

ORIGINAL PAPER

Geography of representation in the 2024 European parliamentary elections

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Abstract

Modern democratic political systems are hardly conceivable without political representation. This also applies to the European Union, a unique international organisation with a directly elected and fully-fledged assembly representing citizens of the EU Member States. Because geographical factors are central to the operation of almost all electoral systems and the European Parliament is the first transnational assembly based on the Member States representation, the paper explores the geography of representation in European Parliamentary election. The Member States representation in the European Parliament may be degressively proportional, which implies malapportionment of the European Parliamentary seats across the Member States. The study aims to quantify malapportionment in European elections, examining both the European Parliament level (using the adaptation of Loosemore and Hanby's distortion index) and the Member States level (employing the advantage ratio and representation profile). It concludes that European political elites have deliberately created a system of EU Member States representation in which the geography of representation is a highly distorted reflection of the underlying geography of voting, with the aim of ensuring greater representation for less populous Member States and preventing excessive representation for Germany and other most populous Member States (i.e., deliberate degressive proportional representation). Specifically, malapportionment has been just below 15 % of the total seats, with the five most populous member states being underrepresented and the remaining twenty-two Member States enjoying an advantage in the European Parliamentary representation. At the same time, the study reveals that the European Parliament's composition resulting from the elections did not fully meet the requirement for degressively proportional representation set out in the Lisbon Treaty.

Keywords

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Highlights for public administration, management and planning:

- The research examines the geographical distribution of representation following the June 2024 European Parliamentary elections, with the level of analysis being the EU Member States.
- The research aimed to quantify the malapportionment in the 2024 European elections at both the European Parliament and Member State levels.
- Despite the seat reapportionment before the 2024 European elections, the change in malapportionment was almost negligible.
- The study reveals that the European Parliament's composition resulting from the June 2024 elections did not fully meet the requirement for degressively proportional representation set out in the Lisbon Treaty.
- EU legislation still lacks an unbiased algorithm for reapportioning European Parliamentary seats among EU Member States.

1 Introduction

Geographical factors are considered by scholars to play a central role in the functioning of nearly all electoral systems. However, although the study of elections lies at the heart of contemporary research on democratic governance, including the analysis of the European Parliamentary elections, the size and territorial distribution of constituencies have been rather rarely studied in detail in the European Union context. And since the European Parliament is a “directly elected, fully-fledged parliamentary forum”, with significant legislative, control and budgetary powers at the European Union level (Viola 2016, p. 3), and the first transnational representative body based on the Member States representation, its composition, and especially the apportionment of seats among the EU Member States appears to be a relevant issue. While it may initially seem that this is merely a technical issue with no significant impact on ordinary citizens, the apportionment of seats across the space has a significant influence on the election outcomes and the composition of the representative body (for more details, see e.g., Grilli di Cortona et al. 1999).

Despite the observation of Andrew Duff (2012), former British Member of the European Parliament (MEP), that the size of EU Member States’ representation in the European Parliament has historically been one of the most intricate and sensitive issues in intergovernmental conferences, the apportionment of seats in the European Parliament has received only limited attention from scholars, resulting in it being one of the most underrepresented topics in research on EU institutions. Indeed, political geographers do not pay much attention to the issue at hand in their research, and also only few scholarly studies in law, sociology and political science on this topic have been published. However, these studies focus either on the roots of the European Parliament’s composition as a path-dependent compromise and its representativeness (e.g., Farrell & Scully 2007; Rittberger 2009; Rose 2013), or its effects on malapportionment of seats in the European Parliament (Charvát 2022), or on the impact of malapportionment on fiscal redistribution in the European Union (e.g., Rodden 2002).

So far, the topic under study has been addressed mainly by mathematicians who are interested in the relationship between mathematics and democracy or mathematical social sciences. Indeed, until now, the only special issue devoted to the apportionment of seats in the European Parliament among the EU Member States has

been published in the Mathematical Social Sciences in 2012 (see Laslier 2012). This stream of research focuses primarily on formalizing the concept of degressive proportionality (e.g., Dniestrzański 2013; Cegiełka 2016; Haman 2017) and on proposing specific procedures for allocating seats in the European Parliament that ensure fair representation of populations of varying sizes, in accordance with the requirements of current European Union legislation (see below). This includes the Cambridge Compromise (Grimmett 2011; Grimmett et al. 2012), its predecessors (see, e.g., Balinski & Young 1982; Martínez Aroza & Ramírez González 2010; Pukelsheim 2010) and modifications such as the Power Compromise (Pukelsheim & Grimmett 2017; Pukelsheim 2018 see also Grimmett 2012; Pukelsheim 2014), or other selected proposals for politically neutral allocation of seats in the European Parliament among EU Member States, such as the parabolic method (Ramírez González 2010, cf. (Misztal 2011)), or r-DP methods (for more details, see Ramírez González et al. 2017, cf. Ramírez-González 2012; Pukelsheim & Grimmett 2018), among others. Several papers on the topic under discussion have also been published by some committed politicians, whether they were MEPs (e.g., Duff 2012; Trzaskowski & Popielawska 2013), who were directly or indirectly involved in preparing various European Parliamentary seat apportionment proposals, or representatives of national governments at intergovernmental conferences where the issue was discussed (e.g., Moberg 2012).

In order to address the research gap that has persisted in existing research on the institutional framework of the European Union, the overarching ambition of this study is to explore geographical distribution of representation in the European Parliament¹. More specifically, the study focuses on the spatial aspect of the composition of the European Parliament following the June 2024 European elections², with the level of analysis being the EU Member States. Concurrently, it is considered beneficial to enhance this discourse with a quantitative perspective on the subject under scrutiny, as this facilitates the effective capture of the technical characteristics and interdependencies of the various components of the European Parliament’s composition, or the procedure for its establishment.

To this end, the structure of the study is as follows. First, the study introduces the procedure of seat apportionment among EU Member States, on which the composition of the European Parliament is based, and which is the source of deliberate malapportionment. It then briefly discusses the objectives of the research. What follows is

a description of the strategy to measuring malapportionment. Next, the analysis of malapportionment and the geographical aspects of representation in the 2024 European Parliamentary elections are presented. Finally, the main findings and their limitations are summarised.

2 Geography of representation in the European Parliament: a deliberate malapportionment

In the context of the composition of national parliaments, one of the two fundamental principles of territorial representation is typically observed. Either proportional representation is employed, with the population size of the respective territorial units being a key consideration (population equality principle). In this case, the geography of representation more or less faithfully reflects the geography of voting. Or, there is equal representation of the territorial units, which ensures that each territorial unit is equally represented in the assembly. The former procedure, i.e. population equality and fair apportionment, often referred to as “the ideal of representative democracy” (Balinski & Young 2001, p. 1), embody the “one person – one vote – one value” principle (regardless of her or his location) and often occurs when composing parliaments in unitary states and the first chambers of federal parliaments. Within this paradigm, a violation of the principle that all territorial units should, as far as is feasible, have the same ratio of electors (or population) to Members of Parliament (the so-called malapportionment³) is considered to be harmful to an electoral system and violating the democratic principle of majority rule (McKee 2007, p. 412), or a pathology of electoral practices (Taagepera 2007, p. 42–43, Shugart & Taagepera 2017, p. 2), or even an electoral abuse in the sense of numerical discrimination (Taylor & Johnston 1979, p. 337). The latter approach expresses the idea that each territorial unit may have the same weight (regardless of its population) and is typical for second chambers of federal parliaments. Only the Senate of Canada and Bundesrat in Germany try to accommodate both of these conflicting norms when apportioning more seats to more populous territorial units but without proportional distribution of seats (for more details, see e.g., Allen & Taagepera 2017). The significance of territorial representation is further compounded for transnational and supranational entities, such as the European Union or international organisations. As the study focuses on Member States representation in the Euro-

pean Parliament, it is necessary to remind that despite some early discussions (see e.g., Dehousse 1953), the European Parliament has been conceived as a unicameral assembly from the very beginning of its existence (see e.g., Spierenburg & Poidevin 1994; Rittberger 2005, 2009)⁴. Here the question of whether the members of a transnational assembly should represent citizens or states is even more pressing because it is not possible to implement both principles, the equality of citizens and the equality of territorial units, simultaneously in a pure form within a single institution. At the same time, the significant disparities in population size among EU Member States must be given due consideration (see Figure 1). These circumstances serve to compound the intricacy of the issue in question.

As with the electoral rules for the establishment of parliamentary bodies, which are the result of political decision-making processes, the apportionment of the European Parliamentary seats has traditionally been the result of intergovernmental conferences, and its underlying principles have been based on the composition of the Common Assembly from 1952. Even though the principle was not explicitly codified by the EU law until the Lisbon Treaty was adopted⁵, the apportionment of seats in the European Parliament has been degressively proportional since its establishment (for more details, see e.g., Charvát 2022, see also Spierenburg & Poidevin 1994, Rodden 2002, Rose et al. 2012, Baysal 2017). According to the definition of the degressive proportionality, the representation of each Member State in the European Parliament depends on its population size, with underrepresentation of the most populous and overrepresentation of less populous Member States. Simultaneously, a more populous Member State must not have less representation (less parliamentary seats) than a less populous one.

As it is evident from its very designation, the result of the degressively proportional apportionment is, inevitably, the presence of a violation of the proportional representation of the Member States (malapportionment) in the European Parliament (e.g., Rose et al. 2012; Rose 2013; Charvát 2024). However, while European Union law lays down degressive proportionality as the main conceptual framework of the European Parliament’s composition, it does not specify how large the distortion from proportional representation may, or should be. The Council Decision of June 2013 merely states the resulting disproportion should be as low as possible, as it shall “reflect as closely as possible the sizes of the respective populations of Member States” (Art. 1), while

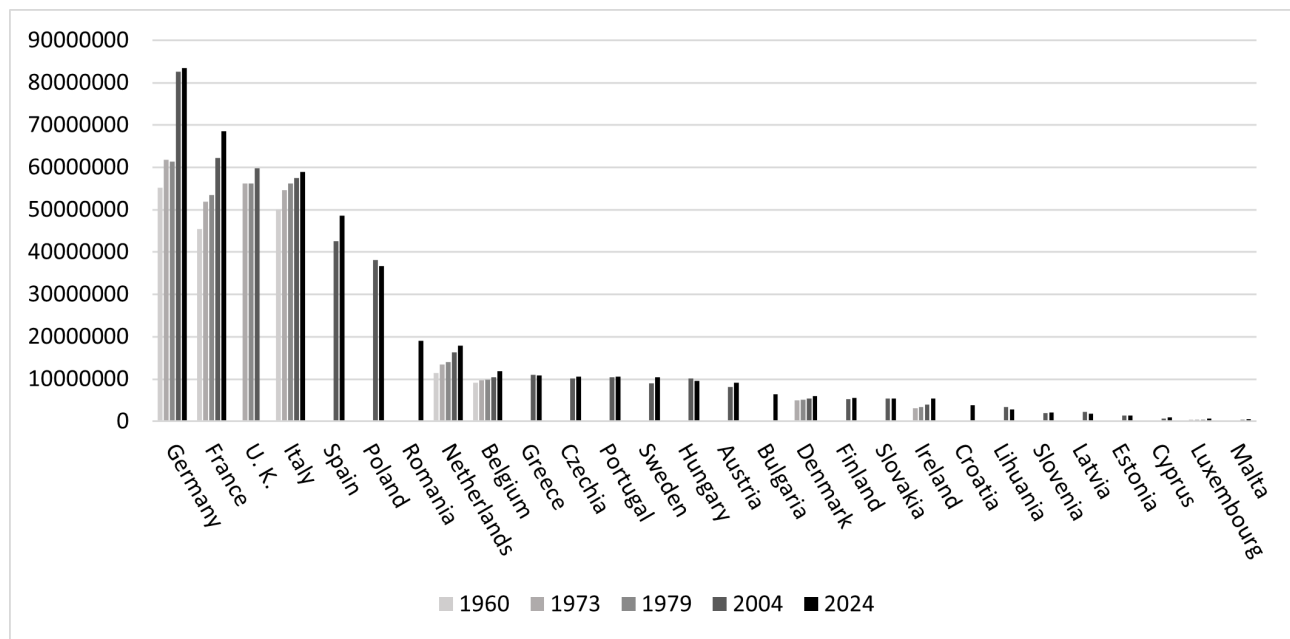


Fig. 1 EU Member States population data since 1960; Source: Eurostat population data (see <https://ec.europa.eu/eurostat/databrowser/view/tps00001/default/table?lang=en>). Note: The data on Germany's population before the reunification of the country in 1990 refers exclusively to West Germany's (F.R.G.) population.

meeting the other conditions, especially the minimum and maximum number of MEPs per Member State.

Hence, the study pursues the following two goals. Firstly, it aims to quantify malapportionment (the degressive proportionality principle), i.e. distortion of the proportional representation of the Member States (malapportionment), in the 2024 European Parliamentary elections. Second, it aims to quantify under-/over-representation of individual EU Member States in 2024. To this end, the study employs a pragmatic approach which evaluates existing policies, in this case the politics of the (re)apportionment of the European Parliamentary seats in 2024, by asking how they work and what their consequences are (Rose 2013).

3 Measuring legislative malapportionment: Methods and data

There are number of different methods to measure legislative malapportionment used in the scholarly literature. For instance, in their seminal work *Geography of Elections*, Taylor & Johnston (1979:chapter 7) built upon the findings of Alker & Russett (1964) study, thereby identifying four distinct approaches to measure (legislative) malapportionment. First

method involves the comparison of the mean size of constituencies (in terms of the number of voters) won by each political party, with a total of differences between these means (in absolute terms) provides a measure of malapportionment. An alternative option utilises the strategy of measuring extremeness (or the population variance ratio), which is defined as the ratio of the largest to the smallest constituency. However, the extremeness measures may face the criticism that its result considers only a small number of constituencies, and thus does not provide a comprehensive picture of the issue under study. Hence, an approach to overcoming this criticism would be to include all constituencies in the analysis, in particular by comparing every constituency with average size to find the mean deviation as a more comprehensive measure of malapportionment. Last but not least, a common method of comparing territorial units has been to construct their cumulative frequency graph. Within this research strategy, the constituencies are ordered from the largest to the smallest, the proportions of total representation and total population (or voters) are then added cumulatively and plotted on the graph, resulting in a Lorenz curve, or the Gini coefficient (for more details, see Taylor & Johnston 1979, see Short 1993, p. 127).

More recently, Samuels & Snyder (2001) criticised the population variance ratios, asserting that they

are poor indicators of malapportionment due to several methodological shortcomings. Firstly, the population size of the territorial unit provides only little information regarding the extent to which units are underrepresented or overrepresented. Indeed, we also need to know how many seats are allocated to each electoral district, but even then, such ratios do not tell us much about the overall degree of malapportionment. Second, such ratios offer limited insight into the overall degrees of malapportionment, particularly when the largest and smallest territorial units represent the extreme outliers in a system characterised by minimal average malapportionment. Instead, the authors propose the utilisation of an adapted version of the distortion index by [Loosemore & Hanby \(1971\)](#) to quantify malapportionment (see also [Charvát 2022](#)).

Given the focus of the present study on the measurement of variations across territorial units with multi-member districts (since the Lisbon Treaty, ranging from six to ninety-six seats), the former two strategies listed by [Taylor & Johnston \(1979\)](#) appear ill-suited for the intended analysis. Indeed, these strategies seem to be better suited to measuring malapportionment in the context of inter-party competition and within single-member electoral districts. Notwithstanding the third approach presented by [Taylor & Johnston \(1979\)](#) also appears to be somewhat inappropriate for the purposes of this study, it does offer significant insights into the methodology to be used at both the aggregate and individual EU Member State levels. Furthermore, [Samuels & Snyder \(2001\)](#) proposal for adapting the Loosemore-Hanby index makes it possible to partially overcome these shortcomings.

3.1 Malapportionment index

Hence, to measure malapportionment in the 2024 European elections, the adaption of Loosemore-Hanby distortion index (1971) was employed. Malapportionment (*MAL*) is thus calculated as follows. The proportion of seats in the European Parliament for each EU Member State (s_i) is deducted from the share of its population within the European Union's total population (p_i). Subsequently, the absolute values of these differences for all Member States are aggregated and the result is divided by two (since elections function as zero-sum institutions, this ensures that no distortion of the proportional representation principle is counted twice).

$$MAL = \frac{1}{2} \sum_{i=1}^n |p_i - s_i| \quad (1)$$

The result provides data on how large a proportion of seats in the European Parliament was occupied by another Member State than would correspond to the proportional seat allocation among the EU Member States. E.g., $MAL = 0.25$ would imply that a total of 25% of the total number of seats was allocated unevenly and hence occupied by the other Member States than strict proportionality would imply.

3.2 Advantage ratio

However, the malapportionment index defines the composition of the entire European Parliament, which may be useful for comparative purposes, but it does not reveal how the apportionment affects territorial units of different population sizes. Or more specifically, the malapportionment index does not indicate whether, and if so to what extent, Member States are favoured or disadvantaged in terms of representation in the European Parliament (measured by their population size). Thus, it would be useful to add a tool to indicate the deviation from proportional representation for each territorial unit. To this end, the underrepresentation or overrepresentation of each EU Member State in the European Parliament was measured by the advantage ratio (*A*), which is calculated as a ratio of the seat share of the Member State in the European Parliament to the proportion of its population. The value $A = 1$ would mean that the Member State occupies the same proportion of seats in the European Parliament as is its share in the EU total population. Values lower than $A = 1$ imply underrepresentation of a given Member State (e.g., $A = 0.75$ would mean that the Member State occupies only 75% of the seats compared to the number that would apply to it if the strict proportional apportionment was applied), with the lower the value, the higher the underrepresentation of that Member State. On the contrary, values higher than $A = 1$ indicate that the Member State occupies a higher proportion of seats than its share of the total population. The higher the value, the higher the overrepresentation. E.g., $A = 2.5$ would mean that the Member State occupies two and a half times more seats in the European Parliament than it would be the case of the strict proportional apportionment of seats among the EU Member States.

3.3 Representation profile

At the same time, the (territorial) representation profile has been “designed” as an adaption of the proportionality profile used by [Taagepera](#)

& Laakso (1980) for visualising the seats-to-population disproportionality. The representation profile plots advantage ratio of each Member State (y-axis) versus its population share (x-axis) in the election year. Following Taagepera (2007) definition of the proportionality profile, the representation profile may be described as a ‘snapshot’ of the territorial composition of the given assembly where oddities are to be quickly spotted. It figures the dependence of the parliamentary representation on the population size of the examined territorial units in the respective or several elections. The representation profile is a way to indicate at a glance which Member States are underrepresented or overrepresented in the European Parliament and how much they are (dis-)advantaged (as compared to other Member States).

3.4 Data

The research used the data on the actual number of persons having their usual residence in EU Member States on 1st January 2024, i.e. the year in which the last European elections were held, while the population data were drawn from Eurostat⁵. It could be argued that the Lisbon Treaty’s wording of citizens should be taken literally so it would be appropriate to use data on their numbers, but there are a number of problems when preferring such an approach. There is a considerable migration within the European Union and thus, some of the EU Member States’ citizens may be residents in other Member States, or even outside the European Union (for more details, see e.g., Pukelsheim 2010). In addition, the population data are collected by Eurostat via a uniform methodology and are easily available while methods of collecting data on citizens vary across EU Member States. Another argument may be the electoral practice of the United States, where the total population is considered in the apportionment in the House of Representatives (for more details, see e.g., Cowan 2015).

4 Geography of representation in the 2024 European elections

The composition of the ninth European Parliament (2019 to 2024) was specific in that it underwent changes over time as the United Kingdom exited the European Union. At the time of the 2019 elections, the national representation of EU Member States from previous elections remained unchanged. However, following Brexit twenty-seven European Parliamentary seats were reapportioned among some Member States, while the remaining forty-six seats were left vacant, resulting in a decrease from 751 to 705 MEPs in total (see Table 1). Consequently, malapportionment was 0.1443 in 2019, indicating that approximately 108 seats were occupied by MEPs from a different Member State than in the case of proportional representation in relation to their population. Due to the redistribution of more than a third of the seventy-three originally British seats, the overall malapportionment did not change significantly even after Brexit. The deviation from proportional representation increased to 0.1474, which, when considered in conjunction with the reduction in the total number of European Parliamentary seats, corresponded to around 104 seats. Those outcomes are analogous to that of all European elections since the largest (Eastern) enlargement in 2004 (for more details, see e.g., Charvát 2022, 2024).

Ahead of the 2024 European elections, a less significant reapportionment of EU Member States representation has taken place, with the total number of MEPs increasing by fifteen to 720 (France, the Netherlands and Spain have gained two more seats each, while other nine Member States have increased their European Parliamentary representation by one seat, namely Austria, Belgium, Denmark, Finland, Ireland, Latvia, Poland, Slovakia, and Slovenia). Even though some Member States have witnessed a substantial augmentation in their representation within the European Parliament over a period of five years – specifically the Netherlands by nearly a fifth, Spain by an eighth, and France by a tenth, the overall malapportionment has exhibited a rather negligible rise to 0.1494, marking the highest malapportionment in the entire history of the European Parliament (see Figure 2). However, this still corresponds to around 108 seats apportioned in violation of the principle of proportional representation.

The primary source of malapportionment within the European Parliament has been the significant disparity in population sizes among EU Member States, coupled with the ambition to ensure

that the least populous Member States having an adequately diverse European Parliamentary representation (in terms of pluralistic representation of the political spectrum). This principle is formally enshrined in the minimum number of MEPs allocated per Member State, transitioning from four representatives in 1952 to the present six MEPs per Member State (since the Lisbon Treaty). This is further accompanied by an upper limit of Member State representation – the Lisbon Treaty has adjusted the upper limit to the current ninety-six seats, which significantly limits the scope for a more balanced apportionment of the European Parliamentary seats among Member States (see [Figure 3](#)).

	2019 elections	Brexit	2024 elections
Austria	18	19 (+1)	20 (+1)
Belgium	21	21	22 (+1)
Bulgaria	17	17	17
Croatia	11	12 (+1)	12
Cyprus	6	6	6
Czechia	21	21	21
Denmark	13	14 (+1)	15 (+1)
Estonia	6	7 (+1)	7
Finland	13	14 (+1)	15 (+1)
France	74	79 (+5)	81 (+2)
Germany	96	96	96
Greece	21	21	21
Hungary	21	21	21
Italy	73	76 (+3)	76
Ireland	11	13 (+2)	14 (+1)
Latvia	8	8	9 (+1)
Lithuania	11	11	11
Luxembourg	6	6	6
Malta	6	6	6
Netherlands	26	29 (+3)	31 (+2)
Poland	51	52 (+1)	53 (+1)
Portugal	21	21	21
Romania	32	33 (+1)	33
Slovakia	13	14 (+1)	15 (+1)
Slovenia	8	8	9 (+1)
Spain	54	59 (+5)	61 (+2)
Sweden	20	21 (+1)	21
UK	73	0 (-73)	0
Total	751	705 (-46)	720 (+15)

Source: European Parliament 2024.

Table 1 EU Member States representation in the European Parliament 2019 to 2024

In accordance with the Lisbon Treaty's principle of degressively proportional representation, which determines the composition of the European Parliament, the most populous EU member states are the most underrepresented. As the European

Union is largely made up of rather smaller Member States, the underrepresentation only concerns the five most populous Member States, i.e. Germany, France, Italy, Spain and Poland. By contrast, the remaining twenty-two Member States enjoy more or less overrepresentation in the European Parliament. In line with the principle of degressive proportionality, the least populous EU Member States are the most overrepresented. For example, Malta is overrepresented in the European Parliament by more than six and a half times, Luxembourg by five and a half times, and Cyprus by almost four times, respectively. As in previous years since 2004, only the Netherlands and Romania come close to achieving a proportional representation in the European Parliament in 2024, with only a minimal degree of overrepresentation (for more details, see [Figure 4](#)).

To translate the above data into an indicator of the value of the vote, the principle of degressively proportional representation implies different strengths of European Union inhabitants' votes across Member States. Furthermore, the differences across EU Member States are quite significant. While in Germany or France (as the most underrepresented Member States in the European Parliament in its tenth term), there were around 850,000 inhabitants per MEP in 2024, in Malta and Luxembourg it was around 94,000 and 112,000 inhabitants respectively. Thus, a comparison the most and least favoured Member States in the 2024 European elections has revealed that Germany and France require approximately nine and seven and a half times more inhabitants per seat in the European Parliament than Malta and Luxembourg, respectively (author's own calculation using Eurostat population data and European Parliament 2024).

Last but not least, examining the (territorial) representation profile in the 2024 European elections reveals that the composition of the European Parliament in its tenth term does not comply with the requirement for degressively proportional representation set out in the European Union legislation. Notably, Slovakia and Finland are more overrepresented than the slightly less populous Ireland, Bulgaria shows a higher degree of advantage ratio than the one-tenth less populous Denmark, and Spain is more underrepresented than Italy, which has a population that is 10 million higher.

5 Conclusions and Discussion

The present study examined the geography of (territorial) representation (i.e. the representation

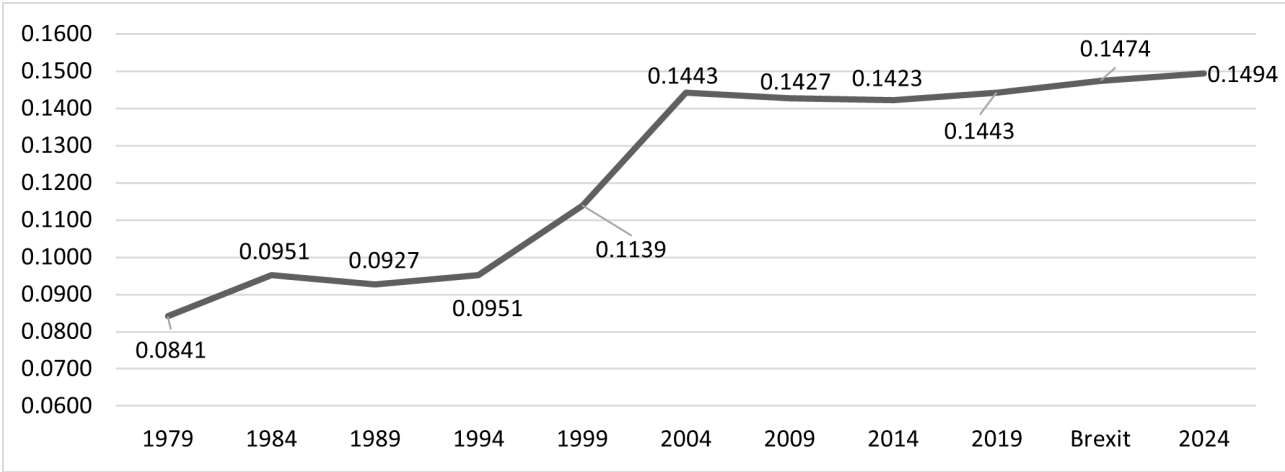


Fig. 2 Malapportionment in the European Parliamentary elections since 1979; Source: author’s own calculation (using Eurostat population data and European Parliament 2024).

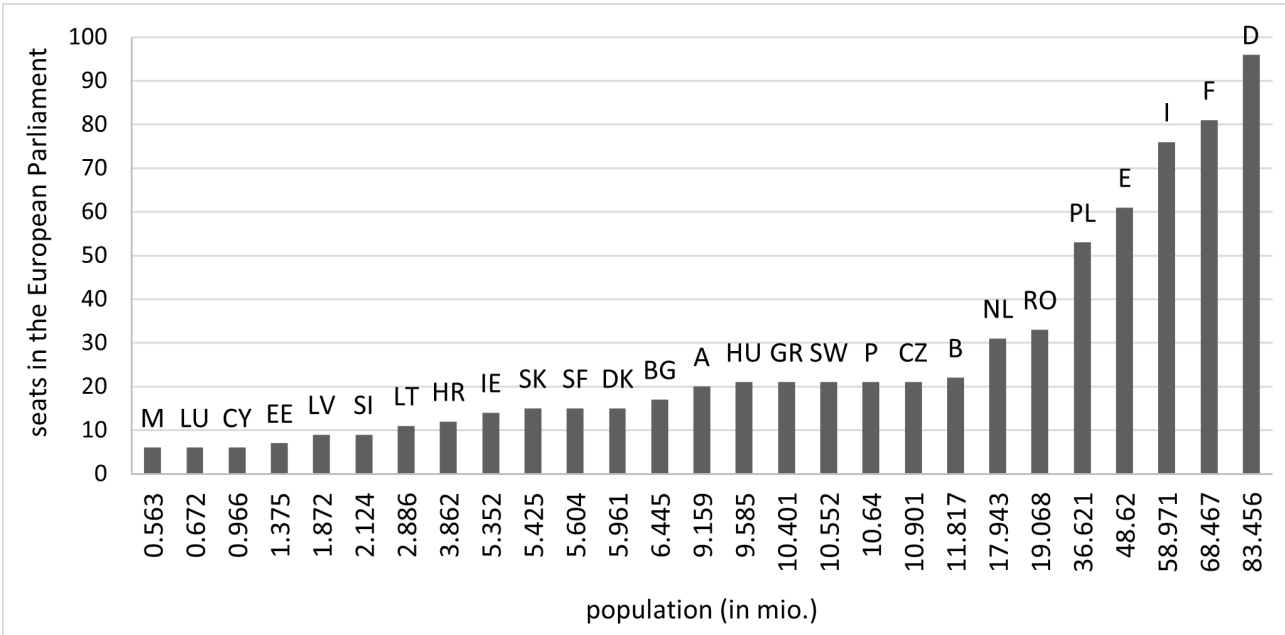


Fig. 3 Member States population and European Parliamentary representation in 2024; Source: author’s own calculation (using Eurostat population data and European Parliament 2024).

of Member States) in the European Parliament after the June 2024 elections. European Union law (specifically the Lisbon Treaty) requires the European Parliament to be composed using a degressively proportional representation of Member States, combining, within a single parliamentary chamber, two basic principles for the establishment of representative bodies: the principle of equality of citizens (characteristic of unitary parliaments and the first chamber of bicameral federal parliaments), and the principle of equality of territo-

rial units (typical of the second chamber of federal parliaments, and in the case of EU institutions, this principle is taken into account in the establishment of the European Council). As a consequence, the principle of degressive proportionality results in an unequal (disproportionate) seat apportionment across territorial units (malapportionment), in this case across EU Member States. Hence, the research aimed to quantify malapportionment (deviation from the proportional representation of the EU Member States with re-

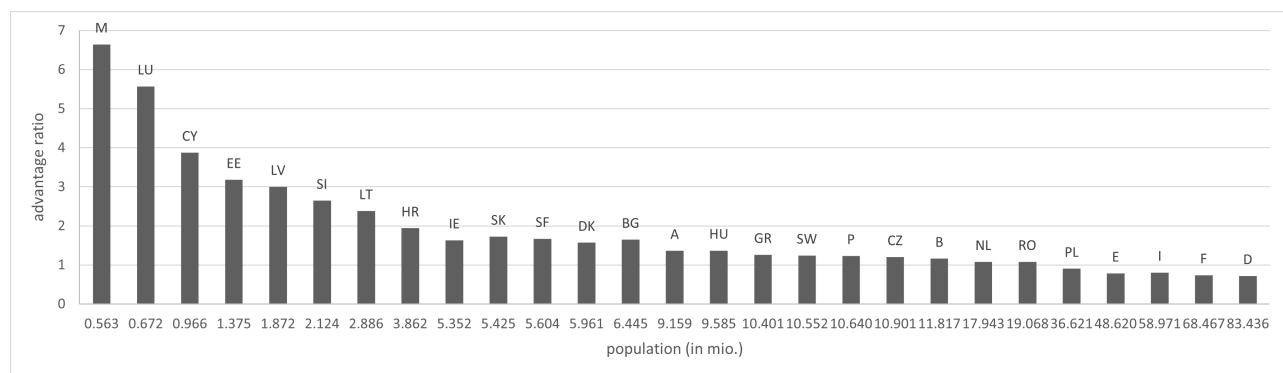


Fig. 4 Representation profile in the 2024 European elections; Source: author's own calculation (using Eurostat population data and European Parliament 2024).

spect to their population size) in the 2024 European elections, examining both the European Parliament level and the Member States level. Although several European Parliamentary seats were reapportioned before the 2024 European elections, with the size of the European Parliament increasing from 705 to 720 seats, which could have led to an increase in the proportionality of representation of the Member States in the European Parliament, in fact the opposite effect could be observed, though the change is almost negligible, with malapportionment increasing by a further 0.2 percentage points to reach 0.1494. However, this is still the highest value of malapportionment to date. Or in other words, at the level of the European Parliament, a deviation of less than 15% from the proportional apportionment of seats was found, equating to 108 seats.

This is primarily because the additional fifteen European Parliamentary seats have not been distributed among the Member States equitably or in a balanced manner, nor have they taken due account of socio-demographic changes or the imperfections of the previous composition of the European Parliament. On the other hand, the overall malapportionment in 2024 is consistent with previous trends since the 2004 enlargement and the subsequent European Parliamentary elections. As the European Union is composed of rather smaller Member States in terms of population, underrepresentation only applies to the five most populous Member States.

To sum up, since the apportionment of the European Parliamentary seats has traditionally been the result of intergovernmental conferences, European political elites have deliberately created a system of EU Member States representation in which the geography of representation is a highly distorted reflection of the underlying geography of voting, as Taylor & Johnston (1979) pointed out at the time

of the first popular vote for the European Parliament. Unlike other cases of malapportionment, however, this system is clearly not to the advantage of these elites or EU Member States with larger populations. Last but not least, the study also revealed that the European Parliament's composition resulting from the June 2024 elections did not fully meet the requirement for degressively proportional representation.

The main reason for these findings is that EU legislation still lacks an unbiased algorithm for reapportioning European Parliamentary seats among EU Member States. Such a procedure would enable the seat reapportionment before each European election, taking into account current socio-demographic changes (particularly changes in the population of each EU Member State). This is even though the European Council called on the European Parliament in June 2013 to put forward a proposal for a permanent and politically impartial procedure of redistributing seats. Consequently, the geographical distribution of the European Parliament representation is not a result of an unbiased mathematical procedure, as would be desirable, but is instead the result of political (intergovernmental) negotiations.

The present study concentrated on the geographical distribution of territorial representation in the 2024 European Parliament elections. Nevertheless, the chosen approach and scope of the research did not allow for an examination of how different values of votes in various EU Member States impact the parliamentary representation of the political groups in the European Parliament. Clearly, political parties that perform well in overrepresented Member States may be favoured over those political parties whose main electoral strength lies in the most populous Member States. Similarly, the perspective adopted does not allow for con-

sideration of the existing balance among the various institutions of the European Union, particularly the rules on qualified majority voting in the European Council, which represents Member States within the political system (institutional framework) of the European Union. Hence, these issues continue to be subjects of significant relevance for future research.

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Footnotes

¹ It should be stressed that the analysis presented here conceptualises territorial (geographical) representation as a form of descriptive representation (Pitkin 1967, cf. Thomassen 1994, Andeweg & Thomassen 2005, Rittberger 2009), rather than in the context of the behaviour of MEPs. At the same time, territorial political representation is treated as a strictly empirical category.

² The term “European elections” will be used as a synonym for “European Parliamentary elections”.

³ More specifically, malapportionment occurs when the legislative representation (share of legislative seats) of each territorial unit does not correspond to the unit’s population share.

⁴ For the sake of simplicity, the term “European Parliament” is also used for the two representative bodies that directly preceded its establishment, i.e. the Common Assembly of the European Coal and Steel Community (1952–1958) and the European Parliamentary Assembly (1958–1962).

⁵ Indeed, it was only the Treaty of Lisbon of 2007 that degressively proportional representation in the European Parliament was formally introduced into the EU law (the degressive proportionality principle had already been included in the draft European Constitution, which was ultimately not passed) as an effective tool to overcome some of the tensions arising from the wording of the Lisbon Treaty between the principles of equal representation of citizens (Art. 10) and equal representation of the Member States (Art. 14: 2). However, it offers still only an abstract definition of the nature of the European Parliament’s composition (for more details, see e.g., Charvát 2024).

⁶ See <https://ec.europa.eu/eurostat/databrowser/view/tps00001/default/table?lang=en>.

References

- Alker HR, Russett BM, (1964), On measuring inequality. *Behavioral Science*, 9, (3):207–218. ISSN 1099-1743. doi: 10.1002/bs.3830090302.
- Allen T, Taagepera R, (2017), Seat allocation in federal second chambers: Logical models in Canada and Germany. *Mathematical Social Sciences*, 87:22–30. doi: 10.1016/j.mathsocsci.2017.01.004.
- Andeweg R, Thomassen J, (2005), Modes of political representation: toward a new typology. *Legislative Studies Quarterly*, 30, (4):507–528. doi: 10.3162/036298005X201653.
- Balinski M, Young H, (1982), Fair Representation in the European Parliament. *Journal of Common Market Studies*, 20, (4): 361–373. doi: 10.1111/j.14685965.1982.tb00262.x.
- Balinski M, Young H, (2001), Fair Representation: Meeting the Ideal of One Man, One Vote.
- Baysal A, (2017), National Representation in European Democracy: Seat Apportionment in the European Parliament. Available at: <https://eustudies.org/conference/papers/14>.
- Cegielka K, (2016), Degressively Proportional Apportionment of Seats in the European Parliament. From a Simple Idea to a Problematic Legal Rule. *Mathematical Economics*, 12, (19):15–30. doi: 10.15611/me.2016.12.02.
- Charvát J, (2022), EU Member States’ Representation in the European Parliament: the Politics of Seat Apportionment in a Historical Perspective. *European Studies – The Review of European Law, Economics and Politics*, 9, (1):154–177. doi: 10.2478/eustu-2022-0007.
- Charvát J, (2024), Degressively proportional representation in the European Parliament: European Union law versus reality. *Parliaments, Estates and Representation*, 44. doi: 10.1080/02606755.2024.2308350.
- Cowan S, (2015), Periodic Discordance Between Vote Equality and Representational Equality in the United States. *Sociological Science*, 2:442–453. doi: 10.15195/v2.a21.
- Dehousse F, (1953), Rapport de Fernand Dehousse sur les Institutions de la Communauté européenne.
- Dniestrzański P, (2013), Degressive Proportionality – Notes on the Ambiguity of the Concept. *Mathematical Economics*, 9, (16):22–28.
- Duff A, (2012), Finding the balance of power in a post-national democracy. *Mathematical Social Sciences*, 63. doi: 10.1016/j.mathsocsci.2011.11.007.
- Farrell D, Scully R, (2007), *Representing Europe’s Citizens? Electoral Institutions and the Failure of Parliamentary Representation*. Oxford University Press, Oxford.
- Grilli di Cortona P, Manzi C, Pennisi A, Ricca F, Simeone B, (1999), *Evaluation and Optimization of Electoral Systems*. Society for Industrial and Applied Mathematics. ISBN 9780898719819. doi: 10.1137/1.9780898719819.
- Grimmett G, (2011), The Allocation Between the EU Member States of the Seats in the European Parliament – Cambridge Compromise. Note. European Parliament, Directorate-General for Internal Policies, Policy Department C: Citizen’s Rights and Constitutional Affairs.
- Grimmett G, (2012), European apportionment via the Cambridge Compromise. *Mathematical Social Sciences*, 63, (2):68–73. doi: 10.1016/j.mathsocsci.2011.10.003.
- Grimmett G, Oelbermann KF, Pukelsheim F, (2012), A power-weighted variant of the EU27 Cambridge Copromise. *Mathematical Social Sciences*, 63, (2):136–140. doi: 10.1016/j.mathsocsci.2011.11.001.s.
- Haman J, (2017), The Concept of Degressive and Progressive Proportionality and its Normative and Descriptive Applications. *Studies in Logic, Grammar and Rhetoric*, 50, (63):67–91. doi: 10.1515/slgr-2017-0019.
- Laslier JF, (2012), Introduction to the Special Issue ‘Around the Cambridge Compromise: Apportionment in theory and practice’. *Mathematical Social Sciences*, 63. doi: 10.1016/j.mathsocsci.2012.01.007.

- Loosemore J, Hanby V, (1971), The Theoretical Limits of maximum Distortion: Some Analytical Expressions for Electoral Systems. *British Journal of Political Science*, 1, (4):467–477. doi: 10.1017/S000712340000925X.
- Martínez Aroza J, Ramírez González V, (2010), Comparative Analysis of Several Methods for Determining the Composition of the European Parliament. In: Cichocki M, Życzkowski K, (eds.) *Institutional Design and Voting Power in the European Union*. AshgateLondon,, pp. 255–268.
- McKee S, (2007), Malapportionment. In: Sabato L, Ernst H, (eds.) *Encyclopedia of American Political Parties and Elections*. Chcemark BooksNew York,, updated edition, pp. 214.
- Misztal A, (2011), Adjustment Function as a Tool for Distribution of Seats in the European Parliament. *Mathematical Economics*, 7:14 138–154.
- Moberg A, (2012), EP seats: The politics behind math. *Mathematical Social Sciences*, 63, (2):78–84. doi: 10.1016/j.mathsocsci.2011.10.011.
- Pitkin H, (1967), *The Concept of Representation*. University of California Press, Berkeley.
- Pukelsheim F, (2010), Putting Citizens First: Representation and Power in the European Union. In: Cichocki M, Życzkowski K, (eds.) *Institutional Design and Voting Power in the European Union*. AshgateLondon,, pp. 235–254.
- Pukelsheim F, (2014), *Proportional Representation: Apportionment Methods and Their Applications*. Springer, Heidelberg.
- Pukelsheim F, (2018), Compositional Proportionality among European Political Parties at European Parliament Elections. *Středoevropské politické studie/Central European Political Science Review*, 20, (1):1–15.
- Pukelsheim F, Grimmer G, (2017), Linking the Permanent System of the Distribution of Seats in the European Parliament with the Double-Majority Voting in the Council of Ministers. In: *The Composition of the European Parliament. Workshop 30/1/2017. European Parliament, Directorate-General for Internal Policies, Policy Department C: Citizen's Rights and Constitutional Affairs*, PE 583.117, pp. 5–22.
- Pukelsheim F, Grimmer G, (2018), Degressive Representation of Member States in the European Parliament 2019–24. *Representation*, 54. doi: 10.1080/00344893.2018.1475417.
- Ramírez González V, (2010), Degressive Proportionality: Composition of the European Parliament. The Parabolic Method. In: Cichocki M, Życzkowski K, (eds.) *Institutional Design and Voting Power in the European Union*. AshgateLondon,, pp. 215–234.
- Ramírez-González V, (2012), Seat distribution in the European Parliament according to the Treaty of Lisbon. *Mathematical Social Sciences*, 63, (2):130–135. ISSN 0165-4896. doi: 10.1016/j.mathsocsci.2011.11.005.
- Ramírez González V, González V, Palomarez A, Márquez M, (2017), The r-DP Methods to Allocate the EP Seats to Member States. In: *The Composition of the European Parliament. Workshop 30/1/2017. European Parliament, Directorate-General for Internal Policies, Policy Department C: Citizen's Rights and Constitutional Affairs*. In: Simeone B, Pukelsheim F, (eds.) *Mathematics and Democracy: Recent Advances in Voting Systems and Collective Choice*. SpringerBerlin Heidelberg,, pp. 23–36.
- Rittberger B, (2005), *Building Europe's Parliament: Democratic Representation Beyond the Nation State*. Oxford University Press, Oxford.
- Rittberger B, (2009), The historical origins of the EU's system of representation. *Journal of European Public Policy*, 16, (1):43–61. doi: 10.1080/13501760802453114.
- Rodden J, (2002), Strength in Numbers? Representation and Redistribution in the European Union. *European Union Politics*, 3, (2):151–175. doi: 10.1177/1465116502003002002.
- Rose R, (2013), *Representing Europeans: A Pragmatic Approach*. Oxford University Press, Oxford.
- Rose R, Bernhagen P, Borz G, (2012), Evaluating competing criteria for allocating parliamentary seats. *Mathematical Social Sciences*, 63, (2):85–89. doi: 10.1016/j.mathsocsci.2011.10.005.
- Samuels D, Snyder R, (2001), The Value of a Vote: Malapportionment in Comparative Perspective. *British Journal of Political Science*, 31, (4):651–677. doi: 10.1017/S0007123401000254.
- Short J, (1993), *An introduction to political geography*. Routledge, London, second edition.
- Shugart M, Taagepera R, (2017), *Votes from Seats: Logical Models of Electoral Systems*. Cambridge University Press, Cambridge.
- Spierenburg D, Poidevin R, (1994), *The History of the High Authority of the European Coal and Steel Community: Supranationality in Operation*. Weidenfeld Nicolson, London.
- Taagepera R, (2007), *Predicting Party Sizes: The Logic of Simple Electoral Systems*. Oxford University Press, Oxford.
- Taagepera R, Laakso M, (1980), Proportionality Profiles of West European Electoral Systems. *European Journal of Political Research*, 8, (4):423–46. doi: 10.1111/j.1475-6765.1980.tb00582.x.
- Taylor P, Johnston R, (1979), *Geography of elections*. Harmondsworth, London.
- Thomassen J, (1994), Empirical research into political representation: failing democracy or failing models? In: Jennings M, Mann T, (eds.) *Elections at Home and Abroad: Essays in Honor of Warren E. Miller*. Michigan University Press, Ann Arbor, pp. 237–264.
- Trzaskowski R, Popielawska J, (2013), How European are the European Elections? The European Parliament's Long Struggle for a Direct and Universal Suffrage Conducted According to a Uniform Electoral Procedure. In: Kuzelewska E, Kloza D, (eds.) *Elections to the European Parliament as a Challenge for Democracy*. Oficyna Wydawnicza ASPRA-JPWarszawa, Białystok,, pp. 27–42.
- Viola D, (2016), The genesis of the European Parliament: From appointed Consultative Assembly to directly elected legislative body. In: Viola D, (ed.) *Routledge Handbook of European Elections*. RoutledgeLondon,, pp. 3–16.