

A Split Field, Called in Advance: A Pre-Registered Behavioural-Model Forecast of the 2026 Antalya Chamber of Commerce Election

Registered 15 October 2026, before polling. Committee and assembly voting takes place on 18 October 2026, 09:30 to 17:00 local time; the assembly elects the chair on 23 October 2026. This note will not be edited after the result is known.

Fırat Mıhçı¹

¹ Independent researcher, HumanizeMy.ai Computational Linguistics Lab. Correspondence: hello@humanizemy.ai

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Abstract

On 10 October 2026 we scored a registered forecast of the Antalya Chamber of Commerce election: the winner we gave a 55% chance won, with 35 of 61 assembly seats against our 32. This note registers a second, harder test with the same method. The 18 October 2026 organ election of the Antalya Chamber of Commerce and Industry (ATSO), one of the largest chambers in Türkiye, is a **four-list contest** decided group by group under a winner-take-all rule: **34,057 eligible members, 49 professional groups and 124 assembly seats**, with the chair elected by plurality in the new assembly five days later. We modelled the electorate as **588 software agents**, twelve in each group, anchored on the real group-level results of 2022 and briefed with the verified public record of all four candidates. The forecast gives the red list of former chair **Davut Çetin 33.4% of the member vote** (80% interval 27.2 to 39.1), against 24.0% for **Hatice Öz** (orange), 23.3% for **Berkay Bahar** (blue) and 17.9% for **Reşat Güney** (white). In seats this becomes a median of **65 of 124 for red** (80% interval 39 to 90), a **82% probability that red is the largest list** and a **55% probability of an outright majority**. The mechanism is division, not strength: the members who voted for the late chair Ali Bahar in 2022 split between his brother and a board member from the same administration. We publish the group-level probabilities, the chair scenarios for 23 October, a sensitivity analysis and the scoring rules, fixed before the count. The model's architecture is proprietary and is not described.

Keywords: election forecasting · pre-registration · agent-based behavioural model · synthetic respondents · multi-party plurality · chamber of commerce · Brier score · Türkiye

1. Why a second registered forecast

A single correct call proves little. Our first registered forecast, of the two-list Antalya Chamber of Commerce election (Mıhçı, 2026a; election-morning update Mıhçı, 2026b), named the winner, placed the seat count inside its central interval and missed the member vote by 2.3 points. One election is a sample of one. The useful question is whether the method keeps its calibration when the problem gets harder.

ATSO is harder in every dimension that matters: four lists instead of two, 49 groups instead of 24, an electorate four times larger, a chair chosen by plurality rather than by majority, and almost no group-level campaign reporting. This note fixes the forecast in writing three days before the vote, together with the rules by which it will be judged.

2. The election

ATSO elects its organs under Law No. 5174. According to the decision of the Kepez 3rd District Election Board (decision 2026/11, 4 October 2026), **34,057 members are eligible to vote**. They vote only inside their own professional group, at 108 ballot boxes. The **49 groups elect 297 committee members and 124 assembly members**; each group returns between two and five assembly members, and the list with the most votes in a group takes all of them. The new assembly elects the chair on **23 October**. The board's decision sets no majority threshold: the candidate with the most votes wins, a tie goes to a run-off between the top two, and a second tie is drawn by lot.

Four lists compete for the chair:

- **Red, Davut Çetin**, chair for more than seven years until 2022. In 2022 he led the assembly vote 59 to 58; a chain of objections ended with the Supreme Election Council (YSK) reinstating a district-board ruling that cancelled 56 of his ballots, and the chair went to Ali Bahar. A green group list merged into his list on 9 October 2026, and an association of business people of about 600 members backs him.
- **Blue, Berkay Bahar**, an assembly member and the brother of Ali Bahar, who died in July 2024. The sitting chair, Yusuf Hacısüleyman, is not standing and has openly endorsed the blue list.
- **Orange, Hatice Öz**, a board member of the current administration and head of a healthcare group; in 2022 she won her own group with an independent list. She would be the chamber's first woman chair. A national car-rental confederation backs her, and Ali Bahar's widow wished her well publicly.
- **White, Reşat Güney**, president of a local economic-planning association, with no current role in the chamber. He withdrew from the 2022 race before the vote and says he will not merge with anyone after this one.

An independent yellow list competes in the construction group only. No poll has been published. One local columnist sees three lists level and no majority; another puts Çetin ahead because his rivals are divided.

3. Two facts from past elections

The map moves. In 2022 the red list won 25 groups and the blue list 21, by our count of the election-night tables. In 17 of the 47 groups with a known winner in both years, the winning side changed between 2018 and 2022 (counting Ali Bahar's 2018 turquoise list as the forerunner of the 2022 blue list). As in Alanya, a group's past does not fix its future.

Seats are not votes. In 2022 the red list held between 62 and 66 assembly seats by different counts, yet Çetin received 59 votes in the secret ballot for chair. A list's seat total is an upper bound on its candidate's vote, not a guarantee.

4. Method

The method is the one registered for Alanya (Mihci, 2026a), adapted to four lists.

The agents. Each of the 588 agents stands for one plausible member of one group: twelve per group. Its 2022 vote is allocated so that the agents of each group reproduce that group's real 2022 result; members who were not eligible in 2022 (the electorate grew from 22,843 to 34,057) or who stayed home are represented in proportion. Firm size, years of membership, age, district, business conditions, closeness to the chamber, political leaning and association membership are assumptions and are treated as such.

The decision. Every agent receives the same briefing: the verified public record of all four candidates, including the main criticism of each, and the facts specific to its own group (its 2022 and 2018 results and any group-level report). It returns two judgements: how likely it is to vote at all, and how its vote would divide among the four lists. The order in which the candidates are presented rotates across four permutations; the largest position effect we measured was about two points for one list, and the rotation balances it out.

What Alanya taught us. In Alanya the model's unadjusted member-vote level was closer to the result than the calibrated one, while the differences between committees turned out larger than the model expected. For this forecast we therefore do not pull the level toward an even race, and we widen the group-level uncertainty instead.

From votes to seats to chair. Group vote shares are turned into seats by simulating the winner-take-all rule 200,000 times, with two kinds of uncertainty: a chamber-wide shift that moves every group together and an independent shift in each group. Each simulated assembly is then passed through the chair rule under four alliance scenarios.

What is withheld. Which models drive the agents, the text of the briefings and questions, the uncertainty parameters and the software pipeline are proprietary. Everything needed to score the forecast is published below.

5. The registered forecast

List	Member vote	80% interval	Assembly seats (median)	80% interval	Largest list	63 or more
Red (Çetin)	33.4%	27.2–39.1	65	39–90	82%	55%
Blue (Bahar)	23.3%	18.7–28.5	22	8–45	8%	2%
Orange (Öz)	24.0%	19.2–29.1	23	8–46	9%	2%
White (Güney)	17.9%	14.2–22.2	7	0–20	0%	0%

The yellow list, which runs in one group only, receives 1.4% of the chamber-wide vote and no seats in the median simulation. Two lists tie for largest in 0.8% of simulations.

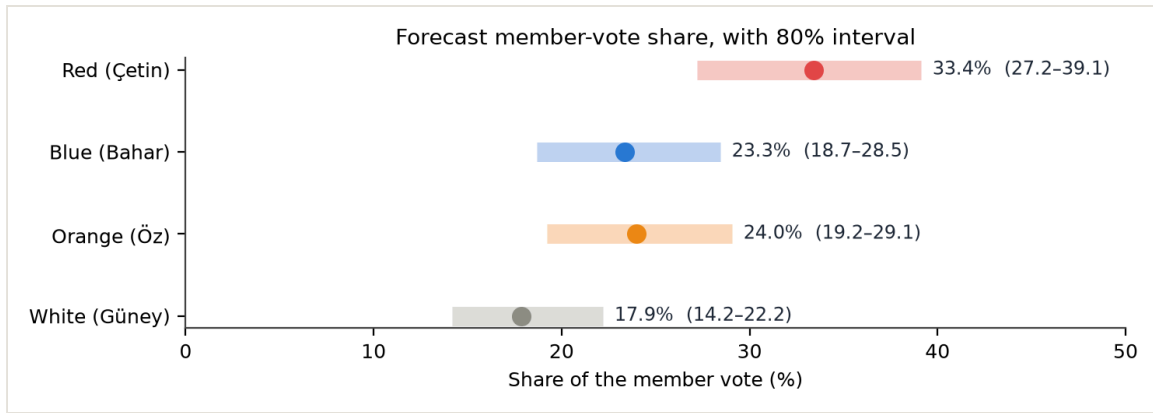


Figure 1. Forecast member-vote share of each list with 80% interval.

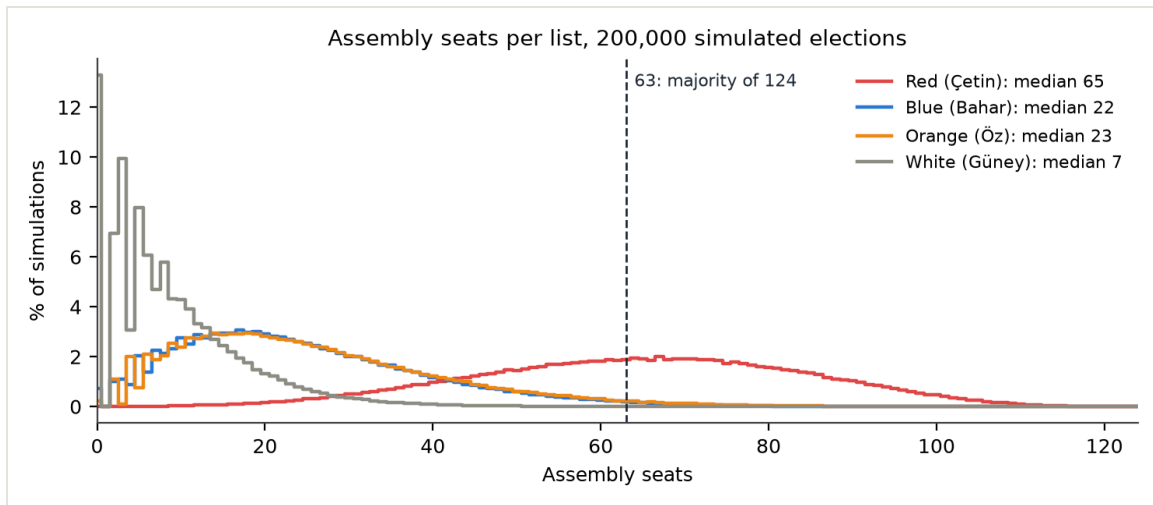


Figure 2. Distribution of assembly seats for each list across 200,000 simulated elections. The dashed line marks 63 of 124.

The agents expect about 41% of eligible members to vote, about 13,922 ballots, close to the 13,628 cast in 2022. The electorate grew mainly through members who cleared their dues arrears; the agents representing them are the least likely to turn out.

The chair on 23 October. Because the chair is elected by plurality, the answer depends on whether the other lists combine.

Scenario	Çetin elected	Other outcomes
A. All four candidates stand; each assembly member votes for their own list	82%	Bahar 8%, Öz 9%, tie 1%
B. Bahar and Öz combine behind one candidate	65%	combined candidate 34%
C. All three other lists combine against Çetin	55%	combined candidate 45%
D. Öz combines with Çetin	97%	Bahar 3%

Blue and orange together reach 63 seats in 25% of simulations. Scenario A is registered as the primary chair forecast; the other three are conditional and are reported so that whichever alliance forms can be scored against the matching row.

6. Group by group

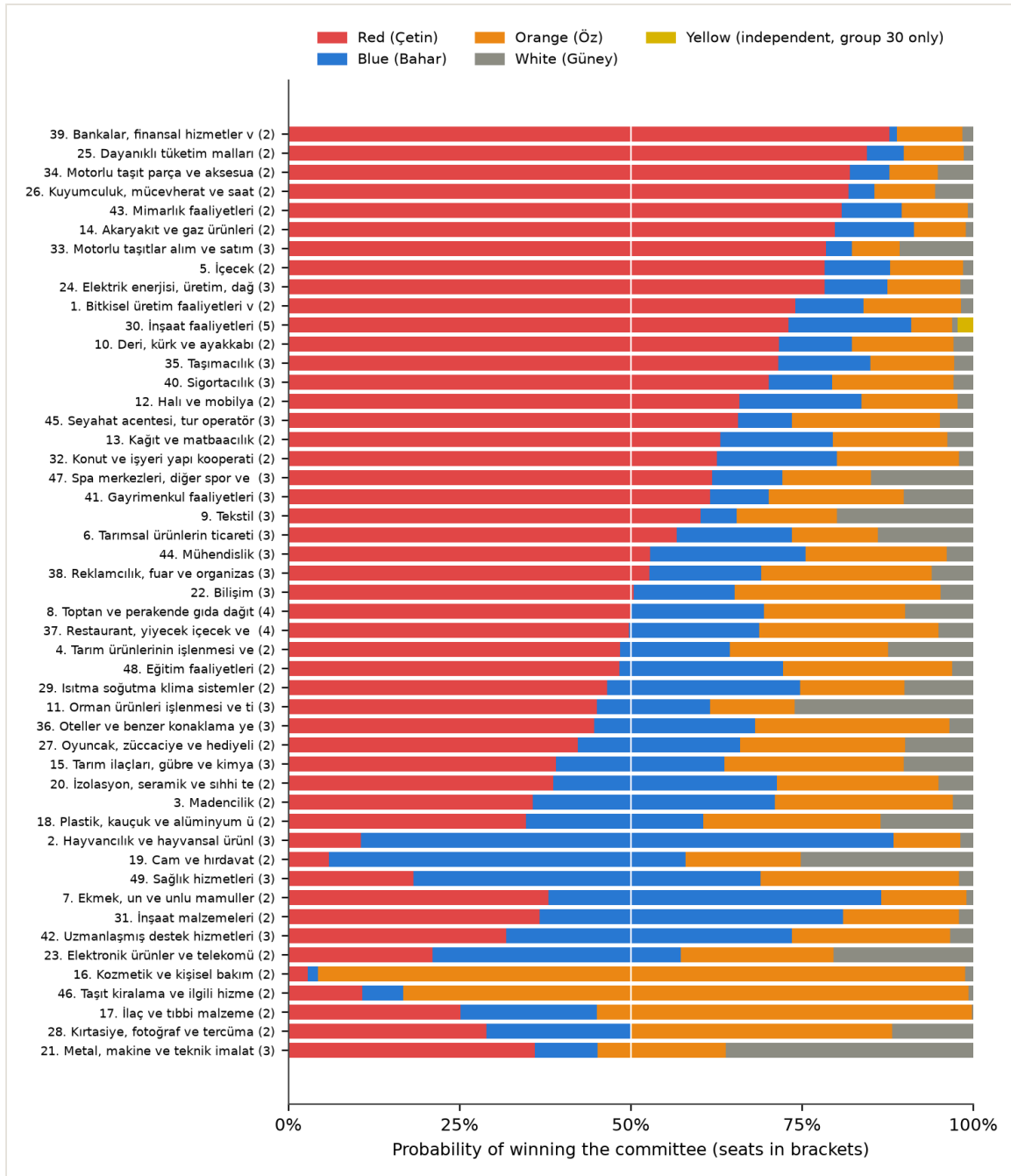


Figure 3. Probability that each list wins each of the 49 groups (assembly seats in brackets). Groups are ordered by their most likely winner.

The most likely winner is red in 37 groups, blue in 7, orange in 4 and white in 1. Red is above 60% in 21 groups worth 53 seats; 11 groups worth 26 seats have no list above 45%. Blue's strongest group is Berkay Bahar's own (livestock, group 2); orange's are cosmetics (group 16), which Öz won in 2022, and vehicle rental (group 46), whose confederation endorsed her. **Even if the group probabilities are perfectly calibrated, the expected number of correctly called groups is 29 of 49.** The full table is in Appendix A.

7. What drives the result

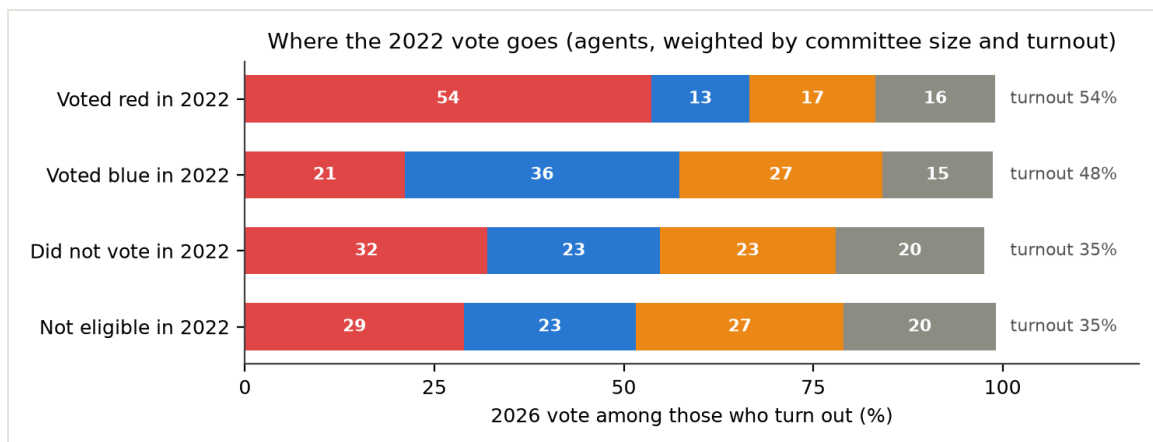


Figure 4. 2026 vote of the agents by their 2022 behaviour, among those who turn out.

The forecast rests on one asymmetry. Agents who voted red in 2022 stay red (53.6%). Agents who voted blue in 2022 divide: 36.3% to Bahar, 26.8% to Öz and 21.1% to Çetin. Members new to the electorate spread almost evenly and mostly stay home. With the 2022 blue vote divided between two candidates of the same administration, a red list with about a third of the vote finishes first in most groups.

Endorsements move their own members strongly but involve few voters. Agents placed in the associations that endorsed Çetin give him 62.9%; those in the cultural associations that endorsed Güney give him 68.6%. Agents whose businesses are struggling lean further to Güney, whose campaign attacks the chamber's deposits and promises a one-off dues rebate.

Two agents for each list, in their own words (translated from Turkish; these are model outputs, not statements of real members; reasons naming real people or political parties were excluded from selection):

- *Red (Çetin)*, group 13 (paper and printing): "Voted for Çetin in 2022 and business is bad; the promise of no dues increase keeps this member red, though part of the vote may drift to Güney's dues rebate."
- *Red (Çetin)*, group 14 (fuel and gas): "Knows the committee well, voted red in 2022, and Çetin's list has taken this group in two elections; most likely stays red."
- *Blue (Bahar)*, group 44 (engineering): "Close to the circle of the blue list that won the group in 2022, and to Berkay Bahar, a civil engineer; part of the vote may drift to Öz."
- *Blue (Bahar)*, group 36 (hotels): "A young hotelier who attends chamber events and voted blue in 2022; torn between the hoteliers on Bahar's list and Öz's new-generation digital message."
- *Orange (Öz)*, group 16 (cosmetics): "Voted for Öz's independent green list in 2022; will back her orange list this time too."
- *Orange (Öz)*, group 28 (stationery, photography and translation): "A young member who voted blue in 2022 and attends events; business is bad, and the digital promises pull this member toward Öz."
- *White (Güney)*, group 11 (forest products): "Moves in the circle of an association that backs Güney and attends chamber events; the white list weighs heavier."

- *White (Güney)*, group 18 (plastics, rubber and aluminium): "In the circle of an association that backs Güney; voted blue in 2022, most likely white this time."

8. Sensitivity

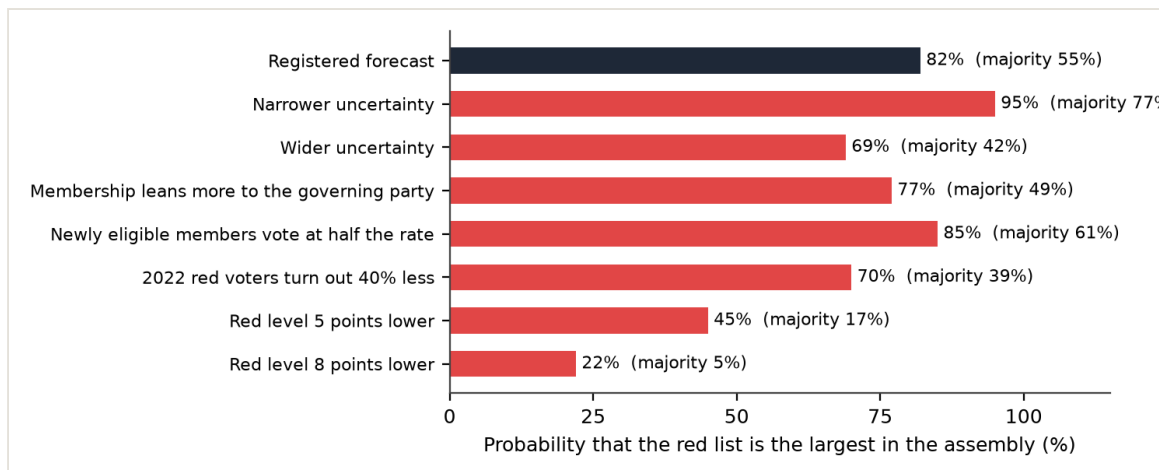


Figure 5. Probability that the red list is the largest in the assembly under alternative assumptions.

The forecast is robust to the assumptions about political leaning, the turnout of newly eligible members and the width of the uncertainty: red remains the largest list in at least 69% of simulations. It is **not robust to an overestimate of red's level**. If red's true vote is five points lower than forecast, the probability that it is the largest list falls to 45%; eight points lower, to 22%, and the race opens between blue and orange. In Alanya the level error was 2.3 points, but that was a two-list race. If Bahar and Öz had run a single list, the same agents would have given it a median of 90 seats.

9. How we will score this forecast

The following rules are fixed now.

1. **Largest list.** The list with the most assembly seats on 18 October is scored against the four probabilities in Section 5 with the multi-category Brier score (Brier, 1950). If red is largest the score is 0.05; if blue, 1.53; if orange, 1.50; if white, 1.67. An uninformed forecast of 25% each scores 0.75.
2. **Majority.** Red's 55% probability of 63 or more seats is scored with the binary Brier score: 0.20 if it happens, 0.30 if not.
3. **Seats.** We report whether each list's seat count falls inside its registered 80% interval.
4. **Vote share.** Each list's share of the valid vote is compared with Section 5. An absolute error above five points for the red list counts as a failure of level.
5. **Groups.** The mean multi-category Brier score of the 49 group forecasts is compared with 0.75, and the number of groups whose most likely winner won is compared with the 29 expected under perfect calibration.
6. **Chair.** The chair elected on 23 October is scored against scenario A (82% for Çetin). If an alliance forms, the matching conditional row is reported alongside.
7. **Turnout.** We expect about 13,922 ballots (41% of the eligible members). The real figure will be reported next to it.

A single election cannot validate a probability (Gneiting and Raftery, 2007). What it can show is whether the intervals were wide enough and whether the level was close. A follow-up note will report every score above, whichever way it falls.

10. Limitations

This is a model, not a poll, and it contains no statement by any real member. The single most important missing input is **which lists fielded candidates in which groups**: the chamber's specimen ballots were not accessible to us, and a list absent from a group cannot win it. Group-level voter counts are not published; we apportioned the 34,057 voters by each group's count of active members. The colour of the runner-up in many 2022 groups is not reported; we assumed the other main list. Several endorsements rest on a single report or column. Twelve agents per group is half the Alanya density. The agents' political leaning reflects campaign gossip rather than any declared affiliation of the candidates.

Appendix A. The 49 groups: history and forecast

No	Group	Voters (est.)	Seats	2022 winner	Red %	Blue %	Orange %	White %	Most likely winner
1	Bitkisel üretim faaliyetleri ve destekleyici hiz	406	2	red	40	22	24	15	red (74%)
2	Hayvancılık ve hayvansal ürünler	576	3	blue	22	41	22	15	blue (78%)
3	Madencilik	247	2	blue	29	29	26	16	red (36%)
4	Tarım ürünlerinin işlenmesi ve gıda üretimi	540	2	blue	31	23	25	21	red (48%)
5	İçecek	222	2	red	42	22	22	15	red (78%)
6	Tarımsal ürünlerin ticareti	1,389	3	red	33	23	21	22	red (57%)
7	Ekmek, un ve unlu mamuller	300	2	blue	31	34	22	13	blue (49%)
8	Toptan ve perakende gıda dağıtımı ve pazarlaması	2,073	4	blue	32	24	24	20	red (50%)
9	Tekstil	935	3	red	35	18	23	25	red (60%)
10	Deri, kürk ve ayakkabı	300	2	red	39	22	24	16	red (72%)
11	Orman ürünleri işlenmesi ve ticareti	579	3	blue	30	23	21	26	red (45%)
12	Halı ve mobilya	283	2	red	37	25	23	15	red (66%)
13	Kağıt ve matbaacılık	208	2	red	36	24	24	17	red (63%)
14	Akaryakıt ve gaz ürünleri	461	2	red	42	23	21	14	red (80%)
15	Tarım ilaçları, gübre ve kimyasallar	1,047	3	blue	29	25	26	20	red (39%)
16	Kozmetik ve kişisel bakım	447	2	green (Öz)	18	16	51	15	orange (94%)
17	İlaç ve tıbbi malzeme	400	2	blue	28	26	36	10	orange (55%)
18	Plastik, kauçuk ve alüminyum ürünleri	375	2	blue	28	25	25	21	red (35%)
19	Cam ve hırdavat	259	2	blue	18	33	23	26	blue (52%)
20	İzolasyon, seramik ve sıhhi tesisat malzemeleri	304	2	shared	29	28	25	17	red (39%)
21	Metal, makine ve teknik imalatı	1,144	3	blue	28	20	24	28	white (36%)
22	Bilişim	1,030	3	blue	33	23	28	17	red (50%)
23	Elektronik ürünler ve telekomünikasyon	192	2	white	24	28	24	24	blue (36%)

No	Group	Voters (est.)	Seats	2022 winner	Red %	Blue %	Orange %	White %	Most likely winner
24	Elektrik enerjisi, üretim, dağıtım ve ilgili hiz	624	3	red	41	21	22	15	red (78%)
25	Dayanıklı tüketim malları	470	2	red	44	19	22	15	red (84%)
26	Kuyumculuk, mücevherat ve saat	384	2	red	42	18	21	19	red (82%)
27	Oyuncak, züccaciye ve hediyelik eşya	315	2	blue	30	25	25	20	red (42%)
28	Kırtasiye, fotoğraf ve tercümanlık hizmetleri	161	2	blue	26	24	29	21	orange (38%)
29	Isıtma soğutma klima sistemleri, havuz ve su arı	352	2	blue	31	27	22	20	red (47%)
30	İnşaat faaliyetleri	3,850	5	red	35	22	17	11	red (73%)
31	İnşaat malzemeleri	466	2	blue	30	32	24	15	blue (44%)
32	Konut ve işyeri yapı kooperatifleri	293	2	red	36	24	24	15	red (63%)
33	Motorlu taşıtlar alım ve satımı	701	3	red	41	17	20	22	red (78%)
34	Motorlu taşıt parça ve aksesuarları, bakım ve on	535	2	red	42	19	20	19	red (82%)
35	Taşımacılık	1,043	3	red	39	23	22	16	red (72%)
36	Oteller ve benzer konaklama yerleri	1,167	3	blue	31	26	27	16	red (45%)
37	Restaurant, yiyecek içecek ve eğlence hizmetleri	1,762	4	red	32	24	26	18	red (50%)
38	Reklamcılık, fuar ve organizasyon hizmetleri, te	734	3	red	33	23	26	18	red (53%)
39	Bankalar, finansal hizmetler ve döviz büroları	373	2	red	47	14	23	16	red (88%)
40	Sigortacılık	635	3	red	38	21	25	16	red (70%)
41	Gayrimenkul faaliyetleri	889	3	red	35	20	25	21	red (62%)
42	Uzmanlaşmış destek hizmetleri	853	3	blue	28	30	25	16	blue (42%)
43	Mimarlık faaliyetleri	404	2	red	43	22	22	13	red (81%)
44	Mühendislik	704	3	blue	33	25	25	17	red (53%)
45	Seyahat acentesi, tur operatörü ve diğer rezerva	1,227	3	red	37	20	26	18	red (66%)
46	Taşıt kiralama ve ilgili hizmetler	372	2	blue	23	20	44	13	orange (82%)

No	Group	Voters (est.)	Seats	2022 winner	Red %	Blue %	Orange %	White %	Most likely winner
47	Spa merkezleri, diğer spor ve eğlence amaçlı spo	649	3	red	35	21	22	23	red (62%)
48	Eğitim faaliyetleri	527	2	red	32	26	26	16	red (48%)
49	Sağlık hizmetleri	850	3	blue	24	33	28	15	blue (51%)

Vote shares are the agents' expected shares among those who turn out; the last column is the probability that the named list wins the group. Group 30 also has the independent yellow list (14%).

Data and code availability

All forecast values needed to score this note are printed in Sections 5 and 9 and in Appendix A. The public inputs are listed in the references. The model, its briefings and its uncertainty parameters are proprietary and are not released.

Competing interests

The author declares no competing interests. This forecast was not commissioned by any list, candidate or the chamber.

References

- Brier, G. W. (1950). Verification of forecasts expressed in terms of probability. *Monthly Weather Review*, 78(1), 1-3.
- Gneiting, T., and Raftery, A. E. (2007). Strictly proper scoring rules, prediction, and estimation. *Journal of the American Statistical Association*, 102(477), 359-378.
- Kepez 3rd District Election Board (2026). Decision 2026/11 and notice on the ATSO organ elections, 4 October 2026. Published at atso.org.tr.
- Law No. 5174 on the Union of Chambers and Commodity Exchanges of Türkiye and the Chambers and Commodity Exchanges (2004).
- Local press: DHA election-night tables as published by Hürriyet and Varış Haber (group results, 2018 and 2022); MyGazete (2022 results and assembly vote); Akdeniz Gerçek, Antalya Körfez, Haberimiz Var, Okur Medya, Ekonomi Gazetesi, Antalya Gündem, Akdeniz Manşet, Gün Haber, Antalya Hürses and others (campaign coverage, June to 15 October 2026).
- Mıhçı, F. (2026a). A coin flip, called in advance: A pre-registered behavioural-model forecast of the 2026 Alanya Chamber of Commerce election. Preprint, ResearchGate. doi:10.13140/RG.2.2.34114.75209
- Mıhçı, F. (2026b). The endorsement arrives: An election-morning update to a pre-registered behavioural-model forecast of the 2026 Alanya Chamber of Commerce election. Preprint, ResearchGate. doi:10.13140/RG.2.2.30869.08165

Nosek, B. A., Ebersole, C. R., DeHaven, A. C., and Mellor, D. T. (2018). The preregistration revolution. *Proceedings of the National Academy of Sciences*, 115(11), 2600-2606.