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Gerrymandering and Malapportionment, Romanian Style – the 2008 Electoral System

Abstract

Varieties of gerrymandering and malapportionment can also appear in proportional SMD-based electoral systems and in settings where multi-partisan committees draw the district boundaries. This article investigates a case of this sort, one in which the main parliamentary parties colluded in order to minimize the uncertainty regarding intra-party mandate allocation. 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 coalesced to design a number of safe seats. We draw on a novel dataset that measures the degree in which the newly created SMDs reflected natural or artificial strongholds or concentrated partisan support in otherwise unfavorable political territories, while we 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 papers suggesting, for example, how they impacted upon the composition of the two Houses, and especially the Chamber of Deputies – 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 here indicates that the goal of the process was not to win more seats - which would have been close to impossible given the proportional logic of the electoral system and the cross-partisan character of the committee drawing the maps - but to make as predictable as possible the intra-party mandate allocation. Thus, it seems that the main parties coalesced to create a number of safe seats and reduce uncertainty regarding the allocation of mandates, in order to control as much as possible which of the candidates of the party would get elected.

Classical Gerrymandering and Malapportionment

In countries with systems of government using single-member constituencies to elect MPs (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. This shows the importance of geography not only in drawing the electoral constituency boundaries, but also for the conversion of votes into parliamentary seats by means of electoral strategies meant to maximize the chances of obtaining as many seats as possible (gerrymandering and malapportionment). Other authors have shown the way in which electoral mapping has an impact on the translation of votes into seats. 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, the mapping of electoral districts being intensely politicized in the United States. 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; reactive malapportionment – one party is strongest in the areas where abstention rates are greatest. 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. 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 maned after him (). And there has been a substantial history of the practice being challenged legally (as summarized in McGinn et al., 2016) – though largely unsuccessfully. 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 baseline has been developed (King and Browning, 1987; Gelman and King, 1970, 1994b) 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; see also McGinn et al., 2016); 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 districts (in effect, a similar assessment to the Gelman and King, 1994b, procedure: Johnston et al., 2001) – 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. (2016) 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). That was not the case in Romania in 2008 where the political 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 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.

The article proceeds with a discussion of the electoral system adopted in 2008 with the purpose of clarifying how the allocation of mandates functioned in practice. The next session 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 party mandates 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. The conclusion synthesizes the main findings and points to further directions of research.

ELECTING THE CHAMBER OF DEPUTIES

The debate around electoral reform dominated the Romanian political and public agenda since the end of the 90s. The main concerns were to improve the legitimacy of candidates, the quality of representation and the bond between candidates and population. An important part of the civil society argued against the closed-list system, claiming that it triggered weak responsibility and responsiveness of representatives. Moreover, the ballot format did not allow voters to sanction corrupt or incompetent Members of Parliament (MPs), while the favoured candidates of each party’s elite were at the top of the electoral lists, denying voters choice over who represented them. The replacement of the closed list 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. 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 the 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 gave 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. In the following lines we will clarify its mechanisms.

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 depending on the population living in the constituency. 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: they obtained at least 5 per cent of the national vote total (a higher percentage, up to 10, was required when more parties formed an electoral coalition); or they won with an absolute majority of votes at least six of the Chamber of Deputies SMDs and three of the Senate districts.
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 315 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).

![Allocation of seats in the post-2008 Romanian electoral system](image)

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

In 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>
<thead>
<tr>
<th>Party</th>
<th>Valid Votes</th>
<th>Electoral Coefficient</th>
<th>Valid Votes/Electoral Coefficient</th>
<th>Allocated seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSD</td>
<td>69,471</td>
<td>27,133</td>
<td>2.560</td>
<td>2</td>
</tr>
<tr>
<td>PDL</td>
<td>47,275</td>
<td>27,133</td>
<td>1.742</td>
<td>1</td>
</tr>
<tr>
<td>PNL</td>
<td>45,874</td>
<td>27,133</td>
<td>1.691</td>
<td>1</td>
</tr>
<tr>
<td>UDMR</td>
<td>182</td>
<td>27,133</td>
<td>0.007</td>
<td>0</td>
</tr>
</tbody>
</table>

*Source: Romania’s Central Election Bureau (BEC).*
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 235 of the 306 seats were allocated, leaving 71 to be distributed among the parties at the next stage.

The allocation of the 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 mandates as illustrated in Table 2.

<table>
<thead>
<tr>
<th>Party</th>
<th>Unused Votes</th>
<th>National Electoral Coefficient</th>
<th>Allocated seats</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDL</td>
<td>439,107</td>
<td>19,216.875</td>
<td>22</td>
</tr>
<tr>
<td>PNL</td>
<td>424,604</td>
<td>19,216.875</td>
<td>22</td>
</tr>
<tr>
<td>PSD</td>
<td>372,658</td>
<td>19,216.875</td>
<td>19</td>
</tr>
<tr>
<td>UDMR</td>
<td>153,735</td>
<td>19,216.875</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>153,735</td>
<td>71</td>
</tr>
</tbody>
</table>

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

A coefficient was calculated for each remaining seat in each constituency, as shown in Table 3, with seats rank-ordered according to those coefficients. The highest coefficients for parties entitled to further seats—one each for the PDL and PNL—resulted in their candidates in the as-yet unrepresented districts being elected (Table 3).

<table>
<thead>
<tr>
<th>Party</th>
<th>Constituency</th>
<th>Party coefficient</th>
<th>Constituency electoral divider</th>
<th>Column 4/Column 5</th>
<th>Seat (0 or 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PNL</td>
<td>1.179</td>
<td>0.666</td>
<td>1.770</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>PDL</td>
<td>1.104</td>
<td>1.026</td>
<td>1.075</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>PSD</td>
<td>1.086</td>
<td>1.086</td>
<td>1.000</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>PNL</td>
<td>1.054</td>
<td>0.705</td>
<td>1.495</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>PNL</td>
<td>1.026</td>
<td>1.026</td>
<td>1.000</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>UDMR</td>
<td>1.010</td>
<td>0.635</td>
<td>1.590</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>PDL</td>
<td>1.009</td>
<td>0.971</td>
<td>1.039</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>PNL</td>
<td>0.998</td>
<td>0.678</td>
<td>1.472</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>PNL</td>
<td>0.971</td>
<td>0.971</td>
<td>1.000</td>
<td>1</td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>PSD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Romania’s Central Election Bureau (BEC).
After this first step the proportional allocation of mandates 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) secured their seats. In the case of Teleorman constituency, two PSD candidates won the 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 candidates 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. Seats allocation to the candidates: ranking list of the candidate’s votes in Teleorman constituency (candidates that obtained the seat are highlighted)

<table>
<thead>
<tr>
<th>No.</th>
<th>District</th>
<th>Candidates</th>
<th>Valid votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>Șereș Ioan (PSD)</td>
<td>15,375</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Florescu Adrian (PDL)</td>
<td>13,034</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>Circiumaru Gheorghe (PSD)</td>
<td>10,391</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>Bădulescu Adrian (PDL)</td>
<td>9,441</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>Stuparu Timotei (PSD)</td>
<td>9,356</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>Vlaicu Dan (PNL)</td>
<td>8,814</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>Amarie Constantin (PDL)</td>
<td>8,613</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>Dumitrășcă George (PNL)</td>
<td>5,076</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>Savu Adrian (PNL)</td>
<td>3,120</td>
</tr>
</tbody>
</table>

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

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 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 SMD, with less than half of the votes of the leading candidate (Circiumaru 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 the 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); 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 hypotheses. However, there are two expectations that informed our analyses. The first expectation was that in their bargaining over the district boundaries within each constituency, each party represented in 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 favouring them – perhaps in other constituencies. We proxy such gerrymandering efforts through two variables.

The second expectation is related to the electoral system provision that the allocation of party mandates to candidates who did not win an absolute majority of votes 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 mandate. Thus, a substantial number of SMDs were malapportioned: breaking the 30% rule mentioned above. 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. This is not the strategy deployed in Romania after 2008, however, because of the nature of the electoral system.

Research design

Our bivariate and multivariate analyses (binary logistic regressions) test the two expectations mentioned above by assessing the probability of getting elected associated with running in each of the three types of districts (stronghold, concentrated and malapportioned). We 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 randomly or due to gerrymandering.

Operationalisation of variables
The first proxy we use for the atypical gerrymandering discussed above is the stronghold district variable, which captures the share of inhabitants in the SMD that 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 entire county’s pool of inhabitants who have elected mayors from the same party as the candidate is concentrated in the SMD. To give an example: if in an 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 SMD where the candidate of interest runs, then the concentration variable receives an 0.83 score.

As mentioned before, an SMD 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 448 Senate and Chamber of Deputies SMDs. No fewer than 142 (31.8%) 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: Frequency and size of malapportioned SMDs

Figure 2 above presents the magnitude of malapportionment at the 2008 elections: all the cases to the right of the horizontal line are malapportioned. Malapportionment was highest for Chamber of Deputies SMD number 19 from Bucharest, which was in fact almost 170% larger than the smallest district in
Bucharest.

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 the fact that they have better name recognition. Women might be disadvantaged by the SMD setting as a number of studies have shown (Refs to be added). A candidate is considered incumbent if she was 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 sample, and then separately for the three main parties and alliances winning mandates. The regressions cover all the 311 Chamber of Deputies SMDs 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.

Before reviewing the findings of our multivariate analyses it must be said that no fewer than 231 SMDs of the 311 districts of interest had a value larger than 0.5 on the stronghold district variable, which means that in each of these districts, more than half of the corresponding population had elected mayors of the same political color. 78 of these SMDs were PDL strongholds, 49 ‘belonged’ to PNL and 104 were PSD strongholds. Moreover, 164 (71%) of the candidates running in these SMDs won the mandate, 65 of them by winning an absolute majority of votes.

Similarly, 68 SMDs of the 311 districts analyzed 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 county that had voted mayors from this party were concentrated in one SMD. PNL had 29 such SMDs, followed by PSD (20) and PDL (19). In these 68 districts the election rate was 66.2%. Roughly half of these districts also had a value larger than .5 on ‘stronghold’ (15 for PNL and 9 each for PSD and PDL).

The pooled model in Table 5 below shows that on average a candidate was almost 15 times more likely to win a mandate if she ran in an SMD where all citizens have elected mayors from her party compared to a district where none have. This is of course not at all surprising.

Table 5: Electoral geography, candidate characteristics and election probabilities

<table>
<thead>
<tr>
<th></th>
<th>Pooled model</th>
<th>PSD-PC</th>
<th>PDL</th>
<th>PNL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stronghold district</td>
<td>14.70***</td>
<td>9.89***</td>
<td>20.29***</td>
<td>8.44***</td>
</tr>
<tr>
<td>Concentration</td>
<td>11.02***</td>
<td>56.24***</td>
<td>6.08**</td>
<td>16.70***</td>
</tr>
<tr>
<td>Malapportioned SMD</td>
<td>1.14</td>
<td>1.80</td>
<td>1.76*</td>
<td>0.44**</td>
</tr>
<tr>
<td>Incumbent</td>
<td>2.30***</td>
<td>3.61***</td>
<td>1.71</td>
<td>2.01*</td>
</tr>
<tr>
<td>Woman</td>
<td>0.97</td>
<td>0.66</td>
<td>0.72</td>
<td>2.32</td>
</tr>
</tbody>
</table>

N: 932 311 310 311
McFadden's R²: .222 .263 .210 .222
Correctly Predicted: 80% 79% 78% 82%

* Significance at * p < 0.1, ** 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 Botoșani county, hence the smaller sample

The model also shows that some candidates have benefited greatly from running in SMDs that
concentrate most or all of the party strongholds in a county. A full switch: from running in an SMD that has 0 citizens having elected a mayor from the same party to being a candidate in a district that includes all the strongholds of the party in the county increases 11 times the election probability. At the moment, we cannot determine the extent to which this concentration happened naturally as opposed to being manufactured.

Running in a malapportioned district does not seem to make any difference for a candidate’s chance to be elected, the same being true for the gender of the candidate. Incumbents are instead twice as likely as the other candidates to win a mandate. 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 DV with a dummy indicating whether the candidate won or not the absolute majority of votes. We find a very large effect for the stronghold district variable: a candidate running in such a district is 144 times more likely to win the mandate directly than a candidate running in a district were 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 above.

The regressions run separately for the three parties corroborate the main findings of the pooled model. First, natural or artificially created stronghold districts increase greatly the chance of winning a mandate. Another confirmed salient finding is that concentration matters for all three parties. However, there are differences in the strength of the effect between the parties: this factor was much more important for the allocation of mandates within the PSD and it was also the single most important predictor of winning a mandate for the PNL candidates.

Running in a malapportioned SMD has different effects: it increases the election probability within the sample of PDL candidates, whereas it decreases it within the PNL. For the PSD candidates the effect is positive but it does not reach conventional levels of statistical significance. For the PNL, the explanation is probably that in larger districts it was harder for this party (the third most popular party at the time) to win the majority or plurality of votes. However, in the 11 cases when PNL candidates won the plurality of votes in malapportioned districts they always won the mandate, compared to only 78% of the other 36 cases when they won the plurality in a non-malapportioned SMD.\textsuperscript{43}

These findings indicate that nomination in the 'right' type of SMD was the main factor deciding whom of each parties’ candidates got elected. Moreover, given the high incidence of SMDs built on 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.\textsuperscript{44} In the following section we will take a closer look at a number of SMDs to understand better how such a design was achieved and implemented.

A closer look at nine SMDs
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 gerrymanders; Monmonier, 2001) of localities being combined to create districts where a party will gain an absolute majority, irrespective of any other aspects of their geography.

\hspace{1cm}
Figure 3 shows three districts created in constituencies which have an PSD majority. In the first case, District 6 in the Argeș constituency comprises 21 localities, 17 of which had an PSD mayor; and in the second, District 3 in Olt constituency had 17 localities with a PSD mayor, out of a total of 21. 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 represented 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 – although the party’s candidate did not win an absolute majority in 2008. 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. Gerrymandering districts for PSD (Argeș 6, Olt 3, Bacău 4)

Figure 4 shows three examples of PDL-gerrymandered districts. Each of the first two – District 2 in Mehedinți constituency and District 9 in Suceava constituency – comprised ten localities, all with PDL Mayors, and the party won an absolute majority of the votes cast in each. In the third case – District 4 in Teleorman constituency – only 7 of the 23 localities had a PDL Mayor, and the district, which has a very ‘bizarre’ shape, was won in the second-stage allocation. Demographically these 7 localities (including one city) are larger than the others 16 localities (out of 23) with mayors from other parties. Teleorman constituency had only 15 localities with PDL mayors in 2008, among which 7 were in district 4 (Figure 6a). This district would thus score high on both the stronghold and concentration variable for the PDL candidate running in it. 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 the PDL candidate.
The first example in Figure 5 also refers to Teleorman constituency, where District 6 encompassed 15 localities, 12 of which had an PNL mayor. Here, out of 97 localities only 29 had PNL mayors, 12 of them being grouped in district 6 which helped the PNL candidate win with absolute majority (73.32%) – Figure 6b. The second example refers to District 2 in the Sălaj constituency, where 12 of the 17 component localities had a PNL mayor. Finally, District 3 in the Satu Mare constituency is like the earlier example of Bacău constituency: only four of the 12 localities elected a mayor from the UDMR, but those four served the urban area whose population dominated the constituency.
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
These analyses clearly contradict previous claims that only the PSD and PNL representatives were influential during the Districting committee’s deliberations. The examples mapped here show that all four 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 collude 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 SMD borders excluded classical gerrymandering or malapportionment strategies that would ensure additional gains for a party at the expense of others.

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 in the same SMD localities having mayors sharing partisan affiliations, while malapportionment was also used to reduce the uncertainty regarding the allocation of mandates 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 provides suggests that in many constituencies the careful drawing of district boundaries involved cartographic manipulation.

Future research could analyze in a systematic manner what were the attributes of the candidates that benefited the most from these practices. Kaare Strøm and Michael L Mezey 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, 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. 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 other three 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.


vii In the UK, a non-partisan commission is responsible for the redistricting of electoral districts since 1944.


ix Johnston, “Manipulating Maps and Winning Elections: Measuring the Impact of Malapportionment and
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.

In the end there were 316 mandates allocated in the 315 districts. This happened because in the Arad constituency PDL won one more mandate 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.

The party coefficients were computed as follows: the unused votes were multiplied with the number of seats allocated nationally (d'Hondt method) and divided by unused votes (national scale); example: Teleorman = \( \frac{22 \times 142}{439,107} \) (PDL unused votes in Teleorman constituency multiplied with 22 (PDL seats allocated according with d'Hondt method – Table 3)) divided by 439,107 (PDL unused votes – national scale) = 1.00914.

The constituency electoral divider is calculated for each party in every constituency (similar calculus as in the note above). If in a constituency more than one seat remains to be allocated, the electoral divider is the last one (in the case of Teleorman, the second one, i.e. 0.97102). 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.

In the Romanian electoral system 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.

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

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= .290***. The relationship is stronger if we look separately at PDL candidates (Pearson's R= .250*) and PNL candidates (Pearson's R= .210**), whereas for the PSD candidates there is no correlation.

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.

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