7%	2%	17%
	Maronite	2%	60%	38%	4%	83%	3%	10%
	Greek Orthodox	3%	25%	73%				
	Sunni				4%	19%	76%	2%
	Greek Catholic				3%	58%	3%	36%
	Shia	15%	75%	10%	39%	4%	40%	17%
	Mixed confession	29%	37%	34%	26%	41%	18%	16%

Note **Percentages have been rounded up.**

In both Aley and Chouf, the majority of voters who did not cast a confessional vote tended to choose candidates from the sectarian parties that represent them

Druze voters who did not vote for Druze candidates mostly chose candidates from or backed by PSP. In Aley, a large share of Druze voters cast their preferential vote for Maronite candidate Henri Helou (20%), while in Chouf, most Druze who voted for a candidate from a different

confession chose Greek Catholic Nehme Tohme (16%)—both candidates affiliated with the PSP. Among Christian communities who did not vote along confessional lines in Aley, most Maronite voters chose Greek Orthodox candidate Anis Nassar (LF, 29%), and most Greek Orthodox voters chose Maronite candidate Cesar Abi Khalil (FPM, 19%). Maronites and Greek Orthodox therefore voted for candidates from the Christian parties LF and FPM.

Similarly, in Chouf, most Maronites who did not vote for a co-confessional candidate chose Greek Catholic Ghassan Atallah (FPM, 8%), and most Greek Catholics chose Maronite candidate Georges Adwan (LF, 27%), with Mario Aoun receiving a high share (FPM, 8%)—all candidates from the two main Christian parties. Naji Boustany, affiliated with PSP, performed well among Greek Catholics (9%) too. Finally, most Sunnis who did not vote for a Sunni candidate chose FM Maronite candidate Ghattas Khoury (11%). All of these voters who did not cast a confessional vote therefore tended to choose candidates from the main sectarian parties that represent them.

Shias, who are not represented by a seat, cast most of their preferential votes for Maronite candidates in Aley (75%)—with most of these going to Cesar Abi Khalil (47%) and Henri Helou (21%). In Chouf, their vote was mostly fragmented between Sunni and Druze candidates (40% and 39%). Most of the votes they cast for Sunni candidates was obtained by Bilal Abdallah (27%), while the votes they cast for Druze candidates went almost exclusively to Wiam Wahhab (37%).

Preferences for co-confessional candidates vary from one cadaster to another

Only in one cadaster was the co-confessional vote below 10%—Ain Anoub (Aley). In Ain Anoub, Druze voters were registered to vote and mostly chose Maronite candidate Henri Helou (72% of their preferential vote).

Among candidates from each confessional group, Druze candidates were the most effective at mobilizing votes from their community. In the majority of cadasters, Druze candidates captured over 80% of the sectarian vote. However, they won less than 20% of Druze preferential votes in two cadasters: Maasser El-Chouf (Chouf, only 3%) and Ain Anoub (Aley, 10%). Druze candidates won 30% or less in four others: Ain Zhalta (Chouf), Deir Qoubel (Aley), Sarahmoul (Aley), and Kfar Nabrakh (Chouf) (between 20% and 30%). In Maasser El-Chouf, Druze voters cast preferential votes mostly for Ghassan Atallah (Greek Catholic, FPM, 40% of their vote), followed by Georges Adwan (Maronite, LF, 30% of their vote). They voted similarly to Greek Catholics registered in the cadaster (with 35% casting preferential votes for Atallah and 32% for Adwan).

Druze voters gave over 90% of their preferential vote to Druze candidates in 17 cadasters. In Aley, Druze voters showed a high confessional bias in Ighmid, Choueifat El-Aamrousiyeh, Btater, Aley Chamali, and Maasraiti (between 90% and 95%). These high shares of votes for Druze candidates were mostly driven by the community's support for Akram Chehayeb and Talal Arslan. Chehayeb won 90% of the Druze vote in Btater, over 70% in Aley Chamali, and over 60% in Ighmid, while the Druze vote was more contested in Choueifat El-Aamrousiyeh and Maasraiti, where Chehayeb won 45% and 50%, respectively, while Arslan won 32% and 39%.

In Chouf, Druze voters cast over 90% of their preferential votes for Druze candidates in 12 cadasters, with these high sectarian biases being driven by support for Taymour Jumblatt, Marwan Hamadeh, and Wiam Wahhab. Over 70% of the Druze preferential vote was cast for Jumblatt in Haret Jandal, Jdaideh, Bater (between 80% and 83%), Ain Qeni (79%), and Mristi (71%). Hamadeh was most successful in capturing the Druze vote in Kahlouniyeh (72%), Warhaniyeh (64%), Mazraat El-Chouf (63%), and the town of Boqaata (54%). Finally, Wahhab won a much higher share of the Druze vote in Jahliyeh (64%, beating the other two main Druze candidates by a large margin), and was also relatively successful in Niha El-Chouf (15%), Mristi (15%), and Fraidiss (14%), where Jumblatt obtained most of the Druze vote, but Hamadeh barely any (less than 2% in each of the cadasters).

Among Maronites, in the majority of cadasters, between 60% and 80% chose a co-sectarian candidate. Preferences for co-sectarian candidates were more widespread in Chouf than they were in Aley. Over 90% of Maronite voters voted for a Maronite candidate in the Chouf cadasters of Damour, Mechref, and Deir El-Qamar (between 90% and 95%), with between 85% and 90% casting a co-sectarian vote in Beit Eddine, Jleiliyeh, Mtolleh, and Majdel El-Meouch. The Maronite vote in these cadasters was fragmented between different Maronite candidates—mostly Georges Adwan and Mario Aoun—rather than driven by support for one specific candidate. The only cadaster in Aley where over 80% of Maronite voters cast a sectarian vote was Blaibel (82%), where most of them voted for Cesar Abi Khalil (69%). In eight cadasters—seven of them in Aley—less than half of Maronite voters cast a sectarian vote. Their lowest share was in Ain Drafil (26%), where the majority of Maronites chose Greek Orthodox candidate Anis Nassar (64%). The other cadasters where the confessional bias among Maronite voters was low were Bouzrideh, Daqqoun, Douair El-Remmaneh, Remhala, Rwayset El-Naaman, and Mreijate (between 40% and 50%). However, in all of these, the majority of Maronites voted for Greek Orthodox candidates, mostly Anis Nassar and Elias Hanna, therefore still showing a preference for Christian candidates. Nassar was more

successful than Hanna in all these cadasters with the exception of
Mreijate, where Hanna won the highest share of the Maronite vote
(38%). In Chouf, the only cadaster where less than the majority of
Maronites voted for a co-sectarian candidate was Khirbit Bisri (40%),
where a high share chose Greek Catholic candidate Nehme Tohme.

Among other confessional groups, the sample for measuring
co-sectarian votes is small, given that only a few cadasters had
single-sect polling stations for each of these groups. Nevertheless, the
sectarian bias can be measured in the available sample.

Sunni voters gave 93% of their preferential votes to Sunni candidates
in Chhim, a fully Sunni cadaster, where nearly 9,000 cast a preferential
vote. In this cadaster, Mohammad El-Hajjar and Bilal Abdallah were the
most successful candidates (36% and 31%). The confessional vote among
Sunnis was also high in Barja (83%), where they gave the highest
share of their vote to El-Hajjar (30%), closely followed by Ali Al-Hajj
(independent running with FPM-LDP, 29%)—who performed much
better than Abdallah (11%) in Barja. Less than the majority of Sunnis
cast a preferential vote for a Sunni candidate in Ketermaya (35%),
Baasir (43%), and Borjein (50%). In all three cadasters, FM Maronite
candidate Ghattas Khoury received the highest share of the Sunni
vote (42%, 47%, and 33%), highlighting Sunni voters' support for the
main Sunni party. Overall, when Sunnis did not cast a confessional
vote, they tended to vote for Khoury, and in some instances Naji
Boustany (also Maronite, on the same list as Khoury).

Greek Orthodox voters cast over 80% of their preferential votes for
Greek Orthodox candidates in four cadasters, out of the eight in which
they had their own polling stations. The highest percentage was in
the town of Bhamdoun (87%), where a majority voted for Walid
Khairallah (51%), followed by Anis Nassar (23%). In the other cadasters
that saw a high confessional bias (over 80%)—Rejmeh, Choueifat, and
Souq El-Gharb—Nassar and Elias Hanna received most of the Greek
Orthodox vote, with the former being more successful in Rejmeh and
Souq El-Gharb, and the latter receiving a higher share of votes in
Choueifat. The lowest confessional bias among Greek Orthodox was
observed in Ain Dara (36%), where 58% of them chose Maronite
candidate Cesar Abi Khalil. Aley Gharbi followed (45%), with Greek
Orthodox again preferring Abi Khalil (39%). In all cadasters where less
than 80% of Greek Orthodox cast a sectarian vote, Greek Orthodox
candidate Nassar still ranked first or second.

Greek Catholic voters, as previously mentioned, had the weakest
sectarian bias. Among the five cadasters that had Greek Catholic-only
polling stations, only Kfar Nabrakh saw a majority of voters cast a
preferential vote for a co-confessional candidate (51%)—with most
going to Ghassan Atallah (29%), followed by Nehme Tohme (20%).

Maronite candidate Georges Adwan also received a high share of their vote (22%). In Joun and Maasser El-Chouf, 43% of Greek Catholics voted for a co-confessional candidate, with most of these going to Ghassan Atallah (22% in Joun and 35% in Maasser El-Chouf). In Joun, Greek Catholics also gave a significant share of their vote to Antoine Fawwaz (Greek Catholic, Kulluna Watani, 14%). Again, Greek Catholics in these cadasters gave a high share to Adwan (30% and 32%). In Rmaile, the confessional vote among Greek Catholics stood at 28%, with Atallah receiving 25%, and Adwan received the highest share of their preferential votes (36%). The lowest confessional bias among Greek Catholics was in Deir El-Qamar (9%), where 29% voted for Naji Boustany, 21% for Adwan, and 13% for Mario Aoun (all Maronite).

Intra-sect variations in co-confessional preferences might be due to geographical factors that affect the ability and willingness of political parties to mobilize the confessional vote, such as level of confessional homogeneity, economic development, poverty rates, or urbanization. In cadasters that have a higher level of confessional homogeneity, sectarian parties and candidates might have a larger capacity to mobilize voters, or voters might have a stronger sectarian identity, given the lower social interactions with other groups. In Chouf, the more homogeneous the cadaster, the higher the percentage of votes for co-confessional candidates. However, in Aley, less homogeneous cadasters tended to see a higher percentage of preferential votes go to co-confessional candidates (figure 14).

Figure 14 **Sectarian homogeneity by cadaster and votes for co-sectarian candidates in Mount Lebanon 4**

a **Sectarian homogeneity by cadaster and votes for co-sectarian candidates in Aley**
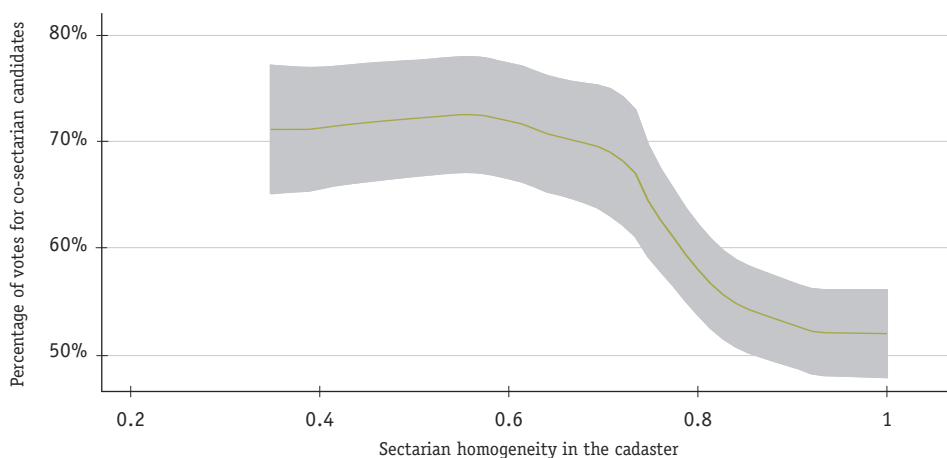
b　　**Sectarian homogeneity by cadaster and votes for co-sectarian candidates in Chouf**
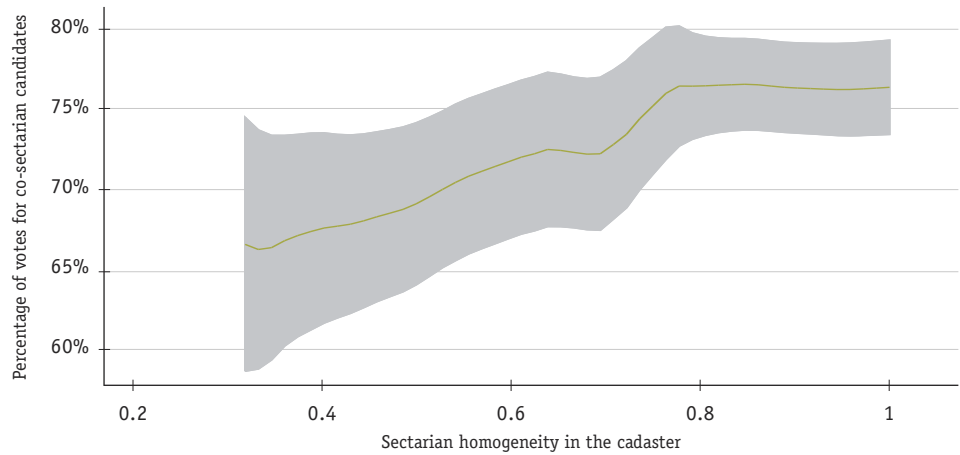
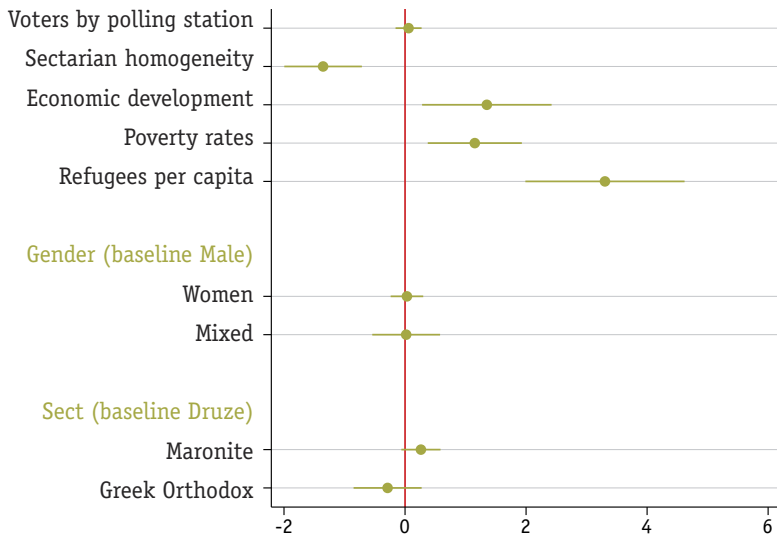### What are the drivers of votes for co-sectarian candidates?

Examining the drivers of votes for co-confessional candidates shows variations in the effect of each factor between Aley and Chouf.

In Aley, across geographical areas, as mentioned above, voters in more homogeneous cadasters were less likely to vote for a co-sectarian candidate. This is surprising given that these voters may be easier to mobilize by sectarian parties. Voters registered in cadasters with higher levels of economic development, as well as those in cadasters with higher poverty rates, and those in cadasters with a higher concentration of refugees were significantly more likely to cast a sectarian vote. There were no significant variations across voters' sect and gender.

In Chouf, lower levels of economic development and lower poverty rates in a cadaster were associated with a significantly lower percentage of votes for co-sectarian candidates. Just as in Aley, voters in cadasters with a higher concentration of refugees were more likely to vote for a co-sectarian candidate. Voters' sect was not a statistically significant factor in most cases; however, Greek Catholic voters were particularly less likely to vote for a co-sectarian candidate, compared to others.

Figure 15 **Drivers of votes for co-sectarian candidates in Mount Lebanon 4**

a **Drivers of votes for co-sectarian candidates in Aley**

b **Drivers of votes for co-sectarian candidates in Chouf**
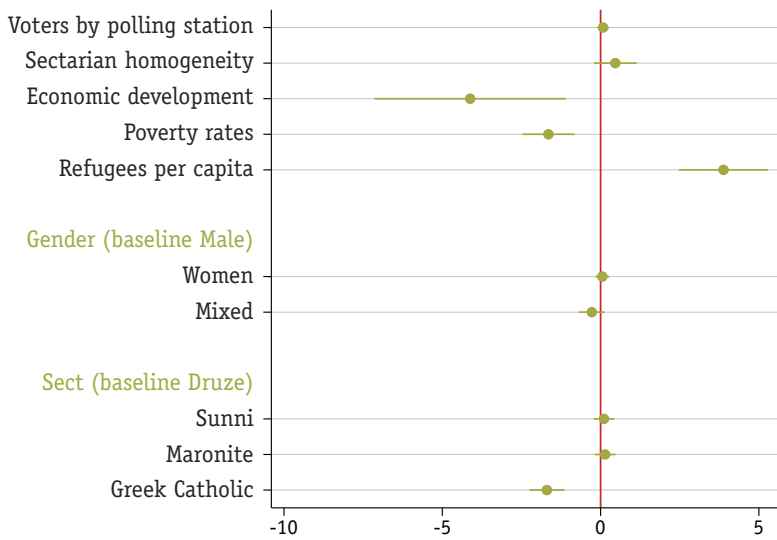
V How did women candidates perform?

Seven women candidates participated in the elections in Mount Lebanon 4. In Aley, the two women candidates won 4.7% of votes combined, while in Chouf, the five women won 3.4%.

Only three of the six lists included women candidates: Kulluna Watani (three), Madaniyya (two), and the Kataeb-Ahrar list (two), with none of the big lists putting forward women candidates.

In Aley, the two women candidates were Zoya Jureidini (Kulluna Watani, Greek Orthodox), who won 3% of preferential votes (1,688 votes), and Theodora Bejjani (Kataeb, Maronite), who won 2% (1,219 votes).

In Chouf, the women candidates in Kulluna Watani were Ghada Marouni (Maronite) who won 2% of preferential votes (2,094 votes) and Rania Ghaith (Druze) who won 0.8% (831 votes); those in Madaniyya were Maya Terro (Sunni), who won 0.4% (373 votes) and Eliane Azzi (Maronite), who won 0.1% (56 votes); and the woman running on the Kataeb-Ahrar list was Daad Nassif Al-Azzi (independent, Maronite), who won 0.2% of preferential votes (172 votes).

Despite the low percentage of preferential votes for women candidates overall, many of the women running in Mount Lebanon 4 headed their list.

On the Kulluna Watani list in Aley, Zoya Jureidini performed significantly better than her male counterparts. Jureidini received 1,688 preferential votes, while the candidate that came in second received less than 800. Jureidini also ranked ninth out of the 21 candidates who ran in Aley. In Chouf, Ghada Marouni also performed significantly better than her male counterparts, receiving 2,094 preferential votes, while the candidate who came in second (male) received slightly over 1,100. The second woman candidate on the Kulluna Watani list in Chouf, Rania Ghaith, ranked third. Out of the 43 candidates in Chouf, Marouni ranked 15th while Ghaith ranked 18th.

On the list formed by Kataeb and Ahrar, Theodora Bejjani in Aley won 1,219 preferential votes, while the candidate that ranked second won less than 200. Bejjani overall ranked 11th in Aley. In Chouf, however, Daad Nassif Al-Azzi ranked second-to-last in the list (172 preferential votes), and 35th out of the 43 candidates in the district.

In Madaniyya, Maya Terro also came in first, receiving 373 preferential votes, while the candidate that ranked second on the list (male) won slightly over 170. Eliane Azzi, however, was the least successful candidate in her list (56 votes). While Terro ranked 27th in the district, Azzi ranked second-to-last.

There were variations across confessional groups, and women performed better among their co-sectarian constituents

In Aley, the share of preferential votes cast for women candidates was highest among Maronite voters (11%), followed by Greek Orthodox (6%), while it was much lower among Druze (3%) and Shia voters (2%). Across genders, women voters voted more for women candidates compared to men (5% compared to 4%). The success of each woman was unequal across confessional groups: Nearly all Druze, Greek Orthodox, and all Shia voters who cast their preferential vote for a woman chose Zoya Jureidini, while nearly all Maronites chose Theodora Bejjani—their co-sectarian woman candidate (table 3). Bejjani won 9% of the Maronite preferential vote (704 votes), and was the third-most voted candidate among this community in Aley. Overall, 60% of the total votes won by Bejjani came from Maronite-only polling stations, with most of the remainder coming from mixed ones (410 votes). Similarly, Zoya Jureidini was one of the most successful candidates among her co-sectarian voters, the Greek Orthodox, with 5% of them casting their ballot for her (144 votes), making her the candidate that ranked fifth among this community. She was also successful among the Druze, winning 3% (774 votes). While Bejjani received equal support from men and women voters, Jureidini was significantly more successful among women voters, winning 3% compared to 2% of men's votes—or 773 votes in women-only polling stations, compared to 535 in men-only stations.

Table 3 **Number and percentage of preferential votes for each woman candidate by voters' confession and gender in Aley**

		Zoya Jureidini		Theodora Bejjani	
		Number of votes	Share of votes	Number of votes	Share of votes
Voters' confession	Druze	774	2.7%	27	0.1%
	Maronite	154	1.9%	704	8.7%
	Greek Orthodox	144	4.8%	40	1.3%
	Shia	22	2.2%	0	0.0%
	Mixed confession	515	2.9%	410	2.3%
Voters' gender	Men	535	2.3%	420	1.8%
	Women	773	3.1%	495	2.0%
	Mixed gender	301	2.7%	266	2.4%

Note **Percentages have been rounded up.**

In Chouf, between 4% and 6% of Greek Catholic, Maronite, and Druze voters cast their preferential vote for a woman candidate, and only 1% of Sunnis and Shias did so. Similar to Aley, women candidates in Chouf were more successful among women voters, receiving 4% compared to 3% of men's preferential votes—representing 1,510 votes cast for women in women-only polling stations, compared to 1,120 in men-only stations. Women voters also gave a higher share of their preferential votes to each woman candidate, except Daad Nassif Al-Azzi, who was slightly more successful among male voters. The two candidates from Kulluna Watani performed particularly better among women voters, with Ghada Marouni receiving about 900 preferential votes from women, compared to 700 from men; and Rania Ghaith receiving almost 400 preferential votes from women, compared to almost 250 from men.

All women candidates performed best among their co-sectarian voters. Although Maronite candidate Ghada Marouni was the most popular among all confessional groups, the four other women candidates won the highest share of their total votes from their sectarian community. Marouni obtained 4% of the Maronite and Greek Catholic preferential vote (572 and 73 votes), and also obtained 2% of the Druze vote (535 votes) and 1% of the Sunni vote (162 votes). However, among both Druze and Sunni voters, Marouni beat the Druze and Sunni woman candidate, respectively, by a small margin. The only Druze woman candidate, Rania Ghaith, won 2% of the Druze preferential vote (503 votes), and in fact received over 65% of her total votes from Druze-only polling stations. Similarly, the single Sunni candidate, Maya Terro, won 1% of the Sunni preferential vote (156 votes), and received 45% of her total votes from Sunni polling stations. The two other women candidates in Chouf, Eliane Azzi and Daad Nassif Al-Azzi, both Maronite, received most of their votes from Maronite polling stations—about 40% and 60% respectively—with most of the remaining being cast in mixed stations, rather than by specific confessional groups.

Table 4 **Number and percentage of preferential votes for each woman candidate by voters' confession and gender in Chouf**

		Ghada Marouni		Rania Ghaith		Maya Terro	
		Number of votes	Share of votes	Number of votes	Share of votes	Number of votes	Share of votes
Voters' confession	Druze	535	2.0%	503	1.9%	71	0.3%
	Maronite	572	3.7%	51	0.3%	28	0.2%
	Sunni	162	0.6%	18	0.1%	156	0.5%
	Greek Catholic	73	4.4%	8	0.5%	11	0.7%
	Shia	8	0.5%	6	0.4%	5	0.3%
	Mixed confession	613	2.4%	177	0.7%	72	0.3%
Voters' gender	Men	694	1.7%	242	0.6%	126	0.3%
	Women	899	2.1%	389	0.9%	170	0.4%
	Mixed gender	370	2.3%	132	0.8%	47	0.3%

		Eliane Azzi		Daad Nassif Al-Azzi	
		Number of votes	Share of votes	Number of votes	Share of votes
Voters' confession	Druze	4	0.0%	0	0.0%
	Maronite	18	0.1%	99	0.6%
	Sunni	5	0.0%	6	0.0%
	Greek Catholic	3	0.2%	2	0.1%
	Shia	0	0.0%	0	0.0%
	Mixed confession	13	0.1%	55	0.2%
Voters' gender	Men	17	0.0%	41	0.1%
	Women	20	0.0%	32	0.1%
	Mixed gender	6	0.0%	89	0.5%

Note **Percentages have been rounded up.**

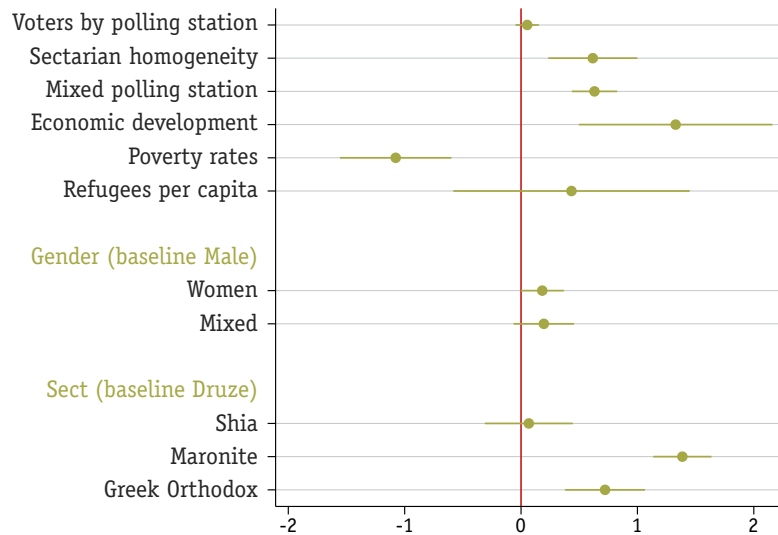## What are the drivers of votes for women candidates?

Both geographical factors and voters' characteristics affected the results for women candidates.

In Aley, across cadasters, voters in more homogeneous cadasters were generally more likely to vote for women candidates. Two interrelated factors also affected women's performance: Higher levels of economic development in a cadaster, as well as lower poverty rates in a cadaster were associated with a higher share of votes for women candidates. Regarding voters' characteristics, women were more likely to vote for women candidates compared to male voters. Across sectarian groups, Maronite voters were the most likely to vote for women candidates, and were followed by Greek Orthodox voters. Druze and Shia voters were the least likely to vote for a woman, with no significant variation between them.

In Chouf, voters in large polling stations were more likely to vote for a woman candidate. Across cadasters, voters in cadasters with higher levels of economic development, as well as those in cadasters with higher poverty rates, tended to vote less for women candidates. Similar to Aley, women voters in Chouf were more likely to cast their preferential vote for a woman, compared to male voters. Across sects, Maronite, Greek Catholic, and Druze voters were the most likely to vote for a woman candidate, while Shia and Sunni voters were the least likely to do so.

Figure 16 **Drivers of votes for women candidates in Mount Lebanon 4**

a   **Drivers of votes for women candidates in Aley**

b   **Drivers of votes for women candidates in Chouf**
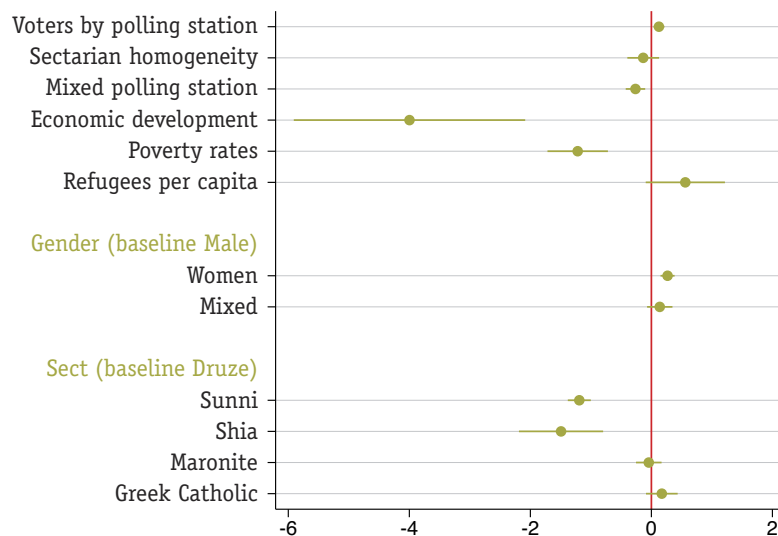
VI How did emerging political groups perform?

Two lists formed by emerging political groups and independent candidates ran for elections in Mount Lebanon 4.

The first one, Kulluna Watani, obtained nearly 6% of votes in Mount Lebanon 4 (9,987 votes). That share was similar across districts, representing 3,764 votes in Aley and 6,223 in Chouf. The second list, Madaniyya, won nearly 2% of votes (2,916 votes), and was more successful in Aley than it was in Chouf. Madaniyya received 3% of the votes in Aley (1,798 votes), compared to 1% in Chouf (1,118 votes). Both Kulluna Watani and Madaniyya received significantly higher support from the diaspora: 10% of Lebanese who voted outside the country chose Kulluna Watani, and 3% chose Madaniyya (compared to 6% and 2%, respectively, of resident voters).[18] Kulluna Watani fielded 11 candidates, and Madaniyya eight, all of whom had varying success.

How did Kulluna Watani perform, and who were its constituents?

Kulluna Watani, which obtained 6% of votes in Mount Lebanon 4, fielded 11 candidates.

In Aley, the list's candidates were Zoya Jureidini (Greek Orthodox, 1,688 votes), Alaa Sayeg (Druze, 755 votes), Imad Al Kadi (Druze, 621 votes), and Carl Bou Malham (Maronite, 445 votes); and those in Chouf were Ghada Marouni (Maronite, 2,094 votes), Mohamad Sami Al-hajjar (Sunni, 1,133 votes), Rania Ghaith (Druze, 831 votes), Maher Abou Shackra (Druze, 760 votes), Antoine Fawaz (Greek Catholic, 577 votes), Mazen Nasreddine (Sunni, 305 votes), and George Emile Aoun (Maronite, 190 votes).[19]

Support for Kulluna Watani and each of its candidates varied across confessional groups and genders

In Aley, over half of the total votes obtained by Kulluna Watani were cast in Druze polling stations, with 7% of them (2,007 votes) voting for the list. Greek Orthodox followed (6%), with support being lowest among Maronites and Shias (4% and 3%). Across genders, women voters were significantly more likely to vote for Kulluna Watani: 7% of women voted for the list compared to 5% of men voters. Both variations across confessional groups and genders were statistically significant even after controlling for characteristics of the cadasters, such as level of confessional fragmentation and economic development: Druze and Greek Orthodox voters were the most likely to vote for Kulluna Watani, just as women were more likely to vote for the list compared to men.

In Chouf, Kulluna Watani found its highest level of support among the Greek Catholic community (10% of their vote), with Shia and Druze voters following (7% each), and the share was lowest among

Maronites and Sunnis (5%). However, as the majority of voters who cast their ballots were Druze and Sunni, most of the votes won by Kulluna Watani came from polling stations that had Druze and Sunni voters registered (1,789 and 1,624, respectively). Similar to Aley, Kulluna Watani was more successful among women: 6% of women voters voted for the list, compared to 5% of men. After controlling for geographical-level characteristics, Greek Catholic voters, followed by Shias were the most likely to vote for Kulluna Watani, and Maronite voters were the least likely, while women were significantly more likely to vote for the list compared to men.

Table 5 **Votes for Kulluna Watani by confessional group and gender in Mount Lebanon 4**

		Aley Number of votes	Percentage of votes	Chouf Number of votes	Percentage of votes
Voters' confession	Druze	2,007	7%	1,789	7%
	Maronite	326	4%	798	5%
	Greek Orthodox	195	6%		
	Sunni			1,624	5%
	Greek Catholic			165	10%
	Shia	31	3%	117	7%
	Mixed confession	998	5%	1,345	5%
Voters' gender	Men	1,305	5%	2,221	5%
	Women	1,676	7%	2,699	6%
	Mixed gender	576	5%	918	5%

Note **Percentages have been rounded up.**

Kulluna Watani candidates tended to perform best among their co-confessional voters

Although one Kulluna Watani candidate in each of Aley and Chouf—Zoya Jureidini and Ghada Marouni, respectively—ranked first among most confessional groups, the other candidates on the list received a very low share of their votes from voters of a different sectarian community.

In Aley, Zoya Jureidini was the preferred candidate among all confessional groups, and was the only one who did not rely on her sectarian community. She received over 2% of each group's vote, with the highest share being among Greek Orthodox (5%). Moreover, around 80% of Greek Orthodox, 50% of Maronite, and 40% of Druze who voted for a Kulluna Watani candidate chose her. What may explain Jureidini's success is that she was an already known figure before running for elections. She is a founding member and current director of KAFA (enough) Violence and Exploitation, a Lebanese NGO fighting against violence against women.

Both Druze candidates Alaa Sayeg and Imad Al Kadi barely received any votes from non-Druze voters, and, in fact, over 80% of their votes came from Druze polling stations. They each won 2% of the Druze preferential vote, but less than 0.2% of every other group's vote. The last Kulluna Watani candidate in Aley, Carl Bou Malham, also won his highest share of votes from his sectarian community, Maronite voters.

Across genders, women and men voters had similar preferences, although the number of votes given to Zoya Jureidini was particularly higher among women voters (773 votes) than it was among men (535 votes), while the differences in the votes for other candidates were much smaller.

Table 6 **Number of votes for each Kulluna Watani candidate by voters' confession and gender in Aley**

		Zoya Jureidini	Alaa Sayeg	Imad Al Kadi	Carl Bou Malham
Voters' confession	Druze	774	607	466	44
	Maronite	154	4	6	130
	Greek Orthodox	144	1	5	31
	Shia	22	2	1	4
	Mixed confession	515	106	102	195
Voters' gender	Men	535	291	244	152
	Women	773	343	280	161
	Mixed gender	301	86	56	91

In Chouf, Maronite candidate Ghada Marouni ranked first among all sects, except Sunnis, who voted mostly for Sunni candidate Mohamad Sami Alhajjar. Similar to Jureidini, what may explain Marouni's success is her previous exposure: She is a well-known media personality. Marouni was the most successful Kulluna Watani candidate among Druze, Maronite, and Greek Catholic voters. However, among Druze voters, she was closely followed by the two Druze candidates Rania Ghaith and Maher Abou Shackra, who both won around 70% of their total votes from Druze polling stations. Similarly, among Greek Catholics, Marouni was closely followed by Greek Catholic candidate Antoine Fawaz. Fawaz also received significant support from Shia voters, with nearly all of those who voted for Kulluna Watani choosing him.

In contrast to others, Sunnis who voted for Kulluna Watani chose mostly Mohamad Sami Alhajjar (Sunni), who won over 90% of his total votes from Sunni polling stations (over 1,000 votes), and the second candidate among Sunnis was their other co-sectarian one, Mazen Nasreddine. Accordingly, it appears that in Chouf, Kulluna Watani voters had a strong confessional bias. The last Kulluna Watani

candidate, George Emile Aoun, was the second Maronite candidate on the list. He also performed best among his co-sectarian voters, ranking second after Marouni among Maronite voters.

Across genders, all candidates except Antoine Fawaz received a higher number of votes among women voters. The variations across genders were particularly large in support for the two women Kulluna Watani candidates: Ghada Marouni won nearly 900 votes in polling stations that only serviced women, compared to 700 in those that serviced men; and Rania Ghaith won about 390 votes in women-only polling stations, compared to 240 in men-only stations.

Table 7 **Number of votes for each Kulluna Watani candidate by voters' confession and gender in Chouf**

		Ghada Marouni	Mohamad Sami Alhajjar	Rania Ghaith	Maher Abou Shackra	Antoine Fawaz	Mazen Nasreddine	George Emile Aoun
Voters' confession	Druze	535	12	503	510	107	3	13
	Maronite	572	11	51	25	20	3	66
	Sunni	162	1,009	18	27	152	192	6
	Greek Catholic	73	0	8	5	64	0	2
	Shia	8	3	6	4	83	2	1
	Mixed confession	613	62	177	119	126	94	82
Voters' gender	Men	694	469	242	274	256	125	54
	Women	899	547	389	315	203	151	54
	Mixed gender	370	81	132	101	93	18	62

Overall, in both Aley and Chouf, Kulluna Watani voters showed a strong confessional bias, with only the better known personalities—Zoya Jureidini and Ghada Marouni in this case—gathering support from different sectarian communities. In total, among Kulluna Watani voters, about 80% of Maronites, Greek Orthodox, and Sunnis cast their preferential vote for their co-sectarian candidates; nearly 60% of Druze voters chose a Druze candidate; and about 40% of Greek Catholic voters chose the Greek Catholic candidate, with the remaining voting for a Maronite candidate.

Support for Kulluna Watani varied across geographical areas

There were large variations in the performance of Kulluna Watani across neighborhoods and cadasters in the district, and the list was highly successful in some of them. In Aley, the list was successful in Mansouriyet Bhamdoun (53 votes, 12% of votes), although it won 6% in total in the whole Bhamdoun area, where Zoya Jureidini performed well. Kulluna Watani also managed to win a high share of votes in

Choueifat El-Aamrousiyeh (260 votes, 11%), and won 9% of votes in Choueifat overall (542 votes), driven by the high popularity of Imad Al Kadi and Zoya Jureidini. Kulluna Watani also received between 10% and 12% of votes in the neighboring Bnaiye (88 votes), Baaouerta (58 votes), and Aabey (107 votes), as well as the cadaster of Charoun (199 votes)—where the vast majority of the preferential votes went to Alaa Sayeg. As mentioned, in many of these, the high percentages were driven by the performance of certain candidates.

Among the candidates in Aley, both Zoya Jureidini and Imad Al Kadi received a high share of their preferential votes from voters in Choueifat. Nearly half of the votes Al Kadi won among residents came from voters in Choueifat—253 votes out of the 580 he won among residents. The highest share of preferential votes he was able to win in any other cadaster was 62 in Aaramoun, while he won less than 50 in all others. Zoya Jureidini also won the highest share of her votes in Choueifat (220 votes). She received some support in Bhamdoun (120 votes) and the larger cadaster of Aley as well (114 votes). Jureidini also won between 70 and 90 votes in Bayssour, Aaramoun, and Kfar Matta (where Kulluna Watani won between 5% and 9% of votes). Alaa Sayeg, who won 720 preferential votes among residents overall, received 177 of his in Charoun. He also won 108 preferential votes in the cadaster of Aley, and only managed to win over 40 in Baissour (49 votes). The last candidate in Aley, Carl Bou Malham, won 53 of the 404 votes he received among residents in Bsous (where the list won 8% of votes). He was also able to obtain over 30 votes in Bmahray (31 votes).

In Chouf, Kulluna Watani won over 10% of votes in many neighborhoods. The list was successful in Chhim, and particularly in the neighborhood of El-Sehle (333 votes, 20%), and won between 10% and 13% in the other Chhim neighborhoods of El-Chahour (155 votes), El-Badawi (45 votes), and El-Bayader (55 votes). In total, Kulluna Watani won 828 votes in Chhim, with most of the preferential votes going to Mohamad Sami Alhajjar. Kulluna Watani was also successful in Mechref (only 52 votes, but 20% of votes, with most going to George Emile Aoun), and won between 14% and 17% of votes in Zaarouriyeh (233 votes, most of which went to Mazen Nasreddine), Aammatour (214 votes, most of which went to Maher Abou Shackra), Aatrine (83 votes), Joun (233 votes, most of which went to Antoine Fawaz), as well as Mtolleh and Mazraat El-Daher (71 and 58 votes, representing 11% and 10%, respectively). In most of these, the high share of votes was driven by the popularity of certain candidates.

Among the candidates, Ghada Marouni, who won 1,963 preferential votes among residents, excluding public employees, was able to win over 100 in Deir El-Qamar, Damour, and Deir Dourit (between 110 and

140 preferential votes in each). Mohamad Sami Alhajjar, who won 1,097 preferential votes among residents, received the vast majority of these from voters across the neighborhoods of Chhim, where he won 740 votes in total. The candidate that came in third, Rania Ghaith, only managed to win a maximum of 88 preferential votes in Niha El-Chouf, and a combined number of 83 votes across different neighborhoods in Baakline, while she won less than 50 in all other cadasters. Maher Abou Shackra won less than 50 votes in all cadasters but Aammatour, where he won 167 votes, representing one-quarter of the preferential votes he received overall. Antoine Fawaz also received a high share of his preferential votes from one cadaster, Joun (169 votes out of the 552 he won among residents), and managed to win over 50 in Barja (78 votes). Mazen Nasreddine won an even higher share of his preferential votes in one cadaster alone: 202 of the 294 preferential votes Nasreddine won among residents came from voters in Zaarouriyeh. The last candidate on the list, George Emile Aoun, who won 170 preferential votes among residents, managed to win over 10 only in Mechref (46 votes), Damour (38 votes), and Deir El-Qamar (17 votes).

Beyond this, some geographical characteristics seem to have affected the performance of Kulluna Watani across cadasters. Kulluna Watani tended to perform better in more heterogeneous cadasters. However, after controlling for voters' characteristics as well as other geographical factors, this relationship was not statistically significant, meaning that it may have been driven by other factors.

Figure 17 **Sectarian homogeneity by cadaster and percentage of votes for Kulluna Watani in Mount Lebanon 4**
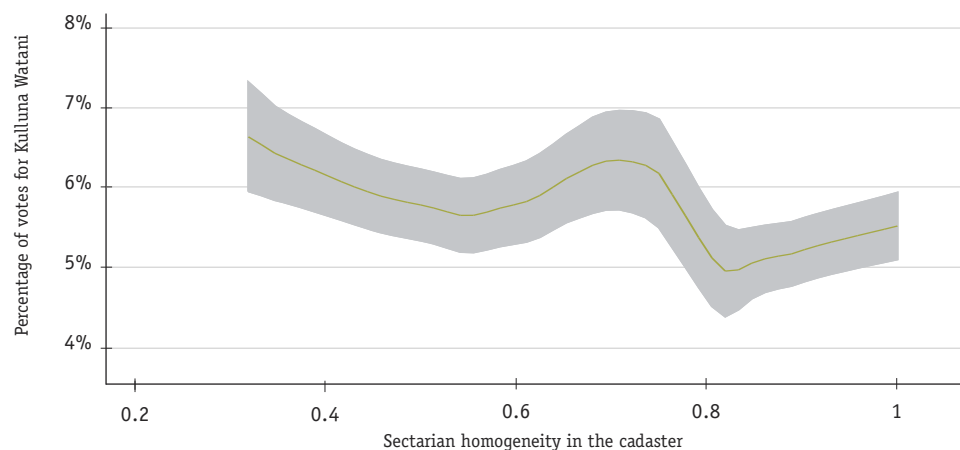
An important factor that seems to have affected votes for Kulluna Watani is turnout: Generally, cadasters which recorded lower turnout rates tended to see a higher share of votes go to Kulluna Watani. This

factor was highly significant in Aley but not Chouf, even after controlling for other factors. This may suggest a limitation to mobilize voters on the part of Kulluna Watani, compared to established political parties. In other words, it could suggest that Kulluna Watani tended to perform better among constituents who were not specifically targeted by political parties.

Figure 18 **Turnout rates by cadaster and percentage of votes for Kulluna Watani in Aley**
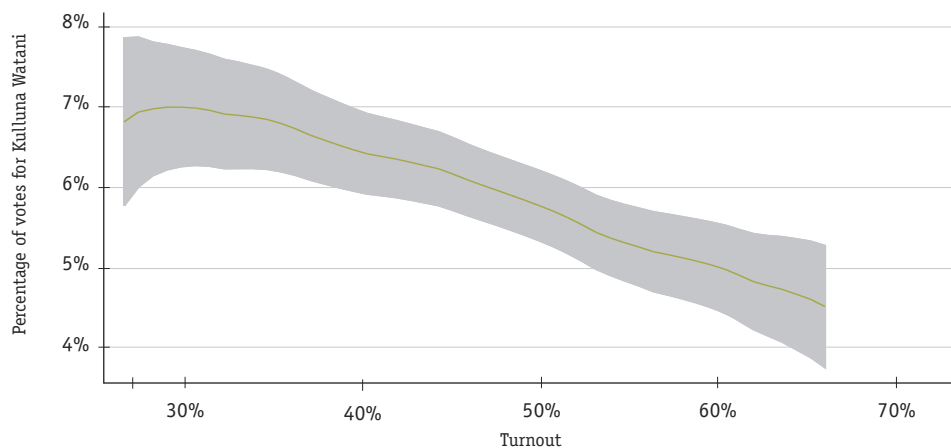
Kulluna Watani also performed significantly better in cadasters with lower poverty rates, highlighting the difficulties in gaining support across all socio-economic classes. This was the case in both Aley and Chouf.

Figure 19 **Drivers of votes for Kulluna Watani in Mount Lebanon 4**
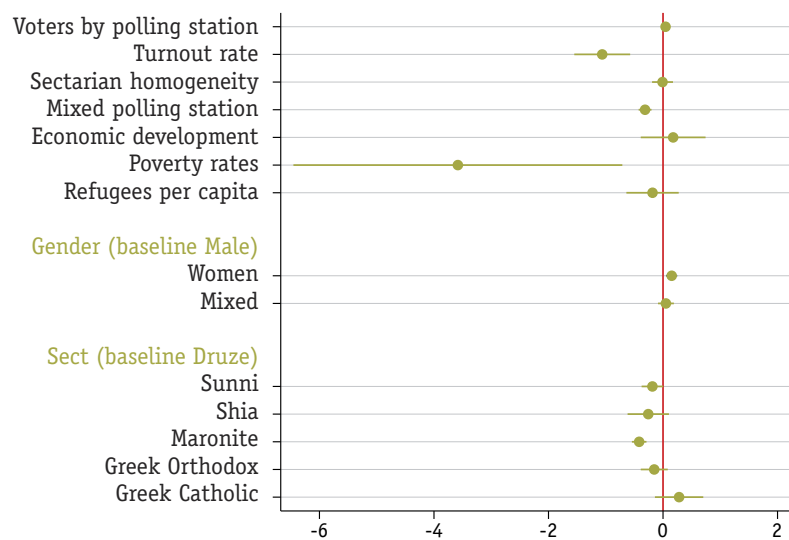
How did Madaniyya perform, and who were its constituents?

The independent list Madaniyya obtained less than 2% of votes in Mount Lebanon 4 (2,916 votes), and was more successful in Aley (1,798 votes, 3% of votes), than it was in Chouf (1,118 votes, 1%).

Madaniyya fielded eight candidates. In Aley, the list's candidates were Mark Daou (Druze, 1,505 votes) and Fady El Khoury (Maronite, 228 votes). In Chouf, the candidates were Maya Terro (Sunni, 373 votes), Choucri Haddad (Greek Catholic, 173 votes), Rami Hamadeh (Druze, 147 votes), Marwan Al Matni (Maronite, 134 votes), Elias Ghorayeb (Maronite, 105 votes), and Eliane Azzi (Maronite, 53 votes).

There were variations in support for Madaniyya across confessional groups and genders in Aley, but minor ones in Chouf

In Aley, Druze gave the highest share of their votes to the list, followed by Shias and voters in mixed stations (3% each). Two percent of Greek Orthodox voters and 1.5% of Maronites voted for the list. Over half of the votes received by Madaniyya in Aley were cast by Druze voters (973 votes), followed by those in mixed stations (528 votes). In total, less than 220 of the votes received by the list came from Maronites, Greek Orthodox, and Shias. Across genders, the list was slightly more successful among women, with the share of votes given to the list among women being 0.7% higher than that among men (813 compared to 598 votes). Both variations in support for Madaniyya across confessional groups and genders were statistically significant, even after controlling for regional characteristics: Druze and Shia voters were the most likely to vote for Madaniyya, while Greek Orthodox and Maronite voters were the least likely; and women were more likely to vote for the list than men.

In Chouf, no significant variations in support for Madaniyya were observed across confessional groups, with 1% of each voting for the list with the exception of Maronites, who gave it 2%. Madaniyya received a nearly similar share of its votes from Druze, Maronite, and Sunni voters, as well as those in mixed stations (between 205 and 271 votes, each), meaning that it had diverse constituents. Variations in support for the list across genders were minor, with women being slightly more likely to vote for Madaniyya compared to men (472 compared to 365 votes).

Table 8 **Votes for Madaniyya by confessional group and gender in Mount Lebanon 4**

		Aley		Chouf	
		Number of votes	Percentage of votes	Number of votes	Percentage of votes
Voters' confession	Druze	973	3.2%	257	1.0%
	Maronite	123	1.5%	254	1.6%
	Greek Orthodox	61	2.0%		
	Sunni			205	0.7%
	Greek Catholic			24	1.4%
	Shia	29	2.7%	10	0.6%
	Mixed confession	528	2.8%	271	1.0%
Voters' gender	Men	598	2.5%	365	0.9%
	Women	813	3.2%	472	1.1%
	Mixed gender	303	2.6%	184	1.1%

Note **Percentages have been rounded up.**

Each Madaniyya candidate had their own constituents and tended to perform better among their co-confessional voters

In Aley, voters from all confessions voted more for Mark Daou than they did for Fady El Khoury. Mark Daou was able to obtain 3% of Druze preferential votes (922 votes), 1% of Greek Orthodox preferential votes (representing only 39 votes), and 3% of Shia preferential votes (which only represents 27 votes). Maronite voters seem to have had a confessional bias: Although Daou received a higher number of Maronite votes than El Khoury, their vote was more contested. Moreover, among the polling stations that had only one sectarian group registered, El Khoury won the highest share of his votes from Maronite ones. Both candidates received much higher support from women: Daou won 680 of his votes from women-only polling stations, compared to 520 from men-only stations, and El Khoury won 103 votes from women-only, compared to 58 from men-only stations.

Table 9 **Number of votes for each Madaniyya candidate by voters' confession and gender in Aley**

		Mark Daou	Fady El Khoury
Voters' confession	Druze	922	26
	Maronite	68	48
	Greek Orthodox	39	19
	Shia	27	0
	Mixed confession	382	124
Voters' gender	Men	520	58
	Women	680	103
	Mixed gender	238	56

In Chouf, where Madaniyya had candidates from all represented sectarian groups, voters had different preferences and showed a strong confessional bias: 63% of voters who voted for a Madaniyya candidate gave their preferential vote to a co-sectarian one. Over 40% of Druze Madaniyya voters voted for Druze candidate Rami Hamadeh (95 voters), who overall won 70% of his total votes from Druze polling stations; over 70% of Maronites voted for a Maronite candidate, and mostly for Elias Ghorayeb (81 votes), who won nearly 90% of his total votes from Maronite polling stations, followed by Marwan Al Matni (61 votes), with the third Maronite Madaniyya candidate Eliane Azzi failing to perform as well, although the highest share of her total votes came from Maronite polling stations. Over 80% of Sunni Madaniyya voters voted for Sunni candidate Maya Terro (156 Sunni votes).

Greek Catholic voters were the exception, choosing mostly Maya Terro, although a very low number of them voted for a Madaniyya candidate (19 in total, with 11 choosing Terro). Shia voters also voted mostly for Terro, however, that represented a very low number of votes (five Shia votes). Greek Catholic candidate Choucri Haddad received most of his votes from mixed stations.

There were no large variations in preferences for most candidates across genders, with only Maya Terro performing particularly better among women voters, and Choucri Haddad to some extent too.

Table 10 **Number of votes for each Madaniyya candidate by voters' confession and gender in Chouf**

		Rami Hamadeh	Elias Ghorayeb	Marwan Al Matni	Eliane Azzi	Maya Terro	Choucri Haddad
Voters' confession	Druze	95	2	22	4	71	26
	Maronite	4	81	61	18	28	34
	Sunni	5	2	6	5	156	15
	Greek Catholic	1	0	0	3	11	4
	Shia	1	0	0	0	5	0
	Mixed confession	27	8	36	13	72	82
Voters' gender	Men	51	44	51	17	126	41
	Women	54	41	48	20	170	66
	Mixed gender	28	8	26	6	47	54

Similar to Kulluna Watani, there were large variations in the performance of Madaniyya across the district

In Aley, Madaniyya was successful in Ainab (10% of votes, although representing only 39 votes). The list received a high share of its votes in the cadaster of Aley (or 253 votes overall, representing 5%). It won between 4% and 7% in each of the neighborhoods in the cadaster,

with the highest being in Aley Gharbi (7%). Madaniyya also won over 5% of votes in Bsatine, Ramlieh, Sofar, and Aabey (between 5% and 7%), which is equivalent to 35 to 60 votes in each of these. The list managed to receive some votes in Bayssour (88 votes, 3%), Aaramoun (72 votes, 3%), and Choueifat El-Oumara (73 votes)—winning a total of 138 votes in Choueifat altogether (2.4%). In all these cadasters, preferential votes went mostly to Mark Daou rather than Fady El Khoury.

Among the candidates in Aley, Mark Daou won over 50 preferential votes in a number of cadasters but was only able to win over 100 votes in Choueifat (122 votes in total). He also won a high share across the neighborhoods of the cadaster of Aley, for a total of 242 votes. He nevertheless won a high number of preferential votes in Bayssour (85 votes), and between 50 and 80 votes in Aaramoun, Aabey, and Sofar. Fady El Khoury was much less successful across the district, winning over 10 preferential votes only in four cadasters. He was able to obtain a maximum of 25 votes in each of Btater and Ramlieh, while he also won 13 in Mansouriyet Bhamdoun, as well as 15 votes in Rechmaiya.

In Chouf, Madaniyya won its highest share of votes, or 4%, in Ain Zhalta (60 votes). The only cadaster the list was able to obtain over 100 votes in was Deir El-Qamar (112 votes, representing 3%). Most of the preferential votes in Ain Zhalta went to Choucri Haddad, while most of those in Deir El-Qamar went to Elias Ghorayeb. The list managed to win over 50 votes only in the cadasters of Barja, Damour, and Gharife (85, 64, and 61 votes). In each of these, most of the preferential votes went to one candidate: Maya Terro in Barja, Marwan Al Matni in Damour, and Rami Hamadeh in Gharife.

Maya Terro, who won 343 preferential votes among residents, excluding public employees, managed to obtain her highest share in Barja (76 votes), while she also won over 10 preferential votes in Kfar Nabrakh (20 votes) as well as Chhim (33 votes across all the neighbor-hoods). The second candidate, Choucri Haddad, won about a third of his total votes from voters in Ain Zhalta (53 preferential votes, out of the 161 he received among residents), while he won less than 10 in all other cadasters. Rami Hamadeh also received over one-third of his preferential votes in Gharife, or 54 out of the 133 he received among residents. He only managed to win over 10 preferential votes in Baakline (17 votes). Similarly, Marwan Al Matni won one-third of his preferential votes from one cadaster, Damour, where he won 45 out of the 125 preferential votes he received from residents. The candidate that followed, Elias Ghorayeb, won the vast majority of his votes from Deir El-Qamar (64 out of the 93 votes he won among residents), while he won less than five preferential votes in all others. Finally, Eliane Azzi, who came in last in the list, received one-quarter of her

preferential votes overall among residents from voters in Jiyeh (11 out of 43). Most of the candidates therefore received a high share of their votes from only a few neighborhoods or cadasters, where the list also tended to receive its highest percentage of votes across the district.

Beyond the results in specific areas, some geographical factors affected the performance of Madaniyya. First, the percentage of votes cast for Madaniyya tended to decrease as the level of confessional homogeneity in a cadaster increased. After controlling for voters' gender and confession as well as other characteristics of the cadasters in which voters were registered, this was statistically significant in Mount Lebanon 4 overall, although by minor district, it was only significant in Chouf.

Figure 20 **Sectarian homogeneity by cadaster and percentage of votes for Madaniyya in Mount Lebanon 4**
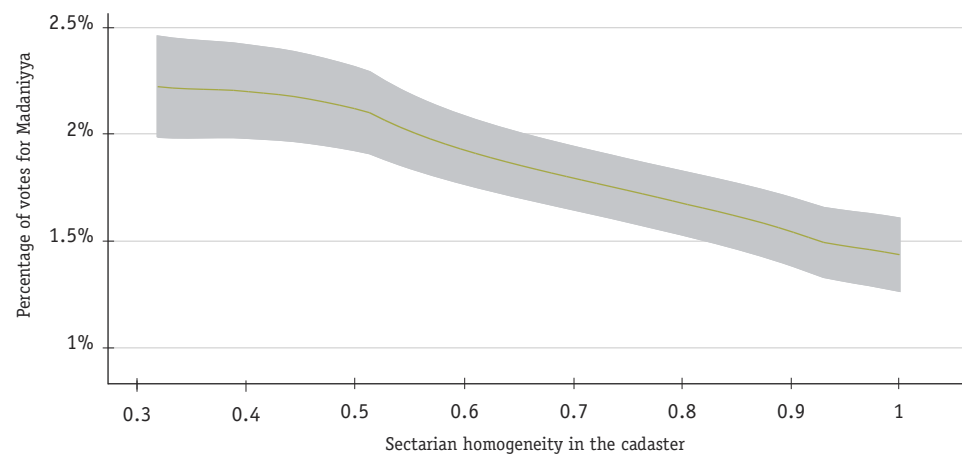
Second, similar to Kulluna Watani, Madaniyya performed better in cadasters that had lower turnouts—this was highly significant in both Aley and Chouf. This points toward its failure of mobilizing voters and may even suggest that the list tended to perform better among constituents who were not specifically targeted by political parties.

Turnout rates by cadaster and percentage of votes for Madaniyya in Mount Lebanon 4
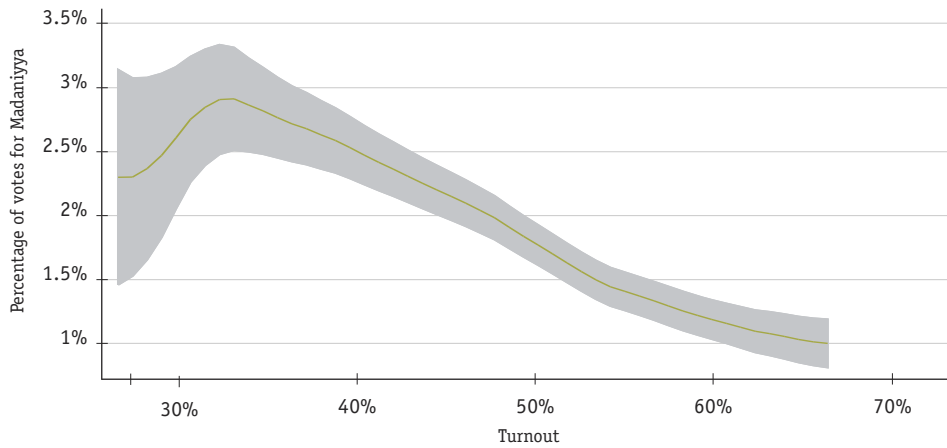
Finally, in both Aley and Chouf, Madaniyya also received better results in cadasters with lower poverty rates, pointing toward the difficulty in reaching out to voters from all socio-economic classes.

Drivers of votes for Madaniyya in Mount Lebanon 4
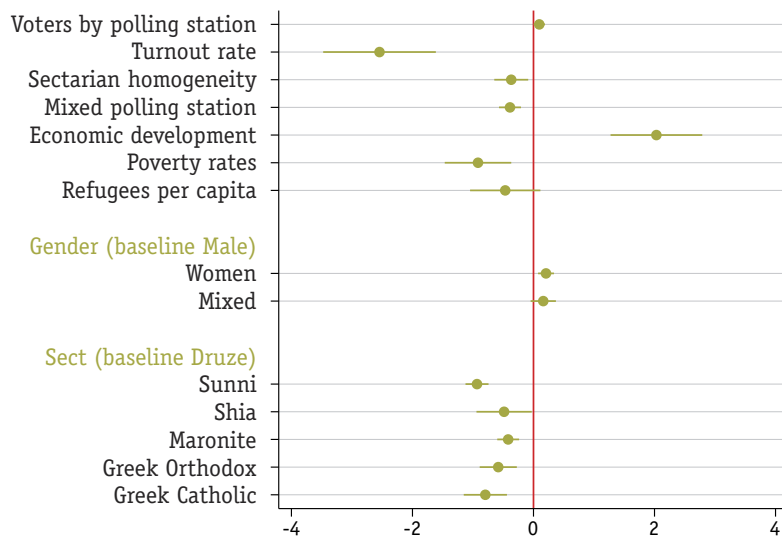
Overall, the analysis shows that candidates running on each of the two independent lists generally received higher support from their co-sectarian voters. Geographical characteristics affected the performance of the independent lists: Kulluna Watani and Madaniyya tended to perform better in more confessionally fragmented cadasters, those that recorded lower turnouts, and those with a lower prevalence of poverty.

VII Were there any signs of irregularities?

Irregularities can occur during the election process through ballot stuffing that either increases the total number of votes or adds votes for one party at the expense of another. Fraud can also occur during the vote aggregation process when there is collusion between certain candidates, usually the more connected ones, and election officials.

Voter rigging, or pressuring voters to cast ballots in a certain manner, tends to occur more in small polling stations, where it is easier to monitor voters' behavior. Therefore, testing whether turnout was abnormally higher in smaller voting centers can help approximate whether there was voter rigging. 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 no major irregular patterns in the distribution of turnouts
Turnout usually has a normal shape, with the majority of electoral centers reporting turnouts close to the average and a small number of centers having very high or very low turnout rates. Compared to the normal distribution, turnouts by polling station in Mount Lebanon 4 slightly diverged from the norm. There were a few centers with very high turnouts (over 80%), and a slightly higher number than expected of very low turnout centers (below 20%).

Figure 23 **Distribution of turnout rates by polling station in Mount Lebanon 4**
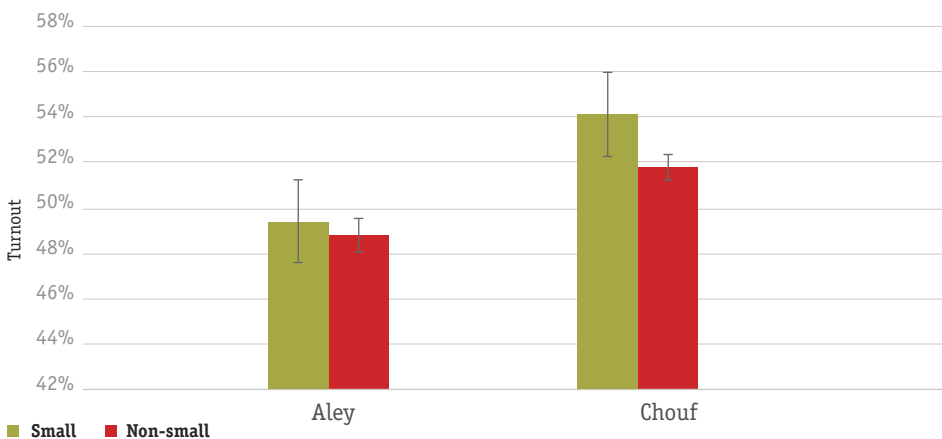
95% confidence interval
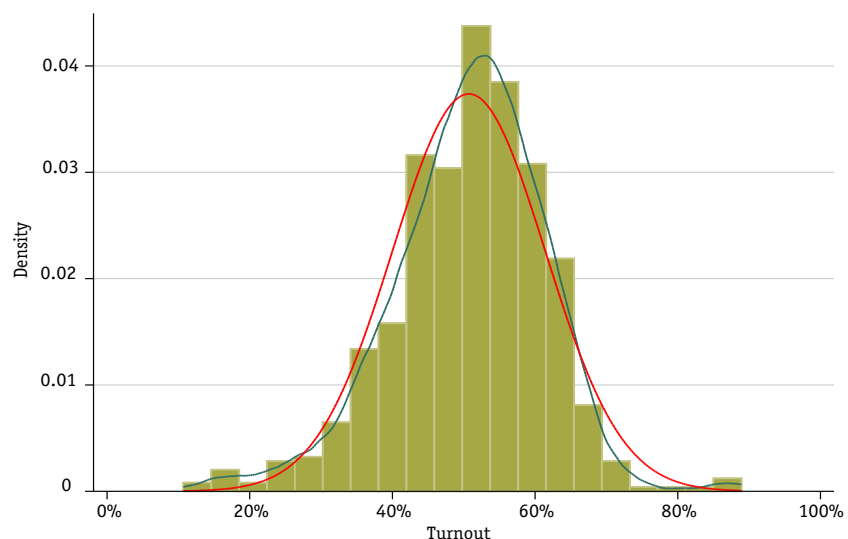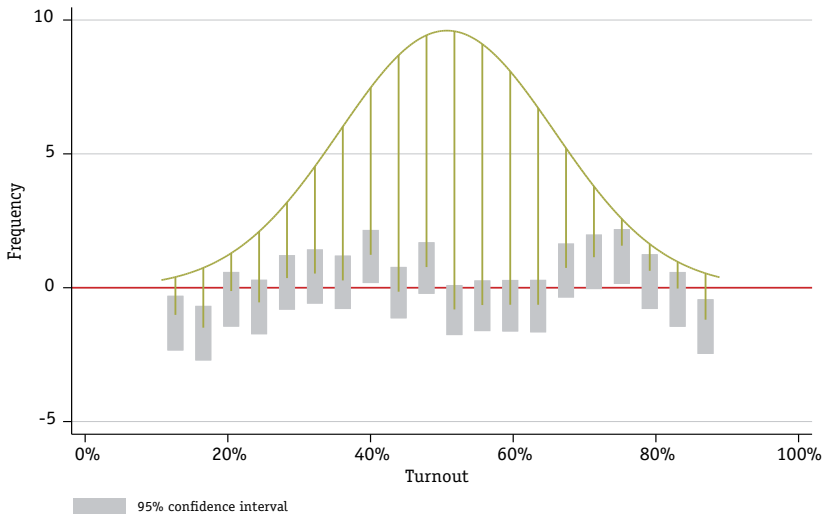
Some smaller polling stations in Chouf had much higher turnouts, suggesting voter rigging

Voter rigging occurs when political parties use coercive measures to pressure voters to vote or not to vote. The literature on election irregularities distinguishes vote rigging from vote buying, when coercion is not apparent in the latter case. There are, however, some ways to detect potential instances of voter rigging through statistical tests.

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 to politicians buying votes, or exerting pressure on voters to vote, because smaller groups of voters facilitate aggregate monitoring of whether voters cast their ballots, and for whom.20 In Mount Lebanon 4 overall, there was no clear relationship between the size of the polling station and turnout rates. However, focusing on each of the districts shows that in Chouf, but not Aley, turnouts were slightly higher in smaller polling stations—those whose size were one standard deviation below the mean—than they were in larger ones.

20
Rueda, M. R. 2016. 'Small Aggregates, Big Manipulation: Vote Buying Enforcement and Collective Monitoring.' *American Journal of Political Science,* 61(1): 163-177.

21
Small polling stations are those that are one standard deviation below the mean polling station size in each of the districts.

Figure 24 Turnout rates in small versus non-small polling stations in Aley and Chouf[21]

■ Small ■ Non-small

Beyond the size of a polling station, turnouts also varied between homogeneous and mixed stations. Given that polling stations are generally reserved for specific sectarian groups, parties may have higher interest in targeting voters in homogeneous stations where their main constituents are registered to vote. In Mount Lebanon 4, homogeneous stations reported turnouts that were 6% higher than those in mixed stations (53% compared to 47%). This variation is statistically significant and could suggest that sectarian parties exerted pressure on voters registered in specific homogeneous stations—where they could guarantee higher success.

Figure 25   **Turnout in homogeneous versus mixed polling stations in Mount Lebanon 4**
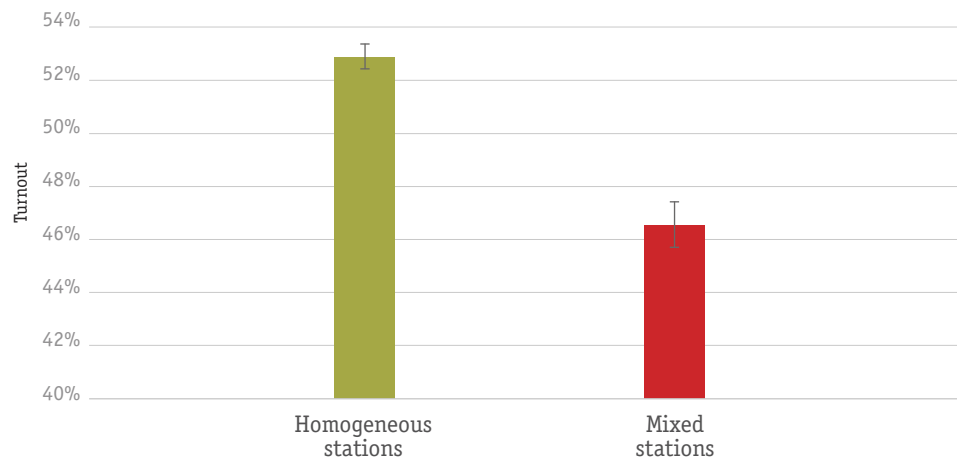
On this basis, focusing on each type of homogeneous stations in each of the districts shows that in Chouf, turnouts in small Druze polling stations were higher than those in non-small stations, while turnouts in small Maronite stations were higher than those in non-small Maronite stations.[22] Turnouts in small Druze polling stations in Aley were also slightly higher. In Chouf, turnout among Druze voters registered in small stations was 9% higher than that in non-small Druze stations, a significant difference (62% compared to 53%). Among Maronite voters, turnout in small stations was 5% higher than that in non-small ones (50% compared to 45%). This may suggest voter rigging and targeted pressure to vote being placed on Druze and Maronite voters in Chouf.

Figure 26 **Turnout rates in small versus non-small polling stations according to sectarian composition in Aley and Chouf**
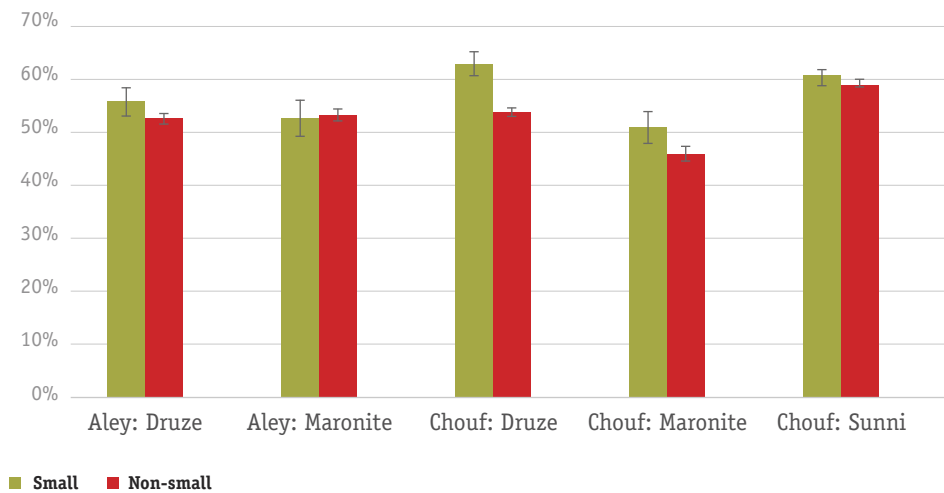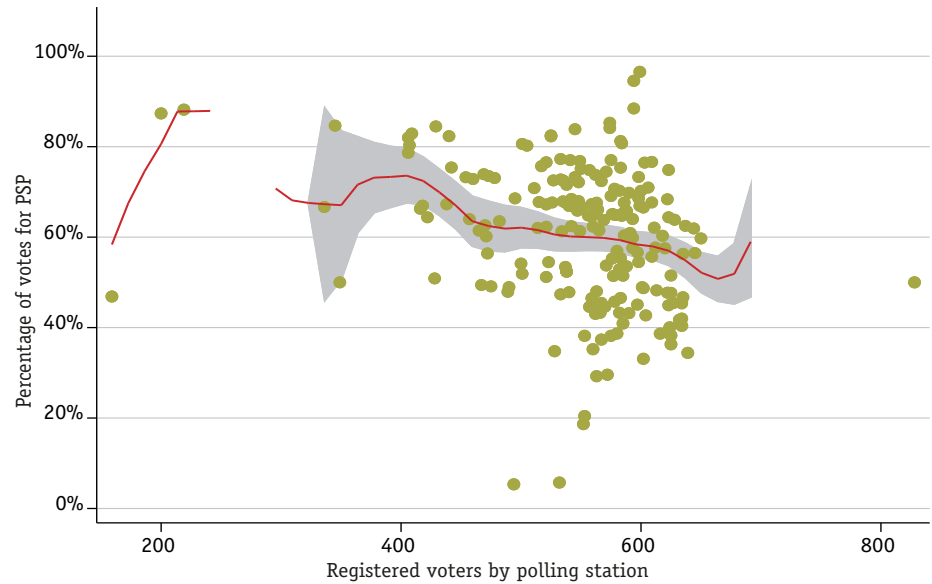

Given the relationship between the size of a polling station and turnout, it is possible to see whether one specific list or party benefited from smaller stations, which would suggest pressure to vote for their candidates.

LF and FPM candidates performed significantly better in smaller polling stations

Looking at the performance of each party across polling station size shows that, on average, the PSP did not perform better in smaller polling stations, with no clear downward trend between the size of a polling station and votes for the PSP. However, the party's main constituents, Druze voters, were mostly registered in larger stations. Focusing on Druze stations alone shows that the party seems to have benefited from smaller Druze stations, with its average share of votes decreasing from over 70% in polling stations that had 400 voters registered or less, to 50% in the largest ones.
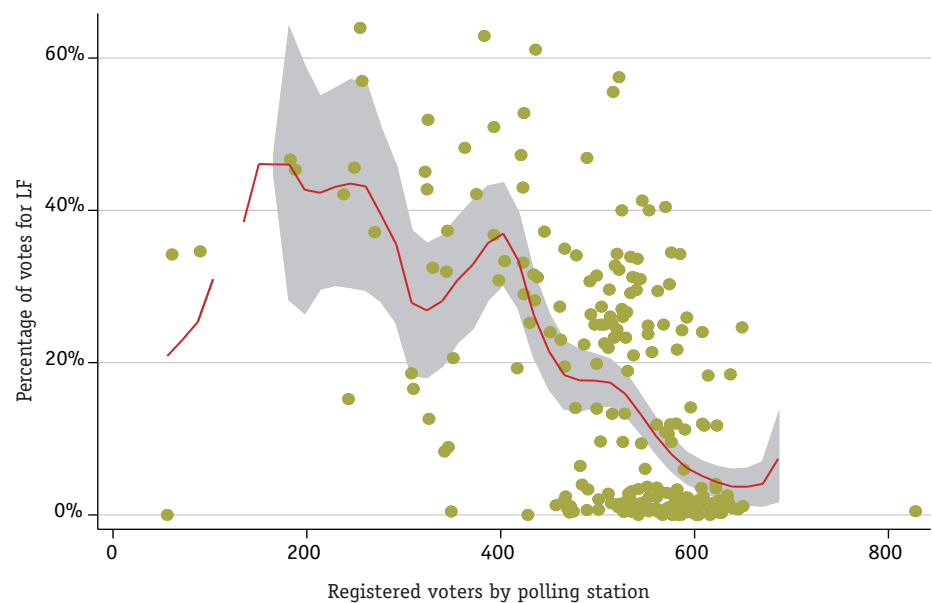
Figure 27 **Polling station size and votes for PSP in Druze polling stations**


There was a clear relationship between the size of the polling station and votes received by the LF and the FPM, in both Aley and Chouf. In Aley, the share of votes received by the LF decreased from an average of over 40% in the smallest polling stations to less than 10% in the largest ones, while in Chouf, it decreased from over 20% to also less than 10%.

Figure 28 **Polling station size and votes for LF in Aley and Chouf**

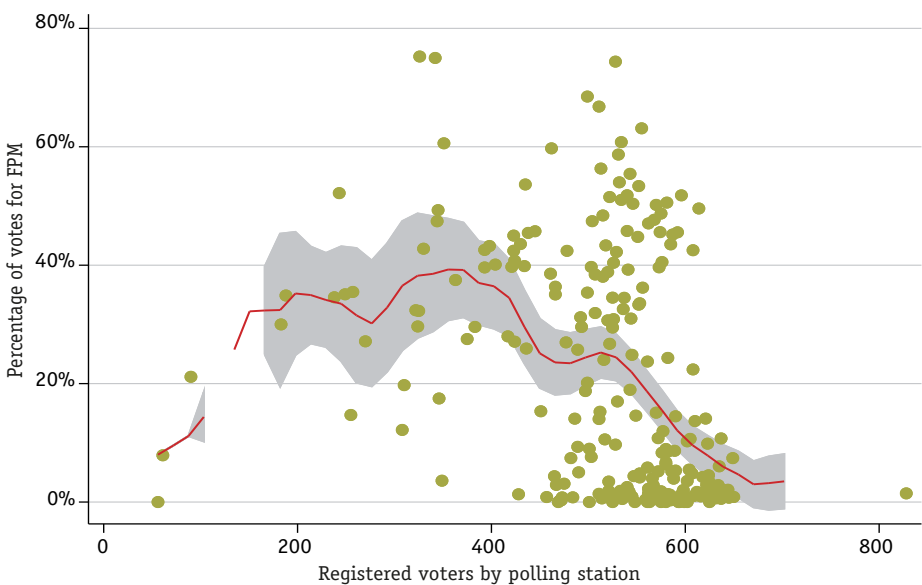a   **Polling station size and votes for LF in Aley**

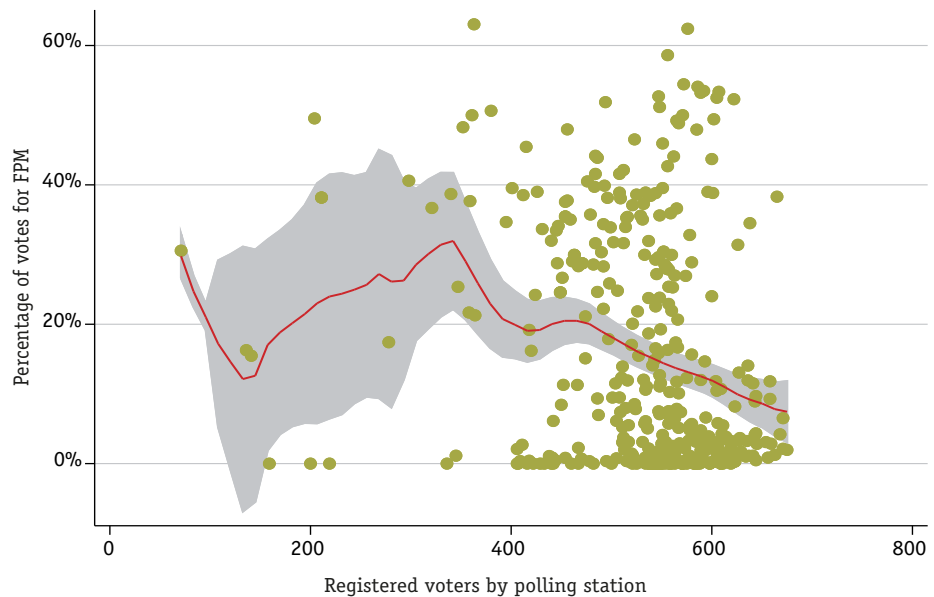b   **Polling station size and votes for LF in Chouf**
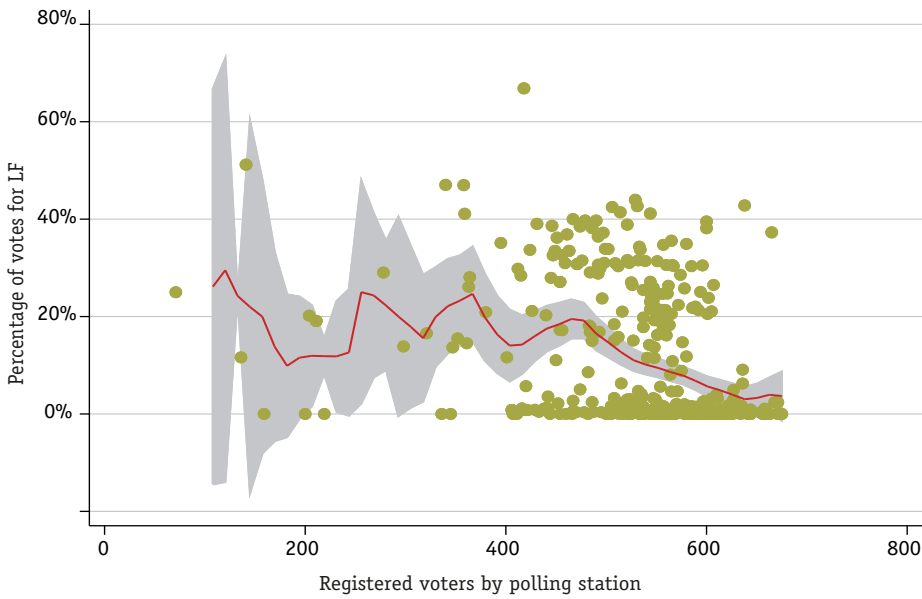
The FPM also seems to have benefited from smaller polling stations in both Aley and Chouf. The party performed better in polling stations with 300 registered voters or less. In Aley, the party received 40% of votes in polling stations with less than 300 registered voters, while its share of votes after that sharply decreased, until reaching 5% in the largest stations. In Chouf, the percentage of votes for the party decreased at a constant rate from over 30% in polling stations with 300 registered voters to less than 10% in the biggest stations.

Figure 29 **Polling station size and votes for FPM in Aley and Chouf**

a   **Polling station size and votes for FPM in Aley**

b   **Polling station size and votes for FPM in Chouf**

In Chouf, LF and FPM candidates performed much better in stations that had abnormally high turnout rates

Apart from the votes received by each list across polling station size, another way to test for voter rigging is by examining the relationship between turnout by polling stations and votes for a list or party. Normally, if there was a lack of pressure on voters to vote, votes for each party should be more or less similar in very low, normal, and very high turnout centers.[23]

In order to take into consideration differences across districts, confessions, and votes for a list, we create standardized variables of turnout rates and percentage of votes for this list. For any polling station, the standardized turnout rate would be the turnout rate in the specific polling station minus the average turnout rate of all polling stations in its district with registered voters from the same sect, all 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, there should be no clear relation between turnouts and votes for a party in 'clean' elections.[24]

Accounting for differences in votes for each list and party, as well as turnouts among each confessional group and district shows some 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

23
Myagkov, M., P.C. Ordeshook, and D. Shakin. 2009. 'The Forensics of Election Fraud.' Cambridge University Press.

24
Ibid.

deviation above the mean turnout). In Aley, these variations were not significantly large. However, in Chouf, very high turnouts slightly benefited both the PSP-LF-FM and FPM-LDP lists, and in particular LF and FPM candidates rather than the others.

Compared to the average share of votes the LF candidate Georges Adwan obtained in polling stations that had normal turnouts (10%), his votes were 5% higher in polling stations that had very high turnouts (15%). This points toward pressure to vote for the candidate. FPM candidates also received better results in very high turnout stations: Compared to the average share of votes they obtained in polling stations that had normal turnouts (14%), their votes were 4% higher in very high turnout stations (18%). Moreover, both the LF and FPM benefited from very low turnouts, which could further suggest their overall weakness in mobilizing voters across the district, except in certain polling stations.

FM candidates were the only others to benefit from higher turnouts, with their votes being 3% higher in very-high turnout stations than they were in normal turnout ones, but were clearly harmed by very low turnouts, with their share of votes being 6% lower. Finally, PSP candidates performed much better in normal-turnout stations, providing no evidence of fraud.

[25]
Very low and very high turnouts are those that are one standard deviation below/above the mean turnout.

Figure 30 **Votes for the main lists and parties and standardized turnout rates in Chouf**[25]
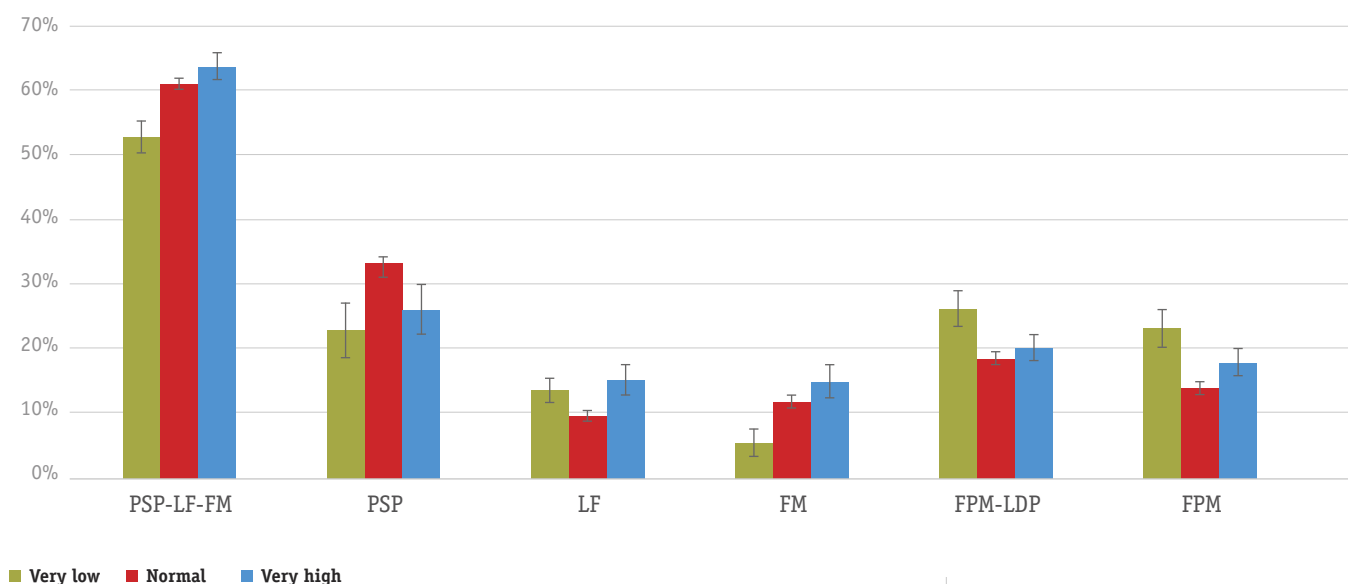
Higher turnouts benefiting a party could be due to ballots stuffing rather than voter rigging, as a party adding ballots would increase both turnouts and votes for this party in a polling station.

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

No signs of ballot stuffing, but some signs of vote counting manipulations

One way to test for signs of ballot stuffing is to examine 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.[26] Therefore, to observe these irregular behaviors, one 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 one suspects could have manipulated the vote count. However, a negative correlation is not enough to suggest ballot stuffing, as null votes could rather be 'protest' ones. Stronger evidence of ballot stuffing would be to observe that the increase in the share of null votes is smaller than the decrease in the percentage of votes for a list or party.

There is no evidence of ballot stuffing in Mount Lebanon 4, even when looking at the correlation between null votes and votes for parties by polling station.

One other 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.[27] The last-digits test is based on the hypothesis that humans tend to be bad at making up numbers, which would result in an abnormal distribution of numbers at the aggregate level. In 'clean' elections, last digits in votes for a party should be uniformly distributed, with an equal chance of every number (from 0 to 9) to appear (10% chance).

27
Beber, B. and A. Scacco. 2012. 'What the Numbers Say: A Digit-Based Test for Election Fraud.' *Political Analysis,* 20(2): 211-234.

Restricting the sample of voting centers where at least 50 votes were cast, as a smaller vote count may lead to an oversample of zeros and ones, there is evidence that the last digits in the total number of votes by polling station were non-uniform: In Aley, there was a far lower number of ones and sevens than should be expected in 'clean' elections, while in Chouf, there was a lower number of fours. This may suggest ballot stuffing or subtracting.
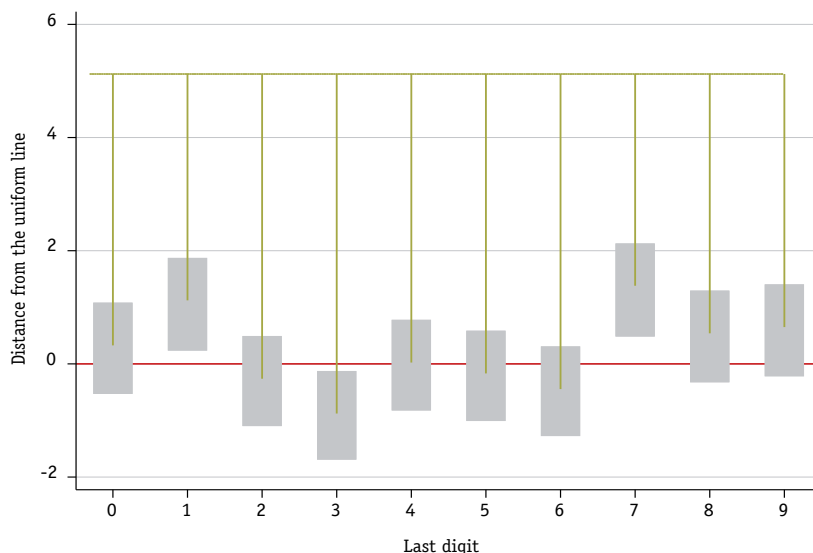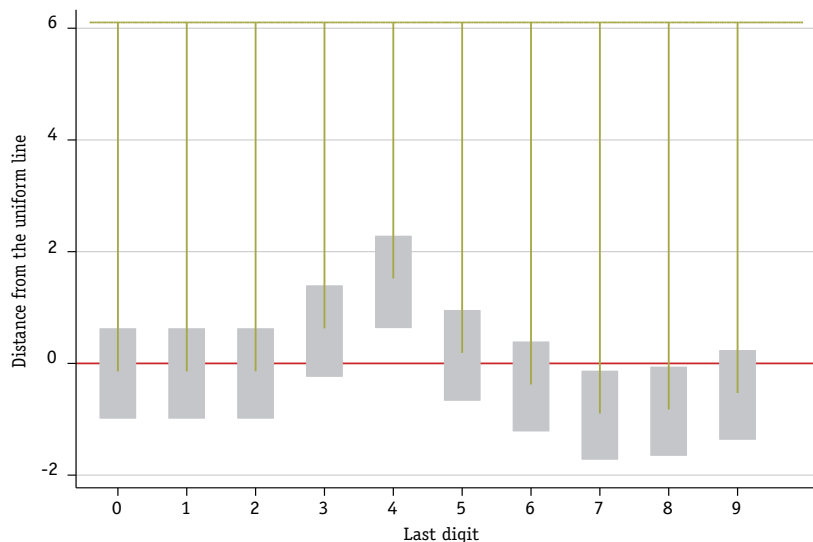
Figure 31 Distribution of last digits in the number of valid votes compared to a uniform distribution in Mount Lebanon 4

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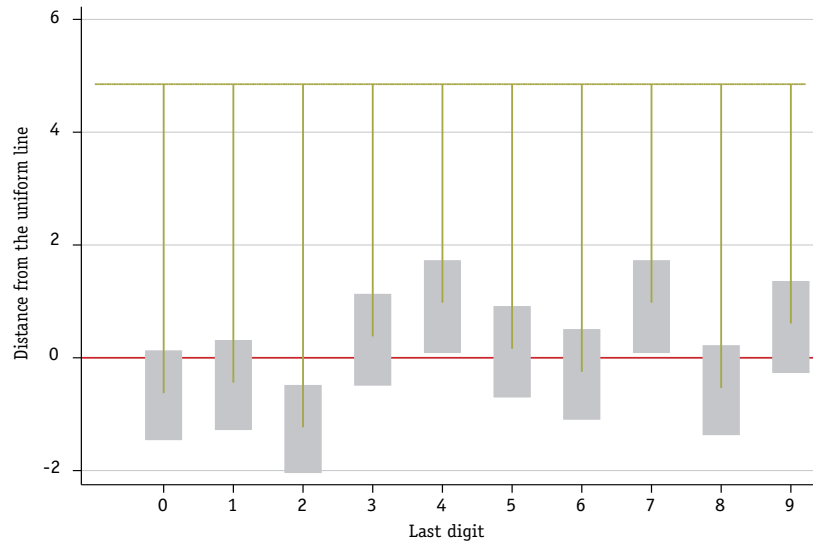

b **Distribution of last digits in the number of valid votes compared to a uniform distribution in Chouf**


Looking at specific lists, there is evidence that the last digits in the votes for the PSP-LF-FM list are non-uniform in both Aley and Chouf. In Aley, there was a higher number of twos, and lower number of fours and sevens; while in Chouf, there was a much lower number of zeros, and higher number of fours than would appear in regular elections. These were not driven by a specific party in Aley; however, in Chouf, the variations from the uniform line were driven by the irregular distribution of the last digits in the number of votes for PSP candidates.

Figure 32 **Distribution of last digits in the number of votes for the PSP-LF-FM list compared to a uniform distribution in Mount Lebanon 4**

a **Distribution of last digits in the number of votes for the PSP-LF-FM list compared to a uniform distribution in Aley**

b **Distribution of last digits in the number of votes for the PSP-LF-FM list compared to a uniform distribution in Chouf**
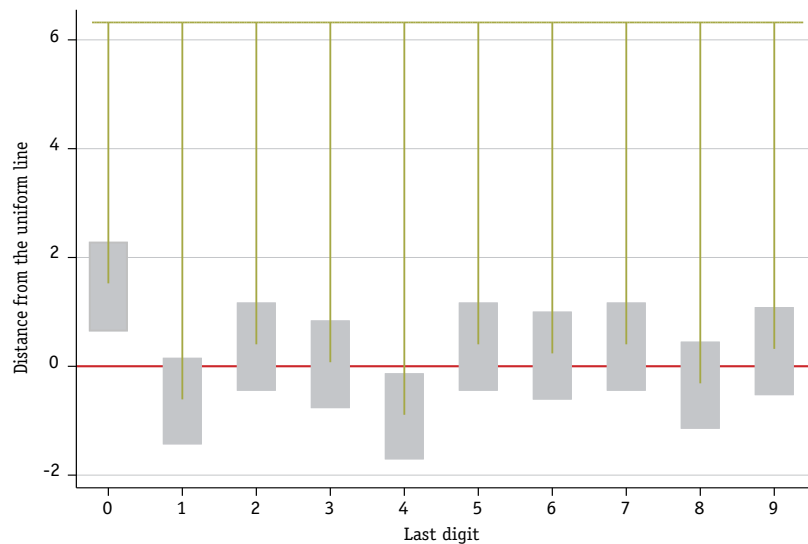
Overall, in Mount Lebanon 4, there are some signs of voter rigging in Chouf

Some signs of voter rigging to the benefit of LF and FPM candidates were observed in Chouf, with Mount Lebanon 4 also seeing some signs of vote counting manipulations to the benefit of candidates on the PSP-LF-FM list.

In Chouf, very small polling stations—particularly those that had only one confessional group registered to vote—saw significantly

higher turnouts compared to polling stations that had an average or larger size. Literature on voter rigging shows that polling stations with smaller numbers of registered voters are more attractive for politicians attempting to buy votes, as the smaller numbers of voters facilitates the monitoring of their behavior—i.e. whether they turned out to vote, and for whom. In addition, in regular elections, the share of votes for a party should not significantly vary between polling stations that had very low, normal, and very high turnouts, and a party benefiting from very high turnouts could suggest pressure to vote for this party. The results in Chouf show that LF and FPM's share of votes generally decreased as the size of the polling station increased, and that they both received significantly better results in polling stations that had very high turnouts—which could suggest voter rigging on their part.

While very high turnouts benefiting a certain party may suggest voter rigging, it could also be a sign of ballot stuffing, which would increase both turnouts and votes for this party. Signs of ballot stuffing can be detected when observing a negative relationship between the share of null votes and votes for a party in a polling station. Such relationships were not observed in either of the Mount Lebanon 4 districts. Apart from ballot stuffing, one form of vote rigging would be vote counting manipulations—i.e. a party either adding votes for its candidates or subtracting votes for another. One way to detect these is by looking at the distribution of the last digits in votes for a specific list or party across polling stations, which, in regular elections, should be uniformly distributed. In both Aley and Chouf, the distribution of last digits in the number of votes for the PSP-LF-FM list deviated from the uniform distribution, which could suggest manipulations in the vote counting process.

In conclusion, the results suggest that there may have been some pressure to vote for LF and FPM candidates, and potentially vote counting manipulations that benefited the PSP-LF-FM list.