Is electoral intraparty competition more intense in urban areas?

Dodeigne, Jérémy; Put, Gert-Jan; Teuber, Ferdinand

Published in:
Electoral Studies

Publication date:
2022

Document Version
Version revue par les pairs

Is electoral intraparty competition more intense in urban areas?

1. **Jérémy Dodeigne**, Research Institute Transitions, University of Namur
2. **Gert-Jan Put**, Department of Political, Social and Communication Sciences, University of Namur / KU Leuven Urban Studies Institute
3. **Ferdinand Teuber**, Faculty of Economic, Social and Political Sciences and Communication, University of Louvain

Accepted for publication in Electoral Studies on 13 December 2022

Abstract

This article investigates whether intraparty competition at the election stage – measured by the distribution of preference votes over candidates running under the same party label – is more intense in urban areas. Earlier research on preferential-list PR systems shows that urban voters are less inclined to cast preference votes. Yet we do not know how these differences at the individual voter level translate to the degree of intraparty competition at the aggregate list level. We hypothesize that urban areas provide a more open electoral market and lead to lower levels of vote concentration on party lists. We leverage a novel dataset on preference voting in three Belgian elections by aggregating 461,049 preference vote scores for candidates-in-cantons to a dataset of intraparty competition scores for 3,214 lists-in-cantons. The hierarchical models show that intra-party competition is impacted by the interactive effects of both the urban character of electoral competition and the presence of prominent office-holders. While rural contexts lead to greater vote concentration in presence of a larger number of office-holders, urban contexts often result in lower vote concentration. Our study provides novel insights into the contextual determinants of intraparty competition and personalization.

Key words: Intraparty competition, Urbanization, Preference votes, Belgium

1. Introduction

This article investigates differences in the level of intraparty competition at the election stage[1] on candidate lists between urban and rural areas. Recently, the topic of intraparty electoral competition in preferential-list PR systems has experienced a strong surge in research attention by election scholars (e.g. Bergman et al., 2013; Cheibub and Sin, 2020; Dodeigne and Pilet, 2021; Folke and Rickne, 2020; Isotalo et al., 2020; Passarelli, 2020, Put et al., 2020). Among other things, these studies show which types of candidates attract the highest share of preference votes and thus who 'wins' intraparty competition, how to measure this form of electoral competition, and how political parties aim to coordinate competition between co-partisans prior to elections. Yet we still know little about how the intensity of electoral competition within parties depends on contextual factors such as institutional rules, time period or geographical setting. In this contribution, we focus on the latter aspect and ask if intraparty competition is substantively different in urban settings, and if so, what explains such differences *vis-à-vis* rural settings.

Intraparty electoral competition does not take place in a vacuum: candidates compete for preference votes in cities, suburban areas, rural and sparsely populated environments. We know from earlier empirical work on voting behavior in preferential-list PR electoral systems that the degree of urbanization negatively affects the inclination of voters to cast preference votes (André et al., 2012; Passarelli, 2017; Wauters et al., 2012). However, we do not know how these dynamics at the individual voter level translate to the degree of intraparty competition at

[1] This contribution is focused on the election stage of intraparty competition, where electoral co-partisan candidates battle for preference votes. We acknowledge that intraparty competition can also take place in a pre-electoral (i.e. during candidate nomination processes), a campaign stage (i.e. competition among candidates for media and voter attention) or post-electoral stage (i.e. competition among MPs for leadership positions in parliamentary groups), but these aspects of intraparty competition fall outside of our study's scope.

the aggregate party list level. We develop a set of arguments to explain how intraparty competition measured at the party list level differs between urban and rural areas. More specifically, we contend that the electoral market in urban areas provides more fertile ground for high levels of intraparty competition (i.e. more equal distribution of preference votes over candidates running on the same party list) than rural areas. Urban areas are more densely populated and experience more population mobility, contributing to a more open intraparty competition than in rural areas.

We link our arguments to the expanding literature on the personalization of politics, which describes the growing centrality of individual actors at the expense of collective actors in the political realm (Poguntke and Webb, 2005; McAllister, 2007; Karvonen, 2010; Rahat and Kenig, 2018). While personalization and intraparty electoral competition are highly related, there is a clear distinction and hierarchy between the two concepts. On the one hand, *intraparty electoral competition* refers to the battle for votes between candidates running for the same party. The level or intensity of intraparty competition can be measured by looking at how preference votes are dispersed over candidates on the same party list. Whereas high levels of competition within parties are associated with relatively equal distributions of preference votes over all candidates on the list, low levels of competition lead to concentration of votes for a limited group of candidates. On the other hand, *personalization* in the context of competition within parties refers to voters being increasingly influenced by candidate evaluations, and candidates focusing more on their own personal characteristics and achievements than the ones by their parties. Personalization thus explains how intraparty competition can be played out and may lead, depending on the type of personalization, to concentration of votes for a limited set of candidates on the list.

In the scholarly literature on personalization, an important conceptual distinction is often made between decentralized and centralized personalization (Balmas et al., 2014; Wauters et al., 2018; Dodeigne and Pilet, 2021; Pedersen and Rahat, 2021). While the former implies "that power flows downwards from the group to individual politicians who are not party or executive leaders (e.g. candidates, members of parliament and ministers)" (Balmas et al., 2014: 37), the latter refers to the increasing importance of a limited group of political leaders. In addition, Dodeigne and Pilet (2021) point to the phenomenon of 'elitization' of intraparty contests where most votes are concentrated on a medium-sized group of candidates rather than the party leaders exclusively. To date, most empirical evidence supports forms of personalization that lead to certain levels of vote concentrations on party lists, such as centralized personalization and elitization (e.g. Wauters et al., 2018; Dodeigne and Pilet, 2021). In this article, we contend that these empirically most supported forms of personalization are weaker in urban contexts, leading to a lower concentration of preference votes and thus a higher level of intraparty competition among all candidates compared to rural contexts.

We use a novel and built-for-purpose dataset on the distribution of preference votes over candidates on the same party list for the three most recent consecutive Lower House elections in Belgium (2010-2019). To this end, we aggregated 461,049 preference vote scores for candidates in the different Belgian electoral cantons – the lowest geographical level for which election results are available – to a dataset of Gini-indicator scores, an established indicator of intraparty electoral competition which we use as the dependent variable in our study (Dodeigne and Pilet, 2021). We link these scores to data provided by the Belgian public authorities on the demographic characteristics of electoral cantons in these election years, and to data on the presence of political office-holders on party lists. We run hierarchical linear models to analyze the link between urban characteristics and the level of intraparty electoral competition.

Compared to most previous research on intraparty competition, which has largely focused on the question of *who wins* intraparty competition (e.g. Marcinkiewicz and Stegmaier, 2015; van Erkel and Thijssen, 2016; von Schoultz and Papageorgiou, 2021; Isotalo et al. 2020; Put et al. 2020)[2], we instead investigate what determines *the level of* intraparty competition on a given party list. To that end, we need to analyze the distribution of preference votes at the aggregate list level and link these aggregate scores to the key independent variables of interest, which are the indicators of urbanization. Rather than analyzing which candidates receive the highest vote shares and why, this approach allows to establish under which circumstances intraparty competition reaches its highest levels.

The empirical analyses provide support for the fact that vote concentrations are indeed lower in electoral contexts with urban characteristics, but mainly when candidate lists include political office-holders who are traditionally able to attract high shares of preference votes, such as party leaders, MPs or local officeholders. The strength of these results, however, depend on the type of urbanicity indicator and the type of political office. A notable finding that runs counter to our expectations is that the presence of cabinet members in fact leads to stronger vote concentrations in urban settings. We reflect further on this particular result in the concluding section. In general terms, our results suggest that the presence of political office-holders has a lower impact on intraparty competition in urban settings, leading to a more open electoral market compared to rural settings.

[2] Also studies that establish the existence of an incumbency advantage in preferential-list PR systems (e.g. Gorecki and Kukolowicz, 2014; Dahlgaard, 2016; Dettman et al. 2017; Golden and Picci, 2015) fall within this body of research.

2. Intraparty competition in an urban context: Arguments and hypotheses

It is often argued that, over the past half century, the world has witnessed a substantial growth of the population living in urban settings. Today, a majority of 55% of the global population lives in urban areas, a percentage that is expected to increase to 68% by 2050 (United Nations, 2018). While such a global percentage conceals a more complex and heterogeneous story taking place in different regions and continents, the claim that we are currently living in an urban age has clearly sparked a novel interest in urbanization as a key factor to explain political behavior and attitudes among scholars of comparative politics (e.g. Jennings and Stoker, 2017; Maxwell, 2019; Rodden, 2019).

These studies often claim that the way elections are played out in urban and rural areas is ever more diverging, leading to remarkably distinct voting patterns and a slowly deepening political divide (Johnston et al., 2016). While most of this scholarship focuses on the *inter*party dimension of electoral competition, the extant literature provides several pointers that *intra*party competition and preference voting are also affected by the urban or rural context in which voters reside. The inclination to cast preference votes is affected by the urban character of a voter's local environment. A robust finding is that voters in urban contexts are less inclined to cast preference votes, as social distance between voters and candidates is larger than in rural areas, characterized by 'friends-and-neighbors' politics (André et al., 2012; Passarelli, 2017; Wauters et al., 2012; Dodeigne et al., forthcoming).[3]

[3] A notable exception is Allen (2015), who finds moderate support for a positive correlation between urbanization and the increased rate of preference votes. The alternative argument presented in this work on the case of Indonesia is that voters in urban centers have more expansive media markets with increased information about candidates, which leads to higher levels of personal voting.

Such tendencies in the use of preference voting could have consequences for the nature of intraparty competition, which has long remained the neglected dimension of electoral competition. Intraparty competition refers to the level of competition between candidates running under the same party label in the same multimember district (Herron et al., 2018). This type of competition within parties can be fierce, with an equal distribution of votes over co-partisans, or rather limited with a strong concentration of preference votes for only a few candidates (Andeweg, 2005; Folke et al., 2016).

Only recently, empirical studies on different aspects of intraparty competition have been flourishing. This includes research on party strategies to contain intraparty competition (Cheibub and Sin, 2020; Arter, 2021), successful candidate positioning strategies in terms of ideology (Isotalo et al., 2020; von Schoultz and Papageorgiou, 2021; Folke and Rickne, 2020; Van Erkel, 2021), the development of indicators measuring intraparty competition (Dodeigne and Pilet, 2021), or studies looking at the level of intraparty competition under different electoral rules (Bergman et al., 2013; Passarelli, 2020).

What is lacking in this line of research, however, are empirical studies investigating the effect of the voters' geographical environment on intraparty competition. We do not know whether differences between urban and rural areas affect the distribution of preference votes over candidates running for election on the same party list. Given that the likelihood of casting preference votes is lower in urban settings, we can expect that the level of intraparty competition as measured at the aggregate list level will be different from the more rural and sparsely populated areas. Such differences in voting behavior would have implications for the nature of political representation in urban and rural areas. In what follows, we argue as to why and how the degree of urbanization could impact intraparty competition.

What is an 'urban area'? The operationalization of concepts such as urban area or of 'urbanicity' is itself the subject of ongoing debate (e.g. Krabbendam et al., 2021). What is clear from the literature is that 'urbanicity' should be considered a multidimensional concept referring to multiple features of modern urban areas and the aspects of urban living. For instance, literature on the link between urbanization and health presents complex measurement strategies where various aspects of an urban environment – such as changes in size, population mobility, density, economic activity, population heterogeneity, segregation – are combined in urbanicity scales (e.g. Vlahov and Galea, 2002; Cyril et al., 2013). While not all of these urban aspects substantively affect preference voting behavior, we argue that at least two dimensions of urbanicity that have been central in previous operationalization approaches have consequences for the degree of intraparty competition in a given area.

First, *population density* is the most classical feature to characterize urbanicity, and measures the number of people living in an area or administrative unit per square kilometer. Large urban centers typically concentrate high numbers of voters, which has consequences for electoral competition between individual candidates. These consequences of higher density are related to the more distant social relations between voters and candidates, and the greater saturation of the electoral market as a result of the higher number of candidates and higher availability of political offices in urban areas. We elaborate more in detail on these two mechanisms below.

In line with the central argument raised in the literature on preference voting, social distance between voters and candidates is larger in urban areas. In rural areas, social networks are generally denser and voters are more likely to know one or more specific politicians directly, or at least to know of these politicians (André et al., 2012; Dodeigne et al., forthcoming). Urban

voters tend to be more individualistic and atomized, which leaves them less sensitive to local identities and less attached to local communities (Nemoto and Shugart, 2013), and therefore less likely to recognize individual politicians, let alone to know them personally. This also relates to an argument made by Fenno (1978) in his seminal work on elected representatives and the link to their constituencies: voters in rural areas are more sensitive to the local roots and proximity of politicians, which also leads to the higher prevalence of friends and neighbors voting in such areas compared to cities. This implies that politicians in urban settings have a harder time to truly stand out in election campaigns and are less able to carve out personal constituencies (Cheibub and Sin, 2020), based on personal vote earning attributes (PVEAs). The latter attributes are identified in the literature as personal characteristics that allow individual candidates to cultivate personal electoral support bases (Shugart et al., 2005; Tavits, 2010). Prominent examples of such attributes are incumbency status or local political experience.

Furthermore, high population density areas are associated with higher electoral district magnitude. In most districted PR systems, administrative units are utilized as electoral districts and seats are allocated to these districts based on population numbers. The number of political offices to be elected in urban areas are therefore higher than in rural areas. This typically leads to longer lists of election candidates and thus higher numbers of co-partisans to compete with. In sum, both the number of co-partisans to compete with as well as the number of office-holders within the own party ranks is higher in urban areas, leading to a more saturated electoral market as regards electoral intra-party competition.

The question remains how these differences in voting behavior in an urban electoral context translate to intraparty competition at the aggregate list level. As some of the classical voting

cues will prove less effective in urban areas, it will be less likely to see a strong concentration of preference votes for a limited number of candidates on the list. Recent studies on the personalization of politics have developed the crucial conceptual distinction between centralized and decentralized personalization (Balmas et al., 2014; Pedersen and Rahat, 2021). Especially the former subtype, which refers to a strong concentration of preference votes for a limited group of prominent politicians such as electoral leaders, party leaders and cabinet members, has been widely investigated and empirically established (e.g. Wauters et al., 2018; Garzia, 2014; da Silva, 2018). There has also been empirical support for a milder form of vote concentration on party lists, which Dodeigne and Pilet (2021) dub 'elitization' and which refers to a group of 5 to 10 prominent candidates on the list that attract most preference votes. Based on this support for elitization, one can argue that not only party leaders are important drivers of vote concentration but also MPs and prominent local officeholders. All these officeholders have the capacity to convincingly dominate electoral competition within the same list by relying on their incumbent status as information shortcut to seduce voters. Following the arguments outlined above, one might expect that the concentration of preference votes that we typically see in the case of centralized personalization or elitization will be correlated to the urban character of the electoral environment. Prominent politicians will face more difficulties to dominate intraparty competition in the open electoral market of urban centers, leading to lower levels of centralized personalization and elitization compared to rural areas. Put another way, the presence of those prominent politicians on party lists will have a lower effect on vote concentration in urban settings than in rural settings. Prominent politicians will have a more difficult time to use their incumbency status to persuade voters in urban settings, as a result of the characteristics of urban voters discussed above.

Second, in addition to high population density, urban centers are also characterized as having higher levels of *population mobility* (e.g. Leviton et al., 2000). Different mechanisms explain why the in- and out-mobility of citizens – and thus voters – is considerably higher in urban contexts. On the one hand, as mentioned in the discussion on population density, urban dwellers have lower levels of local attachment which makes them less likely to live in the same local environment for their entire lives. On the other hand, as housing prices are often considerably higher in city centers than elsewhere, urban voters are less likely to be homeowners and thus move more frequently than rural voters (Ramseyer and Rosenbluth, 1993; Hicken, 2007). Furthermore, and somewhat related to the previous point, global processes of urban change significantly alter the composition of inner-city neighborhoods. More specifically, gentrification of traditional working-class neighborhoods leads to the influx of a wealthier, new urban middle class population with limited previous connections to the city, and the physical displacement of longstanding neighborhood inhabitants who cannot afford to stay (Ley, 1996; Smith, 2002). All these elements contribute to rapidly changing electorates in urban areas, and greater difficulties for candidates and prominent politicians to develop and maintain a core group of long-term supporters. Put another way, cultivating personal votes is more costly for any type of politician in such dynamic areas, which again leads to a more level playing field in terms of preference votes.

Taking together all outlined arguments regarding the link between urbanicity and intraparty competition, we formulate the following three research hypotheses:

> **H1.** The level of intraparty electoral competition is higher in urban electoral environments.

H2. The level of intraparty electoral competition is lower when political office-holders are included on the candidate list.

H3. The effect of political office-holders on intraparty electoral competition is weaker in urban electoral environments.

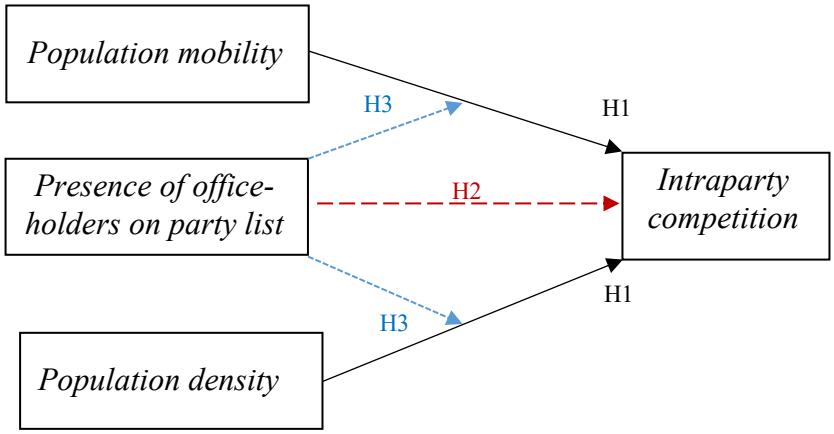

Figure 1: Analytical model on the link between urbanicity indicators, intraparty competition and presence of political office-holders on party lists.

Figure 1 summarizes the analytical model, and situates each of the three hypotheses in the relationship between urbanicity indicators, intraparty competition and the presence of political-office holders on party lists. While H1 tests the general effect of urbanicity on intraparty competition, H2 focuses on the vote concentration effect of office-holders which was already established in earlier studies on electoral personalization. Finally, H3 expects that the urban character of an electoral environment conditions the effect of office-holders on intraparty competition.

4. Research design

Data

We use a unique and built-for-purpose dataset on the Belgian Lower House elections to analyze the link between urbanicity and intraparty competition. This dataset was compiled using three

different sources of information. *First*, the distribution of preference votes over candidates running on the same party list was analyzed for three recent and consecutive Lower House elections (2010-2019). For every party list, preference vote results are available for distinct subdistrict levels (i.e. electoral cantons, the lowest level for which election results are available in Belgium, which comprise up to maximum five municipalities). These disaggregated preference vote scores can be leveraged to analyze the effect of urbanicity on the distribution of preference votes over all candidates on the list. We web-scraped 461,049 preference vote scores for Lower House candidates in the different cantons of the electoral district where they ran from the official election results websites hosted by the Federal Public Service Home Affairs. Subsequently, these preference vote scores of candidates-in-cantons where used to calculate the level of intraparty competition on lists-in-cantons.

Second, we collected data on the political offices served by candidates on the lists (i.e. party leaders, cabinet positions or MP at regional or federal level, MEPs, mayor, alderman or local councilor) of 2,716 federal election candidates running for ten Belgian political parties with permanent parliamentary representation during the period under investigation: CD&V, cdH, sp.a, PS, (Open) VLD, MR, Agalev/Groen, Ecolo, N-VA and Vlaams Belang. With this information, we can take into account the composition of party lists and examine the effect of political office-holders on intraparty competition.

Third, we collected data on the two discussed characteristics of urbanicity from the General Directorate Statistics of the Belgian Federal Public Service Economy. For *population density*, we use the number of inhabitants per squared kilometer (this was recalculated for the electoral cantons based on the sum of inhabitants and surface areas of municipalities included in the respective cantons). Regarding *population mobility*, yearly municipal data on the internal

immigration and emigration were used, which is the absolute number of inhabitants moving in and out of the respective municipalities. For our analysis, we only take into account the share of inhabitants that has immigrated into the canton during the election year. More specifically, the population mobility variable is calculated as the level of internal immigration per 1,000 inhabitants.[4] This was again recalculated for each of the respective electoral cantons.

Case

The three Belgian Lower House elections taking place between 2010 and 2019 are organized using a flexible list proportional representation electoral system. Belgian voters are able to cast one or multiple (as many as there are candidates on the list) preference votes, or a list vote which endorses the party list and its pre-electorally determined order of candidates. There are specific rules in place on the weight of preference votes in the intra-party seat allocation process. Renwick and Pilet (2016) coin the Belgian flexible list variant as the transfer type, where candidates are elected in the order of the preference votes they receive, but list votes are ascribed to the highest pre-electorally ranked candidate to reach the necessary number of votes to get elected. The remaining list votes are cascaded down the list until all are used. In practice, the pre-electoral rank order and list votes are more decisive than preference votes to determine who gets elected. However, Belgian voters use preference votes to communicate about their candidate preferences to parties, which subsequently use electoral success to decide on rank promotions for future elections (André et al., 2017).

Over the years, the use of preference votes has been growing in Belgium and reached its top with 66% of all voters casting candidate preferences in 2003 (Wauters et al., 2015). After those elections, the share of voters casting preference votes has consistently gone down as a result of

[4] This indicator is also referred to as the 'internal migration intensity' by the General Directorate Statistics.

a growing pattern of centralized personalization and declining rates of decentralized personalization (Wauters et al., 2018). Our data on the presence of office-holders on the party lists allows us to disentangle these effects of list composition on intraparty competition from the characteristics of the voters' environment. While our country case is located in the heart of Western Europe, which is one of the most urbanized areas in the world, Belgium still displays considerable within-country variation in terms of urbanization, especially in the south of the country. According to Eurostat's cross-national classification of local administrative units over three categories of urbanization (1: cities; 2: suburban areas and towns, 3: rural areas),[5] in 2018 40.4% of all Belgian municipalities could be considered as rural, 53.7% as suburban areas or towns, and the remaining 5.9% as cities. We can therefore expect that the different urbanicity indicators will vary substantially over the Belgian cantons.

Measurement and method

As regards the dependent variable for the empirical analysis, we calculate the Gini-indicator which captures the statistical dispersion of votes over candidates on a given party list (Dodeigne and Pilet, 2021). Earlier seminal studies on patterns of intraparty competition have highlighted the importance of looking at the concentration of votes over candidates (e.g. Bergman et al. 2013), and several scholars have discussed the Gini-indicator as suitable for the empirical study of electoral intraparty competition (e.g. Wildgen, 1985; Villodres, 2003; Arter, 2013; Passarelli, 2017; Passarelli, 2020; Arter, 2013; Arter, 2021).[6] This indicator measures to what extent

[5] Data can be downloaded freely on: https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/population-distribution-demography/degurba

[6] Another indicator used in earlier studies on personalization and intraparty competition is co-partisan crowdedness, which relies on the number of relevant competitors and the seats the party is expected to win (Crisp et al. 2007). This indicator is primarily utilized to measure the incentives that candidates face to engage in personal vote-seeking campaign behavior prior to the election (e.g. Däubler and Ó Muineachin, 2022; Bräuninger et al. 2012).

preference votes are concentrated for a few prominent candidates or spread out over all candidates on the list, and produces scores between 0 (which equals perfect intraparty competition where all candidates attract an equal amount of votes) and 1 (which represents party lists where one candidate receives all preference votes).[7] The Gini-indicator provides both scale and population independence, implying that scores are comparable for party lists with different electoral strengths and with varying numbers of candidates running for election. Two independent variables of interest are included regarding each canton's urban characteristics: population density and population mobility (cf. supra).. We use a logarithmically transformed version of these two variables.

In addition, we include a variable measuring the presence of political office-holders on party lists. We register the absolute number of party leaders, cabinet members (regional governments and federal government), MPs (regional governments and federal government), local officeholders (local councilors and members of the local executive) on party lists, which we consider as prominent politicians who potentially lead to centralized personalization. In order to test H3, we estimate coefficients for interactive terms between the variable capturing the presence of office-holders and the variables measuring the urban character of the electoral canton.[8]

[7] We only look at the distribution of preferential votes on lists of effective candidates. In Belgium, parties present two candidate lists per electoral district: a list of effective candidates and a list of successor candidates. The latter list consists of candidates who replace elected candidates who might give back parliamentary office over the course of the legislative term, as a result of resignation, retirement or death. The lists of successor candidates (and therefore also the composition of successor lists) are excluded from the analysis.

[8] One could argue that some high profiles of office-holders (e.g. Cabinet members and party leaders) are more frequently observed in urban cantons than rural cantons, the former allowing to appeal to a wider audience during an electoral campaign. However, this not empirically the case in Belgium (we observe weak and not linear correlations between the profiles of office-holders and population density and mobility). Therefore, we can assess

We also account for the party lists' vote share in the electoral canton, as *party strongholds* may simultaneously drive the number of prominent politicians and the concentration of preference votes. Furthermore, we take into account the share of voters that casted a list vote instead of preference vote(s) for a given party list, as the Belgian flexible list PR system allows voters these two options. Casting list votes implies that voters agree with the party-determined pre-electoral rank order of candidates, and is more common in cases of choice overload and low effectiveness of preference votes to change intraparty seat allocation (André and Depauw, 2018). On top of this, previous research has also shown that list votes are more common where no prominent politicians are on the list (André et al., 2012). As we also expect a concentration effect of those prominent politicians on intraparty competition, the share of list votes is expected to be negatively correlated to the Gini-indicator.

The number of candidates running on the party list and party magnitude (i.e. the number of seats the party won in the *previous* election in that district) are added as control variables, which do not vary across the different list-in-canton observations for a given party list. The latter variable can also be considered a control for the number of highest ranked candidates that realistically stand a chance to get elected, in line with the importance of the pre-electoral rank order in the Belgian electoral system (Put and Maddens, 2013). Party and year fixed effects are included to account for unobserved differences between these groups. We run two-level linear hierarchical models (random intercept, fixed slopes) with party lists-in-cantons as level 1 and cantons as level 2.[9] By using hierarchical models, we avoid underestimating standard errors of

the interactive effect of specific profiles of office-holders and rurality of the cantons (H3), without issues of endogeneity between two variables.

[9] To be clear, we have several observations for every party list included in the dataset. For instance, the list for the Flemish socialist party in the electoral district of Antwerp appears 17 times in the dataset with different Gini-

coefficients for higher level predictors (i.e. the two urbanicity indicators) as a result of nested data structures. The variance of intraparty competition observed at the canton is substantial (42 percent, and decreasing to 35 percent when including fixed-canton variables).

In the regression equation below (model 1), $Gini_{ij}$ is the level-1 dependent variable for a level-1 unit$_i$ (i = 1...I) nested in a level-2 unit $_j$ (j = 1...J). Level-1 units are the electoral lists and level-2 units are the cantons. Therefore, γ_{00} is the intercept varying across cantons, γ_{01} and γ_{02} are the regression slopes for our two main explanatory factors varying across cantons (population density and population mobility in the canton), while γ_{10}, γ_{20}, γ_{30} and γ_{40} cover presence of specific candidates' profile varying across electoral lists (party leaders, cabinet members, MPS, and local-office holders). Other terms are our control variables while and ε_{ij} and δ_{oj} are the residual error terms. Models 2 and 3, furthermore, include an interactive term between cantons' characteristics (γ_{01} and γ_{02}) and candidates'profile (γ_{10}, γ_{20}, γ_{30} and γ_{40}).

$$
\begin{aligned}
Gini_{ij} = {} & \gamma_{00} + \gamma_{01}\, Population\ density\ (log)_{\ j} + \gamma_{02}\, Population\ mobility\ (log)_j \\
& + \gamma_{10}\, Party\ leaders\ on\ the\ list_{ij} + \gamma_{20}\, Cabinet\ members\ on\ the\ list_{ij} \\
& + \gamma_{30}\, MPs\ on\ the\ list_{ij} + \gamma_{40}\, Local\ office\text{-}holders\ on\ the\ list_{ij} \\
& + \gamma_{50}\, Party\ magnitude_{ij} + \gamma_{60}\, Party\ stronghold_{ij} \\
& + \gamma_{70}\, Nb.\ of\ candidates\ on\ the\ list_{ij} + \gamma_{80}\, Percentage\ of\ list\ voters_{ij} \\
& + \gamma_{90}\, Election\ Year_j + \gamma_{100}\, Party_{ij} + \delta_{0j} + \varepsilon_{ij}
\end{aligned}
$$

5. Results

To begin with, we look at descriptive statistics of the different variables included in the empirical analyses. Table 1 summarizes these statistics for the dependent variable (Gini-indicator), the two urbanicity indicators, and the other continuous variables.

indicator scores, as this district consists of 17 electoral cantons with different values for the two indicators of urbanicity.

Table 1: Descriptive statistics on variables of interest in hierarchical models.

	N	Mean	Median	St. Dev.	Min.	Max.
Gini	3,214	0.40	0.39	0.13	0.06	0.80
Population density	3,214	1,026.63	351.24	2,590	28.79	19,986.23
Population mobility	3,214	104.90	100.05	27.73	37.85	220.66
MPs on list	3,214	2.25	2.00	1.71	0.00	9.00
Cabinet members on list	3,214	0.37	0.00	0.59	0.00	4.00
Party leader on list	3,214	0.10	0.00	0.30	0.00	1.00
Local office-holder on list	3,214	0.46	0.00	0.74	0.00	7.00
Party stronghold	3,214	16.81	14.88	9.93	0.53	61.73
% of voters who casted list votes	3,214	0.46	0.45	0.15	0.09	0.82
Party magnitude	3,214	2.79	2.00	2.11	0.00	11.00
Number of candidates on list	3,214	15.70	16.00	5.64	4.00	24.00

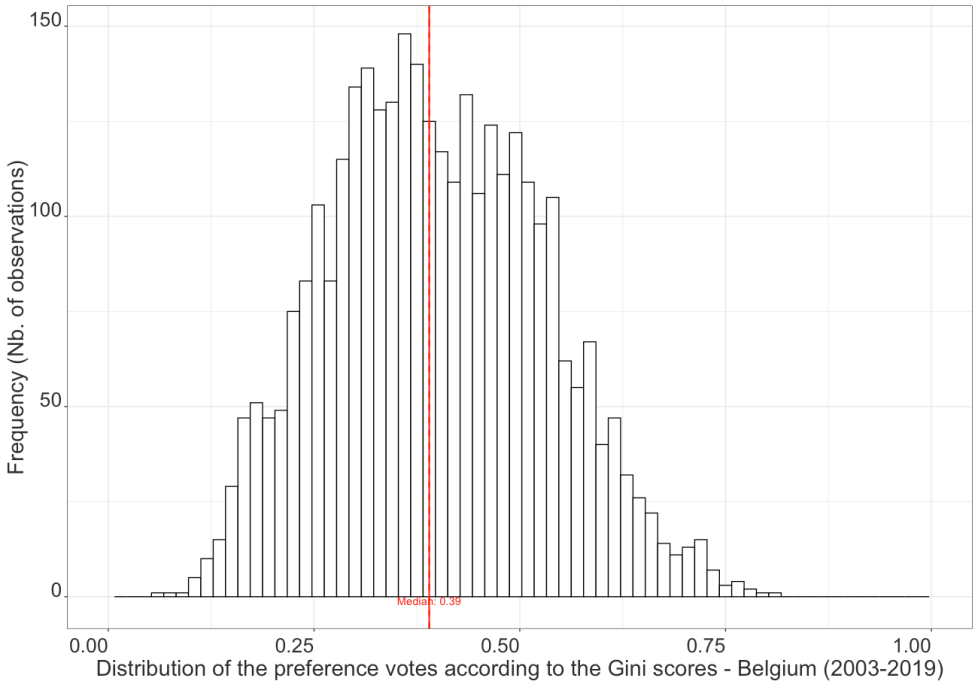

Figure 2:The distribution of Gini-coefficient scores in electoral cantons (Lower House Elections 2010-2019).

Figure 2 shows that the Gini-coefficient in our dataset is approximately normally distributed with a mean of 0.40 and median of 0.39. The lowest Gini-score – and thus highest level of intraparty competition – can be found on the list of the Flemish nationalist party N-VA for the electoral district of West-Flanders in 2014, and in the electoral canton of Vleteren specifically. Indeed, the 1,467 preference votes cast for the 16 candidates on that list are distributed almost perfectly equally (i.e. the most successful candidate received 117 preference votes, the least successful 82 votes). The highest Gini-score – and thus the strongest concentration of preference votes we detected in the entire dataset – is linked to the party list of cdH for the electoral district of Hainaut in 2019, in the canton Merbes-le-Château. Unsurprisingly, David Lavaux, who since 1995 has been the mayor of Erquelinnes, which is one of the two municipalities included in this canton, strongly dominates intraparty competition in 'his' canton with a more rural character. With 1,520 preference votes behind his name, Lavaux beats the first-placed candidate Catherine Fonck, Lower House incumbent who only collected 376 votes, by a landslide. Apart from these two candidates, only two other candidates received more than 100 votes. None of the remaining 14 candidates even received more than 25 votes, leading to a very high score on the Gini-indicator.

As for the urbanicity indicators, we see that *population density* has a strong rightly skewed distribution. While density is lowest in the electoral canton Gedinne in the province of Namur (28.79 inhabitants per square kilometer), it reaches one of the highest levels in Europe in the electoral canton of Saint-Gilles (19,986.2 inhabitants per square kilometer) in the Brussels capital district (or BHV district before the 2014 election). *Population mobility* reflects the number of inhabitants moving in of the canton per 1,000 inhabitants. Mobility is highest in Saint-Gilles with 97.5 inhabitants moving in of the canton in the election year 2010, and lowest

in the canton Comines-Warneton (province of Hainaut) where only 17.1 out of 1,000 inhabitants immigrated in 2010[10].

As regards the presence of political officeholders, 86.44% of all lists in the dataset include at least one MP (regional or federal level). The list of the Flemish nationalist party N-VA for the Antwerp electoral district in the 2019 included a total of nine incumbent MPs. Self-evidently, the number of cabinet members (from 0 to a maximum of 4 cabinet members) is considerably lower, and each party has only one leader and thus one candidate list for which the leader is included. About one third of all lists in the dataset have at least one local office-holder included. Table 2 reports the results of four hierarchical linear models which analyze the level of intraparty competition on 3,214 lists-in-cantons over three consecutive Lower House elections in Belgium (2010-2019). The baseline model only includes the urbanicity variables and party magnitude, and serves as a reference to assess the subsequent more complex models[11]. This model shows support for a positive and statistically significant association between the Gini-indicator and population density. This implies that vote concentrations are higher where population density is higher, which runs counter to our expectation and H1. The coefficient for population mobility fails to reach statistical significance in the baseline model. Model 1 then presents the effects of the two urbanicity indicators and the presence of political officeholders on the level of intraparty competition, and also includes party magnitude, party stronghold, the

[10] Even though there is a positive and moderate correlation between population density and population mobility (0.58), our multivariate models indicate no issues about multicollinearity between these two urbanicity variables (VIF score equal or lower than 1.3).

[11] In a model with list-level variables (without any cantons-level variables), we have observed an ICC score of 0.56, indicating that the inclusion of canton-level variables decreases the ICC score in models 1, 2 and 3. Furthermore, the conditional R-square is significantly higher in these three models (scores ranging between 0.59 and 0.60, compared to 0.45 for the baseline model), with an overall marginal R-square of 0.81 (compared to 0.60 for the baseline model).

number of candidates on the list and the percentage of voters casting list votes as control variables. Party family and election year fixed effects are added here as well. As regards H1, which expects to see more intense intraparty competition in urban electoral environments (which would translate to a negative impact of urbanicity indicators on the Gini-coefficient), Model 1 again provides no support. On the contrary, the coefficient for population density remains positive and statistically significant, indicating that there is a stronger concentration of preference votes in urban settings, which runs counter to our expectations. Population mobility, on the other hand, has no statistically significant impact on the Gini-indicator.

Table 2: Hierarchical linear models analyzing Gini-indicator scores on party lists-in-cantons.

	Baseline	Model 1	Model 2	Model 3
Population density (log)	0.037***	0.022***	0.022***	0.026***
	(0.004)	(0.004)	(0.004)	(0.004)
Population mobility (log)	0.0003	0.0004	0.018	0.003
	(0.014)	(0.013)	(0.015)	(0.013)
Party leaders on list		0.005	0.207***	0.003
		(0.004)	(0.051)	(0.016)
Cabinet members on list		0.009***	-0.021	-0.008
		(0.002)	(0.028)	(0.009)
MPs on list		-0.001	0.011	0.007*
		(0.001)	(0.010)	(0.004)
Local officeholders on list		0.002	0.089***	0.064***
		(0.002)	(0.024)	(0.010)
Party magnitude	0.019***	0.004***	0.004***	0.004***
	(0.001)	(0.001)	(0.001)	(0.001)
Party stronghold		0.082***	0.090***	0.084***
		(0.016)	(0.016)	(0.016)
Number of candidates on list		0.007***	0.007***	0.007***
		(0.001)	(0.001)	(0.001)
% of list voters for list		-0.448***	-0.448***	-0.438***
		(0.013)	(0.013)	(0.013)
Pop. mobility * Party leaders			-0.051***	
			(0.013)	
Pop. mobility * Cabinet members			0.008	
			(0.007)	
Pop. mobility * MPs			-0.003	
			(0.002)	

Pop. mobility * Local officeholders			-0.022*** (0.006)	
Pop. density * Party leaders				0.0003 (0.003)
Pop. density * Cabinet members				0.003** (0.001)
Pop. density * MPs				-0.001** (0.001)
Pop. density * Local officeholders				-0.009*** (0.001)
Party family FE	Included	Included	Included	Included
Election year FE	Included	Included	Included	Included
Constant	0.222*** (0.059)	0.349*** (0.055)	0.276*** (0.062)	0.315*** (0.056)
AIC	-7,094.83	-8,546.57	-8,577.39	-8,590.65
Log Likelihood	3,562.41	4,295.29	4,314.70	4,321.33
BIC	-7,003.70	-8,412.92	-8,419.44	-8,432.70
ICC	0.39	0.53	0.53	0.52
R^2 (cond.)	0.66	0.81	0.81	0.81
R^2 (marg.)	0.45	0.59	0.60	0.60
N (level 2)	215	215	215	215
N (level 1)	3,214	3,214	3,214	3,214

Notes: Standard errors are indicated between brackets; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Concerning H2, Model 1 confirms that the presence of cabinet members on the list leads to stronger concentration of preference votes. However, as regards the other types of political offices, we find no statistically significant effect, even though the coefficient sign for party leaders and local officeholders points in the expected direction. Among the set of control variables, the most notable effect comes from the percentage of voters that casted list votes. As expected, party lists that receive more list votes are characterized by higher dispersion of preference votes and thus higher levels of intraparty competition. Party magnitude and the list electoral result (i.e. party stronghold) push towards higher vote concentration – in line with André et al. (2012) – and longer candidate lists leads to concentration of preference votes as well. The latter result might be explained by the increasing complexity of the vote choice when

confronted with a large number of candidates (Pilet et al. 2019; Dodeigne & Pilet 2023), leading to greater reliance on information shortcuts such as ballot position (i.e. top candidate) or PVEA.

In Model 2 and Model 3, we include interaction terms between the presence of officeholders and the two urbanicity indicators, population mobility and density respectively. In both models, we find evidence for H3: the effect of the presence of prominent politicians on the list on the level of intraparty competition is weaker in urban electoral environments. As regards local officeholders, the results are consistent over the two indicators: when population density or population mobility is high, we see a lower concentration of preference votes on lists with those political officeholders compared to when density and mobility are low. Likewise, we observe that MPs running as candidates in urban contexts have a smaller positive effect on vote concentration compared to rural areas (albeit only statistically significant with the density variable).

For party leaders and cabinet members, results are more mixed. While lists containing party leaders clearly show stronger concentration of preference votes in low mobility areas (see Model 2), the party leader presence makes no difference in Model 3, where we focus on population density. For cabinet members, the result in Model 3 even runs counter to H3: as the electoral canton gets more densely populated, the presence of cabinet members increases concentration of votes. This result is robust to alternative operationalizations of the cabinet member variable (i.e. binary instead of the count variable that was used in the reported models in Table 2), and is also robust to excluding the party lists with the highest number of cabinet members (i.e. four cabinet members on a single party list). However, this reversed effect is not confirmed at a statistically significant level when we look at population mobility in Model 2.

To ease the interpretation of these interactive effects and their substantive effect sizes, we show the marginal effects of the presence of political officeholders conditional on different values of the urbanicity indicators[12]. This visual procedure is also recommended for a comprehensive analysis of interactive terms. As stated by Brambor et al. (2006, 76), it is possible to observe statistical marginal effects that are different for substantively relevant values of the interactive variable but not for others. Figure 3 visualizes, therefore, the interaction effects of Model 2, where the focus lies on population mobility. While an increase in party leaders and local officeholders clearly has a positive effect on the Gini-indicator in areas with very low population mobility, we see that their presence has no effect – or even a negative one – in the cantons with a very high inflow of inhabitants. In terms of substantive interpretation, a party leader (lower right, Figure 3) leads to a 0.062 (0.031-0.088) point increase in the Gini-indicator in very low mobility areas such as the canton of Comines-Warneton in the electoral district of Hainaut, and has no effect or even a minor negative effect in multiple cantons of the Brussels capital region (e.g. Molenbeek-Saint-Jean, Bruxelles, Uccle, Saint-Gilles).

[12] The figures presenting the marginal effects of urbanicity according to the varying presence of office-holders are presented in the Online Appendix.

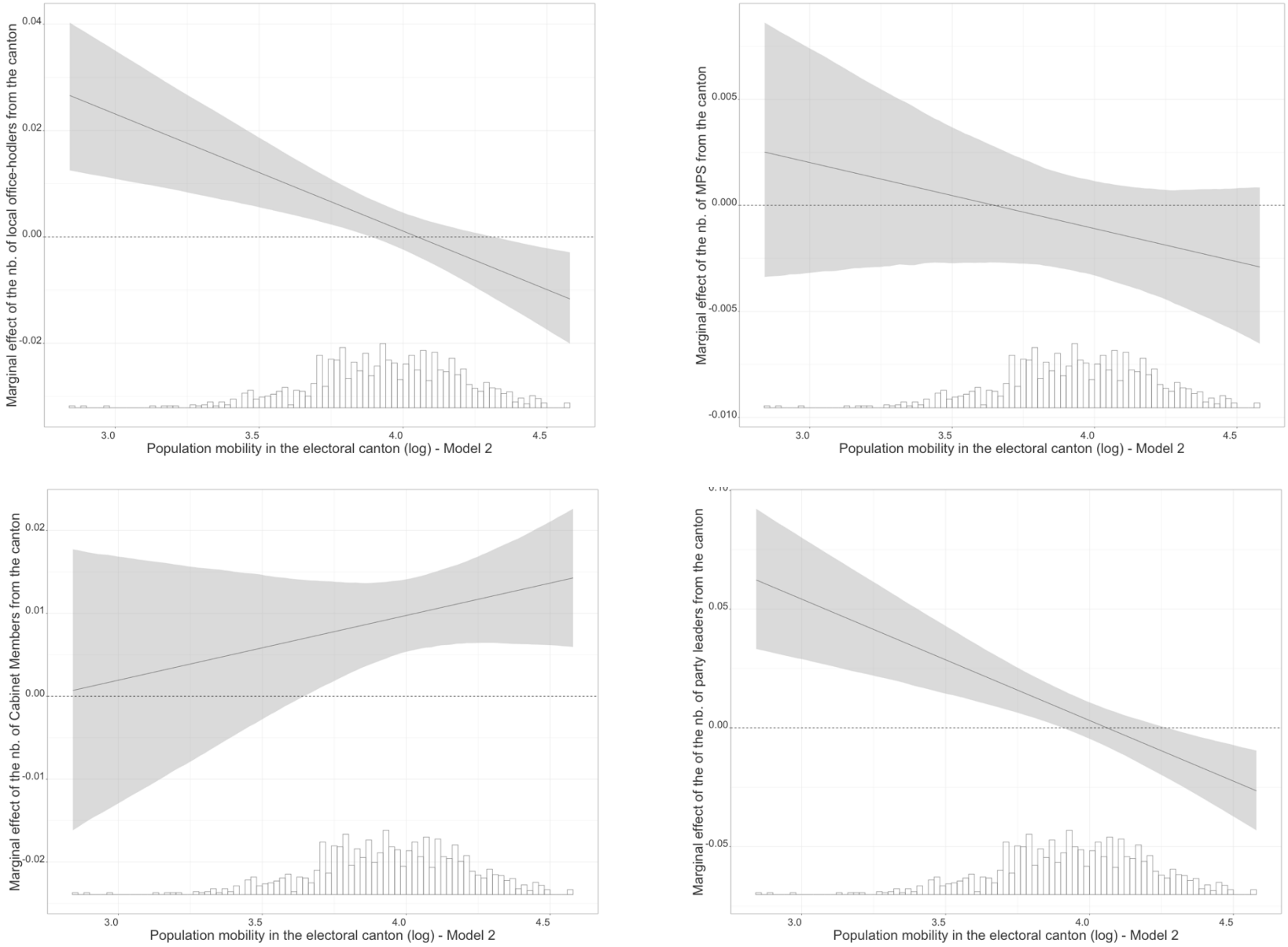

Figure 3: Average marginal effects of the presence of political officeholders on the Gini-indicator, conditional on the level of population mobility in the electoral canton. Grey areas indicate 95% confidence intervals. The empirical distribution of population mobility (logarithmically transformed) is summarized in the histogram. Estimates are obtained from Model 2 in Table 2.

The effect size for local officeholders (upper left, Figure 3) is considerably smaller, ranging from 0.1 to 0.4 per additional officeholder in the lowest mobility areas, and again a negative marginal effect (-0.005; -0.02) in the areas with the highest mobility. Presence of MPs bares, however, no effect on the Gini-indicator (upper right, Figure 3), as the estimated marginal effect does not significantly differ from zero, irrespective of the level of population mobility. We observe converging results when analyzing the reversed picture, i.e. observing the net effect of population mobility according to the varying presence of prominent candidates (see figures in the Online Appendix): higher population mobility generally leads to lower vote concentration when the presence of prominent candidates is the highest (i.e., rare phenomenon though with hardly 0,56% of all the 3214 observations).

Figure 4 summarizes the interaction effects for Model 3, which focuses on population density. We see a very similar pattern as in Figure 3, namely that the marginal effect of the presence of local officeholders is positive and significantly different from zero in the lower density areas, and negative in the most densely populated areas. We also see that the presence of MPs bares almost no effect on the Gini-indicator (upper right, Figure 4), as the estimated marginal effect does not significantly differ from zero for most of the range of values of population mobility in the dataset – except for the most densified cantons. Similar to the models focused on population mobility, the presence of cabinet members positively impacts upon the Gini scores: except in the least densified cantons, concentration of preferences votes become stronger as densification increases. Contrary to our expectations, the presence of a party leader has surprisingly no effect on votes concentration, irrespective of the degree of densification in the electoral cantons. Even though the coefficients for party leader – as the interactive term with density – is positive, the confidence intervals cross the zero line on figure 4 (lower right) pointing to no statistical difference.

Likewise, we observe the enhancing positive effects of greater population density on vote concentration (see Online Appendix). Yet, when prominent local-office holders from the canton are numerous (above four), the effects are reversed: this combination of factors leads to a substantially lower vote concentration. Overall, these results thus indicate that urbanicity nor presence of prominent office-holders alone explain vote concentration. It is the specific combination of these factors that lead to significantly different types of intra-party competition.

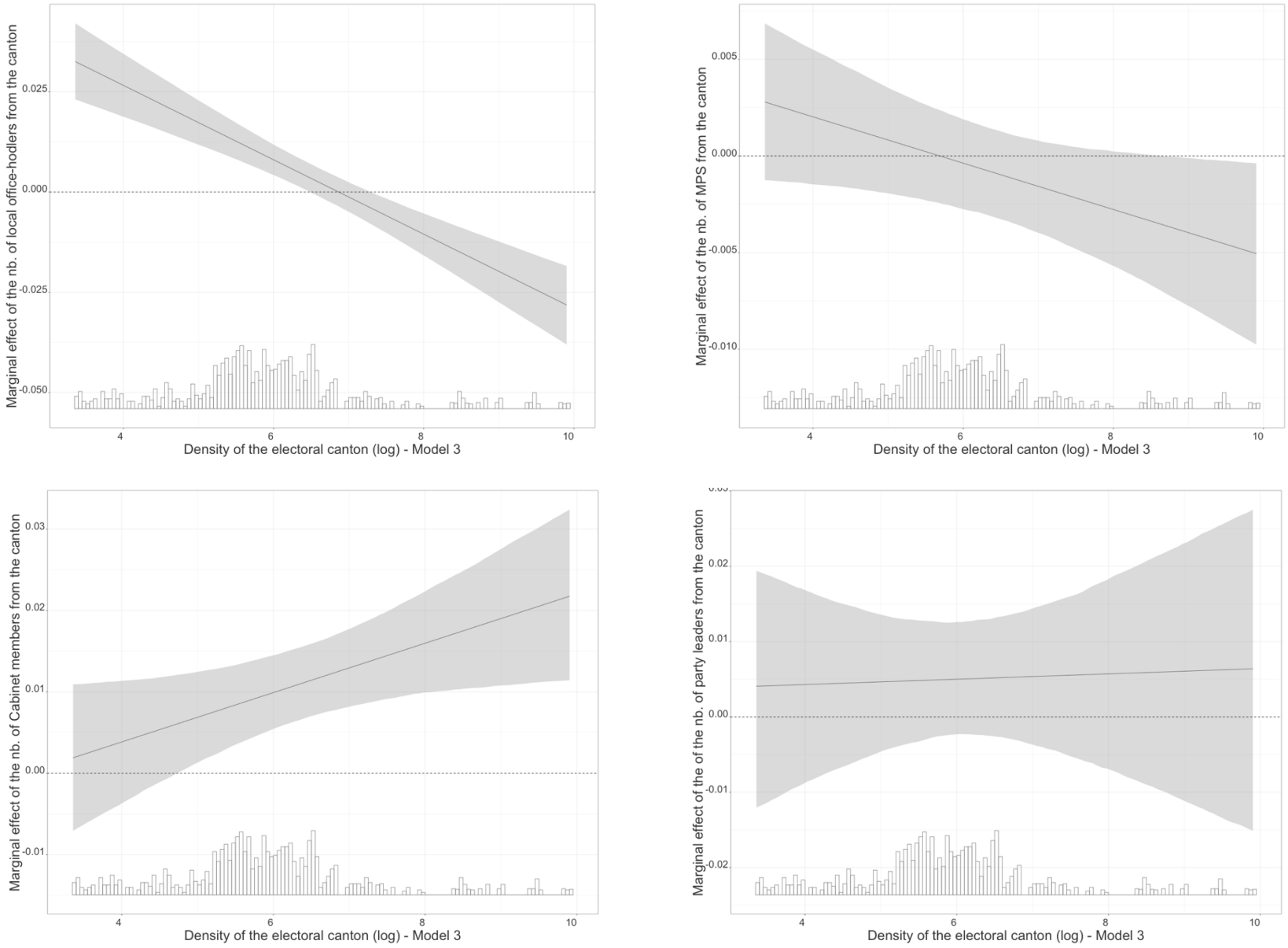

Figure 4: Average marginal effects of the presence of political officeholders on the Gini-indicator, conditional on the level of population density in the electoral canton. Grey areas indicate 95% confidence intervals. The empirical distribution of population density (logarithmically transformed) is summarized in the histogram. Estimates are obtained from Model 3 in Table 2.

6. Conclusion

This article analyzed how intraparty competition patterns differ between urban and rural settings. Our findings indicate that urban characteristics indeed shape the concentration or dispersion of preference votes on party lists, but the effect is conditional on the composition of party lists. The urban nature of an area seems to determine whether the presence of political office-holders on party lists leads to high levels of vote concentration. In other words, one and the same party list has a more equal distribution of preference votes in urban contexts than in rural contexts, when several MPs, cabinet members and local officeholders run for office on that list.

The evidence for this claim is stronger for local officeholders, which shows the expected result in both models, than for MPs and party leaders where the interaction with only one of the two urbanicity indicators leads to a statistically significant result. Finally, the results for cabinet members even point in the opposite direction. A potential explanation for this is that in Belgium, cabinet membership is an ideal position to mobilize public resources for one's electoral district, which cabinet members can leverage to stand out among co-partisans, even in urban contexts. Jennes and Persyn (2015) have shown that Belgian social security and income tax transfers to inhabitants of a particular electoral district increase significantly with every additional cabinet member originating from that district. Note that these results were reported in the Belgian context, where the geographical distribution of income tax and social security is formula-based. As a result, cabinet members from Belgian cities might therefore be able to stand out after all in their competitive urban contexts, allowing them to mobilize the large number of voters living in urban settings to their advantage. This capacity is not present for MPs, who are not in a similar power position in the Belgian partitocratic context as their colleagues in the executive branch.

Regardless of these nuances, the analyses provide considerable support for the fact that urban contexts lead to more open intraparty electoral competition, and that political officeholders play an important mediating effect in this relationship. We theorized about the underlying causal mechanism that could explain different levels of intraparty competition in differing geographical contexts. We linked two typical characteristics of urban areas – population density and population mobility – to preference vote patterns. Based on our aggregate list-level analyses, however, we are not able to draw too strong conclusions regarding differences in electoral behavior of urban versus rural voters. Future research on the contextual determinants of intraparty competition needs to further investigate the link with urbanicity by relying on voter surveys. The latter would allow to test whether individual urban voters are for instance more driven by programmatic motivations, while rural voters might rely more on candidate-level cues in their vote choice, leading to stronger concentrations of preference votes for candidates with crucial personal vote-earning attributes, such as incumbency or celebrity status.

The fact that we rely on data from three parliamentary elections taking place in one single country case might provide an important limitation to the external validity of our study. In addition, we acknowledge that Belgium constitutes a geographically small area with often high levels of urbanization, which fosters the need for similar research on other electoral democracies. The small surface area of the country implies that distances between the different cantons and electoral districts are relatively limited, which could also affect the importance of urban-rural differences in the Belgian context. Nevertheless, we already argued that Belgian municipalities are surprisingly more heterogeneous in terms of urbanization when looking at Eurostat's cross-national classification of cities, suburban areas and rural areas. The geographically heterogeneous Belgian case can therefore still be considered a fruitful testing ground for our hypotheses on the link between variations in urbanicity and the level of

intraparty competition. Moreover, Belgium applies the flexible list PR electoral system, which has become a very popular electoral system within the broader family of preferential-list PR systems on the European continent.

The finding that urban areas constitute more open electoral markets for politicians to run for parliamentary office against co-partisans is important for at least two reasons. First, the nature of political representation and linkage might be different for voters in urban districts compared to more rural districts. Higher levels of intraparty competition, reflected by more equal distributions of preference votes on the party list, increase the likelihood that party supporters have diverging or even conflicting preferences, and reduces the ability of elected MPs to form strong personal connections with their party's voters – a task which is already very challenging in large multimember districts. If there is instead a higher concentration of preference votes, such as in more rural areas, the elected MPs will have a stronger mandate from the party voters.

Second, for political parties it seems more difficult to manage the outcome of intraparty competition in urban areas, which might create more attractive career chances for non-incumbent politicians. In multimember district systems with varying district magnitude, the number of parliamentary seats allocated to highly urbanized electoral districts is substantially higher. This is because the number of seats is typically proportional to the population size of the electoral districts. For political parties, there are thus substantially more parliamentary seats to gain in urban areas than elsewhere. But based on our results, it seems that parties are less able to control the internal competition between co-partisan candidates on their own lists in urban settings. Preference votes are clearly more spread out over candidates, even if prominent politicians are present on lists. In rural settings, there is a much stronger vote concentration, which might make it more difficult for intraparty challengers to break through.

These findings also speak to the classical work by Monroe and Rose (2002) on the 'variance effect': in urban electoral districts with many seats, it is more difficult to obtain unfragmented parliamentary representation, leading to a structural disadvantage for urban political interests relative to rural interests. Put differently, Monroe and Rose (2002) demonstrate that competition *between* parties is more fragmented in urban areas. This article demonstrates that competition *within* parties is also more fragmented in those areas, even when controlling for presence of political officeholders and party magnitude.

References

Allen, N. W. (2015). Clientelism and the personal vote in Indonesia. *Electoral Studies*, 37, 73-85.

Andeweg, R. B. (2005). The Netherlands: the sanctity of proportionality. *The Politics of electoral systems*, 491-510.

André, A., Wauters, B., & Pilet, J. B. (2012). It's not only about lists: explaining preference voting in Belgium. *Journal of Elections, Public Opinion & Parties*, *22*(3), 293-313.

André, A., Depauw, S., Shugart, M. S., & Chytilek, R. (2017). Party nomination strategies in flexible-list systems: Do preference votes matter?. *Party Politics*, 23(5), 589-600.

Arter, D. (2013). The 'Hows', not the 'Whys' or the 'Wherefores': The role of intra-party competition in the 2011 breakthrough of the true Finns. *Scandinavian Political Studies*, 36(2), 99-120.

Arter, D. (2021). 'It'sa Long Way from Kuusamo to Kuhmo': Mapping Candidates' Electoral Constituencies in the Finnish Open-List Single Preference Voting System. *Political Studies Review*, 19(3), 334-354.

Balmas, Meital, Rahat, Gideon, Sheafer, Tamir, & Shenhav, Shaul R., 2014. Two routes to personalized politics: Centralized and decentralized personalization. Party Politics, 20 (1), 37-51.

Bergman, M. E., Shugart, M. S., & Watt, K. A. (2013). Patterns of intraparty competition in open-list & SNTV systems. Electoral Studies, 32(2), 321-333.

Brambor, T., Clark, W. R., & Golder, M. (2006). Understanding interaction models: Improving empirical analyses. *Political Analysis*, 14(1), 63-82.

Bräuninger, T., Brunner, M., & Däubler, T. (2012). Personal vote-seeking in flexible list systems: How electoral incentives shape Belgian MPs' bill initiation behaviour. *European Journal of Political Research*, 51(5), 607-645.

Cheibub, J. A., & Sin, G. (2020). Preference vote and intra-party competition in open list PR systems. *Journal of Theoretical Politics*, *32*(1), 70-95.

Cyril, S., Oldroyd, J. C., & Renzaho, A. (2013). Urbanisation, urbanicity, and health: a systematic review of the reliability and validity of urbanicity scales. *BMC Public Health*, *13*(1), 513.

da Silva, F. F. (2018). Fostering turnout?: Assessing party leaders' capacity to mobilize voters. Electoral Studies, 56, 61-79.

Dahlgaard, J. O. (2016). You just made it: Individual incumbency advantage under proportional representation. *Electoral Studies*, 44, 319-328.

Däubler, T., & Muineacháin, S. Ó. (2022). Millstone or means to succeed: party-brand value, intra-party competition and personal vote-seeking. *Journal of Elections, Public Opinion and Parties*, 1-20.

Dettman, S., Pepinsky, T. B., & Pierskalla, J. H. (2017). Incumbency advantage and candidate characteristics in open-list proportional representation systems: Evidence from Indonesia. *Electoral Studies*, 48, 111-120.

Dodeigne, J., & Pilet, J. B. (2021). Centralized or decentralized personalization? Measuring intra-party competition in open and flexible list PR systems. *Party Politics*, 27(2), 234-245.

Dodeigne, J., & Pilet, J. B. (2023). It's not only about the leader. Oligarchized personalization and preference voting in Belgium. *Party Politics*, forthcoming.

Dodeigne, J., Reuchamps, M., Steyvers, K. Teuber, T. 2022. Local voters have their reasons. Mapping voting motives in local elections in Belgium. *Sxwiss review of political science*. Online first

Fenno, R. (1978). *Home style: House members in their districts*. New York: HarperCollins.

Folke, O., Persson, T., & Rickne, J. (2016). The primary effect: Preference votes and political promotions. *The American Political Science Review*, *110*(3), 559.

Folke, O., & Rickne, J. (2020). Who wins preference votes? An analysis of party loyalty, ideology, and accountability to voters. *Journal of Theoretical Politics*, *32*(1), 11-35.

Garzia, D. (2014). Personalization of politics and electoral change. Basingstoke: Palgrave MacMillan.

Golden, M. A., & Picci, L. (2015). Incumbency effects under proportional representation: Leaders and backbenchers in the postwar Italian chamber of deputies. *Legislative Studies Quarterly*, 40(4), 509-538.

Górecki, M. A., & Kukołowicz, P. (2014). Gender quotas, candidate background and the election of women: A paradox of gender quotas in open-list proportional representation systems. *Electoral Studies*, 36, 65-80.

Herron, E. S., Pekkanen, R., & Shugart, M. S. (2018). Terminology and basic rules of electoral systems. *The Oxford handbook of electoral systems*, 1-20.

Hicken, A. (2007). How do rules and institutions encourage vote buying?. *Elections for sale: The causes and consequences of vote buying*, *33*, 60.

Isotalo, V., Mattila, M., & von Schoultz, Å. (2020). Ideological mavericks or party herd? The effect of candidates' ideological positions on intra-party success. *Electoral Studies*, *67*, 102187.

Jennes, G., & Persyn, D. (2015). The effect of political representation on the geographic distribution of income: Evidence using Belgian data. *European Journal of Political Economy*, 37, 178-194.

Jennings, W., & Stoker, G. (2017). Tilting towards the cosmopolitan axis? Political change in England and the 2017 general election. *The Political Quarterly*, 88(3), 359-369.

Johnston, R., Manley, D., & Jones, K. (2016). Spatial polarization of presidential voting in the United States, 1992–2012: The "Big Sort" revisited. *Annals of the American Association of Geographers*, 106(5), 1047-1062.

Karvonen, Lauri (2010). The personalisation of politics: A study of parliamentary democracies. Ecpr Press.

Krabbendam, L., van Vugt, M., Conus, P., Söderström, O., Empson, L. A., van Os, J., & Fett, A. K. J. (2021). Understanding urbanicity: how interdisciplinary methods help to unravel the effects of the city on mental health. Psychological medicine, 51(7), 1099-1110.

Leviton, L. C., Snell, E., & McGinnis, M. (2000). Urban issues in health promotion strategies. *American journal of public health*, *90*(6), 863.

Ley, D. (1996). *The new middle class and the remaking of the central city*. Oxford University Press.

Marcinkiewicz, K., & Stegmaier, M. (2015). Ballot position effects under compulsory and optional preferential-list PR electoral systems. *Political Behavior*, 37(2), 465-486.

Maxwell, R. (2019). Cosmopolitan immigration attitudes in large European cities: Contextual or compositional effects? *American Political Science Review*, 113(2), 456-474.

McAllister, I (2007). The personalization of politics. In Russel J. Dalton, Hans-Dieter Klingemann, (eds.) *The Oxford handbook of political behavior*, pp. 571-588. Oxford University Press, Oxford.

Monroe, B. L., & Rose, A. G. (2002). Electoral systems and unimagined consequences: Partisan effects of districted proportional representation. *American Journal of Political Science*, 67-89.

Nemoto, K., & Shugart, M. S. (2013). Localism and coordination under three different electoral systems: The national district of the Japanese House of Councillors. *Electoral Studies*, *32*(1), 1-12.

Passarelli, G. (2017). Determinants of preferential voting in Italy: General lessons from a crucial case. *Representation*, *53*(2), 167-183.

Passarelli, G. (2020). *Preferential Voting Systems*. Springer International Publishing.

Pedersen, H. H., & Rahat, G. (2021). Political personalization and personalized politics within and beyond the behavioural arena. *Party Politics,* 27(2), 211-219.

Pilet, J.-., M. J. SANHUZA, D. TALUKDER, J. DODEIGNE & A. E. BRENNAN. 2019. Opening the Opaque Blank Box. An Exploration into Blank and Null Votes in the 2018 Walloon Local Elections. *Politics of the Low Countries* (1)3: 182-204.

Poguntke, T., & Webb, P. (Eds.). (2007). *The presidentialization of politics: A comparative study of modern democracies*. Oxford: Oxford University Press.

Put, G. J., & Maddens, B. (2013). The selection of candidates for eligible positions on PR lists: The Belgian/Flemish federal elections 1999–2010. *Journal of Elections, Public Opinion and Parties*, 23(1), 49-65.

Put, G. J., & Maddens, B. (2015). The effect of municipality size and local office on the electoral success of Belgian/Flemish election candidates: a multilevel analysis. Government and Opposition, 50(4), 607-628.

Put, G. J., von Schoultz, Å,& Isotalo, V. (2020). Fighting over friends-and-neighbors: The effect of inter-candidate geographic distance on intra-party competition. *Political Geography*, 81, 102219.

Rahat, G., & Kenig, O. (2018). From party politics to personalized politics?: party change and political personalization in democracies. Oxford University Press.

Ramseyer, J. M., & Rosenbluth, F. M. (1993). *Japan's political marketplace*. Harvard University Press.

Renwick, A., & Pilet, J. B. (2016). *Faces on the ballot: The personalization of electoral systems in Europe*. Oxford University Press.

Rodden, J. A. (2019). *Why cities lose: The deep roots of the urban-rural political divide*. Hachette UK.

von Schoultz, Å, & Papageorgiou, A. (2021). Policy or person? The electoral value of policy positions and personal attributes in the Finnish open-list system. *Party Politics*, 1354068819891048.

Shugart, M. S., Valdini, M. E., & Suominen, K. (2005). Looking for locals: Voter information demands and personal vote-earning attributes of legislators under proportional representation. *American Journal of Political Science*, 49(2), 437-449.

Smith, N. (2002). New globalism, new urbanism: gentrification as global urban strategy. *Antipode*, *34*(3), 427-450.

Tavits, M. (2010). Effect of local ties on electoral success and parliamentary behaviour: The case of Estonia. Party Politics, 16(2), 215-235.

United Nations (2018). *2018 Revision of World Urbanization Prospects*.

van Erkel, P. F. (2021). The odd one out: The influence of ideological positioning on individual electoral success. Party Politics, 13540688211050065.

van Erkel, P. F., & Thijssen, P. (2016). The first one wins: Distilling the primacy effect. *Electoral Studies*, 44, 245-254.

Villodres, C. O. (2003). Intra-party competition under preferential list systems: the case of Finland. *Representation*, 40(1), 55-66.

Vlahov, D., & Galea, S. (2002). Urbanization, urbanicity, and health. *Journal of Urban Health*, *79*(1), S1-S12.

Wauters, B., Thijssen, P., Van Aelst, P., & Pilet, J. B. (2018). Centralized personalization at the expense of decentralized personalization. The decline of preferential voting in Belgium (2003–2014). *Party politics*, *24*(5), 511-523.

Wauters, B., Verlet, D., & Ackaert, J. (2012). Giving more weight to preferential votes: welcome or superfluous reform? The case of the local elections in Flanders (Belgium). *Local Government Studies*, *38*(1), 91-111.

Wauters, B., Van Aelst, P., Thijssen, P., Rodenbach, J., Smulders, J., & Pilet, J. B. (2015). Presidentalisering versus personalisering? De daling van het gebruik van de voorkeurstem verklaard. In *De kiezer ontcijferd: het stemgedrag en de stemmotivaties op 25 mei 2014* (pp. 76-95). Lannoo campus.

Wildgen, J. K. (1985). Preference voting and intraparty competition in Italy: some new evidence on the communist-Christian democrat stalemate. *The Journal of Politics*, 47(3), 947-957.