Malapportionment in Myanmar's Elections: A Slumbering Menace

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Myanmar's use of colonial-era administrative boundaries as the basis for electoral constituencies creates a staggering degree of malapportionment that meets or exceeds the world's highest levels. This article systematically assesses malapportionment and its implications for Myanmar's democratization and broader political development. Myanmar's malapportionment significantly over-represents ethnic minority and rural areas, even after controlling for other factors. This challenges the prevalent notion that the political system is decisively stacked in favour of the majority Bamar. Few practical effects of malapportionment have manifested thus far, since political actors have generally not incorporated it into their electoral strategies. As they do, non-Bamar will be well positioned to play a more decisive role in the country's politics, adding to the broader challenge of Bamar centrality. But strategic responses to malapportionment may also trigger serious problems that harm governance and reduce the legitimacy of elections.

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Furthermore, malapportionment risks exacerbating ethnic tensions by fuelling a narrative of Bamar precarity.

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Relative to its Southeast Asian neighbours, Myanmar's electoral system has received little scholarly attention until recent years. This is because elections did not play a decisive role in the distribution of power from 1960 until the 2015 general elections. Even those elections had significant limitations in determining control of the state, since Myanmar's institutional features make it more a hybrid regime rather than a full democracy. There are reasons to believe, however, that elections will become increasingly competitive and politically decisive in the foreseeable future. The November 2020 elections already shows such signs, with strategic mergers of ethnic parties and nascent plans of cross-ethnic alliances. As political actors continue to become more sophisticated at leveraging the nuances of the electoral system for partisan advantage, understanding the system's unique features and dynamics likewise grows in importance.

The implications of Myanmar's electoral boundaries have been addressed only peripherally in earlier studies.4 The country's approach to boundary delineation is critical, however, in that it creates a staggeringly high degree of malapportionment. In simple terms, this means that voters are unequally distributed across electoral constituencies, with some constituencies having significantly more voters than others.⁵ Since each constituency is typically allocated one representative in first-past-the-post (FTPT) systems like Myanmar's, the practical effect is to amplify the influence of votes in constituencies with relatively few voters, while diluting the influence of votes in constituencies with relatively many voters. Using standard measures, malapportionment in Myanmar matches or exceeds the highest levels seen across the world. The remarkable ratio of 323 to 1 between the largest (454,307 voters) and smallest (1.408 voters) lower house electoral constituencies in the 2015 election hints at the magnitude of the discrepancy.

While malapportionment was a non-issue under military rule, it has the potential to significantly affect political competition and its outcomes as elections become more relevant in the distribution of power. From a normative perspective, malapportionment violates the "one-person, one-vote, one-value" principle of representative democracy by creating disparities in the relative value of individual

votes. More importantly, it can significantly distort the translation of votes into parliamentary seats, thereby biasing electoral outcomes. This can be leveraged for partisan advantage, which explains why malapportionment is prevalent among hybrid regimes. Its full potential to distort outcomes is evident in nearby Malaysia, where it was an important contributing factor to the dominance of the United Malays National Organisation (UMNO), which won every general election between 1955 and 2018. In the 2013 election, for example, malapportionment turned a 4 per cent popular vote defeat for UMNO and its coalition partners into a 20 per cent parliamentary seat victory, allowing the coalition to continue ruling despite the erosion of its popular support.

This article provides a systematic assessment of malapportionment in Myanmar. It highlights two major implications. First, it demonstrates that non-Bamar areas are systematically over-represented. This complicates the widespread assumption that the country's political system fundamentally favours the majority ethnic Bamar. There is little question that the Bamar will retain numerous advantages and continue to control many of the country's key institutions in the near future, but due to the under-representation of Bamar areas, that control is likely to come under increasing challenge as electoral competition normalizes in the years to come. In an electorally competitive environment, in other words, Bamar dominance may be on shakier footing than appearances suggest. This has secondary implications for the debate around electoral system reform. Several ethnic minority parties have joined the military-aligned Union Solidarity and Development Party (USDP) in calling for the adoption of a proportional representation (PR) system. Since a PR system would entail formulating new electoral constituencies, it would likely reduce or eliminate the over-representation of minority votes, and may thus ultimately be counterproductive for increasing minority representation.

Second, malapportionment is generally associated with a range of problematic practices, including poorer governance and clientelistic behaviours. The effects of malapportionment on politics in Myanmar have been modest so far, since with the possible exception of the military-aligned USDP, there is little evidence that parties responded strategically to it in the 2015 election. As parties become more strategic in coming elections, however, the problems associated with malapportionment are likely to manifest more strongly, thereby undermining efforts to strengthen governance. Moreover, there is a risk that malapportionment could exacerbate Myanmar's long-

running ethnic tensions. This is because its practical effect of under-representing Bamar votes could feed dangerous narratives of Bamar precarity that extremist groups like MaBaTha have advanced in the past. ¹⁰ In short, the main effects of malapportionment may still be dormant, but they have the potential to become a menace to Myanmar's development as electoral competition normalizes. This underscores the broader point that the 2010 and 2015 elections were exceptional events, and scholars should, therefore, be highly cautious in making general inferences about future electoral competition in Myanmar based on them.

Several features of malapportionment in Myanmar make the case interesting for general scholars of democratization as well. In many hybrid regimes, malapportionment results from the dominant party actively manipulating electoral boundaries to secure partisan advantages. Malaysia again provides a clear example, as its electoral boundaries have been regularly redrawn in ways that over-represent the dominant party's strongholds and align with its strategic orientation. By contrast, Myanmar's electoral boundaries are quasiexogenous, as they are based on colonial era administrative divisions that have not been significantly altered since independence. This makes Myanmar unusual among states with high malapportionment. Moreover, the absence of experience among most political actors when elections were reinstated means that few took the types of strategic actions that are associated with distortions in other highly malapportioned systems. As actors gradually adopt those actions, the associated distortions will appear as well. Myanmar presents a rare opportunity to observe the sequencing and cross-party variation in that process, which may reveal interesting theoretical insights.

This article proceeds as follows. The next section provides an overview of Myanmar's electoral system and its history of elections. The third section provides a descriptive overview of malapportionment at the *inter*-state/region and *intra*-state/region levels. The fourth section assesses the correlates of constituency size. The fifth section assesses the findings in terms of party strategies, while the final section focuses on the current and potential future political implications of malapportionment.

Elections in Myanmar

Myanmar (then known as Burma) gained independence from British colonial rule in 1948, beginning a period of parliamentary democracy under FPTP electoral rules. A military coup in 1962 ended the

democratic era, following which the country experienced nearly three decades of military rule under General Ne Win. Widespread protests in 1988 precipitated Ne Win's downfall and led to elections in 1990 that were to fill a parliament-sized constitutional committee to draw up a new constitution. The Aung San Suu Kyi-led National League for Democracy (NLD) secured nearly 60 per cent of the popular vote and 392 of the 485 seats. By contrast, the military-aligned National Unity Party (NUP) won a mere 10 seats. The election was fraught with poor communication and misunderstanding, including over its basic purpose, which the military eventually contended did not include the right to form a new government.¹¹ In any case, the military's State Law and Order Restoration Council (SLORC) disregarded the results and went on to rule Myanmar for an additional two decades, later under the name State Peace and Development Council (SPDC). The National Convention was finally reconvened in 2003 under SPDC guidance, eventually leading to the 2008 Constitution. Viewed broadly, the nearly half-century of military rule in Myanmar had elements of stability, but was also riddled with ongoing factionalism, power struggles, and centreperiphery tensions. 12

Following the implementation of the 2008 Constitution, the SPDC scheduled general elections in 2010. The military contested these by proxy through the newly formed USDP, which was comprised mainly of former military officials and related civil servants. The elections, however, were boycotted by the NLD and riddled with allegations of abnormalities, following which the USDP and the pro-military NUP secured over 70 per cent of the vote.¹³ In several respects, the elections marked the culmination of the ruling junta's 2003 roadmap towards a "Disciplined Democracy" that has features of an electoral democracy but nonetheless maintains the military establishment's core interests.¹⁴ The new USDP-led pseudo-civilian government initiated a series of reforms in 2011 that brought about the most significant political and economic opening in decades. 15 The reasons behind it are still debated, but it is clear that both external factors and liberal reformers within the USDP played important roles. 16 Openly contested by-elections in 2012 were dominated by the NLD. This set the stage for the 2015 general elections, the first relatively free and fair elections in over a generation. The NLD achieved a decisive victory, securing approximately 80 per cent of available seats in the lower house on nearly 60 per cent of the popular vote.¹⁷ The military-aligned USDP secured only 8 per cent of available seats.

While the results of the 2015 election were symbolically powerful, their practical implications were limited due to the governing 2008 Constitution that establishes the fundamental parameters of Myanmar's political environment and has numerous pro-establishment and promilitary features. ¹⁸ First, the Constitution reserves 25 per cent of seats in the *Pyithu Hluttaw* (lower house) and *Amyotha Hluttaw* (upper house) for the military. The threshold for constitutional reform is set at 75 per cent, granting the military a *de facto* veto. Second, three key ministries—border security, defence and home affairs—remain under the full control of the military. In short, the Constitution grants the fully-autonomous military extensive control over the state and key bodies like the police independent of the civilian government and legislature, thereby instituting a *de facto* power-sharing arrangement. ¹⁹

As per the Constitution, the selection of the president, who is the *de jure* head of government, occurs through an electoral college in which the lower house, upper house and military-appointed lawmakers each form a committee that nominates a candidate. The winner is then selected from those three candidates through a vote in the joint houses of the National Assembly.²⁰ The lower house consists of 330 elected seats representing single-member constituencies, as well as an additional 110 seats allocated to the military. The upper house consists of 168 elected seats, with 12 representatives coming from each of the 14 regions and states, and an additional 56 seats allocated to the military. Mandalay's seat count includes the two seats from the Naypyidaw Union Territory. As the elected lower house contains the largest bloc of MPs, it holds the greatest influence in selecting the executive and in other legislative functions. Consequently, we primarily focus on the lower house.

The electoral system's parameters are established both in the 2008 Constitution and in a series of laws that address political parties and procedures for the lower and upper houses.²¹ The Constitution has sometimes been interpreted, including by the Union Election Commission (UEC), as stipulating that lower house representatives must be elected in township-based electoral constituencies, which appears to enshrine FPTP at that level. This has been contested, however, with arguments that the UEC has discretion in delineating constituencies.²² Even if the latter is true in theory, it is unlikely that malapportionment will be reduced in the foreseeable future. This has several reasons. By typically providing a seat bonus to the party with the largest vote share, the current electoral system

favours the NLD as long as it maintains strong popular support.²³ This has made the NLD generally unresponsive to USDP demands for increased proportionality and related reforms.²⁴ In addition, malapportionment over-represents non-Bamar areas (demonstrated in the following section). The NLD continues to position itself as a broad-based party that represents both Bamar and non-Bamar interests. This is partly out of need: with 25 per cent of parliamentary seats reserved for the military under the 2008 Constitution, the NLD requires strong support from non-Bamar voters in order to form a government. As its support among those voters is tenuous, however, it is naturally reluctant to pursue reforms that could antagonize them. This makes reducing malapportionment—which would diminish non-Bamar over-representation—a risky endeavour. It is noteworthy that significant and ongoing rural-to-urban migration²⁵ will continue to increase malapportionment beyond its current levels. In short, high malapportionment is likely to be a consistent feature of elections in Myanmar for the foreseeable future.

Myanmar uses existing township-level administrative boundaries as the basis for lower house electoral constituencies. The decision, at least initially, appears to be primarily one of convenience, not least driven by the absence of reasonably reliable demographic data prior to the 2014 census, which was arguably the first comprehensive census since 1931.²⁶ The township boundaries are themselves largely carry-overs from the colonial era. While the British colonial administration made regular boundary changes,²⁷ they generally conformed to pre-colonial territorial groupings that dated back to the Tounggo dynasty.²⁸ The boundaries stayed relatively unaltered through military rule and were formally confirmed prior to the 2010 election. Minor changes that affect a small proportion of townships were made in the run-up to the 2020 general election.

Electoral competition in Myanmar occurs against the backdrop of complex ethnic diversity and ongoing ethnic conflicts.²⁹ The history of distinguishing between the different groups within the territory that comprises contemporary Myanmar extends back to precolonial times. At its heart is the distinction between *taingyintha* and non-*taingyintha* peoples, which translates roughly as indigenous, native or national races.³⁰ The nominal basis for inclusion in the *taingyintha* is a group's (supposed) existence within Myanmar's contemporary boundaries prior to the First Anglo-Burmese War in 1824. In practice, significant ambiguities in group distinctions and poor record keeping kept ethnic classifications relatively informal

through much of the post-independence period, even as the salience of ethnic difference increased. The 1982 citizenship law introduced the notion of 135 discrete groups, but these were not fully enumerated until the 1990s. No precise rationale for the number of groups or the logic of classification has been given.³¹

The 135 recognized ethnic groups are commonly divided into eight broad families: the Bamar, Shan, Mon, Kachin, Chin, Kayin, Rakhine and Kayah. The Bamar make up over half of Myanmar's population and are concentrated in the country's lowland area. which roughly corresponds to the core territory of the pre-colonial Bamar Konbaung kingdom. Today that area is divided into seven administrative regions. The non-Bamar groups are concentrated in the highlands around the western, northern and eastern periphery of the country. There is a high but not full degree of geographic concentration among ethnic groups, which make up the local majorities in Myanmar's seven ethnic states that are the administrative equivalents of the regions. The region/state distinction likewise has historical roots: during colonial rule, the Bamar lowland areas were directly ruled as "Burma Proper", while the highland periphery was indirectly ruled as the semi-autonomous "Frontier/Scheduled Areas". This entrenched a dynamic of Bamar political centrality that continues into the present.³² Ethnic parties are prevalent across the states, though identification with them varies considerably. They fared relatively poorly in the 2015 election, due in part to poor inter-party coordination that split ethnic votes.33

Records from the pre-colonial era note regular conflict between nominally independent kingdoms that in some cases loosely correspond to contemporary ethnic groups. Hithout question, however, British rule exacerbated tensions and reified the notion of ethnic difference. A major factor was the British reliance on non-Bamar minorities for the armed forces, whose primary role was internal security. This led many Bamar to associate minorities with repressive colonial rule, reinforcing centre-periphery tensions that would contribute to decades of ethnic conflict following independence. Many of these conflicts are ongoing, particularly in the Kachin, Kayah, Kayin, Rakhine and Shan states. It is noteworthy that the formal state does not have full control of some peripheral areas, in which territorial sovereignty remains contested by ethnic armed groups. Many of these conflicts are ongoing to some peripheral areas, in which territorial sovereignty remains contested by ethnic armed groups. Many of these conflicts are ongoing to some peripheral areas, in which territorial sovereignty remains contested by ethnic armed groups.

A qualification about the role of ethnicity in Myanmar is in order. Ethnicity is widely recognized among social scientists as a

social construct that, while durable and sometimes deeply affective, is also situational in nature and malleable over the long term.³⁷ Its effects on intra- and inter-group behaviour are not deterministic, including in political settings, where other issues or dimensions of identity may be paramount. While we work with the recognized ethnic classifications in developing our arguments, we recognize the ultimately ambiguous nature of the distinctions and their analytic limitations, particularly in regard to individual behaviour.

There are important data considerations as well. Rigid ethnic classification systems such as those used in the 2014 census and GAD data may not accurately reflect nuanced identities and do not capture salience. Specific issues with the census have been noted, including resistance to the usage of the official ethnic classification system. Moreover, there are issues of incomplete coverage, as demographic data were not captured in some conflict areas, including in parts of the Kachin, Kayin and Rakhine states.³⁸ The GAD data are collected by local GAD administrators without involvement of external actors and little transparency of procedure, which raises other concerns. As such, we suggest caution in interpreting individual data points on ethnic composition, especially across datasets. We are confident, however, that the GAD data provide a reasonably reliable approximation of the Bamar/non-Bamar proportions in the vast majority of constituencies. As this is the only dimension of identity that we incorporate in our analyses, we believe the resulting interpretations are reliable.

Malapportionment in Myanmar

Malapportionment is the unequal distribution of voters across electoral constituencies. It amplifies the influence of votes from constituencies with relatively few voters and dilutes the influence of votes from constituencies with relatively many voters. Consider a constituency A with 10 voters and a constituency B with 100 voters. If each constituency elects one representative to the legislature, votes from constituency A are 10 times as influential (and thus over-represented) as votes from constituency B. This clearly violates the normatively important "one person, one vote, one value" principle of representative democracy³⁹ and has numerous practical implications. Evidence from a range of contexts around the world suggests that over-represented constituencies (e.g., those with relatively fewer voters) receive a disproportionately large share

of government resources, often entrenching clientelistic practices.⁴⁰ Malapportionment also biases cabinet allocations in favour of overrepresented constituencies,⁴¹ though those same constituencies may be less vulnerable to election violence.⁴² As malapportionment clearly has the potential to distort electoral outcomes,⁴³ it has been widely adopted as a sophisticated tool to manipulate elections, particularly by autocratic and hybrid regimes.⁴⁴

The most common measure to assess the magnitude of malapportionment is based on the Loosemore-Hanby index of electoral disproportionality. The score, often denoted as MAL, is the sum of the absolute value of the difference between constituency level vote percentages (v_i) and seat percentages (s_i) divided by two, following the expression:

$$MAL = \frac{1}{2} \sum |v_i - s_i|$$

This yields a percentage, which is interpreted as the percentage of seats that would have to be reallocated to achieve equal apportionment. In short, the higher the percentage, the greater the magnitude of malapportionment. Figure 1 compares Myanmar against regional neighbours using data from Ong, Kasuya and Mori. 46 As per other comparisons, the focus is on malapportionment in the lower house.

Myanmar's malapportionment stands out against regional peers, with most others below 10 per cent and Timor-Leste having a perfectly apportioned system. Only a small number of countries globally, including Gabon, Maldives, Togo and Surinam, have a MAL score in Myanmar's vicinity. While simplistic, the ratio between the largest and smallest constituency is another frequently used measure of malapportionment. On this metric, Myanmar's remarkable ratio of 323 to 1 (454,307 and 1,408 voters respectively) is greater than the next highest—India in 2004, at 86 to 1—by a factor of nearly four.⁴⁷ To contextualize this, in nearby Malaysia where malapportionment has significantly affected electoral outcomes and general political competition, the ratio is in the vicinity of 10 to 1.

We proceed by examining malapportionment at the subnational level, focusing on the meso-level regions and states. Table 1 captures relevant indicators from the 2015 election. Electoral data are from the UEC, while ethnic proportions are based on GAD data.⁴⁸ The columns "Proportion Voters and Proportion Seats" are the proportion of total voters and total seats contained by the respective unit. "Seat Difference" is the number of seats above or below what a unit would

Timor Leste (2012) Nepal (2013) Thailand (2007) Singapore (2015) Sri Lanka (2015) Cambodia (2013) Japan (2014) Indonesia (2014) India (2014) Taiwan (2012) Bangladesh (2014) South Korea (2012) Mongolia (2012) Phlippines (2010) Bhutan (2013) Malaysia (2013) Myanmar (2015) 0% 5% 10% 15% 20% 25% 30% Malapportionment

Figure 1
Comparative Malapportionment of the Lower House

 $\it Note: x-axis indicates malapportionment using the Loosemore-Hanby index of electoral disproportionality. Higher values indicate greater malapportionment.$

Source: Kian-Ming Ong, Yuko Kasuya, and Kota Mori, "Malapportionment and Democracy: A Curvilinear Relationship", Electoral Studies 49 (2017): 118–27.

have with equal apportionment. For example, Yangon's -2.6 seat difference indicates that it had 2.6 seats fewer than it would have if seats were equally apportioned according to the number of voters. "MAL" is malapportionment expressed as a proportion between 0 and 1, as measured by the Loosemore-Hanby method, within the indicated unit. For example, malapportionment of seats within Yangon Region's 45 seats is .27 (corresponding to 27 per cent); it is .20 when aggregating all 199 constituencies within the 7 regions.

Table 1 Malapportionment in the Lower House

		Prop			Prop	Prop	Seats	
Population	Population	Bamar	Voters	Seats	Voters	Seats	Diff	MAL
Regions	35,229,431	.77	25,165,625	199	.73	09'	-40.0	.20
Yangon	7,360,703	.64	4,990,971	45	.14	.14	-2.6	.27
Ayeyarwady	6,184,829	.68	4,403,618	26	.13	.08	-16.0	.12
Mandalay	6,165,723	.81	4,424,727	28	.13	60.	-14.2	.10
Sagaing	5,325,347	.79	3,803,849	37	.11	.12	0.7	.22
Bago	4,867,373	.84	3,530,719	28	.10	60.	-5.7	.15
Magway	3,917,055	86.	3,026,733	25	60.	80.	-3.9	.21
Tanintharyi	1,408,401	69.	985,008	10	.03	.03	9.0	.10
States	13,830,383	.13	8,699,666	123	.25	.37	39.2	.33
Shan	5,764,588	.10	3,463,190	55	.10	.17	22.0	.31
Rakhine	2,098,807	.01	1,466,792	17	.04	.05	3.0	.15
Mon	2,054,393	.35	1,534,486	10	.04	.03	-4.6	.08
Kachin	1,642,841	.20	877,581	18	.03	90.	9.6	.41
Kayin	1,504,326	60.	904,973	7	.03	.02	-1.6	.32
Chin	478,801	.01	274,328	6	.01	.03	6.4	.15
Kayah	286,627	.16	178,316	7	.01	.02	5.3	.46
Naypyitaw	1,160,242	.83	752,612	8	.02	.02	0.8	.26
Total	48,811,655	.59	34,617,903	330				.25

Source: Electoral data are from the UEC; Proportion Bamar are from GAD data

Several observations are noteworthy. The first relates to the general distribution of seats across the regions and states (e.g., the inter-region/state level). A degree of Bamar centrality has been a consistent feature of the country's politics at least since the colonial era. Yet the Bamar-majority regions, which contain nearly three-quarters of Myanmar's voters, are allocated only 60 per cent of lower house seats. That amounts to 40 fewer seats than would be expected with equal apportionment. Second, there is considerable variation in the degree of malapportionment at the intra-region/state level. It is moderate in some regions and states—Mandalay, Mon, and Tanintharyi for example—and extreme in others, notably in Kachin and Kayah. In aggregate, the ethnic-minority states are considerably more malapportioned than the Bamar-majority regions at .33 and .20 respectively, though both are high from international comparisons.

Figure 2 illustrates constituency-level variation in the number of voters (in thousands) along several dimensions. The edges of the box indicate 25th and 75th percentile constituency within each category (in terms of number of voters), while the line within the box indicates the median constituency. The whiskers indicate the adjacent values. The numbers in brackets next to the category are the number of constituencies within that category. The first cluster compares constituencies in the regions and the states. The second cluster compares Bamar-majority against Bamar-minority constituencies. The third cluster compares categories of voter density. This is relevant to malapportionment, as some over-representation of sparsely inhabited rural areas is a common feature of electoral systems, particularly in developing countries where poor infrastructure may impede contact between representatives and their constituents. Since this is our principal concern, we distinguish between three general categories: urban, semi-rural and rural areas. The final cluster compares constituencies won by USDP, the NLD and ethnic parties respectively.

Several observations are again noteworthy. As the high-level indicators from the previous table suggested, constituencies in the (Bamar-minority) states are considerably smaller on average than their counterparts in the (Bamar-majority) regions. The geographical clustering of ethnic groups causes the same pattern to hold when comparing Bamar-majority and Bamar-minority constituencies, where the median Bamar-majority constituency (119,717) is over twice as large as its Bamar-minority counterpart (49,247). Stated differently, a vote in the median Bamar-majority constituency has

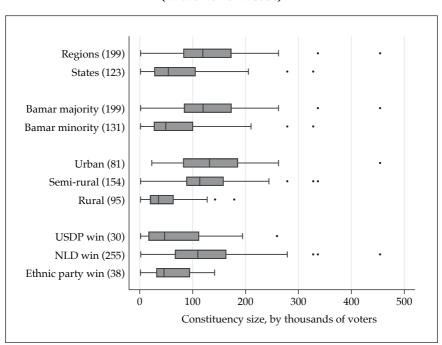


Figure 2
Constituency-level Variation in the Number Voters on Key Dimensions (in the Lower House)

Note: The region/state cluster amounts to fewer districts as it does not include the Naypyidaw Union Territory seats.

less than half the influence of a vote in the median Bamar-minority constituency towards their respective lower house seats. The size discrepancy is even more pronounced across measures of voter density: while urban and semi-rural seats are on average quite similarly sized, their rural counterparts are substantially smaller, with respective median constituency sizes of 131,811 (urban), 113,510 (semi-rural) and 35,508 (rural) voters respectively. The partisan dimension is stark as well: the median USDP and ethnic party constituencies have fewer than half the voters of their NLD counterparts.

Similar patterns are evident in the upper house, as seen in Table 2. The upper house's overall malapportionment of .35 exceeds that of the lower house, as is common in contexts where the upper house represents meso-level territories of unequal sizes. Relative to the regions, the states are again substantially over-represented,

Table 2

Malapportionment in the Upper House

	Voters	Seats	Prop Voters	Prop Seats	Seat Diff	MAL
Regions	25,918,237	84	.76	.50	-43	.19
Mandalay	5,177,339	12	.15	.07	-13.4	.11
Yangon	4,990,971	12	.15	.07	-12.5	.09
Ayeyarwady	4,403,618	12	.13	.07	-9.6	.07
Sagaing	3,803,849	12	.11	.07	-6.6	.25
Bago	3,530,719	12	.10	.07	-5.3	.07
Magway	3,026,733	12	.09	.07	-2.8	.08
Tanintharyi	985,008	12	.03	.07	7.2	.12
States	8,377,097	84	.24	.50	43	.38
Shan	3,463,190	12	.09	.07	-3.4	.29
Rakhine	1,466,792	12	.04	.07	4.8	.24
Mon	1,534,486	12	.04	.07	4.5	.10
Kachin	877,581	12	.03	.07	7.7	.18
Kayin	904,973	12	.03	.07	7.6	.26
Chin	274,328	12	.01	.07	10.7	.13
Kayah	178,316	12	.01	.07	11.1	.41
Total	34,295,334	168				.35

Note: The Mandalay upper house includes two seats from Naypyidaw Union Territory. The Naypyidaw seats are counted separately in the lower house, which explains the discepancy in number of voters in Mandalay region between the upper Source: Electoral data from the UEC.

as they are allocated half of elected seats despite containing just under a quarter of total voters. The mean seat size in the largest region (Mandalay, including two Naypyidaw seats) is 431,444 voters, relative to 14,859 voters in the smallest state (Kayah). The bounds between the largest and smallest individual upper house seats are

set by Shan State's constituency #1 with 680,431 voters and Kayah State's constituency #9 with 3,116 voters, for a ratio of 218 to 1. Intra-region/state malapportionment is again more pronounced in the states, particularly in the Kayah, Shan, Kayin and Rakhine States.

Correlates of Malapportionment

The descriptive statistics suggest meaningful variation in constituency size along multiple politically-relevant dimensions, many of which are likely correlated with one another. We estimate a series of ordinary least squares (OLS) regressions using constituency-level data from the 2015 election in order to more precisely understand the correlates of constituency size. As the aim is to better understand variation in the number of voters across constituencies, *Constituency size* (measured in thousands of voters) is the main dependent variable across all models. Electoral data are from the UEC, while estimates of ethnic composition are from the GAD. We use robust standard errors throughout.

The first model estimates the structural correlates of constituency size. *Proportion Bamar* is the proportion of voters in a given constituency that are identified as Bamar. We incorporate a measure for voter density using the same three categories as before: *Rural* acts as the reference category against which *Semi-rural* and *Urban* are compared. *State* is a dummy variable that takes the value of "1" for the states and "0" for the regions and the union territory. We also include a proxy for development: *Electrification* is the proportion of households in a constituency that report having access to electricity for lighting their home. Area and electrification data are from the 2014 census. Model 2 adds fixed effects at the state/region/union territory level in place of the *State* dummy to account for unobserved heterogeneity across those units.

Our third model introduces the political dimension, namely *USDP vote share*. We opt to focus on the military-aligned USDP, as it is the closest approximation in the Myanmar context to an "establishment party" that in other contexts is associated with smaller constituency sizes. Model 3 is limited to constituencies in which the USDP competed. Note also that elections were not held in seven constituencies in Shan State where conflict was active during the 2015 election,⁴⁹ so those are dropped. Model 4 again adds fixed effects at the state/region/union territory level and drops *State*. Table 3 reports findings.

Table 3
Correlates of District Size

District size (in thousands)	(1)	(2)	(3)	(4)
Proportion Bamar	50.2**	54.0**	51.2**	54.9**
	(17.5)	(18.5)	(17.7)	(18.6)
Urban	93.9***	81.5***	96.2***	76.0***
	(10.1)	(12.1)	(10.9)	(13.1)
Semi-urban	67.8***	55.1***	69.3***	54.2***
	(7.3)	(7.5)	(7.7)	(8.0)
State	26.5		27.3	
	(14.6)		(14.8)	
Electrification	-31.7*	-6.9	-40.3*	-2.9
	(11.6)	(12.0)	(15.5)	(17.9)
USDP vote share			-27.8	-45.8
			(26.6)	(26.1)
Constant	21.4	31.0	29.7	42.0
	(15.2)	(4.9)	(17.4)	(8.3)
Fixed effects	No	Yes	No	Yes
Obs	330	330	318	318
R-squared	.36	.45	.35	.44

Note: robust standard errors in parentheses; * p \leq .05; ** p \leq .01; *** p \leq .001

Beginning with Model 1, we interpret the findings as follows: on average, a fully Bamar constituency has approximately 50,200 more voters than a fully non-Bamar constituency with otherwise similar characteristics. Holding all else constant, an urban constituency has approximately 93,900 more voters than a comparable rural constituency, while a semi-rural constituency has 57,800 more than the comparable rural constituency. In short, a larger proportion

of Bamar and a higher voter density are both strongly associated with a larger number of voters, even when controlling for other factors. The dummy for State narrowly misses conventional levels of statistical significance. Its sign, however, is surprising, as it suggests that the states may actually have a somewhat larger number of voters than the regions once ethnic composition and voter density are controlled for. Electrification is also counterintuitive: holding all else constant, a more developed constituency (as proxied by household electrification) has fewer voters than an otherwise similar but less developed constituency, thereby running counter to one of the main arguments for unequal constituency sizes, namely that less developed constituencies should have relatively fewer voters to facilitate contact between constituents and their representative. As per Model 2, these interpretations do not change significantly with the inclusion of fixed effects, though electrification is no longer significant.

The inclusion of the political dimension in Models 3 and 4 is also revealing. The literature suggests that parties linked to the political establishment, which could include the military aligned-USDP in the Myanmar context following decades of military rule, are often associated with smaller constituency sizes. Indeed, the descriptive statistics clearly show that the average USDP constituency is considerably smaller than the average NLD constituency. Yet the USDP vote share variable does not reach conventional levels of statistical significance in either model. This suggests that USDP's vote share is not independently associated with smaller constituency sizes once measures for ethnic composition and voter density are controlled for. This is also true when replacing USDP vote share with a dummy for constituencies won by the USDP (not shown). In short, there is little evidence to suggest that constituencies in which the USDP does well are smaller than otherwise comparable constituencies (in terms of ethnic composition and voter density) where it does not do well. Repeating this analysis with NLD's vote share (not shown) yields the same conclusions. Myanmar's electoral boundaries, in other words, do not show the kind of independent partisan bias that is common in many other hybrid regimes.

Two main conclusions emerge from this exercise. First, the main structural determinants of constituency size are ethnic composition and voter density, where a high proportion of Bamar voters and greater voter density are both positively associated with larger constituencies. Categorization as state or region plays no clear independent role. Second, there does not appear to be an explicit partisan bias caused by the electoral boundaries. The smaller average size of USDP constituencies, then, is due to the party's disproportionate success in smaller and typically rural constituencies. This is confirmed by another regression (not shown) in which USDP's vote share is the dependent variable: USDP's vote share is higher in rural constituencies relative to urban and semi-rural counterparts and is positively correlated with the proportion of Bamar voters; there is, however, no independent effect of constituency size or level of development once those other factors are controlled for.

Party Strategies

How do we make sense of these results? In many hybrid regimes, the establishment party manipulates electoral boundaries to its advantage, either through gerrymandering (which impacts the composition but not the number of voters within a constituency), malapportionment (which creates unequal numbers of voters across constituencies), or both. Consistent with this, constituencies won by the military-aligned USDP are considerably smaller on average in terms of number of voters than those won by the NLD. Constituencies held by ethnic parties are likewise smaller than NLD constituencies. Since Myanmar's electoral boundaries can be treated as quasi-exogenous—the administrative townships on which they are based have with some exceptions been generally stable since the colonial era—these outcomes cannot be attributed to the active manipulation of electoral boundaries that is common in other hybrid regimes.

Given the quasi-exogenous nature of Myanmar's electoral boundaries, there are several potential explanations for the USDP's disproportionately greater success in small constituencies. One possibility is that the USPD has a stronger natural appeal to those voters, but there is little to support the assumption that there are systematic differences in voter preferences between the small (mainly Bamar) districts where the USDP did well and larger nearby ones where it did not. A more compelling explanation is that several of those smaller districts housed military bases or military-linked administrative posts, or otherwise had infrastructure from the (USDP-predecessor) USDA administrative structure that could be mobilized to influence the local polls. No systematic data is available to test this, but anecdotal accounts from newspaper reports provide some qualified support. Mile this may explain a number of victories

in which military and military-linked personnel comprised a large part of a constituency's voters, it cannot account for all of the USDP's wins.

A related explanation is that parts of the USDP did incorporate malapportionment into their strategic decision making, specifically by focusing campaign efforts and finite resources on smaller districts where their impact could be concentrated. There is anecdotal evidence to support the notion that, at least among individual candidates, the USDP and other establishment-linked figures were aware of the potential advantages of targeting smaller constituencies. ⁵¹ In a high-profile example, two former close associates of USDP President Their Sein—U Aung Min and U Soe Their—both contested for small Kayah upper house seats, despite not being Kayah or having strong previous links to the constituencies.

The payoff of this strategy is most apparent in micro-constituencies with fewer than 10,000 voters, where the distribution of electoral goodies has a particularly concentrated effect. The USDP won nearly 40 per cent of these (5 of 13), relative to less than 8 per cent of remaining constituencies. Consistent with this, allegations of vote buying and excessive use of funds during campaigns were especially pronounced in Kayah State, which has the fewest voters of any state/region and numerous unusually small constituencies.⁵²

These outcomes suggest at least some degree of strategic thinking at the constituency-level by the military-aligned USDP and other establishment figures in 2015. Given the USDP's close connection to the state and the pivotal role that many of its leaders played in defining the parameters of the electoral system, this is perhaps unsurprising. It does, however, challenge the argument that the USDP showed a general lack of political sophistication and a "failure to learn" in navigating the transition to greater electoral competition.⁵³ By contrast, there is little to suggest that the NLD, whose median constituency was over twice as large as the USDP's, approached malapportionment strategically. This is consistent with observations that the NLD's unfamiliarity with the state apparatus and formal political competition left it improvising on everything from a broader election strategy to the individual campaigns of its candidates in 2015. A number of factors, including the large victory margin in 2015, the ongoing popularity of Aung San Suu Kyi, and the limited popular support for the USDP, have kept a sense of electoral urgency at bay within the NLD. This, in conjunction with the party leadership's focus on constitutional reform, the crisis in Rakhine state, and the peace process,⁵⁴ appears to have crowded out work on a nuanced campaign strategy that responds to the particularities of the electoral system, suggesting that the NLD's approach to the 2020 election will likewise not fully respond to strategic incentives. The Covid-19 pandemic adds a further significant diversion.⁵⁵

Political Implications

What broader political implications are revealed by the detailed examination of malapportionment? Myanmar's politics have long been characterized by Bamar centrality. There is little to indicate that this will change in the foreseeable future. Yet the country's electoral system—through the usage of colonial-era administrative boundaries to delineate electoral constituencies—is highly malapportioned in ways that over-represent non-Bamar and rural votes. This does not negate the persistent Bamar over-representation in many of Myanmar's core institutions, but it does challenge the widespread assumption that the political system is fundamentally stacked in their favour. To the contrary, malapportionment provides non-Bamar clear advantages that allow them to punch well above their already non-trivial weight in electoral competition.

This potential is currently underrealized due to numerous well-examined issues, most significantly the limited coordination among the fragmented non-Bamar political representation. ⁵⁶ But as elections become normalized and actors more strategic, the overrepresentation of non-Bamar areas should allow ethnic interests to play a more decisive role in union-level politics, whether through discrete ethnic parties or greater influence in national parties. That better positions ethnic interests to press for reduction of regional inequalities and constrain Bamar dominance in major institutions. The considerable consolidation of ethnic parties in the run-up to the 2020 election suggests that strategic coordination is already beginning to occur. ⁵⁷

This has implications for the debate on changing the electoral system. A line of argument holds that PR is better at securing minority representation than are majoritarian systems. ⁵⁸ While the USDP has recently been the main proponent of adopting PR—albeit for different reasons—numerous ethnic parties have in the past voiced support for it as well. ⁵⁹ Indeed, conditional on a sufficiently high minimum threshold, a PR system could reduce the

costs of poor coordination between ethnic parties, as fewer votes are wasted. However, as Joel Selway argues, the high geographic concentration of ethnic groups in much of Myanmar already causes the FPTP system to produce PR-like outcomes. This study adds an additional dimension to this debate by showing that the current system over-represents non-Bamar votes even after taking voter density and other factors into account. Ultimately, adoption of a PR system would entail new electoral constituency boundaries that would likely reduce or even eliminate this independent pro-ethnic minority bias, thereby countering any potential advantages of PR for minority representation.

Malapportionment has been associated with serious costs in other contexts. This includes political behaviours that entrench patronage politics and distort governance, for example by concentrating resources on over-represented constituencies, favouring those districts for appointments to key positions, and increasing the disconnect between constituents and representatives when outside elites view over-represented constituencies as safe seats and "parachute" in to contest them. 62 Malapportionment also brings the risk of distorting the translation of seats into votes, potentially undermining the perceived legitimacy of democracy. There are no indications that these have systematically impacted Myanmar thus far, as malapportionment did not factor into the political strategies of most actors in the 2015 election or before. However, this is likely to change: as political actors become more familiar with elections and more sophisticated at leveraging malapportionment to their advantage, the myriad potential distortions associated with it will increasingly appear in Myanmar as well.

Malapportionment presents a further and potentially graver risk related to Myanmar's ongoing ethnic and other centre-periphery tensions. Contrary to hopes, the political opening in 2011 has not significantly mitigated those tensions. In fact, several pro-Buddhist/Bamar extremist groups, most visibly MaBaTha, have used the greater space for civic action to mobilize resentment against segments of the country's ethnic minorities. While these agitations have mainly targeted the small Muslim population, they are typically based on a narrative that the Buddhist/Bamar character of the country faces an existential threat. The major practical effect of malapportionment, as established in this article, is to inflate the value of non-Bamar votes above those of their Bamar counterparts. It is not difficult to conceive of this being used to further fuel the narrative of Bamar

and Buddhist erosion. National parties like the NLD already face a difficult balancing act in courting increasingly nationalistic Bamar while creating space for non-Bamar. While malapportionment would at most be a contributing factor to such tensions, any increase would obviously complicate efforts to run inclusive campaigns and be inimical to the peace process.

Conclusions

By most measures, the malapportionment of Myanmar's electoral constituencies rivals or significantly exceeds the highest levels seen around the world. Despite this, its practical effects in Myanmar have been modest thus far. This article has argued that malapportionment has the potential to meaningfully shape the nature of political competition and its outcomes in the years to come as actors become more strategically responsive to it. The November 2020 election already shows indirect signs of this occurring through strategic ethnic party mergers and discussions of inter-ethnic alliances. If, as anticipated, that yields them greater seat shares than in 2015, the confidence of ethnic political elite and parties to challenge Bamar centrality will increase. The over-representation of non-Bamar areas through malapportionment provides a strong foundation for that challenge in the years to come. Malapportionment also entails serious distortions that may complicate Myanmar's efforts to improve governance, stabilize politics and moderate ethnic tensions. It is, in that sense, a potential menace whose effects should be monitored along with other key areas of Myanmar's political development.

NOTES

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