

# A Quantitative Analysis of Turkey's 2011 Elections

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## ABSTRACT

*The changes in Turkey's political landscape over the past decade have been quite dramatic. In this study, we present a quantitative analysis of the 2011 national elections based on clustering techniques and we compare our results with those of the previous elections in 1999, 2002, and 2009. Our results suggest, once again, that Turkish citizens turn out to vote consistently since the 1950s. We also investigate significant changes in voting trends of different regions and provinces. We conclude with a future-based qualitative outlook to indicate what the results could be if certain electoral changes are made, such as the law for political parties, a different national threshold for parties to be represented and elected to Parliament, and an eventual new constitution.*

The political transformation Turkey experienced in the last decade was quite dramatic. This transformation took place on various fronts and in different forms. For instance, the parties represented in the Turkish parliament of 1999 were all ousted in the 2002 elections. Since 2002, there has been a single-party government with relatively successful governance on almost all fronts, including the economy, foreign affairs, and infrastructure development. And, what is more surprising and striking is that this single political party, AKP (Justice and Development Party), has been increasing its votes in every election it entered since its inception in 2002, including the very recent parliamentary elections on June 12, 2011. Furthermore, liberalizing changes in the constitution and laws regarding, for example, the role of the military, and public perception in and outside of Turkey are seen as only the beginnings of Turkey's fundamental changes in the areas of freedom, entrepreneur-

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ership, innovation, public services, and advancements in all aspects of modern life. For the first time since its establishment in 1923, the citizens of the Republic of Turkey feel a diminishing grip of the army in their life. As a consequence of the 2011 Elections, which resulted in a large (95%) representation of all types of voters in the parliament, it is now possible to envision that a new, democratic, and civilian constitution can be formulated by the people for the people.

In this paper, first, a quantitative analysis of the 2011 elections are compared to the results of the previous elections in 1999, 2007, and 2009. The cluster analysis method is followed by an examination of significant changes (swings) in the voting trends of different regions and some provinces. Then, a future-based qualitative outlook analysis is presented to indicate what the results would be under possible changes in the law for political parties, national threshold, and an eventual new constitution.

### **Cluster Analysis of the 2011 Elections**

Despite a significant transformation in the political arena in Turkey since 2002, the results of the 2011 elections were not surprising, as it was widely predicted that AKP would lead the race by obtaining 40-50% of the votes. Perhaps, only the MHP's (National Movement Party, the party that has historically headed the Turkish nationalist front) performance was unexpected, because its electoral gain was not predicted by the political pundits. In fact, it obtained about 13% of the votes, comfortably passing the national threshold of 10%. A study by Akarca and Başlevent revealed that the groupings of Turkish provinces in terms of voting preferences via the so-called "k-means clustering algorithm" remained mainly unchanged since 1999<sup>2</sup>. Similar conclusions can be drawn from another but more comprehensive study which found that voting tendencies of cluster of provinces, or sub-regions, did not change significantly since the first democratic elections in 1950 when main political tendencies, not specific parties, are taken into account (i.e., center right, center left, Turkish nationalist, and recently Kurdish nationalist)<sup>3</sup>.

The "k-means clustering algorithm" is employed in situations where the goal is to group (i.e., cluster) similar units in a population by taking a pre-determined

number of features into account. In this specific case, the authors considered the 1999, 2002, and 2007 parliament elections as well as the 2004 and 2009 local elections and they used the vote shares of major political parties in addition to the independent candidates as the feature data used in clustering. The methodology of their study entails execution of the clustering algorithm with  $k=5$ , that is, the provinces are clustered into 5 groups. Observing that only a few of the provinces changed clusters over the five elections considered, the authors introduce the concept of “composite clusters” to obtain a summative picture of Turkey’s political landscape over the last decade. Specifically, they construct a five-way grouping of provinces by determining the majority cluster for each province over the five elections. An advantage of composite clusters is that they filter out province-level election observation outliers.

A similar cluster analysis was conducted for the 2011 elections. In particular, the “k-means clustering algorithm” was used to cluster provinces into 5 groups based on their voting shares for the AK Party (center-right), the CHP (center-left), the MHP (Turkish nationalists), and the independent candidates (mainly Kurdish nationalists). As the voting shares of the other parties were quite small, they were excluded from our analysis. The goal in this exercise was two-fold: First, provinces with similar voting patterns in the 2011 elections were identified. Second, 2011 election clusters were compared to the composite clusters of the previous five elections to reveal any pattern shifts since 1999.

The clusters were code-named with the name of a province in the cluster that was believed to be a good representative of the cluster. As presented in Table 1, below are the clusters, number of provinces in each cluster, and their centroids<sup>4</sup> in terms of voting share percentages. When compared to the composite clusters of the previous 5 elections, it is observed that 60 of the provinces maintained their original cluster, with only 21 switching clusters. These so-called swing provinces are listed in Table 2. What is remarkable here is that in 14 of these 21 provinces, changes occurred from clusters with less voting shares for AKP to clusters with higher AKP voting shares. In other words, the political landscape in Turkey did not change drastically over the previous five elections; however, when a change occurred, it was largely to the benefit of AKP. This observation, on the other hand, indicates a slight overall shift towards AKP from a cluster point of view in the 2011 elections when compared to the overall political landscape between 1999 and 2009. The composite cluster map for 2002-2009 elections is presented in Figure 1a, whereas the cluster map for the 2011 election is depicted in Figure 1b for easy comparison.

When Table 2 and Figures 1a and b are examined closely, the gains of AKP occurred in the provinces or regions that benefited from infrastructure development (Bilecik, Ağrı and Bitlis), economic growth (Denizli, Manisa, Uşak and Malatya), and open international collaboration (Gaziantep and Ardahan), whereas the gains of other parties were susceptible to more ideological or local reasons (Tunceli, Kars and Osmaniye). Additional information and investigation are needed to explain the swings of some provinces, such as Erzincan, Tokat, Isparta and Hatay, but it was probably mainly the effect of the candidates, candidates favored by constituents versus candidates assigned by their party leaders, which produced this outcome.

Table 1: Clusters and their centroids as computed by the k-means algorithm.  
Highest vote percentage for each cluster is shown in bold.

Cluster	No. of Provinces	AKP	CHP	MHP	Independent
1 ( <i>İstanbul</i> )	24	<b>49.2%</b>	<u>28.1%</u>	15.9%	0.2%
2 ( <i>İzmir</i> )	12	<u>34.3%</u>	<b>42.2%</b>	15.2%	0.1%
3 ( <i>Konya</i> )	31	<b>63.4%</b>	15.1%	<u>15.3%</u>	0%
4 ( <i>Urfa</i> )	5	<b>54.6%</b>	5.3%	5.4%	<u>25.4%</u>
5 ( <i>Diyarbakır</i> )	9	<u>33.2%</u>	3.1%	5.2%	<b>53.6%</b>

Provinces in each of the clusters for the 2011 elections are listed below:

- Cluster 1:** *İstanbul*, Amasya, Ankara, Ardahan, Artvin, Balıkesir, Bartın, Bilecik, Burdur, Bursa, Denizli, Erzincan, Eskişehir, Isparta, Kırşehir, Kocaeli, Manisa, Niğde, Osmaniye, Sinop, Tokat, Uşak, Yalova, Zonguldak.
- Cluster 2:** *İzmir*, Adana, Antalya, Aydın, Çanakkale, Edirne, Hatay, Mersin, Kırklareli, Muğla, Tekirdağ, Tunceli.
- Cluster 3:** *Konya*, Adıyaman, Afyon, Aksaray, Bayburt, Bolu, Çankiri, Çorum, Düzce, Elazığ, Erzurum, Gaziantep, Giresun, Gümüşhane, Kastamonu, Kayseri, Kütahya, Malatya, K. Maraş, Karabük, Karaman, Kilis, Kırıkkale, Nevşehir, Ordu, Rize, Sakarya, Samsun, Sivas, Trabzon, Yozgat.
- Cluster 4:** *Şanlıurfa*, Ağrı, Bingöl, Bitlis, Kars.
- Cluster 5:** *Diyarbakır*, Batman, Hakkari, Iğdır, Mardin, Muş, Siirt, Şırnak, Van.

Table 2: Changes from composite clusters (2002-2009 elections) to 2011 election clusters.

The first four cluster changes correspond to those where AKP's vote share increased in the 2011 elections at the cluster level compared to the composite clusters (2002-2009 elections).

From (in 2002-2009 elections)	To (in 2011 election)	Provinces
<i>Diyarbakır cluster</i>	<i>Urfa cluster</i>	<i>Ağrı, Bitlis</i>
<i>Urfa cluster</i>	<i>Konya cluster</i>	<i>Adıyaman, Bayburt, Elazığ, Malatya, Rize</i>
<i>İzmir cluster</i>	<i>İstanbul cluster</i>	<i>Bilecik, Denizli, Manisa, Uşak, Ardahan</i>
<i>İstanbul cluster</i>	<i>Konya cluster</i>	<i>Gaziantep, Giresun</i>
Konya cluster	Urfa cluster	Kars
Konya cluster	İstanbul cluster	Erzincan, Isparta, Osmaniye, Tokat
İstanbul cluster	İzmir cluster	Hatay
Diyarbakır cluster	İzmir cluster	Tunceli








(a)



(b)

Figure 1: (a) Composite cluster map for 2002, 2007 and 2009 Elections;  
(b) Cluster map for 2011 Election

Clusters	AKP	CHP	MHP	Independents (BDP)
 <i>İstanbul</i>	49.2%	<u>28.1%</u>	15.9%	0.2%
 <i>İzmir</i>	<u>34.3%</u>	42.2%	15.2%	0.1%
 <i>Konya</i>	63.4%	15.1%	<u>15.3%</u>	0%
 <i>Urfa</i>	54.6%	5.3%	5.4%	<u>25.4%</u>
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### Analysis of Votes and Seats

In the first part of this section, the results of the 2011 elections are compared with the results of the previous elections to identify voting patterns and shifts among the provinces. The first part shows the big picture, namely the groupings of Turkish provinces with respect to the voting shares of the parties. In the

second part of the analysis, we presented more specific analysis for the parties, namely the AKP, CHP, MHP and the independent candidates, to explore how they perform in the 2011 elections compared with the previous elections; which party lost where and to whom; and the reasons behind the distribution of seats between the parties in the 2011 elections. We also asked a significant question: whether or not a party losing (or winning) a seat in any province is due to the expression of popular preference, that is, to the changes in the voting shares of that party or due to the changes made by the Supreme Board of Elections (YSK) on March 1, 2011 concerning the maximum total number of seats for each province. This change was made to allocate the seats among the provinces with respect to their current populations. They will be referred to as “YSK-changes” from this point forward.

The first important finding about the 2011 election is the following. The 2011 election produced a parliament where 95% of Turkish voters are represented, quite a high percentage compared to previous elections in Turkey as well as in other countries. This was 55% in the 2002 and 87% in the 2007 elections. Related to such a high representation aspect of the 2011 elections, another important question emerged: *If there had not been a 10% threshold in the Turkish electoral system, would the results have been any different in the 2011 elections?* We should remember that the 10% threshold significantly affected the parties represented in the parliament and the distribution of the seats between them in the previous elections. As demonstrated in Figure 2, the percentage of votes went up for the AKP and the CHP from 2002 to the 2007 elections; however, the number of deputies for each party decreased. This was because the MHP fell under the threshold and could not enter the parliament in the 2002 elections. We used the D’Hondt system, which is used to allocate seats among the parties based on the votes they received, and confirmed that the 10% threshold had an impact in the previous elections, but not in the 2011 elections.

The AKP’s share of votes rose from 34% in 2002 to 47% in 2007 and 50% in the 2011 elections. However, the number of AKP deputies fell from the 2002 to the

2011 elections. The figure also shows that the CHP increased its votes from 19% in 2002 to 21% in 2007 and to about 26% in the 2011 elections. The number of CHP representatives (seats) decreased from the 2002 to the 2007 elections, but, increased from 2007 to 2011. We can also examine how the MHP and the independent candidates performed over the last three elections from the same figure: the MHP's votes went up from 8% (below the 10% threshold, hence no seats) to 14% from 2002 to 2007, but its votes and seats slightly fell from 14% to 13% in the 2007 and the 2011 elections. Independent candidates increased both their votes and seats from 2002 to 2011 from 1% to 5% and 6% in the 2007 and the 2011 elections, respectively.

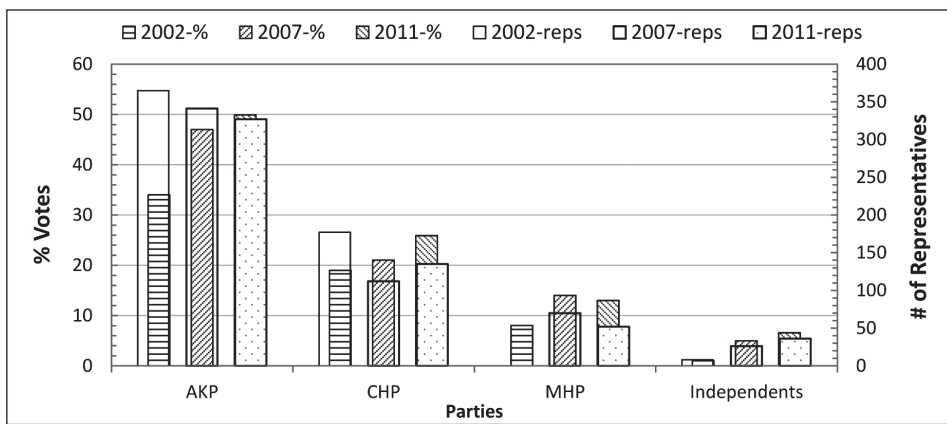


Figure 2: The percentages of the votes and the number of the seats between AKP, CHP, MHP and independents for Turkey

### *Significant Changes and Impact of YSK Rulings on the 2011 Elections*

In Figure 3, the provinces having a significant increase in the percentages of the votes for each party are presented. The CHP increased its votes in 10 provinces by at least 10 percentage points (Kırklareli, Tekirdağ, Edirne, Aydın, Muğla, Eskişehir, Zonguldak and Tunceli). Some of these provinces have been long strongholds of the CHP since the 1950 elections, such as Tekirdağ, Edirne and Kırklareli. Gains of the CHP in Eskişehir may be explained by the alliances it secured at the last minute with the popular mayor, Yılmaz Büyükerşen. Its gain in Tunceli is obvious since it is the hometown of Kemal Kılıçdaroğlu, the leader of CHP, although he was elected to the parliament from İstanbul. On the other hand, the AKP increased its votes by more than 10% in only three provinces (Sinop, Rize and Elazığ). Gains in the Rize province are apparently due to the fact that it is the leader's hometown. Its gain in Elazığ, usually a stronghold of Turkish nationalists, is probably because of the declaration by former MP and Minister of Interior Mehmet Ağar on behalf of the AKP in the last days before the election.<sup>5</sup> It is interesting to see that he has a stronger base



Our analysis shows that the impact of the YSK change on the distribution of the seats between the parties was significant, but not vital

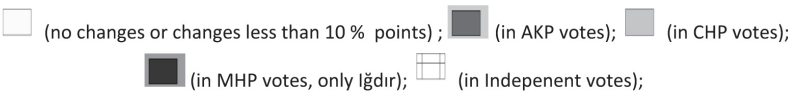
in Elazığ than the MHP. In eight provinces, all in the East and Southeast mainly populated by Kurds, the independents increased their votes by at least 10 percentage points while the MHP increased its votes only in one province (Iğdır).

It is also important to evaluate the significant decreases of votes to understand the performances of all the parties. The AKP votes decreased in Ağrı, Hakkari, Mardin and Van, where independents demonstrate significant gains as explained above, by at least 10 percentage points, while none of the other parties experienced a loss of their votes in any of the provinces by a margin as large as 10 percentage points. The independents' votes in Tunceli (probably the effect of Kemal Kılıçdaroğlu as the leader of the CHP) and Rize (probably the effect of former leader of the Motherland Party, Mesut Yılmaz, not entering the race) fell by at least 10 percentage points.

Finally, our analysis shows that the impact of the YSK change on the distribution of the seats between the parties was significant, but not vital. Our calculations showed that if there were no YSK changes in the 2011 elections, the AKP would have obtained 332 seats instead of 326, the CHP would have 130 seats instead of 135, the MHP would have 55 seats instead of 53, and the independents would have 33 seats instead of 36.



Figure 3: Significant changes from 2007 to 2011 Elections: min. 10% point increase:





## Conclusions and Future Outlook

As a general conclusion, considering all the elections since 1950, it can be stated that whenever a strong center-right party was formed (the DP in the 1950s, AP in 1965, ANAP in the 1980s and AKP in the 2000s), it comfortably carried the elections winning the majority seats in the parliament, and establishing a single-party government, which, indeed, resulted in stable economic growth, security and an increase in its perceived strength inside and outside of the country. Lost decades (such as the 1970s and 1990s) have been all results of weak governments (coalitions) due to the fragmentation of the political spectrum, which particularly affected center-right, and to some degree, center-left parties (i.e., AP vs. MSP vs. MHP in the 1970s and ANAP vs. DYP in the 1990s). Strong center-right parties and the governments they formed were all the results of charismatic leaderships (Menderes in the 1950s, Demirel in 1965, Özal in the 1980s and Erdoğan in the 2000s), which faded away every decade with the disappearance of the leaders from active political life. However, for a strong democracy and sustainable development, leadership should be supported by democratic institutions and culture.

It is quite apparent, once again, from the results of the 2011 elections that Turkish citizens turn out to vote consistently since the 1950s. What is not consistent is the capacity of the political class to represent people's wishes and demands. This ambiguity stems from the very fact that the contract (i.e., the constitution) between the people and government is a weak one. The AKP's clear election victories and gain of people's trust five times in a row are extremely significant in this regard. The party should not waste any time to make fundamental changes in the constitution to ensure sustainable democracy and development in the coming decades. The new constitution and some key changes in the laws governing the political-parties, aside from protecting basic human rights, are needed to enable political parties to have open and transparent primaries to allow their constituents to directly participate in determining the candidates for all ranks and offices. Such inclusive laws will, in the long run, assure that only the interests of people will be protected by the elected (as opposed to by the appointed) agencies. Only under such circumstances will Turkey, perhaps, benefit from a presidential system, which has long been discussed, with two chambers of legislature dealing only with

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legislative and long-term issues of the country while an executive cabinet runs the public affairs and services subject to the scrutiny of strong legislative arms.

### Endnotes

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2. A.T. Akarca and C. Başlevant, "Persistence in Regional Voting Patterns in Turkey During a Period of Major Political Realignment," *European Urban and Regional Studies*, Vol. 18, No. 2, (April 2011), pp. 184-202.

3. M. Guvenc and H. Kirmanoglu, *Electoral Atlas of Turkey 1950-2009* (İstanbul: İstanbul Bilgi University Press, 2009, p.124.

4. Centroid of a cluster is defined as the mean of all the points in the cluster in the n-dimensional space those points lie in. A centeroid does not necessarily correspond to an actual data point in the cluster.

5. Mehmet Ağar declared his support for the AKP four days before the elections. "Mehmet Ağar'dan Seçim Öncesi Sürpriz Destek," *Milliyet*, June 8, 2011.