4 Electoral boundaries in Malaysia's 2018 election

Malapportionment, gerrymandering and UMNO's fall

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Introduction

Malaysia's General Election 14 (GE14) on 9 May 2018 broke with the previous thirteen in a fundamental way: the United Malays National Organisation (UMNO) and its coalition partners were defeated for the first time, bringing about an unprecedented transition of power after over six decades of political dominance. Despite the unpopularity of UMNO Prime Minister Najib Razak and widespread frustrations with the cost of living, the outcome was not anticipated. This is largely due to the extensive partisan manipulation of Malaysia's electoral process, which provided the ruling *Barisan Nasional* (BN) coalition with farreaching advantages in electoral competition.

Of the many advantages, perhaps the most powerful came through biased electoral boundaries that use malapportionment and gerrymandering to provide the BN with a reliable and significant seat bonus over the opposition. This bias was enough to fundamentally distort outcomes, for example in the 2013 general election (GE13) where the BN lost the popular vote by 4% but still emerged with a 20% seat advantage in parliament (Wong 2018; Lee 2015; Ostwald 2013). Redelineation exercises concluded just prior to GE14 increased malapportionment further and showed signs of extensive gerrymandering. Critics from the opposition and civil society feared that they would make a turnover of power through the ballot box nearly impossible.

Relative to brazen manipulations like phantom voting or ballot box stuffing, biased electoral boundaries do not easily rouse cries of electoral malpractice. However, their effects are powerful. Malapportionment creates disparities in the relative weight of votes, amplifying those from districts with fewer voters while diluting those from districts with more voters. So extensive was the malapportionment in the GE14 boundaries that the smallest 112 seats—the minimum required to form a government in the 222-seat Dewan Rakyat—contained only *one-third* of the country's electorate, making it exceedingly difficult to win the election without success in the smaller districts. As the BN captured the vast majority of these seats in past elections, defeating them required unseating the country's hegemonic coalition *in its own strongholds*. Gerrymandering added to these difficulties. In the Malaysian context, it functions primarily by altering

the demographic composition of districts to bring them into alignment with the BN's preferred political strategy. The pre-GE14 redelineation made use of this as well by increasing the number of Malay-dominant districts, which changed the composition of the electoral audience to favour the BN's pro-Bumiputera agenda while constraining the appeal of the multiracial elements of Pakatan Harapan's (PH's) platform.

Despite these advantages, the BN found itself with an unexpected and insurmountable seat deficit on the morning after the election. With few options on the table, it was forced to watch UMNO-defector and leader of the opposition Mahathir Mohamad declare victory for PH. This chapter provides a broad overview of the role that electoral boundaries played in GE14. After establishing the political context that led up to the pivotal election, it shifts focus to the controversial redelineation process itself. Following this, it compares malapportionment and gerrymandering in the electoral boundaries from GE13 and GE14; this makes evident that the new boundaries either perpetuated or exacerbated existing distortions, thereby providing the BN with fundamental advantages even in GE14. The simple conclusion is that the BN lost not because electoral boundaries became less biased, but rather because the advantages they conferred could not make up for the widespread discontent with Prime Minister Najib Razak and UMNO politics under his leadership. The final section suggests that reform of electoral boundaries requires a hitherto elusive agreement on the role of ethnic privilege in Malaysian politics. Given the divisive nature of this issue, it constitutes one of the fledgling government's most daunting challenges.

Political context

The peninsular states of Malaya gained independence from the British in 1957. They were joined by the territories of Sabah, Sarawak and Singapore in 1963, forming the Federation of Malaysia.1 In the six decades following independence until GE14 in 2018, the country's politics were thoroughly dominated by UMNO and its coalition partners, known as the Alliance prior to 1973 and Barisan Nasional (BN) since then. So complete was UMNO's control of politics, that Malaysia has been classified as competitive authoritarian (Levitsky and Way 2010), single-party dominant (Case 1996) and a one-party state (Wong, Chin, and Othman 2010).

UMNO's resilience can be attributed to numerous factors. Malaysia's rapid development, especially in the decades prior to the 1997 Asian Financial Crisis, meaningfully improved the living standards of most Malaysians, granting UMNO a measure of performance legitimacy. A high degree of elite cohesion around the time of independence also facilitated UMNO's consolidation of power (Slater 2010). In turn, UMNO used its control of Malaysia's strong state to shape political competition in ways that reinforced the authoritarian equilibrium. This includes implementing nearly every item on Schedler's (2002) "menu of manipulation" through which electoral authoritarian regimes secure extensive advantages in electoral competition.²

Although UMNO and its coalition partners faced challengers in every general election, the 1998 Reformasi movement marked a watershed moment in the nature of that challenge, as it saw three major opposition parties work in close partnership to unseat the BN under the name Barisan Alternatif. Importantly, this coalition included constituent parties that were able to effectively challenge the BN in both urban and rural areas, though it struggled to make inroads in the politically distinct East Malaysian states of Sabah and Sarawak.³ A similar trio known as Pakatan Rakyat (PR)—made up of Parti Islam Se-Malaysia (PAS), the Democratic Action Party (DAP) and the Parti Keadilan Rakyat (PKR) achieved an electoral breakthrough in the 2008 election by capturing nearly half of West Malaysia's seats and depriving the BN of its customary two-thirds legislative super-majority, the threshold needed to amend the constitution (Ooi, Saravanamuttu, and Lee 2008; Chin and Wong 2009; Pepinsky 2009; Ufen 2009). The coalition won the symbolically important popular vote and again denied the BN its legislative super-majority in GE13, but the biased electoral process prevented PR from capturing enough seats to form the government (Weiss 2013; Welsh 2013; Osman 2015).

The narrative around the BN's decline in popularity in the run-up to GE14 has been extensively covered elsewhere. In short, frustrations with growing inequality and the rising cost of living were directed squarely at the BN. Poor management of key schemes like FELDA, which provides land to Malays for smallholder farming, shook the previously secure linkage between the BN and key voting blocs. Furthermore, Najib made international headlines for his alleged involvement in the massive 1MDB financial scandal. Coverage of his wife's opulent lifestyle further fuelled voter anger.

Najib's unsteady management also precipitated challenges from within UMNO itself. His reaction, which in retrospect appears to be a fatal miscalculation, was to secure his position at the helm by purging opponents, including UMNO elite whose personal loyalty he suspected. The brazen manoeuvres led Mahathir Mohamad, the Prime Minister and UMNO premiere from 1981 to 2003, to form an UMNO-clone opposition party known as the *Parti Pribumi Bersatu Malaysia* (PPBM, but often referred to as *Bersatu*) that provided a welcome home for former UMNO members, including key figures like Najib's former deputy Prime Minister. Shortly thereafter, Mahathir emerged as the *de facto* leader of the PH coalition.

The growing scale of discontent with the BN, together with the potential appeal of a Mahathir-led opposition, led Najib to double down on existing electoral manipulations as well as unveil new ones, most notably the strategic manipulation of electoral boundaries. Majoritarian systems like Malaysia's naturally produce distortions in the translation of votes into seats by (typically) providing the winning party with a seat share above its vote share. In short, the winning party receives a mechanical "seat bonus" above what it would receive in a proportional representation or mixed system. Distinct from this natural bias, majoritarian systems are also vulnerable to partisan manipulations through malapportionment and gerrymandering, both of which can provide additional seat bonuses to the

ruling party that are unavailable to opposition parties at a given vote share, making them explicitly partisan in nature.

The logic of these two manipulations is straightforward. Malapportionment arises when districts have unequal numbers of voters. Since each district in a typical majoritarian system sends one representative to parliament, smaller districts require fewer votes to secure a seat than do their larger counterparts. In a hypothetical district A with 10,000 voters, for example, the impact of each vote is ten times greater than those from a hypothetical district B with 100,000 voters. When electoral districts in pro-government areas are made consistently smaller than those in pro-opposition areas, a government can amplify the weight of its supporters' votes while diluting the weight of opposition supporters. Taken to an extreme, this allows an incumbent to capture the plurality of parliamentary seats needed to retain power without commanding a plurality of the popular vote.

Gerrymandering, by contrast, affects the composition rather than the size of electoral districts. It can be employed towards distributional and/or strategic ends. The distributional end involves drawing district boundaries so as to maximize the efficiency of incumbent votes; ideally, the incumbent wins by relatively small margins (so as to minimize the number of its "surplus" votes) but loses those districts it cannot feasibly capture by a large margin (so as to minimize the number of "wasted" votes). This is achieved through "cracking" and "packing," where "cracking" is the splitting of opposition supporters into smaller parts that are then integrated into surrounding districts where they form a minority. By contrast, "packing" creates districts in which opposition supporters constitute an overwhelming majority, which increases the opposition's proportion of surplus votes. The strategic end involves altering the demographic makeup of districts in such a way that it aligns with the incumbent's electoral strategy, for example creating relatively homogeneous districts to align with a campaign strategy that emphasizes ethnic difference.

Redelineation

Malapportionment and gerrymandering played an important role in perpetuating the BN's dominance, particularly in the last two decades. Given the high stakes of GE14, the BN had a clear interest in ensuring that both forms of manipulation would provide it with additional security against the Mahathir-led opposition. It was therefore no surprise that the redelineation exercise concluded just prior to GE14 was grossly partisan and widely seen as a likely death knell for the opposition's aspirations.

According to the Malaysian constitution, the nominally independent Election Commission (EC) is responsible for carrying out the redelineation exercises that establish district boundaries. Separate exercises are conducted for three territories—the peninsular states, Sabah and Sarawak—at intervals of not fewer than eight years. The process involves multiple stages. It begins with up to two rounds of public display of recommendations and solicitation of objections from subnational authorities and clusters of affected voters. Following this,

a recommendation is passed to the Prime Minister, who can make amendments before tabling a comprehensive report in parliament. A simple majority is sufficient to pass boundary changes, whereas adding new seats requires a two-thirds super-majority.⁵

Malaysia's electoral districts have been malapportioned since independence on the basis of two principles. The first suggests that districts in sparsely populated rural areas should have relatively fewer voters than their urban counterparts, following the logic that infrastructural constraints and the substantial distance between a representative and their constituents inhibit contact relative to more urbanized areas. This contributes primarily to disproportionality within states, though demographic changes and internal migration, often to the more urbanized areas along the peninsula's western coast, also exacerbate inter-state disproportionality. Second, the 1963 federal agreement established the over-representation of the Bornean territories of Sabah and Sarawak relative to peninsular states, thus also contributing to inter-state disproportionality.

The origins of Malaysia's electoral rules were established by the 1956 Reid Commission, which capped variation in district size at 15% above or below a given state's mean in terms of voters. However, these limits were relaxed in a 1962 constitutional amendment and replaced entirely in a 1972 amendment that ambiguously requires districts to have "approximately equal" numbers of voters, but otherwise gives an unbounded endorsement of rural overrepresentation. There is little doubt that these changes were driven at least in part by partisan motivations. Although the EC was initially envisioned as an independent and non-partisan body, it was almost immediately under pressure to "consult the government while carrying out its functions" (Lim 2002: 113). As it is constituted by the Prime Minister, members have typically had clear UMNO connections; several have spoken openly about their partisan persuasions following the end of their terms (Welsh 2014). Unsurprisingly, the EC's actions and recommendations often clearly favoured UMNO and its coalition partners. The BN's control of parliament, including a consistent two-thirds super-majority prior to 2008, allowed it to readily implement those recommendations, completing the circle.

In regards to the pre-GE14 redelineation, the EC released its first round of recommendations for the peninsular states and Sabah in mid-2016.⁶ Those recommendations were subject to almost immediate criticism for their violation of several legally specified principles.⁷ Foremost, they did little to redress existing levels of malapportionment, even increasing them in some areas. Existing community ties were also widely disregarded in an effort to increase the number of Malay-dominant districts; the EC chairman, in fact, openly admitted that ethnicity was a strong factor in producing the recommendations. While legal challenges proceeded in several states—even securing a temporary injunction in Selangor—and the EC appeared to address some concerns in its revised recommendations, hopes that the new electoral boundaries would be relatively free of partisan bias were ultimately dashed when the EC released its final report, which reverted back to many of its initial recommendations.⁸

The government was clearly intent on contesting GE14 under the new boundaries, calling for a parliamentary vote only a week after the voluminous report was tabled. Despite opposition objections, little time was allotted for debate. The vote passed and shortly thereafter Najib called for the dissolution of parliament, triggering GE14. The BN's success in passing the new boundaries in time for the election raised concerns that "the opposition may lose not only the prospect of winning [the] election, but even its veto power on constitutional amendment that derives from having at least one-third of parliamentary constituencies. Malaysia's political system may then sink into a deeper crisis of legitimacy if [as feared] the scandal-embroiled premier [Najib] emerges stronger with a weaker mandate" (Wong 2018: 78).

Few anticipated the shock that unfolded in the late-night hours between 9 May and 10 May: as results rolled in, it became increasingly clear that the 3Ms—money, machine and media—that had so reliably bolstered the BN's popular support in the past were insufficient to stem the erosion of votes in GE14. Even if the BN had entertained the idea of losing a few marginal seats in a worst-case scenario, its leadership could not fathom a decline so drastic that even the fall-back plan of wooing potential defectors was off the table. UMNO and its shell-shocked coalition partners had lost control of parliament, bringing to an end their decades-long domination of Malaysian politics.

What happened? And given the focus of this chapter, what role did the new electoral boundaries play? The clearest starting point is an assessment of the vote share and seat share received by the major contestants of GE14. Table 4.1 captures the relevant figures, adding the GE13 results as a benchmark. Seats is the number of seats won. Seat share is the percentage of the Dewan Rakyat's 222 seats won. Vote share is the percentage of the popular vote won, and Difference is the gap between the seat and the vote share. A positive gap indicates a seat "bonus" in the translation of votes into seats.

Several points are noteworthy, beginning with the BN's dramatic decline in vote share: its 4% deficit against PR in GE13 sent shockwaves through the country; in GE14, it barely secured *two-thirds* of PH's vote share and only twice that of PAS, a niche party that has often struggled beyond its Malay heartland strongholds. Though those results overshadow other results, the difference in seat and vote shares reveals important insights. Majoritarian systems

	GE13		GE14			
	\overline{BN}	PR	\overline{BN}	PH	PAS	Other
Seats	133	88	79	121	18	4
Seat share	59.9	40.1	35.6	54.5	8.1	1.8
Vote share	47.4	50.9	33.8	47.9	16.9	1.3
Difference	12.5	-10.8	1.8	6.6	-8.8	0.5

Table 4.1 Seat and vote share in GE13 and GE14

Source: Calculation based on official data from the Election Commission

typically amplify the seat share of the party or coalition that secures the plurality of votes, thereby providing a quasi-*mechanical* seat "bonus" above the popular vote share. Additional disproportionality between vote and seat shares can be introduced through *partisan* malapportionment and gerrymandering, though the seat bonuses these confer typically accrue only to the party or coalition they are designed to benefit.

In GE13, PR would have secured a roughly 4% seat margin under a proportional representation or mixed system. In a majoritarian system *without* partisan electoral boundaries, PR would likely also have benefited from the seat bonus associated with capturing a majority of the popular vote, thereby increasing the seat margin above 4%. Instead, it emerged from polling day with almost 20% *fèwer* seats than the BN, indicating massive pro-BN distortions because of malapportionment and gerrymandering.

In GE14, PH's significant popular vote victory margin did translate into a modest seat bonus. More remarkable, however, is that the BN *also* received a seat bonus, despite the 14% popular vote deficit that—in the absence of significant pro-BN bias—*should* have depressed its seat share significantly below its vote share. In that sense, boundary manipulations *did* function as the BN hoped they would, at least in that they continued to provide substantial pro-BN advantages in the translation of votes into seats. Had the BN managed to keep the popular vote reasonably close, the boundary manipulations would undoubtedly have delivered another large seat advantage for the BN. The simple conclusion is that the transition is not a result of boundary manipulations "failing," but rather of BN votes not materializing at levels necessary to make the election competitive. Having established that the boundaries used in GE14 continued to exhibit partisan bias, the next two sections examine in greater detail the nature of malapportionment and gerrymandering, as both have implications for Malaysian politics in the post-GE14 era.

Malapportionment

All indications suggest that the BN leadership anticipated an election close enough to allow its many structural advantages, including biased electoral boundaries, to tilt the final outcome in its favour.¹⁰ As we can assume that this expectation informed the strategic considerations behind the redelineation process, this section begins with a comparative assessment of malapportionment in the GE13 and the GE14 boundaries, before considering the impact of malapportionment on the GE14 outcome itself.

Overall malapportionment

Table 4.2 provides a compact overview of the variation in district sizes for GE13 and GE14. The first columns indicate the number of voters in districts across the spectrum, while the final column *Mal* is a measure of malapportionment proposed by Samuels and Snyder (2001); it indicates the proportion of seats that

Median 75% Mal Smallest 25% Mean Largest Total electorate 59,765 78,174 .172 15,791 41,588 56,000 144,159 13,268,002 GE13 GE14 19,592 46,300 63,152 67,300 85,411 178,790 14,940,624 .175

Table 4.2 Variation in electorate size across districts in GE13 and GE14

Source: Calculation based on official data from the Election Commission

need to be shifted from over-represented to under-represented areas in order to equalize vote and seat shares across all districts.¹¹

Several observations are notable. First, the size differences across districts are large. Although the ratio between the largest and smallest districts is an incomplete and potentially problematic measure of malapportionment, it provides an effective first-cut indication of scale: the ratio of approximately 9.1 to 1 in Malaysia is far greater than comparator countries with similar electoral systems and stays roughly unchanged from GE13 to GE14. Second, while the total electorate in GE14 is approximately 1.6 million voters larger than that in GE13, the total number of parliamentary seats is unchanged at 222, requiring the new voters to be distributed across the districts. This accounts for the observed increase at all measurement points. Third, the increased malapportionment score (Mal) between GE13 and GE14 clearly indicates that already high levels of malapportionment were exacerbated by or at least not corrected through the redelineation process. Interpretation of the scores is straightforward: 17.2% (GE13) and 17.5% (GE14) of seats would need to shift—mainly from East Malaysia and rural BN strongholds to more urbanized areas in the peninsula—in order to align vote and seat shares.

It is useful to bring the malapportionment measure into cross-national perspective. Malaysia's scores of .172 and .175 are substantially higher than regional neighbours like the Philippines (.014), Thailand (.045) and Singapore (.081); they are, in fact, among the highest in the world using an index from 2013. Other data sources are consistent with this view: the Electoral Integrity Project's Global Perceptions of Electoral Integrity index, for example, ranks Malaysia's electoral boundaries as the most manipulated in the world, with only Singapore approaching similar levels of manipulation among regional neighbours (Norris and Grömping 2017). A range of academic work has documented how this extreme level of malapportionment affected the outcome of GE13 (Wong 2018; Gomez 2016; Lee 2015, 2013; Ostwald 2013).¹²

Inter-state malapportionment

The geographic location of smaller and larger seats across Malaysia's political map strongly impacts electoral politics. Table 4.3 captures inter-state malapportionment, i.e., the malapportionment *between* states. The first column displays the percentage of the *Dewan Rakyat's* 222 seats that are allocated to each of

Table 4.3 Inter-state malapportionment in GE13 and GE14

			GE13	GE14		
	% Seats	% Voters	Seat Difference	% Voters	Seat Difference	Change
Perlis	1.4	1.0	0.7	1.4	-0.2	-0.9
Kedah	6.8	7.8	-2.4	7.7	-2.0	0.4
Kelantan	6.3	6.9	-1.4	7.0	-1.6	-0.2
Terengganu	3.6	4.8	-2.6	4.9	-2.9	-0.3
Penang	5.9	6.4	-1.1	6.3	-1.1	0.1
Perak	10.8	10.6	0.5	10.1	1.6	1.1
Pahang	6.3	5.5	1.7	5.5	1.8	0.1
Selangor	9.9	15.4	-12.2	16.2	-13.9	-1.7
Negeri	3.6	4.2	-1.3	4.1	-1.0	0.3
Sembilan						
Melaka	2.7	3.3	-1.3	3.3	-1.4	0.0
Johor	11.7	12.1	-0.9	12.2	-1.0	-0.2
Sabah	11.3	7.4	8.5	7.5	8.4	-0.1
Sarawak	14.0	8.2	12.7	8.2	12.9	0.1
Kuala	5.0	6.0	-2.2	5.7	-1.6	0.6
Lumpur FT						

Source: Calculation based on official data from the Election Commission

Malaysia's 13 states and the federal territory of Kuala Lumpur. As there was no increase in the number or allocation of seats, the *% Seats* remains unchanged from GE13 to GE14. The *% Voters* column is the percentage of the total electorate that resides in the given state or territory, while the *Seat Difference* column indicates the number of seats a state or territory has above or below its hypothetical share *if seats were apportioned solely according to electorate size*. For example, Kedah has two seats fewer than it should have according to its vote share in GE14, so it would require an additional two seats to equalize its vote and seat share. The final column captures the change in over/under-representation in seats from GE13 to GE14; Perlis, for example, was over-represented by .7 seats in GE13 but underrepresented by .2 seats in GE14, indicating a "loss" of .9 seats between elections according to its proportion of total voters.

Inter-state differences in the apportionment of seats are substantial and most pronounced in three cases. East Malaysia is heavily over-represented, with Sarawak having nearly 13 seats more than it would if seats were allocated based on the proportion of total voters, and Sabah having over 8 more by the same criterion. As there is a general consensus that the over-representation of Sabah and Sarawak is a foundational element of the terms of federation, few voices have called for a reallocation of seats to the peninsula. Within the peninsula, Selangor stands out: it would currently require nearly 14 additional seats to align its seat representation with its proportion of total voters. Unlike the case of East Malaysia, there is no obvious political justification for the severe malapportionment, which results from a disproportionately high growth rate and the practice under

the BN of distributing new seats on a rotational basis—often favouring states with BN strongholds—rather than as a function of state-level population and voter growth.¹³ Although nearly all of the remaining states have some degree of disproportionality between their seat and vote shares, it is relatively modest in comparison. Similarly, although the change in inter-state malapportionment from GE13 to GE14 generally worsened the disproportionality, the changes were relatively marginal.

Intra-state malapportionment

Malapportionment occurs not only between states, but also within them. Figure 4.1 shows the size (in number of voters) of the 222 *Dewan Rakyat* seats arranged by state for GE13 and GE14. Two observations are notable. First, the variation within states is substantial: for most states, the larger seats contain several times as many voters as the smaller seats. Second, the change from GE13 to GE14 does not appear symmetric: while most of the smaller seats in each state stay approximately equal in size, many of the larger seats increase substantially for GE14.

What accounts for the pattern of change? Part of the answer lies in the unusual nature of the recent redelineation process, which did not alter boundaries in a

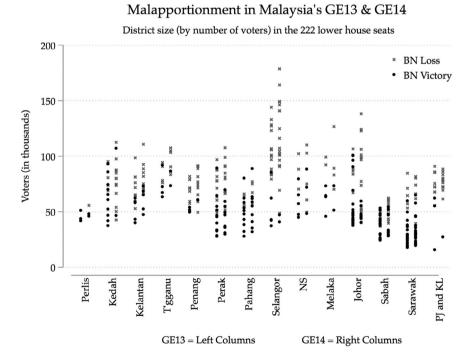


Figure 4.1 Voters per district in GE13 and GE14

significant number of districts, including the entire states of Perlis, Penang and Pahang. In those cases, asymmetric population increases—mainly but not exclusively in relatively urban areas—increased disproportionality between seats.

As widely noted, partisan considerations almost certainly also played an active role. Figure 4.2 illustrates the relationship between the district-level election results in GE13 and the change in district size for GE14, limited to the 11 peninsular states. The y-axis is the victory margin in GE13 as a proportion of total votes, where a positive value indicates a PR victory and a negative value a BN victory. Stated differently, all districts above zero on the y-axis were won by PR, whereas all below zero were won by the BN; districts closer to zero indicate a narrow margin of victory, whereas those farther away from zero indicate a larger margin of victory. The x-axis captures the change in district size from GE13 to GE14.

The vast majority of districts increased in size between the elections. Interestingly, of the ten districts that decreased, all were won by PR in GE13, mostly by a relatively safe margin. Yet the pattern is dissimilar across BN- and PR-held districts: while BN districts all increased in size, the magnitude of the change is generally quite small. By contrast, the size increase of the PR districts appears less uniform, with a number of districts experiencing a disproportionately larger increase. The numbers bear out this observation: seats won by the BN in GE13 had a mean increase of 5,909 voters (6,569 when limited to the peninsular states). In contrast, PR seats increased by 10,008 voters (11,130 in the peninsular states).

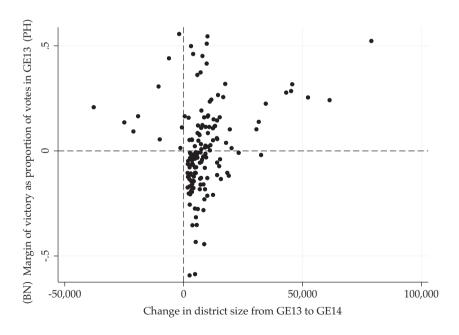


Figure 4.2 Change in district size from GE13 to GE14

The difference is even more pronounced in Selangor, which received arguably the most attention by the EC: BN seats grew on average by 7,430 voters, relative to 19,384 voters in PR districts.

Although this pattern is suggestive of a partisan motivation, the unequal increase in seat size is not conclusive on its own, as it disregards other potentially important district characteristics that might also contribute to malapportionment. A simple ordinary least squares (OLS) regression provides insights. Results are displayed in Table 4.4. The model estimates the effect of the district-level victory margin in GE13 on the change in number of voters for GE14, while controlling for the proportion of Malay voters and voter density in the given district. These are important attributes because they capture the constitutionallyendorsed rural-weightage and the vaguely specified special position of the Malays. Victory Margin in GE13 (PR) is the victory margin as a proportion of total voters in the district: it ranges from "1" to "-1" where "1" would represent a district in which all voters supported PR and "-1" a district in which all voters supported the BN. Malay Proportion is the proportion of a district's voters that are Malay. Voter Density is a proxy for the distribution of voters in a district where higher values indicate urbanized areas and lower values indicate rural areas. As before, the model is limited to districts from the 11 peninsular states.

Even when controlling for the proportion of Malay voters and voter density at the district level, there is a strong and statistically significant correlation between support for PR in GE13 and an increase in district size for GE14. Some portion of that effect may result from dissimilar population growth rates caused by ongoing urbanization in areas that leaned PR in 2013. Even this benign contributing factor, if present, would not exculpate the EC, as the main stated purpose of the redelineation process is to address demographic changes of this kind. There are strong indications, in other words, that a significant portion of the asymmetrical size increases were driven by efforts to disadvantage the opposition, rather than by other, constitutionally-endorsed factors.

Table 4.4 Change in district size from GE13 to GE14

Increase in district size	(1)	
Victory Margin in GE13 (PR)	12,626* (6,431)	
Malay Proportion	-648	
Voter Density	(3,438) .570	
Constant	(1.355) 8,616 (2,961)	
Observations R-squared	153 .059	

Note: Robust standard errors.

^{*} p < .1

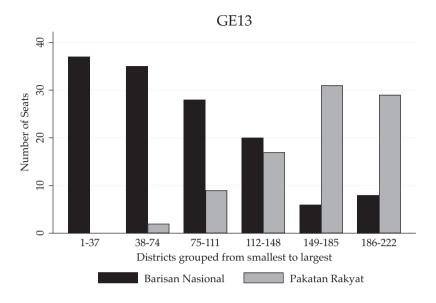
Election results

In previous elections, the BN capitalized on variations in district size by winning a large share of small districts, thereby increasing its seat share well above its popular vote share. It clearly anticipated a continuation of this pattern in GE14. Figure 4.3 illustrates the relative success of main contestants in GE13 and GE14 across the spectrum of district sizes. The 222 districts are arranged from smallest to largest according to number of voters and then divided into sextiles of 37 districts each. In other words, seats 1–37 are the smallest 37 seats, whereas 186–222 are the 37 largest seats. The *y*-axis indicates how many seats a given coalition/party captured per sextile.

Beginning with GE13, the contrast between the BN and PR is remarkable: the BN won every seat in the smallest sextile, the vast majority in the second sextile, and a strong majority in the third, ultimately capturing 100 of the smallest 111 seats. PR, on the other hand, is vastly over-represented in the two largest sextiles. Despite the very different outcome in GE14, the pattern is generally similar. The BN remains dominant in the smallest sextile of districts—winning 30 of the 37 and over-represented in the next 37 smallest seats. PH is again over-represented in the largest three sextiles, winning a clear majority in each. It does, however, have considerably more success than its predecessor in the second and third sextiles. This is due in part to the success of the Malay-centric Bersatu and Amanah parties, which account for nearly half of the coalition's victories in those sextiles. By stark contrast, they contribute only three of the 80 seats PH won in the largest three sextiles. PAS contested GE14 as a third-party, presumably with the BN's support under the assumption that PAS might split the anti-incumbent vote. Its largely rural Malay base suggests that it would fare well in smaller districts, which tend to be rural and Malay majority. All but one of its seats, however, are from the largest three sextiles of districts. The explanation is simple. PAS won seats only in its northern strongholds, which have not fared well in past redelineation exercises that saw them increase in size significantly more than their demographically similar counterparts in areas where UMNO is stronger. Notably, as long as its strongholds remain under-weighted, the value of PAS as a coalition partner—at least in purely mechanical terms as a contributor towards a parliamentary majority—is weakened.

These observations are clarified further through an OLS regression that estimates the correlates of district size in GE14. The dependent variable is *District Size*, measured by numbers of voters. *Pakatan Harapan* is a dummy that takes a value of "1" in districts won by PH and "0" otherwise. The same coding is used for *PAS*, making BN the reference category. *Bumiputera* is the proportion of Bumiputera in a district. *Voter Density* proxies for the geographic characteristics of a district, where high values indicate urban areas and low values rural areas. Model 1 includes all 222 districts, model 2 is limited to the peninsular states and model 3 is limited to East Malaysia.

As BN is the reference category, districts won by PH have on average 15,421 more voters than BN districts, even after controlling for the constitutionally-endorsed weightage for rural areas and the proportion of Bumiputera, when



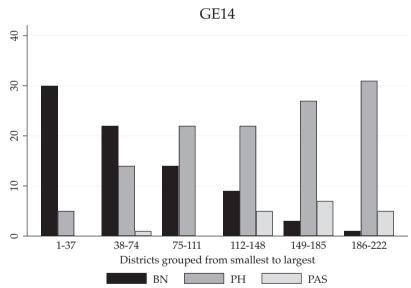


Figure 4.3 Election results by district size

considering all 222 districts. Districts won by PAS were even larger, with 22,932 more voters on average than a BN district with other district-level attributes held constant. Districts in East Malaysia have on average 16,446 *fewer* voters than their peninsular counterparts, controlling for voter density and proportion of Bumiputera. The correlations are all statistically significant. Interestingly, despite

Table 4.5 Determinates of district size

District Size	(1)	(2)	(3)	
	Voters	Voters	Voters	
Pakatan Harapan	15,421**	19,597**	8,527*	
1	(3,223)	(4,629)	(3,774)	
PAS	22,932**	23,009**	(-)/	
	(4,564)	(5,229)		
Bumiputera	-8,653	-482	-16,928*	
	(6,812)	(11,377)	(5,084)	
Voter density (log)	5,238**	5,735**	3,943*	
(rog)	(955)	(1,263)	(1,124)	
East Malaysia	-16,446*	(1,200)	(1,121)	
Dust Walaysia	(2,819)			
Constant	42,062**	31,632**	37,482**	
Constant	(6,875)	(11,157)	(5,137)	
	(0,073)	(11,137)	(3,137)	
States	All	Peninsula	E. Malaysia	
Observations	222	165	57	
	===			
R-squared	.518	.343	.488	

Note: Robust standard errors.

the BN's ubiquitous rhetoric about protecting Bumiputera rights, there is no clear correlation between district size and Bumiputera proportion in peninsular districts after controlling for voter density and party.

What do these findings suggest? Simply stated, malapportionment continued to provide the BN with fundamental advantages in GE14. The redelineation exercise perpetuated previous biases: whereas voter density was a clear factor in determining district boundaries, partisan bias almost certainly kept districts in BN-leaning areas smaller than those with similar attributes in opposition-leaning areas. Without the advantage this provided the BN in the translation of votes into seats, PH would have secured an even larger seat margin in GE14. The boundaries ultimately were most disadvantageous to PAS, which was competitive only in districts that previous redelineation exercises had allowed to grow far larger than appropriate based on their geographic and demographic attributes.

Gerrymandering

Gerrymandering is the strategic manipulation of district boundaries to the advantage of one party or coalition without substantially altering the number of voters in the district. As noted, it has two potential objectives. The first is to increase the efficient usage of votes for the incumbent while decreasing the efficiency for the challenger. This is achieved by either "packing" opposition supporters into districts where they form an overwhelming majority (increasing the opposition's

^{*}p < .05; **p < .001

surplus votes), or "cracking" areas where opposition supporters form a majority into new districts where they do not (increasing the opposition's wasted votes). The second objective is strategic and involves altering the composition of district demographics to align with the incumbent's strategic orientation.

There is ample evidence that both objectives were pursued in past redelineation exercises, as well as clear indications that they also impact the boundaries used in GE14. However, the effects of gerrymandering need to be viewed in a broader context. Gerrymandering as a means of affecting the translation of votes into seats is less powerful than malapportionment; as such, the effect of gerrymandering is overshadowed by malapportionment in contexts like Malaysia's where there are few practical limitations on variation in district sizes. An application of Brooke's method in Oliver and Ostwald (2018) suggests that the vast majority of the *partisan* seat bonus captured by the BN in GE13 and GE14 comes through malapportionment rather than gerrymandering, supporting the notion that the latter plays a secondary role.

Nonetheless, gerrymandering can still affect the efficacy of political discourse by altering the demographic composition of districts. This is especially true in a multi-ethnic country like Malaysia, where ethnic and religious cleavages provide a ready foundation for political mobilization. Previous redelineation exercises have made use of this by increasing or decreasing average district diversity to correspond with the BN's broader strategic orientation. The 2002 peninsular redelineation, for example, created districts that were on average more diverse than their predecessors, which was thought to advantage the BN based on voting behaviour from the previous election in 1999 (Lee 2016).

Substantial concerns were noted about similar partisan changes to district composition prior to GE14 (Saravanamuttu 2018). Specifically, it appeared that district boundaries were redrawn in ways that reduced the ethnic diversity of districts. The EC's chairman openly admitted this when stating that some boundaries followed ethnic lines so as to "avoid dividing the races." This would appear to advantage the BN, given the clearer alignment between homogenous districts and the race-based parties that comprise the BN in the peninsula, relative to PH's generally more multiracial politics. East Malaysia's distinctive pattern of politics means this form of manipulation was relevant primarily in the peninsula.

It is empirically clear that peninsular districts *did* become less diverse in GE14. Table 4.6 shows key indicators of district-level ethnic diversity in GE13 and GE14. Whereas 48 of the 165 peninsular districts in GE13 could be considered mixed as defined by being between 40% and 60% Malay, this number decreased to only 33 in GE14. By contrast, there were 102 Malay-dominant districts, defined as those with a Malay proportion greater than 60%, in GE14; this is *16 more* than in GE13. This shift presumably aligned with UMNO's strategy of positioning itself as the true defender of the Malays and Islam relative to the more explicitly multiethnic opposition. The ELF, a widely-used measure of ethnic diversity where higher values denote more diversity, further supports the notion of decreasing district-level diversity in GE14.¹⁵

Table 4.6 Ethnic composition of districts

	Mixed districts	Malay dominant	Minority dominant	ELF
	40–60% Malay	>60% Malay	<40% Malay	
GE13	48	86	31	.416
GE14	33	102	30	.408

Source: Calculation based on official data from the Election Commission

In GE14, the BN essentially conceded all districts in which Chinese and other non-Bumiputera minorities formed greater than 60% of the electorate, following its lack of competitiveness among that demographic in GE13. That focused the BN's efforts in the peninsula on the 135 mixed and Malay-dominant districts. Figure 4.4 illustrates the district-level relationship between the proportion Bumiputera and the BN's performance in those districts. The *y*-axis is the winning (or losing) margin for the BN over the top performing non-BN party as a proportion of total district-level voters. In other words, districts above the reference line at "0" were won by the BN, whereas those below were won by the largest opposition challenger; the closer a district is to the reference line, the smaller the margin of victory.

Clearly, the BN was far more competitive in Malay-dominant districts than it was in mixed districts; in fact, the BN managed to win only three mixed districts in the peninsula, all of which were just below the 60% Bumiputera threshold. Its average margin of defeat was also substantially larger in the mixed districts than in districts where Malays constitute a large majority. This suggests that the EC's decision to create more ethnically homogeneous districts—shifting, in effect, 15 districts from mixed to substantial Malay majority—made the BN more competitive than it would have been under the previous boundaries.

Analysing malapportionment and gerrymandering

The electoral boundaries used in Malaysia's watershed 2018 general election continued to provide the previously hegemonic BN with fundamental advantages against challengers. The redelineation process concluded just prior to the election, in fact, exacerbated levels of malapportionment by allowing or actively creating even larger size differences between districts where the BN was competitive and those where it was not. Gerrymandering, while of secondary importance, also favoured the BN by increasing the number of Malay-dominant districts in which UMNO's thinly-veiled appeals for *ketuanan Melayu* and *ketuanan Islam*—i.e., Malay and Islamic pre-eminence—were more likely to receive a positive reception. In conjunction, these manipulations left the BN confident that it would maintain power despite continued erosion of popular support. As in past elections, they effectively delivered a seat bonus to the BN beyond its "fair" allotment based on the popular vote.

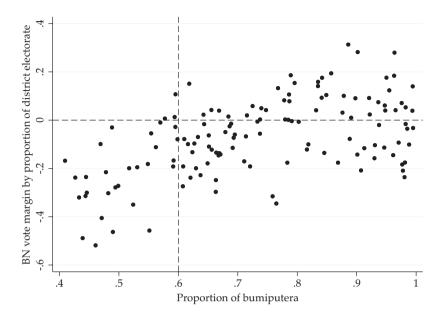


Figure 4.4 Ethnic composition and BN performance in mixed and Malay-dominant peninsular districts

The BN's unanticipated defeat in GE14 did not result, in other words, from a moderation of the pro-BN bias that characterizes Malaysia's electoral boundaries. PAS's decision to run as a third-party in most peninsular districts, seen by many as a BN-supported ploy to split the anti-incumbent vote, likewise did not "backfire" in a manner that caused the BN's defeat, as outside of its own strongholds in Terengganu and Kelantan, PAS was unable to attract votes in sufficiently large numbers to affect results beyond the fringes (Ostwald, Schuler, and Chong 2018). Rather, the BN lost despite the grossly tilted playing field because the votes it anticipated simply did not materialize: the widespread discontent with Najib's leadership depressed the BN's vote share to barely more than one-third, an amount so anaemic that it overshadows all other factors in explaining the unanticipated transition.

Though manipulated electoral boundaries were not sufficient to rescue the BN, they profoundly shaped the nature of the competition in GE14 and will continue to influence politics in the post-transition period. The over-representation of traditionally BN-leaning rural Malay districts in the peninsula and most East Malaysia districts makes it exceedingly difficult to win elections without some success in them; they have become, effectively, the king-makers of Malaysian politics (Ostwald and Oliver 2019). Recognizing this, the BN strategy focused on limiting opposition gains

in those districts. The under-weighted urban and mixed districts, by contrast, were all but conceded long before polling day. The BN's fall, ultimately, was enabled by changes in voting behaviour in the districts it viewed as traditional strongholds.

Over-weighted districts received a disproportionate share of attention in the BN's desperate efforts to shore up support through money and machine politics in the election run-up. This included an announcement made just days before the election of incentives worth RM4,000 for selected FELDA settlers; a bonus salary increment, additional religious leave and new pension association grants for civil servants; and a proposed doubling of BR1M payments. The targeted distribution of goodies ranging from rice and cooking oil to bicycles and washing machines was also especially widespread in pivotal districts. ¹⁶

Simultaneously, the BN amplified its warnings, again targeting largely Malay voters in over-weighted districts, that an opposition victory would mean an end not only to the privileged position of the Malays and the entailing material benefits, but also to the sanctity of Islam in Malaysia. Najib stated this plainly at a party gathering in 2016: "What will happen to our race" if UMNO loses? "Malays will no longer have anywhere to hang their hopes, they will fall and lie prone, and will be considered lowly and be vagabonds, beggars and destitutes in their own land," since under a non-UMNO government, the "rights and privileges advocated and defended by UMNO over the years—including the institutions—will become extinct and disappear. Malays and Bumiputera will be engulfed in a nightmare." 18

The erosion of popular support for the BN speaks to the limitations of the traditional 3Ms, at least in the face of fundamental discontent with Najib and UMNO's politics under his leadership. As importantly, a subtle change in the nature of the opposition was critical in swaying a subset of former BN voters. In the prior two general elections, the opposition coalition was led by PKR—an explicitly multiracial party—with the predominantly Chinese DAP sharing centre stage. Although the opposition contested GE14 under the PKR banner, the presence of Mahathir Mohamad as Prime Minister designate was instrumental in pivotal areas that UMNO previously viewed as its strongholds. Mahathir's Bersatu party is essentially an UMNO clone: its leadership is comprised almost exclusively of former UMNO elite that learned their craft within UMNO's ranks, and party membership is, similar to UMNO but unlike other PH parties, restricted to Bumiputera. In short, making Mahathir and other establishment Malay elite who built their political careers on containing parties like the DAP and defending Malay privilege—the face of the opposition in over-represented rural areas undermined UMNO's alarmist rhetoric around race and religion, thereby opening space for focus on the BN's governance failures.

Just as winning a general election in Malaysia is exceedingly difficult without success in over-weighted districts, capturing those predominantly rural and Malay districts is unlikely without adopting elements of UMNO's Bumiputera-centric orientation. The Mahathir-led coalition acted accordingly, the implications of which will linger long after the election. This begins with the disproportionately

high value of the rural Malay and East Malaysian vote shaping PH's internal distribution of power, which is reflected in the first Cabinet. Table 4.7 captures relevant dimensions where effective votes is the number of votes garnered in districts won by the respective parties. With 14 Cabinet positions, over half of the Cabinet come from Bersatu, Amanah and Warisan, even though these parties initially accounted for only 32 of PH's Dewan Rakyat seats. By contrast, the DAP and PKR, who are less competitive in the over-weighted districts, account for 89 seats but received only 13 Cabinet positions. This means that the former received approximately one Cabinet position for every two seats, while the latter's ratio was approximately one to seven. The Cabinet position to effective vote ratio is similarly skewed. The driver behind this asymmetry is clear: Bersatu, Amanah and Warisan, while contributing a relatively small portion of total PH seats, are all able to challenge their BN counterparts in over-weighted districts that PKR and the DAP were less likely to capture. Sustaining an asymmetric balance of this magnitude over the longer-term will demand considerable patience from the underrepresented parties.

More fundamentally, reducing malapportionment presents the new government with a vexing dilemma. The vast size differences between districts are clearly problematic from a normative perspective, especially where they are a function of partisan orientation. The policy distortions they create impede progress on PH's governance reform agenda. Furthermore, short of a major change to the composition of PH, some within the coalition will be apprehensive about contesting future elections under the GE14 boundaries, as PKR and the DAP clearly underperformed in the smallest one-third of districts.

This does not mean that reform is forthcoming, as major—indeed, potentially insurmountable—obstacles stand in the way. By systematically under-weighting areas in which Chinese and other non-Bumiputera minorities are concentrated, extreme malapportionment is an effective guarantor of Bumiputera political primacy. This makes even preliminary attempts to shift influence away from overrepresented areas a risky endeavour, as they can be easily depicted by resurgent adversaries as a betrayal of PH's implicit commitment to preserve elements of Malay and Bumiputera privilege, without which victory would have been

1000 1.7 Cabillet positions by party						
	Cabinet Positions	Seats	Effective Votes	Cabinet to Seat Ratio	Cabinet to Effective Vote Ratio	
PKR	7	48	1,868,632	1:6.8	1 : 266,947	
DAP	6	41	1,986,632	1:6.8	1:331,105	
Bersatu	6	13	301,681	1:2.2	1:50,280	
Amanah	5	11	441,779	1:2.2	1:88,355	
Warisan	3	8	183,336	1:2.7	1:61,112	

Table 4.7 Cabinet positions by party

Source: Calculation based on official data from the Election Commission and initial Cabinet and election results

unattainable. Any missteps in this area would provide both UMNO and PAS valuable ammunition with which to attack the new government, as well as a powerful platform on which to mobilize their base and contest the next general election. The anti-ICERD rally in early December illustrates this clearly. The magnitude of this vulnerability should not be underestimated. Despite pronouncement of a "Malaysian Tsunami," polls suggest dramatic differences in political support across the demographic spectrum. Most strikingly, the Merdeka Center estimates that 95% of Chinese but less than 30% of Malays voted for PH in GE14. ¹⁹ Such thin support among the majority ethnic group does not make for a strong and viable long-term political foundation.

Moreover, equitable seat apportionment would also see the PAS strongholds receiving new seats. Given PH's abysmal performance in Kelantan and Terengganu—where they were essentially shut out—and the continuing acrimony between PAS and the DAP, few within the new government will feel comfortable empowering PAS further. This is especially true in light of a potential Malay unity-type coalition between UMNO and PAS.

Meaningful reforms would be divisive even within the coalition itself: since an equitable apportionment of seats requires the redistribution of influence from rural Malay districts to more multi-ethnic urban districts, as well as from East Malaysia to the Peninsula more broadly, it would have implications for the relative power balance within the coalition and create clear winners and losers. Put differently, Bersatu, Amanah and Warisan would see their position significantly weakened vis-à-vis the more established PKR and DAP. As the three relative losers are newly-founded splinter parties that have yet to effectively institutionalize, it is difficult to imagine them voluntarily ceding ground to their more established coalition partners, at least without far-reaching concessions that would impose distortions of their own.

This does not mean that the electoral process will remain unchanged. Efforts to restore the independence of the EC began almost immediately after PH took power. A more neutral EC should ensure that polling day procedures are less subject to partisan bias. It will also improve the deeply problematic voter and party registration procedures that undermined the legitimacy of elections under the BN. The 3Ms—money, machine and media—may be toned down in future elections. These reforms should have a strongly positive effect on the integrity of Malaysia's electoral process.

However, malapportionment goes beyond these types of reforms: whether through the redistribution of seats or adoption of new electoral rules, the translation of votes into seats directly impacts the relative influence of the groups that comprise Malaysia's diverse population. These reforms, in other words, force PH to confront the substantially different positions its constituent parties have on Malay and Bumiputera political primacy, and more broadly, on the role of ethnicity in politics itself. As a coalition of unlikely bedfellows representing different segments of Malaysia's fragmented polity—each of which hold their own visions for *Malaysia baru*—it is unclear whether and where the common ground for consensus can be found. In that sense, while malapportionment may have originated

as a tool to facilitate UMNO's consolidation of power, it has become so deeply woven into the fabric of Malaysia's political landscape that its fundamental reform would require nothing less than a coordinated departure from the existing foundations of mass politics in Malaysia. There is little to suggest that this is feasible in the relative short term. GE14 is undoubtedly a watershed moment in Malaysia's political history. It is not, however, likely to mark an end to the ethnic politics that defined Malaysia during UMNO's long reign.

Notes

- 1 Singapore became independent in 1965.
- 2 See Ostwald (2017) for an overview of manipulations to Malaysia's electoral process. It is too early at the time of writing to assess how reforms planned by the new government will alter the electoral process.
- 3 See Chin (2004) for a comprehensive discussion of the distinctive nature of East Malaysian politics.
- 4 For a comprehensive discussion, see Lijphart (1994) and Norris (1997).
- 5 See Sothi (1993), Lim (2002) and Wong (2018) for more detailed discussions of the procedure.
- 6 The most recent exercise for Sarawak was concluded in 2015. The prior exercises for the peninsular states and Sabah were concluded in 2003 and for Sarawak in 2005. Wong (2018) notes that several de facto boundary changes occurred outside the scope of the EC's redelineation exercises.
- 7 See the series of reports by the Coalition for Clean and Fair Elections, otherwise known as Bersih 2.0, available online at: www.bersih.org
- 8 The legal challenge against the EC's recommendations in Selangor eventually came to an end when the Court of Appeal overturned the previous injunction in October 2017, paving the way for the redelineation exercise to proceed in time for GE14.
- 9 The actual effect is conditional on the distribution of votes.
- 10 In an interview with Bloomberg just prior to the election, Najib stated "We are reasonably confident of a good result. There is no movement for changing the government, I don't see that. That's not saying we will win with a huge majority, no I am not going to predict that, but I am going to say that we are reasonably sanguine about the result." See "Najib Predicts He'll Extend Grip on Power in Malaysia Election" from 25 April 2018.
- 11 The formula is $MAL = \left(\frac{1}{2}\right)\sum |s_i v_i|$ where s_i is the district-level seat share and v_i is the district-level vote share.
- 12 See also the extensive work conducted by the Penang Institute, as well as similar work on earlier elections, including Ong and Welsh (2005), Liow (2004) and Lim (2003).
- 13 Liow (2004: 4) describes a clear partisan motivation in the peninsular redelineation that preceded GE11: "Gerrymandering was another major factor in the 2004 election, where the constituency delineation exercise . . . ensured that pro-BN states such as Johor and Sabah had increased seat allocations while states where the opposition was stronger, such as Terengganu, Kedah and Perlis, received no additional seats. Moreover, constituencies with large BN majorities in 1999 were broken up in a fashion that allowed the EC to transfer certain districts to prop other weaker constituencies."
- 14 See Malay Mail "EC chief admits racial redelineation, says ethnic groups can't be split" from 29 March 2018.

- 15 ELF is the ethno-linguistic fractionalization index that captures the probability (between 0 and 1) that two people chosen at random from a given area will come from different groups. It uses a descending Herfindahl index: $ELF = 1 \sum_{i=1}^{n} s_i^2$ where s is the proportion of each ethnic group.
- 16 See Gomez (2012) for an overview of money politics in Malaysia, Pepinsky (2007) for an evaluation of electoral cycles in federal expenditure and Lim and Ong (2006) for distribution of goodies. The electoral watchdog group PEMANTAU compiled an extensive list of related election offences, available on its website www.pemantau.org/
- 17 See Barr and Govindasamy (2010) for a discussion of how narrow communal appeals have helped UMNO retain support, but have reduced the space for religious pluralism in the public sphere. See also Ahmad Fauzi (2013), Osman (2014), Norshahril Saat (2016) and Osman (2016) on Islam as a political vehicle in Malaysia.
- 18 Quoted in *Bloomberg* article "Najib warns Malay base of threat to Islam if opponents win power" published on 30 November 2016.
- 19 See *FreeMalaysiaToday* story entitled "Report: 95% Chinese but less than 30% Malays voted for PH" from 14 June 2018.

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