

Gerrymandering and Malapportionment, Romanian Style – the 2008 Electoral System

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Abstract

Varieties of gerrymandering and malapportionment can appear not only in electoral systems where all legislative seats are allocated to plurality winners in single-member districts but also in proportional Single-Member-District (SMD)-based electoral systems and in settings where multi-partisan committees draw the district boundaries. This article investigates such a case, in which the main parliamentary parties collaborated in order to minimize the uncertainty regarding intra-party allocation of seats. The 2008 electoral reform in Romania created such opportunities and both the SMD maps and the electoral results at the parliamentary election held in the same year indicate that the parties collaborated to design a number of safe seats for each of them. We draw on a novel dataset that measures the degree in which the newly-created SMDs reflected natural or artificial strongholds of concentrated partisan support in otherwise unfavorable political territories, and also assess the malapportionment of these districts. All three types of mechanisms were frequently used, and our logistic regression analyses indicate that nomination in the 'right' type of SMD was the main factor deciding whom of each party's candidates got elected. The statistical analyses are complemented by a qualitative investigation of the political composition and design of 9 SMDs.

Introduction

In 2008 the Romanian government introduced a new system for elections to both Houses of its bicameral Parliament – the Chamber of Deputies and the Senate. The system was designed to ensure that the composition of each House reflected the proportion of votes won by each political party nationally, but with each candidate elected representing a defined single-member territory. This new system was then used for the elections held later in 2008.

Although these changes have been the focus of attention in a number of papers¹ – suggesting, for example, how they impacted upon the composition of the two Houses, especially the Chamber of Deputies² – little attention has been paid to one of their consequences. The way in which the system operates encourages the parties to undertake strategies akin to those of gerrymandering and malapportionment practised in a number of other countries, notably the USA, a situation facilitated by the procedure for defining the territories to be represented. This paper examines that situation, illustrating how both strategies were deployed by the Romanian parties. The evidence presented indicates that their goal was not to win more seats – which would have been very difficult given the proportional logic of the electoral system and the cross-party character of the committee drawing the maps – but rather to make as predictable as possible the intra-party allocation of seats, ensuring that a party's preferred candidates won election.³ The main parties involved in designing the district maps collaborated to create a number of safe seats through the definition of constituency boundaries and thereby reduce uncertainty regarding their likely victors, in order to control as far as possible which of each party's candidates would get elected.

Classical Gerrymandering and Malapportionment

In countries with systems of government using single-member constituencies to elect legislators (Parliamentary constituencies in the UK and Congressional Districts in the United States, for example) the electoral results are usually disproportional, the percentage of votes received by the various parties and that of allocated seats being markedly different.⁴ This shows the importance of geography not only in drawing the electoral constituency boundaries,⁵ but also for the conversion of votes into parliamentary seats by means of cartographic strategies meant to maximize the chances of obtaining as many seats as possible (gerrymandering and malapportionment). Other authors have shown how electoral mapping has an impact on the translation of votes into seats.⁶ Partisan geography, such as gerrymandering and malapportionment, through which a party tries to maximize its electoral chances against its opponents, has been associated with the American electoral system,⁷ the mapping of electoral districts being intensely politicized there.⁸ There are different forms of malapportionment: deliberate intent – if one party controls the mapping process and creates larger constituencies in the areas where one's opponent is strong; creeping malapportionment – changes in constituency size over time create smaller seats where one's party is strong; and reactive malapportionment – one party is strongest in the areas where abstention rates are greatest.⁹ Gerrymandering involves a partisan mapping scheme that may hinder the opposing party's chances of winning seats. This can be done through the establishment of fewer constituencies in areas where the opposing party has strong electoral support (a packed gerrymander), or by creating as many colleges as possible in those areas in which the party that controls the mapping process has an electoral majority – a cracked gerrymander.¹⁰

There is a long history of gerrymandering in the United States, with the practice being well-established well-before Governor Gerry's exercise which led to it being named after him.¹¹ And there has been a substantial history of the practice being challenged legally – though largely unsuccessfully.¹² One problem has been that although the widespread practice of gerrymandering has been recognised, to some it is not possible to establish whether a particular cartography of electoral districts represents a gerrymander because no standard that provides a baseline against which a set of districts can be compared has been found acceptable. Such a statistical baseline has been developed and presented as a valid means for assessing a proposed set of districting in terms of the asymmetry of the outcome (for example, if there are two parties, one of them gets a larger share of the seats with any specific share of the votes cast than its opponent);¹³ it has not been accepted to date by the United States Supreme Court, however, though some lower courts have been convinced of its viability.

Unfortunately, that method of assessing a gerrymander – or an alternative procedure used in the United Kingdom to assess the efficiency of a party's vote distribution across a set of districts¹⁴ – cannot be used in the Romanian case. In the United States – and elsewhere – gerrymandering is a deliberate practice undertaken by a political party which has the power to do that (because it controls the relevant component of the state apparatus), to its opponent's disadvantage: thus, McGinn et al. have shown that in the 2010 round of redistricting in the United States, the most egregious gerrymanders, favouring the Republican party, were undertaken in states where the Republicans controlled all sections of the relevant state government (both houses of the legislature plus the governorship).¹⁵ That was not the case in Romania in 2008 where the exercise of drawing up district boundaries was undertaken by a multipartisan committee. Each party on the committee was concerned to promote its own interests by creating districts that its candidates could expect to win, and each realised that to achieve that goal it had to allow its opponents similar opportunities, creating districts to their advantage in the same constituencies. The practice of gerrymandering – and also malapportionment, as we set out below – was thus not a zero-sum game, with all of the benefits (a greater share of the seats than of the votes) accruing to one party and the disadvantages (a lesser share) to its opponents. As such, the measures deployed in the United States and elsewhere to assess the asymmetry of election results because of gerrymandering and malapportionment could not be deployed in the Romanian case and – as set out below – alternative methodologies were needed to establish its extent there following the 2008 legislation.

This article outlines the electoral system adopted in 2008 to clarify how the allocation of seats in the Chamber of Deputies functioned in practice. The next section presents the research design: the data, variables and methods used to assess the extent in which electoral geography was used to make the allocation of seats across the parties more predictable. Next come the multivariate analyses which investigate how malapportionment and the creation of partisan strongholds have influenced the election of candidates. The fifth section takes a more in depth look at a number of SMDs to understand better the results of the multivariate analyses, in particular the nature of the apparently gerrymandered districts. The conclusion synthesizes the main findings and points to further directions of research.

Electing the Romanian Chamber of Deputies

A debate around electoral reform has dominated the Romanian political and public agenda since the end of the 1990s. The main concerns were to improve the legitimacy of candidates, the quality of

representation and the bond between candidates and population.¹⁶ An important part of civil society argued against the closed-list system proportional representation (PR) electoral system, claiming that it triggered weak accountability and responsiveness of representatives.¹⁷ Moreover, the ballot format did not allow voters to sanction corrupt or incompetent incumbent legislators,¹⁸ while the favoured candidates of each party's elite were at the top of the electoral lists,¹⁹ denying voters choice over who represented them. The replacement of that PR system was soon framed by politicians from the three main parties – Social Democrats (PSD), Democratic Liberals (PDL), and Liberals (PNL) – as a solution for the renewal of the political class and of many other perceived political problems.²⁰ Against them stood two small parties – The Democratic Alliance of Hungarians in Romania (UDMR, an ethnic party), and The Greater Romania Party (PRM), a nationalist party – which feared being disadvantaged by any new electoral system. Indeed, PRM failed to clear the electoral threshold at the first elections organized under the new rules. The new electoral system resulted as a political compromise. President Traian Băsescu and the Democratic Liberal Party (PDL) supported a majority run-off formula, but faced tough opposition from the National Liberal Party (PNL) which provided the then Prime-Minister, Călin Popescu Tăriceanu; as the third political party, after PDL and the Social Democrat Party (PSD), unsurprisingly PNL did not want a majoritarian formula. With the support of PSD, however, an electoral system supported by PNL was adopted.

The 2008 election, the first to be held under the new system, was conducted in forty-three separate constituencies – the country's forty-one counties plus the City of Bucharest and a separate constituency for Romanians living abroad. Each of the forty-two constituencies within Romania (i.e. excluding that for those living abroad) was divided into single member districts, the number of SMDs there depending on the constituency's population. Parties fielded candidates in as many of those districts as they chose.

Parties qualified for the allocation of seats if they met one of the following criteria: either they obtained at least 5 per cent of the national vote total (a higher percentage, up to 10, was required when two or more parties formed an electoral coalition); or they won at least six of the Chamber of Deputies SMDs and three of the Senate districts, each with an absolute majority of votes cast.²¹

Only three parties, PNL, PDL, and UDMR, plus one alliance of two parties, the Social Democrats and Conservative Alliance, exceeded the threshold and qualified for the allocation of 315²² out of the 333 seats in the Chamber of Deputies, distributed using proportional formulae (the Hare and d'Hondt methods, as indicated below); the remaining 18 seats were allocated to otherwise unrepresented national minorities.

The allocation process involved two separate stages: first, seats were allocated to the parties using proportional formulae (Hare and d'Hondt methods); and, second, seats were allocated to the candidates who contested the single-member districts to approximate that proportional allocation (Figure 1).

Figure 1 about here

At the first step, seats were allocated to the parties at the constituency level using the Hare method and

nationally (using the d'Hondt procedure). The Hare method is clearly illustrated by the example of the Teleorman constituency, which was divided into six districts. The electoral coefficient for that constituency (the number of valid votes won by the qualifying parties divided by the number of districts) was 21,133, which resulted in the allocation shown in Table 1.

Table 1 about here

Only the integer numbers qualified, so that the PSD gained two seats and the PDL and PNL one each. This left two seats to be allocated at a further stage. In total, only 244 of the 315 seats were allocated, leaving 71 to be distributed among the parties at the next stage.

The allocation of those final 71 seats (including the two in Teleorman constituency) across the parties and alliances was undertaken nationally. All of the unused votes were summed and the d'Hondt method was deployed to allocate the 71 as illustrated in Table 2.

Table 2 about here

A coefficient was calculated for each remaining seat in each constituency and the results are presented in Table 3, with seats rank-ordered according to those coefficients. The party coefficients were computed as follows: the unused votes in the constituency were multiplied with the number of seats allocated nationally (d'Hondt method) and divided by the sum of all unused votes (national scale). In Teleorman, for example, this meant that 20,142 (PDL unused votes in Teleorman constituency) was multiplied with 22 (PDL seats allocated according with d'Hondt method – Table 3) and then divided by 439,107 (PDL unused votes – national scale) resulting in a coefficient of 1.009.

The constituency electoral divider is computed for each party in each constituency in a similar manner. If in a constituency more than one seat remains to be allocated, the electoral divisor is the lowest party coefficient among the parties that are entitled to more seats there (in the case of Teleorman, that of PNL, i.e. 0.971). Thus, the highest coefficients for parties entitled to further seats in Teleorman – one each for the PDL and PNL – resulted in their candidates in the as-yet unrepresented districts being elected (Table 3).

Table 3 about here

After this first step the proportional allocation of seats to parties for the Chamber of Deputies produced the following results: PSD – 114 seats; PDL – 115; PNL – 65; UDMR – 22. In the particular case of constituency no. 37 (Teleorman) the results were: PSD – 2 seats; PDL – 2; PNL – 2.

The second step of the electoral process involved the allocation of district seats to candidates, within each constituency. All candidates who won an absolute majority of votes (50% + 1) in the districts where

they stood as candidates secured their seats. In the case of Teleorman constituency, two PSD candidates won an absolute majority in the districts they contested, as did one PNL candidate. This meant that PSD exhausted their seats allocated proportionally and could not win another seat in this constituency, even if one of their candidate got most votes in any of the as-yet unallocated districts. The remaining seats in each constituency (i.e. those not won by an absolute majority; three in Teleorman constituency) were then allocated to the candidates who got most votes there and whose parties were entitled to more seats in that constituency. This is illustrated in Table 4.

Table 4 about here

The largest number of votes for a candidate not already elected was for the PSD candidate in District 4, but because the PSD had already received the two seats it was entitled to proportionally, he was not elected. The seat went instead to the PDL's candidate, who won 2,341 fewer votes than his PSD opponent: to achieve overall proportionality in the allocation of seats from Teleorman in the Chamber, District 4 was won by the second-placed candidate. District 3 was also won by the PDL's candidate – in this case he won the largest number of votes there. Finally, District 5 went to the PNL candidate, who had won the largest number of votes of his party's candidates in Teleorman, even though he came only third in this district, with less than half of the votes of the leading candidate (Cîrciumaru Gheorghe of the PSD).

Districting in Romania

The nature of the districting procedure within each constituency was determined within the 2008 legislation. Several criteria were included, but although these were presented as rules their application treated them rather as guidelines and they were frequently broken during their implementation. These criteria are: a) each constituency could not have less than four districts returning members to the Chamber of Deputies and two to the Senate; b) each district's territory had to be contained within a single constituency; c) districts should be compact (though that was not defined); and d) no district should contain a population more than 30% larger than the smallest in the relevant constituency.

Districting within each constituency under the new legislation was undertaken prior to the 2008 election by a parliamentary committee with a proportional composition (i.e. reflecting the composition of the Chamber of Deputies at the time at the time). It was thus dominated by members of the three largest parties (PSD – 8, PDL – 3, PNL – 3, others – 5). Because none of the parties had a majority in the committee the districting procedure involved their representatives bargaining over solutions that best reflected their interests in each constituency – a process akin to that of logrolling. Their final report then went to an independent Permanent Electoral Authority for final scrutiny which could recommend changes either annually where significant changes in population distribution were identified or after each population census – though any changes had to be made at least 12 months before the next scheduled general election and could only be made where a variation of 10 per cent or more emerged between districts within a constituency.

Given the exploratory nature of this research we do not formulate explicit hypotheses. However, two

expectations informed our analyses. The first was that in their bargaining over the district boundaries within each constituency, each party represented on the districting committee would seek to create one or more districts there (assuming that they had sufficient electoral support overall) comprising localities that have elected mayors affiliated with the respective party. We identified two mechanisms to do so, which we proxy with the stronghold district and concentration variables, discussed below. Mayors have considerable power and influence in Romanian politics, not least through pork-barrel benefits for their constituents, and their role in mobilizing votes at parliamentary elections is crucial. A gerrymandering strategy, therefore, would involve grouping together localities with mayors from the relevant party – as far as possible within the size and compactness constraints laid down by the electoral law although, as the examples below show, these were not always conformed to. The other parties' representatives may agree to one set of districts not conforming to the rules but favoring one party if, in return, similar districts were created favoring them – perhaps in other constituencies. We proxy such gerrymandering efforts through two variables.

In classic electoral districting strategies, malapportionment generally involves creating a set of districts within a territory to maximize the number of seats a party wins and minimize those of its opponents. In parts of the territory where the party is strong, therefore, this involves creating districts that have smaller numbers of voters than average, and countering this by creating districts that are larger than average where opposing parties are strong.²³ This is not the strategy deployed in Romania after 2008, however, because of the nature of the electoral system. The second expectation is related to its provision that the allocation of seats to candidates who did not win an absolute majority of votes in a district is made using the total number of votes, not the corresponding percentage. This created incentives for the parties to design SMDs highly unequal in terms of population – some particularly large so as to make sure that nomination in such a district increased the chances of a preferred candidate, part of the local or central party elite to win the seat. Thus, a substantial number of SMDs were malapportioned: breaking the 30% rule mentioned above.

Research design

Our bivariate and multivariate analyses (binary logistic regressions) test the two expectations mentioned above by assessing the probability of a party's candidate being elected according to a threefold characterisation of districts (stronghold, concentrated and malapportioned) as defined below. We then complement the findings of these statistical analyses with an in-depth discussion of the cartography of a number of selected districts, to understand better whether these effects appeared either 'naturally' as a consequence of the distribution of party support within a constituency or due to gerrymandering of the district boundaries there.

Operationalisation of variables

The first proxy we use for the result of bipartisan gerrymandering discussed above is the *stronghold district variable*, which captures the share of a district's inhabitants who live in localities with a mayor from the same party as the candidate. This variable is measured on a 0-1 scale. Thus, if an SMD is composed of four localities with 15,000 inhabitants each, and three of them have elected mayors from the same political party as the candidate, the corresponding score for this case is 0.75.

The second proxy, the *concentration variable*, indicates what share of the constituency's inhabitants who have elected mayors from the same party as the candidate is concentrated in the district. To give an example: if in a county 60,000 inhabitants live in villages and towns that have elected mayors from the same political party as the candidate and 50,000 of them are concentrated in the district where the candidate of interest runs, then the concentration variable receives an 0.83 score.

No fewer than 231 of the Chamber of Deputies' 311 districts analyzed here had a value larger than 0.5 on the stronghold district variable. In each of those 231, more than half of the population lived in localities that had elected mayors of the same political color. 78 were PDL strongholds, 49 'belonged' to PNL and 104 were PSD strongholds. Moreover, 164 (71%) of the candidates running there won the seat, 65 of them with an absolute majority of votes. Similarly, 68 of the 311 districts had a value larger than 0.4 on the concentration variable for one of the three parties. This value implies that more than 40% of the inhabitants in a constituency that had elected mayors from this party were concentrated in one district there. PNL had 29 such SMDs, followed by PSD (20) and PDL (19) and 45 (66.2%) were elected. Roughly half of these districts also had a value larger than 0.5 on the 'stronghold' variable (15 for PNL and 9 each for PSD and PDL).

As mentioned before, a district is considered malapportioned if it is at least 30% larger than the smallest district in the county. For the 2008 elections the national territory of Romania was divided in 311 Chamber of Deputies SMDs. No fewer than 106 (34.1%) of these SMDs were more than 30% larger than the smallest district in the county, thus violating the corresponding provision of the electoral law.

Figure 2 about here

Figure 2 shows the extent of malapportionment at the 2008 elections: all the cases to the right of the vertical line are malapportioned. Malapportionment was highest for Chamber of Deputies district 19 in Bucharest, which was almost 170% larger than the smallest Bucharest district.

We introduce two control variables in the model: the candidates' incumbency status and their gender. It is expected that incumbents could benefit from a personal vote following their constituency service activity (Chiru 2015) or because they have better name recognition. Women might be disadvantaged by the SMD setting given the prevalence of traditional culture gender norms in Romania.²⁴ A candidate is considered incumbent if she was a member of the 2004-2008 legislature, irrespective if this happened for the full period or only for a few months.

Building safe seats: the value of strongholds and concentrated support

Table 5 presents the results of our binary logistic regressions: the Dependent Variable is whether or not the candidate was elected at the 2008 parliamentary elections. We run the same model four times: first

on the pooled set of all candidates from the three main parties and alliances, and then separately for each.²⁵ The regressions cover all the 311 Chamber of Deputies districts located in Romania: we excluded the 4 districts for the Diaspora, where no party had strongholds and could not benefit from a partisan drawing of the borders.

The odds ratio of 14.7 for the stronghold variable in the pooled model, the first column of Table 5, shows that on average a candidate was almost 15 times more likely to win a seat if she contested a district where all citizens have elected mayors from her party compared to a district where none have, fully sustaining our expectation. Where a party has been successful in electing mayors at recent local government elections its candidates for the Chamber of Deputies are highly likely to win election too.

Table 5 about here

The model also shows that some candidates benefited greatly from running in districts that concentrated most or all of their party's strongholds in that county. The odds ratio of 11.02 for the concentration variable shows that – holding the other variables constant – a candidate is 11 times more likely to win a seat if all of the constituency's localities where her party has an elected mayor are concentrated in that one seat compared to a district where none of those localities are concentrated there.

Holding constant the other variables, the small and statistically insignificant odds ratio of 1.14 indicates that running in a malapportioned district does not seem to influence a candidate's chance of being elected, the same being true for the gender of the candidate. Incumbents, however, were twice as likely as the other candidates to win again, whatever their gerrymandered and/or malapportioned situation. We also ran a model with party dummies and the main findings are virtually identical in terms of magnitude and direction. Similarly, in another model ran on the pooled sample we replaced the dependent variable with a binary indicating whether the candidate won (1) or not (0) with an absolute majority of votes. This produced a very large effect for the stronghold district variable: a candidate running in such a district was 144 times more likely to win the seat directly than a candidate running in a district where her party has no mayors. A variant of the 'concentration' variable produces also a positive effect, similar in magnitude with the one in Table 5.

The regressions run separately for the three parties corroborate the main findings of the pooled model. Stronghold districts increased greatly the chance of winning a seat and vote concentration mattered for all three parties. However, there are differences in the strength of the effects between the parties: this latter factor was much more important for the allocation of seats within the PSD than for the other two parties and it was also the single most important predictor of winning a seat for the PNL candidates.

Running in a malapportioned district has different effects: it increases the election probability among PDL candidates, whereas it decreases it within the PNL. For PSD candidates the effect is positive but it does not reach conventional levels of statistical significance. It was probably harder for the PNL (the third most popular party overall at the election) to win either a majority or a plurality of votes in larger districts. However, in the 11 cases when PNL candidates won a plurality of votes in malapportioned districts they always won the seat, compared to only 78 per cent of the other 36 cases when they won

the plurality in a non-malapportioned SMD.²⁶

These findings indicate that nomination in the 'right' type of district was the main factor deciding whom of each parties' candidates got elected. That a district is a stronghold for a party does not necessarily mean that it was gerrymandered; the geography of its support may mean that a safe seat was created without any deliberate intent.²⁷ However, given the high incidence of districts built as strongholds and the overlap with the type of concentration discussed we are inclined to believe that a large part of this situation was achieved by cross-partisan agreement, and did not appear naturally.²⁸ In the following section we take a closer look at a number of districts to understand better how such a design was achieved and implemented.

Romanian electoral cartography: a closer look at nine SMDs

If district boundaries were gerrymandered in the non-partisan districting committee it is very likely that some at least of them would have non-compact shapes. To illustrate the fact that the 'stronghold' and 'concentration' mechanisms emphasized by our multivariate analyses included cases of successful gerrymandering we focus on nine examples, three districts won by the PSD and PDL each, two by the PNL and one by the UDMR. Most of the districts shown have odd (i.e. non-compact and, in some cases, non-contiguous) shapes. Such shapes are not a necessary feature of a gerrymander – it is possible to create a 'safe seat' with a compact set of contiguous localities – but their prevalence is a clear indication (as is the case in many US gerrymanders²⁹) of localities being combined to create districts where a party will gain an absolute majority, irrespective of any other aspects of their geography.

Figure 3 shows three districts created in constituencies which have a PSD majority. In the first case, District 6 in the Argeş constituency comprises 21 localities, 17 of which had an PSD mayor, resulting in a stronghold district value of 0.74; and in the second, District 3 in Olt constituency had 17 localities with a PSD mayor, out of a total of 21, with a stronghold district value of 0.72. In both SMDs, the PSD candidates won the absolute majority of votes. The third example – District 4 in Bacău constituency – differs from the first two in that only four of its 16 localities had PSD-affiliated mayors: however those four include the constituency's main city, whose population predominated in the district (the remainder of which is rural) and whose political power ensured PSD representation there. In this case the stronghold district variable has a value of 0.53. The PSD candidate won 49% of the vote and received the seat. The first two of those districts are clearly non-compact in shape, and the first does not even comprise a continuous block of territory.

Figure 3 about here

Figure 4 shows three examples of PDL-gerrymandered districts. The first, District 2 in Mehedinţi constituency is not only a case of stronghold district (value of 0.89), but also concentrates a large share of the population living in PDL localities in the county (concentration value of 0.44). The second, District 9 in Suceava constituency has a stronghold district value of 0.46. The party won an absolute majority of the votes cast in each of the two districts. In the third case – District 4 in Teleorman constituency – only 7 of the 23 localities had a PDL mayor, but the district concentrates most of the PDL support in the county

(a concentration value of 0.63). Thus, it is not at all surprising that the district, which has a very 'bizarre' shape, was won in the second-stage allocation.³⁰

The Teleorman constituency had only 15 localities with PDL mayors in 2008, among which 7 were in district 4 (Figure 6a). Due to the proportional allocation the PDL won 2 seats in Teleorman constituency, but because none of its candidates gained an absolute majority in any of its six districts the second stage of allocation was triggered. Therefore, the PDL candidate of district 4 won the seat based on internal party ranking position. It emerges that the spatial manipulation of electoral districts was decisive for the seat won by this PDL candidate.

Figure 4 about here

The first example in Figure 5 also refers to Teleorman constituency, where District 6 encompassed 15 localities, 12 of which had an PNL mayor, which resulted in a stronghold value of 0.76. In this constituency, out of 97 localities only 29 had PNL mayors, 12 of them being grouped in district 6 (concentration value of 0.34) which helped the PNL candidate win with absolute majority (73.3%) – Figure 6b. The second example refers to District 2 in the Sălaj constituency, which concentrated 90% of the constituency's population living in localities with UDMR mayors, and was also a stronghold district for this party (value of 0.76 on this variable). Of course, the UDMR candidate won the absolute majority of votes in this SMD. Finally, District 3 in the Satu Mare constituency is another case in which a candidate won a mandate in the second stage of seat allocation: the PNL candidate won this seat due to its internal party ranking position. This was facilitated by the fact that 54% of the county's population which lived in localities with PNL mayors was concentrated in this district.

Figure 5 about here

Figure 6a about here

Figure 6b about here

These analyses clearly contradict previous assumptions³¹ that only the PSD and PNL representatives were influential during the Districting committee's deliberations. The examples mapped here show that all parties were able to negotiate some district boundaries that favoured their electoral interests as a result of the logrolling that occurred. Gerrymandering was widespread in the 2008 delimitation because it was in each party's interests to yield some safe seats to its opponents in order to gain others for itself.

Conclusion

This article presents a novel case of drawing district boundaries in SMD contests for partisan purposes: one in which the main parties collaborate in order to minimize the uncertainty regarding which of their candidates would get elected. This happened in a context in which the proportional logic of the electoral system and the cross-partisan character of the committee drawing the district boundaries excluded classical gerrymandering or malapportionment strategies that would ensure additional gains for a party at the expense of others. Through inter-party collaboration each party was able to create (i.e. gerrymander) stronghold districts where its probability of success at general elections was high because they contained a concentration of localities where the party had been strong at recent local elections, as shown by the number of localities for which it provided the elected mayor. Regression analyses have shown that where a party's candidate was contesting such a district, she was much more likely to be victorious there – a conclusion that provides strong circumstantial evidence of gerrymandering, and which is further sustained by analysis of the non-compact shapes of some of those districts.

After the first post-communist decade, the Romanian political elites and a very vocal segment of the civil society favored electoral reform and the abandonment of the closed list proportional representation system deployed in that decade's elections. The 2008 electoral law implementing such change was the result of tripartite agreement involving the country's largest three parties at the time (PSD, PDL and PNL) – a compromise that was at the same time both reformist (allocating seats to candidates in single-member districts) and conservative (maintaining an overall allocation of seats according to the principle of proportional representation). Within the reformist component, the parties' instinct for self-preservation led them to collaborate in the drawing of district boundaries in line with gerrymandering and malapportionment strategies – in many cases acting beyond the rules laid down in the legislation. In that way, the map of representation in the Chamber of Deputies reflected in considerable detail that of local political affiliations; in many constituencies artificial strongholds were created by grouping together within the same districts localities having mayors sharing partisan affiliations, while malapportionment was also used to reduce the uncertainty regarding the allocation of seats between the candidates of a party in a county.

Not all uncompetitive districts were either gerrymandered or/ and malapportioned, of course. Some reflected that one party was very strong in an area and was bound to win many seats there. But the evidence discussed here suggests that in many constituencies the careful drawing of district boundaries involved cartographic manipulation. The first element that points in this direction is the actual small share of competitive seats in a contest in which the two main parties could each mobilize one third of the electorate and there was also a third party which ended up winning almost 19% of the national vote, while all three had rather high scores of party nationalization (i.e. support equally distributed across the country). The second element is the substantial overlap which exists between stronghold and concentrated districts, which should not happen often randomly given that in those local contexts the respective parties were relatively weak in the overall constituency. Finally, the non-compact shape of the districts analyzed supports the idea that certain districts were deliberately designed to benefit one of the parties. All these elements open up avenues that further research could explore systematically, although with the data at hand and without the input from the actors involved in the mapping of the districts, it would never be possible to fully document the intentional manipulation of district boundaries.

What future research could analyze in a more systematic manner is what were the attributes of the candidates that benefited the most from these practices. Kaare Strøm³² and Michael L. Mezey³³ argued that in such situations the gerrymandered seats were more likely to be won by candidates favoured by the central party apparatus than by local politicians. In Romania some preliminary research conducted after the 2008 elections suggested that many of the victors in the uncompetitive seats were mostly local politicians rather than candidates parachuted there by the central party apparatus,³⁴ although former and current ministers at the time (including two former prime ministers) also ran in some of the gerrymandered districts.

The district boundaries remained unchanged for the 2012 Parliamentary elections, which highlighted a major effect of the electoral law: the number of Parliamentary seats had to be increased because one electoral alliance won more seats in a constituency's districts with an absolute majority than its entitlement through the proportional formulae.³⁵ This involved the Social-Liberal Union (USL, a large coalition between social-democrats – PSD and liberals – PNL), which won 265 seats with absolute majority out of 315 seats available for the Chamber of Deputies. Moreover, USL won all districts with absolute majority in 25 out of 43 constituencies. Since three other electoral competitors (UDMR, The Right Romania Alliance (ARD), with PDL as main party in this coalition, and the People's Party – Dan Diaconescu - PPDD) passed the electoral threshold and had to receive seats proportionally to their votes, the implementation of the law resulted in 79 additional seats for the Chamber of Deputies. This meant that 79 districts had two deputies instead of one, puzzling public opinion and showing an unexpected effect of 2008 reform. In 2011 the PDL-led government had changed the law regarding the election of mayors replacing the majority run-off system with FPTP, the intention being most probably to preserve electoral strongholds, strengthen the local political networks and ensure a result at the 2012 parliamentary elections comparable to that in 2008. However, its tremendous unpopularity following the austerity measures it had implemented while in power and several corruption scandals involving high profile party members made such calculations superfluous.

Notes

- 1 Mihail Chiru and Ionuț Ciobanu 'Legislative Recruitment and Electoral System Change: The Case of Romania.' *CEU Political Science Journal* 4, no. 2 (2009): 192–231; Emanuel Emil Coman, "Legislative Behavior in Romania: The Effect of the 2008 Romanian Electoral Reform," *Legislative Studies Quarterly* 37, no. 2 (2012): 199–224; Sergiu Gherghina and George Jigla, "Where Does the Mechanism Collapse? Understanding the 2008 Romanian Electoral System," *Representation* 48, no. 4 (2012): 445–59; Sergiu Gherghina, Laurentiu Ștefan, and Mihail Chiru, "Electoral Reform—Cui Bono? Attitudes of Romanian MPs to the Electoral System Change," *The Journal of Legislative Studies* 19, no. 3 (2013): 351–69.
- 2 Cosmin Gabriel Marian and Ronald F. King, "Plus Ça Change: Electoral Law Reform and the 2008 Romanian Parliamentary Elections," *Communist and Post-Communist Studies* 43, no. 1 (2010): 7–18.
- 3 This was extremely important given the fact that due to the electoral rules candidates who won the plurality of votes in the district could still easily lose the seat: in the end 76 candidates were in this position.
- 4 Michael Gallagher and Paul Mitchell, *The Politics of Electoral Systems* (Cambridge Univ Press, 2005); Ron Johnston, David Rossiter, and Charles Pattie, "Disproportionality and Bias in US Presidential Elections: How Geography Helped Bush Defeat Gore but Couldn't Help Kerry Beat Bush," *Political Geography* 24, no. 8 (2005): 952–68; Arend Lijphart, *Electoral Systems and Party Systems* (Oxford University Press, USA, 1995);

- Pippa Norris, *Electoral Engineering: Voting Rules and Political Behavior* (Cambridge University Press, 2004).
- 5 Ron Johnston, "Manipulating Maps and Winning Elections: Measuring the Impact of Malapportionment and Gerrymandering," *Political Geography* 21, no. 1 (2002): 1–31; Ronald John Johnston, *From Votes to Seats: The Operation of the UK Electoral System Since 1945* (Manchester University Press, 2001); Johnston, Rossiter, and Pattie, "Disproportionality and Bias in US Presidential Elections: How Geography Helped Bush Defeat Gore but Couldn't Help Kerry Beat Bush."
- 6 Richard Born, "Partisan Intentions and Election Day Realities in the Congressional Redistricting Process," *American Political Science Review* 79, no. 02 (1985): 305–19; Janet Campagna and Bernard Grofman, "Party Control and Partisan Bias in 1980s Congressional Redistricting," *The Journal of Politics* 52, no. 04 (1990): 1242–1157; Gary W Cox and Jonathan N Katz, *Elbridge Gerry's Salamander: The Electoral Consequences of the Reapportionment Revolution* (Cambridge University Press, 2002); Erik J Engstrom, "Stacking the States, Stacking the House: The Partisan Consequences of Congressional Redistricting in the 19th Century," *American Political Science Review* 100, no. 03 (2006): 419–27.
- 7 Ron Johnston, "Which Map? Which Government? Malapportionment and Gerrymandering, UK-Style," *Government and Opposition* 50, no. 01 (2014): 1–23. In the UK, a non-partisan commission is responsible for the redistricting of electoral districts since 1944.
- 8 Antoine Yoshinaka and Chad Murphy, "Partisan Gerrymandering and Population Instability: Completing the Redistricting Puzzle," *Political Geography* 28, no. 8 (2009): 451–62.
- 9 Johnston, "Manipulating Maps and Winning Elections: Measuring the Impact of Malapportionment and Gerrymandering."
- 10 Cox and Katz, *Elbridge Gerry's Salamander: The Electoral Consequences of the Reapportionment Revolution*; Seth C McKee and Daron R Shaw, "Redistricting in Texas: Institutionalizing Republican Ascendancy," 2005; Jonathan Winburn, *The Realities of Redistricting: Following the Rules and Limiting Gerrymandering in State Legislative Redistricting* (Lexington Books, 2008).
- 11 E. C. Griffiths, *The Rise and Development of the Gerrymander* (Chicago: Scott Foresman, 1907)
- 12 See the full summary in Anthony J. McGann, Charles Anthony Smith, Michael Latner and Alex Keena, *Gerrymandering in America: the House of Representatives, the Supreme Court and the Future of Popular Sovereignty* (Cambridge: Cambridge University Press, 2016).
- Ibid. See also Andrew Gelman and Gary King, "Estimating the Electoral Consequences of Legislative Redistricting", *Journal of the American Statistical Association*, 85 (410), 274-282; Gary King and Robert X. Browning, "Democratic Representation and Partisan Bias in Congressional Elections", *American Journal of Political Science*, 33 (4), 1987, 787-824;
- Ron Johnston, Charles Pattie, Daniel Dorling and David Rossiter, *From Votes to Seats: the Operation of the UK Electoral System since 1945* (Manchester: Manchester University Press, 2001). This method is similar to that promoted by Andrew Gelman and Gary King, "A Unified Method of Evaluating Electoral Systems and Redistricting Plans", *American Journal of Political Science*, 38 (2), 514-554.
- 15 McGann et al., op. cit.
- 16 Ionuț Ciobanu, "Selectoratul Partidelor Politice Românești," *Sfera Politicii*, no. 126-127 (2007): 62–71; Gherghina and Jigla, "Where Does the Mechanism Collapse? Understanding the 2008 Romanian Electoral System."
- 17 Gherghina, Ștefan, and Chiru, "Electoral Reform—Cui Bono? Attitudes of Romanian MPs to the Electoral System Change."
- 18 Chiru, 'Legislative Recruitment and Electoral System Change: The Case of Romania.'
- 19 Gherghina and Jigla, "Where Does the Mechanism Collapse? Understanding the 2008 Romanian Electoral System"; Laurențiu Ștefan, *Patterns of Political Elite Recruitment in Post-Communist Romania* (Ed. Ziua, 2004).
- 20 Chiru, 'Legislative Recruitment and Electoral System Change: The Case of Romania.'; Marina Popescu. 2005. 'In quest of a better political system: more accountability and better representation', CPS International Policy Fellowship Program, 2004/2005, 1-47.

21 This criterion was explicitly introduced to ensure representation for UDMR, the party of the Hungarian minority which is concentrated in a small number of counties/constituencies only and may not reach the national 5% criterion.

22 In the end there were 316 seats allocated in the 315 districts. This happened because in the Arad constituency PDL won one more seat directly (i.e. with an absolute majority of votes) than it was entitled to proportionally: 5 seats instead of 4. As a result the Arad SMD number 7 had two elected representatives: one from PDL and the other from UDMR.

23 In some countries there is no deliberate malapportionment according to this strategy; districts are formed that are relatively equal in their numbers of voters but population trends over time mean that districts favouring one party grow whereas those favouring another decline, producing a malapportioned situation – as in the United States before the ‘reapportionment revolution’ of the 1960s and beyond; parties strong in rural areas benefited from this over those strong in urban areas as district boundaries were not redrawn to rectify the differences. Elsewhere – as in Australia until the 1970s – there was deliberate malapportionment with smaller districts created in rural areas.

24 Mihail Chiru and Marina Popescu 'The Value of Legislative Versus Electoral Experience and Gender in Explaining Candidate List Placement Under Closed List PR', *Problems of Post-Communism*, First View (2016).

25 UDMR is excluded from the analyses because this party relies on an ethnic vote which has been remarkably stable and its strongholds are naturally concentrated in a few counties in Transylvania.

26 Overall there is a weak positive correlation between being elected after winning the plurality of votes and running in a malapportioned SMD: Pearson's $R = .171^{***}$. The relationship is stronger if we look separately at PDL candidates (Pearson's $R = .290^{***}$) and PNL candidates (Pearson's $R = .250^{*}$), whereas for the PSD candidates there is no correlation.

27 In their classic work Gudgin and Taylor clearly distinguished between partisan and non-partisan gerrymanders. Graham Gudgin and Peter J. Taylor, *Seats, Votes and the Spatial Organisation of Elections* (London: Pion, 1979).

28 Moreover, the incidence of the strongholds also seems to indicate that only around a quarter or less of the all the districts were competitive.

29 Mark S. Monmonier, *Bushmanders and Bullwinkles; How Politicians Manipulate Electronic Maps and Census Data to Win Elections* (Chicago: University of Chicago Press, 2001).

30 It is also the case that in a number of localities the mayor's party affiliation changed between elections, and many of the voters followed that shift in affiliation.

31 Mihail Chiru, "Învingători Dinainte: Selecția Candidaților Pentru Colegiile Necompetitive La Alegerile Parlamentare Din 2008," in *Voturi Și Politici. Dinamica Partidelor Românești În Ultimele Două Decenii*, ed. Sergiu Gherghina (Iași: Institutul European, 2011), 103–22.

32 Kaaren Strøm, "Rules, Reasons and Routines: Legislative Roles in Parliamentary Democracies," *The Journal of Legislative Studies* 3, no. 1 (1997): 155–74.

33 *Representative Democracy: Legislators and Their Constituents* (Rowman & Littlefield Publishers, 2008).

34 Mihail Chiru, "Legislative Recruitment And Electoral System Change: The Case Or Romania" (MA dissertation, Central European University, 2010); Mihail Chiru, "Selecția Candidaților Pentru Parlamentul României După Modificarea Sistemului Electoral," in *Cine Decide? Partide, Reprezentanți Și Politici În Parlamentul României Și Cel European*, ed. Sergiu Gherghina (Iași: Institutul European, 2010), 107–32.

35 This is the equivalent of the *überhangmandat* in the German electoral system.

Figure 1. Allocation of seats in the post-2008 Romanian electoral system

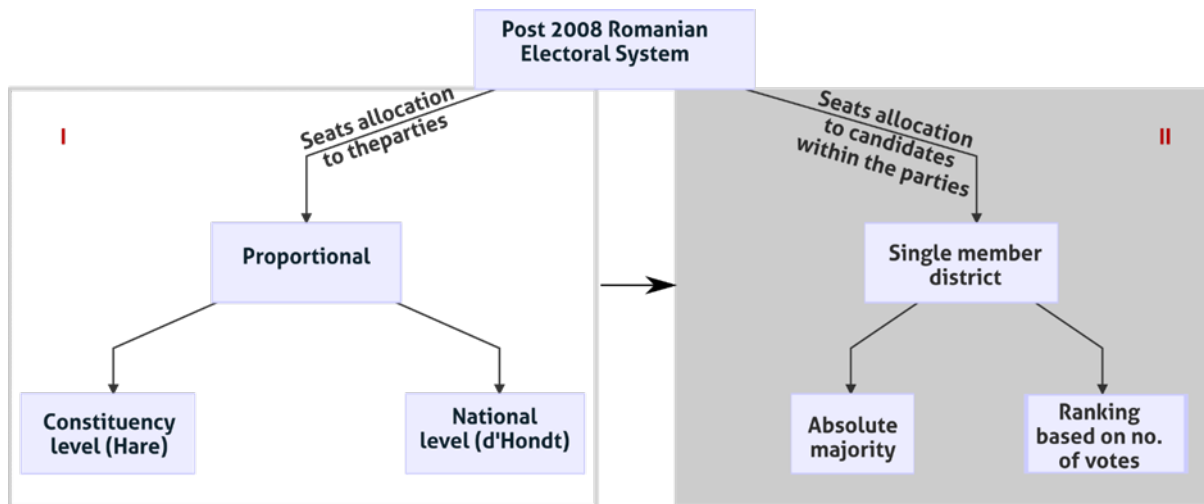


Figure 2: Frequency and size of malapportioned SMDs

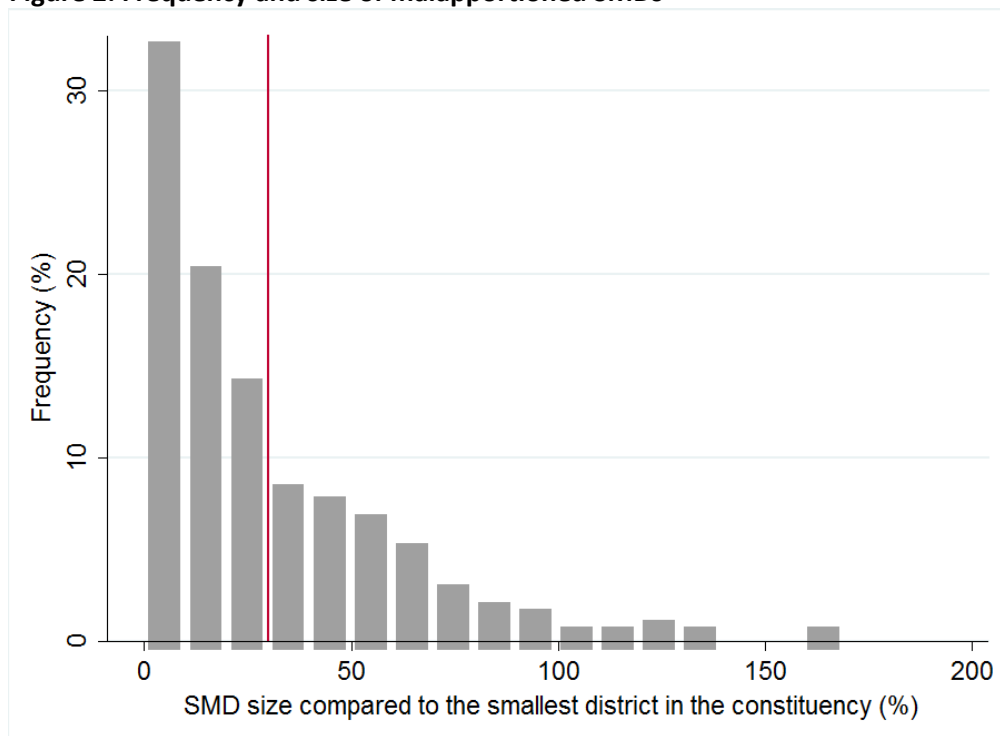


Figure 3. Apparently Gerrymandered districts for PSD (Argeş 6, Olt 3, Bacău 4)

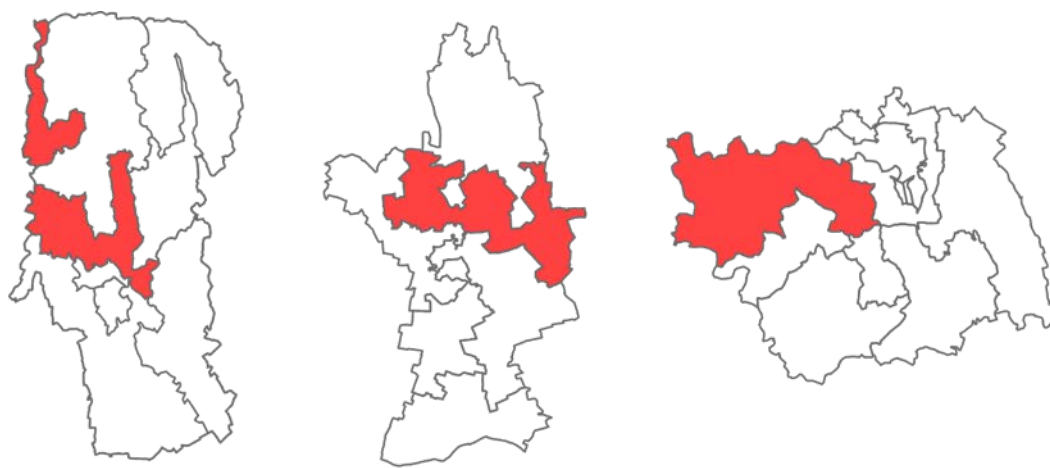


Figure 4. Apparently Gerrymandered districts for PDL (Mehedinți 2, Teleorman 4, Suceava 9)



Figure 5. Apparently gerrymandered districts for PNL and UDMR (Teleorman 6, Sălaj 2, Satu Mare 3)



Figure 6a. Teleorman constituency: district 4 (won by PDL) and its borders (PNL – blue; PSD – red; PDL - orange)

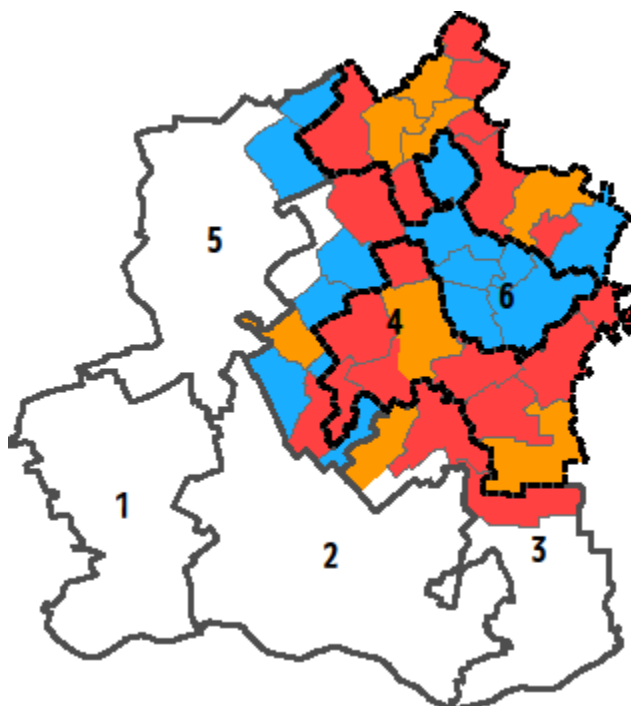


Figure 6b. Teleorman constituency: district 6 (PNL - absolute majority) and its borders

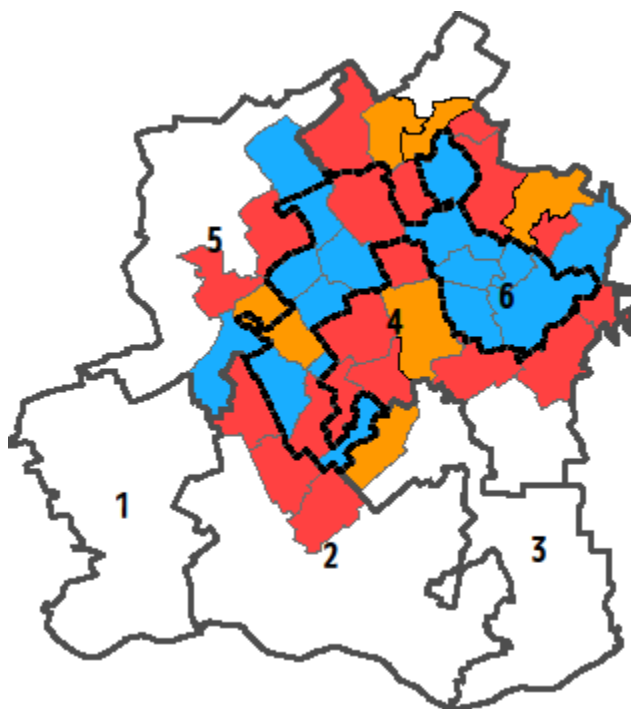


Table 1. Allocation of seats to parties and alliances in Teleorman constituency

Party	Valid Votes	Electoral Coefficient Teleorman constituency	Valid Votes/Electoral Coefficient	Allocated seats
PSD	69,471	27,133	2.560	2
PDL	47,275	27,133	1.742	1
PNL	45,874	27,133	1.691	1
UDMR	182	27,133	0.007	0

Source: Romania's Central Election Bureau (BEC).

Table 2. Allocation of the unfilled seats at the second stage (D'Hondt method)

Party	Unused Votes	National Electoral Coefficient	Unused Votes / National Electoral Coefficient	Allocated seat
PDL	439,107	19,216.875	22.850	22
PNL	424,604	19,216.875	22.095	22
PSD	372,658	19,216.875	19.392	19
UDMR	153,735	19,216.875	8.000	8
Total				71

Source: Romania's Central Election Bureau (BEC).

Table 3. Distribution of the unfilled seats, by party/ alliance, at the final stage

	Party	Constituency	Party coefficient	Constituency electoral divider	Party coefficient/ Const. divider	Seat (0 or 1)
1	PNL	Mehedinți	1.179	0.666	1.770	1
2	PDL	Dâmbovița	1.104	1.026	1.075	1
3	PSD	Buzău	1.086	1.086	1.000	1
4	PNL	Brașov	1.054	0.705	1.495	1
5	PNL	Dâmbovița	1.026	1.026	1.000	1
6	UDMR	Satu Mare	1.010	0.635	1.590	1
7	PDL	Teleorman	1.009	0.971	1.039	1
8	PNL	Bistrița-N.	0.998	0.678	1.472	1
9	PNL	Teleorman	0.971	0.971	1.000	1
...						
71	PSD	Diaspora	...			

Source: Romania's Central Election Bureau (BEC).

Table 4. Seats allocation to the candidates: ranking list of the candidate's votes in Teleorman constituency (candidates that obtained the seat are highlighted)

No.	District	Candidates	Valid votes
1	4	Șereș Ioan (PSD)	15,375
2	4	Florescu Adrian (PDL)	13,034
3	5	Cîrciumaru Gheorghe (PSD)	10,391
4	3	Bădulescu Adrian (PDL)	9,441
5	3	Stuparu Timotei (PSD)	9,356
6	3	Vlaicu Dan (PNL)	8,814
7	5	Amarie Constantin (PDL)	8,613
8	5	Dumitrică George (PNL)	5,076
9	4	Savu Adrian (PNL)	3,120

Source: Romania's Central Election Bureau (BEC).

Table 5: Electoral geography, candidate characteristics and election probabilities

	Pooled model	PSD-PC	PDL	PNL
Stronghold district	14.70***	9.89***	20.29***	8.44***
Concentration	11.02***	56.24***	6.08**	16.70**
Malapportioned SMD	1.14	1.80	1.76*	0.44**
Incumbent	2.30***	3.61***	1.71	2.01*
Woman	0.97	0.66	0.72	2.32
N	932	311	310	311
McFadden's R ²	.222	.263	.210	.222
Correctly predicted	80%	79%	78%	82%

* Significance at * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

** Cell entries are odds ratios, models were ran with robust standard errors clustered by county

*** PDL failed to nominate a candidate in District 5 from Botoşani County, hence the smaller sample