

# Election Forecast for Pakatan Harapan in Peninsular Malaysia (GE14)

January 11th 2018

An overview of electorate data and forecasted GE14 results based on analyses of past elections, individual voting patterns and election simulations.

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## **1. Introduction**

On January 10<sup>th</sup> 2018 a detailed listing of the 165 seats being contested by Pakatan Harapan (PH) component parties in Peninsular Malaysia was published in The Star (<u>https://www.thestar.com.my/news/nation/2018/01/10/pkr-gives-up-14-seats-to-pribumi-for-ge14/</u>) and Malaysiakini (<u>https://www.malaysiakini.com/news/408114</u>). Based on this listing, the seat division is as follows:

- 52 seats contested by PPBM
- 51 seats contested by PKR
- 35 seats contested by DAP
- 27 seats contested by AMANAH

This report provides an overview of the seats contested by component parties in PH, the winning odds and forecasted results for each seat under a number of different scenarios. Analysis was performed based on the 2017 1<sup>st</sup> Quarter (Q1) electoral roll, 2016 3<sup>rd</sup> Quarter (Q3) electoral roll, State and Federal seat results from the 13<sup>th</sup> General Election (GE13) and individual historical voting patterns from GE12 (2008) and GE13 (2013).

## 2. List of Acronyms

Acronym	Full name
PR	Pakatan Rakyat (coalition of PKR, DAP and PAS)
РН	Pakatan Harapan (coalition of PKR, DAP and AMANAH)
BN	Barisan Nasional
UMNO	United Malays National Organisation
GERAKAN	Parti Gerakan Rakyat Malaysia (also known as PGRM)
MCA	Malaysian Chinese Association
MIC	Malaysian Indian Congress
РВВ	Parti Pesaka Bumiputra Bersatu Sarawak
PKR	Parti Keadilan Rakyat
DAP	Democratic Action Party
AMANAH	Parti Amanah Negara
PAS	Parti Islam Se-Malaysia
РРВМ	Parti Pribumi Bersatu Malaysia
EC	Election Commission of Malaysia
GE12	12 <sup>th</sup> General Election (held in March 2008)
GE13	13 <sup>th</sup> General Election (held in May 2013)

The following table shows a list of acronyms used in this document.

## 3. Methodology

Prior to the 13th General Election (GE13) we came up with a methodology of predicting election results based on voting patterns in previous elections

(https://politweet.wordpress.com/2013/05/05/predictions-for-malaysias-general-election-ge13-pru13/).

Our method relied on mapping **polling lane results** to individual voters. This process assigned probability values (chance of turnout; chance of voting for each coalition) to the voter that was not affected if they migrated to another constituency. This is important because between GE12 and GE13 527,849 voters migrated between different constituencies.

The impact of voter migration cannot be measured for a single seat just by comparing results of GE12 and GE13 for that seat. An analysis of the whole country needs to be performed. New voter

registrations, transferred voters, voters passing away and voters no longer eligible to vote are factors that require deep analysis.

After GE13 we were able to apply the same estimation method to voters based on GE13 results. By comparing the shift in probabilities we are able to calculate the swing in support for each coalition. Because we base our calculations on individual voters, we are able to calculate shifts in support based on combinations of the following dimensions:

- By Age
- By Race
- By Gender
- By Urban Development Category (rural / semi-urban / urban)
- By Parliament/State Assembly Seat
- By Polling District
- By Locality
- By Seats Won by Specific Parties

The most reliable metric is age because voters are separated into polling lanes based on age. The majority of polling lanes contain between 350 – 700 voters.

#### How probabilities were assigned

- 1. The ethnic composition of each polling lane was calculated. This was used to adjust the probability levels for individual voters.
- 2. The polling lane result was used to generate a probability figure e.g. 60% of votes for BN and 40% of votes for PR means a base probability value of 60% pro-BN and 40% pro-PR is generated for all voters in that polling lane.
- 3. The base probability was then adjusted based on the ethnic composition. This assumes voter turnout was evenly spread among all ethnic groups. For example:
  - a. In a polling lane of 600 voters (assume 100% turnout), BN received 360 votes (60%)
  - b. 420 voters (70%) of the voters are Malay and 180 voters (30%) are Chinese.
  - c. That means BN received votes from at least 180 Malays and at most 360 Malays.
  - d. 180/420 = 42.86% of Malays
  - e. 360/420 = 85.71% of Malays
  - f. BN received votes from 42.86% 85.71% of Malay voters. This is the range of probability that Malay voters in that lane voted for BN. The average probability is a 64% chance of voting BN.
  - g. For the 180 Chinese voters, BN did not need their vote. BN received votes from 0% 100% of Chinese voters. This translates to an average probability of 50% chance of voting for BN. This also applies to the probability that they voted PR.
  - h. For PR, they received 240 votes (40%). Based on the ethnic ratio, at least 60 Malays voted for PR.
  - i. 60/420 = 14.29% of Malays
  - j. 240/420 = 57.14% of Malays
  - k. PR received votes from 14.29% 57.14% of Malays. This translates to an average probability of 35.7% that Malay voters in that lane voted for PR.
  - 1. A non-racial method would assign a probability of 60% for BN and 40% for PR. By adjusting for race we identified the higher probability of Malays voting for BN and the higher probability of Chinese voting for PR (50% instead of 40%).

- 4. Any voter belonging to a minority group small enough to not affect the polling lane result either way is also assigned a probability of 50%. For example, if 5% of a polling lane's voters are of Race X and the rest are Race Y, and the result is 90% in favour of Party A, then voters of Race X are assigned a value of 50%.
- 5. This race-based approach proved more accurate at identifying patterns and predicting results in elections.
- 6. For individuals who previously voted in seats with 3-corner fights between PR component parties, all PR votes were treated as one party. If the result was 60% BN, 20% PAS and 20% DAP then the base probability for voters in that lane would be 60% BN and 20% PR.
- 7. For seats where BN did not contest and it was a contest between PR and Independents, Independent results were treated as pro-BN results.
- 8. Any voter whose level of support cannot be determined is assigned a probability of 50% on voting BN/Opposition and categorised as a fence-sitter.
- 9. Voting preferences and turnout rates for new voters are calculated based on averages from their peers individuals with similar characteristics (age, race, location) in the electoral roll.

By calculating support and swing levels at the individual level we can address the impact of voter migration between seats; voters who have passed away; and new voters registered to vote since GE13.

Because individual voters have their own support and swing statistics, we can calculate the proportion of the electorate that is leaning towards Opposition (>50% probability of voting Opposition); leaning towards BN (<50% probability of voting PR); and on the fence (50% probability of voting Opposition). Voters who are leaning BN might still vote Opposition, so this metric is only an indicator of how good the odds are for the Opposition/BN to win support from the electorate.

To see previous applications of this method please read our previous reports at the following links:

- The Impact of Redelineation on The Selangor State Elections (<u>https://politweet.wordpress.com/2016/11/09/the-impact-of-redelineation-on-the-selangor-state-elections/</u>)
- How Barisan Nasional and Pakatan Rakyat Performed with Voters in Sarawak (GE13) (<u>https://politweet.wordpress.com/2016/04/16/how-barisan-nasional-and-pakatan-rakyat-performed-with-voters-in-sarawak-ge13/</u>)
- Analysing Pakatan Rakyat's Performance with Malay Voters in Peninsular Malaysia (GE13) (<u>https://politweet.wordpress.com/2015/07/27/analysing-pakatan-rakyats-performance-with-malay-voters-in-peninsular-malaysia-ge13/</u>)
- Urban Development Categorisation of Parliament Seats in Malaysia (<u>https://politweet.wordpress.com/2013/05/30/urban-development-categorisation-of-parliament-seats-in-malaysia/</u>)

#### How our method applies to redelineation

For constituency redelineation, the effect is the same as voter migration – constituencies, polling districts and localities may contain different groups of voters before and after redelineation.

Using these probabilities we simulated the electoral performance for Barisan Nasional and the Opposition before and after redelineation to get a sense of how the redrawing of constituency boundaries affected the election result.

## 4. Overview of Peninsular Malaysia Election Statistics

Total seats: 165

Total voters: 12,227,823

Net increase in voters: 1,050,081

New voters (since GE13): 1,530,764

Removed voters (since GE13): 480,683

The division of voters by ethnic group is shown in the chart below.



#### Division of Seats Won by Each Party in GE13

In GE13 PR won 89 seats while BN won 133 seats. In Peninsular Malaysia PR won 80 seats while BN won 85 seats.

Party	Contested	Won
BN	165	85
PKR	64	28
DAP	36	31
PAS	65	21

The breakdown of seats won by urban development category is shown in the table below:

Urban Development Category / Party	DAP	PKR	PAS	BN	Total
Rural	2	2	11	66	81
Semi-Urban	10	14	6	14	44
Urban	19	12	4	5	40

#### **Distribution of Voter Support**

The chart below shows the distribution of voters based on their probability of voting for BN or Opposition at the Federal level.

A voter is categorised as Leaning Opposition if they have a >50% probability of voting for Opposition parties or is categorised as Leaning BN if they have a >50% probability of voting BN. Otherwise they are categorised as a Fence Sitter.

In GE13 44% of voters were leaning towards Opposition, 38% were leaning towards BN and 18% were on the fence.

As of 2017Q1 an estimated 44% of voters are leaning towards Opposition, 39% are leaning towards BN and 17% are on the fence. The only change is an increase of 1 point for BN while the Opposition's share remains the same.





#### **New Voters**



The division of voters by estimated ethnic group is shown in the chart below.

When we look at the predicted leaning of new voters, 45% of the voters are leaning towards BN.



This is because of the high proportion of new Malay voters in areas that saw stronger support for BN in GE13.

In a previous report (<u>https://politweet.wordpress.com/2015/07/27/analysing-pakatan-rakyats-performance-with-malay-voters-in-peninsular-malaysia-ge13/</u>) we highlighted that Malay voters were starting to turn away from the Opposition in GE13 in many seats on a national scale. How this will impact GE14 will depend on how these new voters are distributed on a per-seat basis.

## 5. Overview of GE14 Contested Seats

Party	GE13	GE14	Voters (2017Q1)
РРВМ	-	52	2,990,177
PKR	64	51	4,312,054
DAP	36	35	2,790,945
AMANAH	-	27	2,134,647

The number of seats contested by each component party of PH is listed below.





Urban Development	Total	PPBM	PKR	DAP	AMANAH
Category / Party					
Rural	81	44	14	6	17
Semi-Urban	44	6	23	10	5
Urban	40	2	14	19	5

The breakdown of seats contested by urban development category is shown in the table below:



Ethnic Majority	Seats	PPBM	PKR	DAP	AMANAH
Malay	115	51	37	2	25
Chinese	21	0	0	21	0
Mixed	29	1	14	12	2
Total	165	52	51	35	27

The breakdown of seats contested by ethnic majority is shown in the table below:



Ethnic Group	PPBM	PKR	DAP	AMANAH
Malay / Muslim Bumiputera	2,453,185	2,578,487	809,990	1,588,267
Chinese	369,722	1,247,741	1,619,458	364,140
Indian	110,576	424,096	323,672	156,964
Other/Unknown	56,694	61,730	37,825	25,276
Total	2,990,177	4,312,054	2,790,945	2,134,647

The breakdown of voters in contested seats by ethnic group is shown in the table below:



The composition of voters in contested seats by ethnic group on a party basis is shown in the following charts.









#### **Distribution of Voter Support**

The table below shows the distribution of voters based on their probability of voting for BN or the Opposition.

Party	Seats	% Leaning BN	% Fence Sitters	% Leaning Opposition
PPBM	52	62	11	27
PKR	51	39	21	40
DAP	35	17	20	63
AMANAH	27	35	15	50







PPBM is contesting rural, Malay-majority seats that would be challenging to win in a straight fight against BN. 35/52 seats were contested by PAS in GE13, which means PPBM will face an even greater challenge in a 3-corner fight with PAS.

PKR is contesting a mix of seats with a fairly even split between Opposition and BN leaning voters.

DAP is contesting mainly urban/semi-urban, Chinese-majority seats with a large proportion of Opposition-leaning voters.

AMANAH is contesting mostly rural, Malay-majority seats with a large proportion of Oppositionleaning voters. However 26/27 seats were contested by PAS in GE13, which means this large share of voters will be split between both Opposition parties.

If voter sentiment in GE14 remains the same as GE13, we can expect AMANAH and PPBM to win few seats.

## 6. How elections are simulated

To simulate an election, we take all the individual voters for a given constituency and run them through a process:

- Each individual will have a probability of turning out to vote; a probability of voting for BN; a probability of voting for the Opposition; and a probability of voting for an Independent/Third party.
- 2. Our system will generate a random number to test if the voter turned out to vote.
- 3. If he/she voted, then the system generates another random number to see which party they voted for.
- 4. The result of the simulation is stored in a database
- 5. We ran 300 simulations for each scenario, and use the average results. The winning odds for the seat is calculated as the percentage of winning scenarios.
- 6. Any seat with a winning majority of 1 1,000 is classified as HIGH RISK
- 7. Any seat with a winning majority of 1,001 2,000 is classified as MARGINAL RISK

In the simulations we ran for this report, we adjusted the probabilities to work for a straight fight between BN and the Opposition.

For each simulation we also tracked the ethnic divide of the vote e.g. how many Malay voters voted for BN. All simulations were run using the 2016Q3 electoral roll.

#### 7. Election Simulation Results

We ran 300 simulations per-seat for each scenario under the following conditions:

- Straight fights between BN and a united Opposition
- PAS was not included, any support for PAS is assumed to be 'pro-Opposition' support
- No redelineation
- Voter sentiment unchanged since GE13
- Average voter turnout rate based on GE13
- The **chance** of winning a seat by a given party is based on the number of simulations where that party won the seat
- The upper and lower bounds for results will be shown to give an idea of the best and worstcase scenarios for each coalition

The 3 scenarios tested were:

- Scenario 1: Voter sentiment unchanged since GE13
- Scenario 2: +2 point increased support for the Opposition i.e. a voter with a 48% probability of voting Opposition would now have a 50% probability of voting Opposition
- Scenario 3: +5 point increased support for the Opposition

Party	Scenario 1: GE13 Odds	Scenario 2: PH +2pts	Scenario 3: PH +5pts
BN	82 - 89	66 – 76	48 - 50
PH	76 – 83	89 - 99	115 – 117

The full results are listed in **Appendix 2** (page 34). A summary of the results is in the table below:

#### Division of seats won by party

The table below shows the range of seats won by each party for each scenario.

Party	Contested	Scenario 1: GE13	Scenario 2: PH +2pts	Scenario 3: PH+5
	Seats	Odds		pts
PPBM	52	3 - 6	7 – 12	17 – 17
PKR	51	28	31 - 34	44 – 44
DAP	35	31	33 - 34	34 - 34
AMANAH	27	14 - 18	18 - 19	20 - 22

(seats won = seats won under simulations within a min-max range)

#### Seats At-Risk

The table below summarises the number of PH-won seats considered to be at-risk, based on the average of the winning majorities for each scenario. The number of seats won if all high-risk seats are lost is shown in the last column. The range for each category is based on the min/max number of seats won.

Scenario	Seats Won	Marginal Risk	High Risk	Total At- Risk	Seats Won without High Risk seats (= Seats Won – High Risk)
1: GE13 Odds	76 - 83	3	2 - 9	5 - 12	74
2: PH +2pts	89 - 99	8	2 - 12	10 - 20	87
3: PH +5pts	115 – 117	6	5-7	11 – 13	110

(seats won = seats won under simulations within a min-max range)

## 8. Conclusion



In a straight fight against BN, PH can form the Federal government with a 5-point swing of support leading to a win of 115 seats. However a slim margin of 3 seats (112 seats is the minimum required) would not be enough for a stable government. A stronger swing of support and victories in East Malaysia would still be important for PH.

Due to the high risk seats, PH would need to target an additional 10 or more seats in East Malaysia. Given the performance of the Opposition in the Sarawak State elections in 2016 and the current state of the Opposition in Sabah, we can expect PH to face difficulty in winning 10 seats.

3-corner fights between PH, PAS and BN would most likely benefit BN. The only way for PH to overcome this is for their parties (particularly PPBM) to win over pro-BN supporters.

For example in a seat contested by PAS, PPBM and BN, if 10% of the anti-BN vote went to PAS, PPBM would need to counter that by getting >10% of the pro-BN vote. If PH is able to do this in 3-corner fights then the results of Scenario 3 (a 5-point swing to PH) can be achieved. This will lead to record victories for PH in Kedah and Johor, as well as control of the Federal government.

Another factor to consider is constituency redelineation, which has not been confirmed to take place before GE14. Through a separate set of simulations that we conducted, redelineation would improve the odds of BN winning the following 10 seats from the Opposition.

State	Seat Code	Name	GE14 PH Contesting Party
TERENGGANU	35	KUALA NERUS	AMANAH
PERAK	59	BUKIT GANTANG	AMANAH
PERAK	74	LUMUT	AMANAH
SELANGOR	101	HULU LANGAT	AMANAH
SELANGOR	109	KAPAR	PKR

SELANGOR	113	SEPANG	AMANAH
W.P KUALA LUMPUR	121	LEMBAH PANTAI	PKR
NEGERI SEMBILAN	132	TELOK KEMANG	PKR
MELAKA	137	BUKIT KATIL	PKR
JOHOR	150	BATU PAHAT	PKR

Lastly we have to consider the declining interest in political parties on Facebook. The graph below shows the monthly proportion of potential voters on Facebook (users in Malaysia aged 21 years and above) who expressed interest in BN or Opposition parties on Facebook. This is calculated based on their profile information, Page likes, posts, shares and other activity on Facebook.



From our observations on Twitter using our database of profiled users in Malaysia, support expressed for Opposition parties has been weak. This would indicate that support from the youth will be a problem in GE14.

To summarise:

- PPBM and AMANAH are contesting difficult seats to win a straight fight. With PAS splitting the vote, there will be few seats won by PPBM and AMANAH
- The impact of PAS contesting against PH in 3-corner fights needs to be overcome by PH winning votes from pro-BN voters. Only then can PH make significant enough gains to win 115 117 seats.
- PH still needs to win seats in East Malaysia to form a stable government even if they reduce the impact of votes going to PAS
- Constituency redelineation will make it easier for BN to win more seats from PH
- Low interest in political parties will make it harder for PH to spread their message through social media

# 9. Appendix 1: Peninsular Malaysia Seat Details

The table below lists the statistics and classification for each seat.

State	Seat Code	Name	Voters (2017Q1)	Ethnic Majority	Urban Development Category	GE13 Winner	GE13 PR Contesting Party	GE14 PH Contesting Party
PERLIS	1	PADANG BESAR	45336	MALAY	RURAL	BN	PAS	PPBM
PERLIS	2	KANGAR	54449	MALAY	SEMI URBAN	BN	PAS	PKR
PERLIS	3	ARAU	47102	MALAY	RURAL	BN	PAS	PPBM
KEDAH	4	LANGKAWI	40619	MALAY	RURAL	BN	PKR	PPBM
KEDAH	5	JERLUN	53470	MALAY	RURAL	BN	PAS	PPBM
KEDAH	6	KUBANG PASU	71348	MALAY	SEMI URBAN	BN	PAS	PPBM
KEDAH	7	PADANG TERAP	45428	MALAY	RURAL	BN	PAS	AMANAH
KEDAH	8	POKOK SENA	87125	MALAY	RURAL	PAS	PAS	AMANAH
KEDAH	9	ALOR STAR	73157	MALAY	URBAN	PKR	PKR	PKR
KEDAH	10	KUALA KEDAH	99914	MALAY	RURAL	PKR	PKR	PKR
KEDAH	11	PENDANG	74091	MALAY	RURAL	BN	PAS	PPBM
KEDAH	12	JERAI	78938	MALAY	RURAL	BN	PAS	PPBM
KEDAH	13	SIK	49334	MALAY	RURAL	BN	PAS	AMANAH
KEDAH	14	MERBOK	93260	MALAY	SEMI URBAN	BN	PKR	PKR

State	Seat	Name	Voters	Ethnic Majority	Urban	GE13	GE13 PR	GE14 PH
	Code		(2017Q1)		Development	Winner	Contesting	Contesting
					Category		Party	Party
KEDAH	15	SUNGAI PETANI	100394	MALAY	SEMI URBAN	PKR	PKR	PKR
KEDAH	16	BALING	104099	MALAY	RURAL	BN	PAS	РРВМ
KEDAH	17	PADANG SERAI	81134	MALAY	SEMI URBAN	PKR	PKR	PKR
KEDAH	18	KULIM-BANDAR BAHARU	64732	MALAY	SEMI URBAN	BN	PKR	PKR
KELANTAN	19	TUMPAT	108510	MALAY	RURAL	PAS	PAS	РРВМ
KELANTAN	20	PENGKALAN CHEPA	71826	MALAY	SEMI URBAN	PAS	PAS	AMANAH
KELANTAN	21	KOTA BHARU	87169	MALAY	URBAN	PAS	PAS	AMANAH
KELANTAN	22	PASIR MAS	77170	MALAY	RURAL	PAS	PAS	PKR
KELANTAN	23	RANTAU PANJANG	57279	MALAY	RURAL	PAS	PAS	AMANAH
KELANTAN	24	KUBANG KERIAN	72250	MALAY	RURAL	PAS	PAS	AMANAH
KELANTAN	25	ВАСНОК	89923	MALAY	SEMI URBAN	PAS	PAS	РРВМ
KELANTAN	26	KETEREH	70000	MALAY	RURAL	BN	PKR	РРВМ
KELANTAN	27	TANAH MERAH	69755	MALAY	RURAL	BN	PKR	PKR
KELANTAN	28	PASIR PUTEH	82905	MALAY	RURAL	PAS	PAS	РРВМ
KELANTAN	29	MACHANG	67381	MALAY	RURAL	BN	PKR	РРВМ

State	Seat	Name	Voters	Ethnic Majority	Urban	GE13	GE13 PR	GE14 PH
	Code		(2017Q1)		Development	Winner	Contesting	Contesting
					Category		Party	Party
KELANTAN	30	JELI	47761	MALAY	RURAL	BN	PAS	PPBM
KELANTAN	31	KUALA KRAI	69259	MALAY	RURAL	PAS	PAS	AMANAH
KELANTAN	32	GUA MUSANG	45898	MALAY	RURAL	BN	PAS	PPBM
TERENGGANU	33	BESUT	83946	MALAY	SEMI URBAN	BN	PAS	PPBM
TERENGGANU	34	SETIU	75980	MALAY	RURAL	BN	PAS	PPBM
TERENGGANU	35	KUALA NERUS	88644	MALAY	RURAL	PAS	PAS	AMANAH
TERENGGANU	36	KUALA TERENGGANU	101847	MALAY	URBAN	PAS	PAS	AMANAH
TERENGGANU	37	MARANG	102554	MALAY	RURAL	PAS	PAS	AMANAH
TERENGGANU	38	HULU TERENGGANU	72035	MALAY	RURAL	BN	PAS	PPBM
TERENGGANU	39	DUNGUN	88346	MALAY	SEMI URBAN	PAS	PAS	PKR
TERENGGANU	40	KEMAMAN	105113	MALAY	SEMI URBAN	BN	PKR	PKR
PULAU PINANG	41	KEPALA BATAS	58863	MALAY	RURAL	BN	PAS	AMANAH
PULAU PINANG	42	TASEK GELUGOR	58883	MALAY	RURAL	BN	PAS	PPBM
PULAU PINANG	43	BAGAN	71405	CHINESE	URBAN	DAP	DAP	DAP
PULAU PINANG	44	PERMATANG PAUH	80042	MALAY	SEMI URBAN	PKR	PKR	PKR
PULAU PINANG	45	BUKIT MERTAJAM	86951	CHINESE	SEMI URBAN	DAP	DAP	DAP

State	Seat	Name	Voters	Ethnic Majority	Urban	GE13	GE13 PR	GE14 PH
	Code		(2017Q1)		Development	Winner	Contesting	Contesting
					Category		Party	Party
PULAU PINANG	46	BATU KAWAN	63621	CHINESE	SEMI URBAN	DAP	DAP	DAP
PULAU PINANG	47	NIBONG TEBAL	68866	MIXED	RURAL	PKR	PKR	PKR
PULAU PINANG	48	BUKIT BENDERA	74638	CHINESE	SEMI URBAN	DAP	DAP	DAP
PULAU PINANG	49	TANJONG	50147	CHINESE	URBAN	DAP	DAP	DAP
PULAU PINANG	50	JELUTONG	76242	CHINESE	URBAN	DAP	DAP	DAP
PULAU PINANG	51	BUKIT GELUGOR	90528	CHINESE	SEMI URBAN	DAP	DAP	DAP
PULAU PINANG	52	BAYAN BARU	89177	MIXED	SEMI URBAN	PKR	PKR	PKR
PULAU PINANG	53	BALIK PULAU	57545	MALAY	RURAL	BN	PKR	PKR
PERAK	54	GERIK	35602	MALAY	RURAL	BN	PAS	PPBM
PERAK	55	LENGGONG	29392	MALAY	RURAL	BN	PAS	PPBM
PERAK	56	LARUT	48826	MALAY	RURAL	BN	PAS	РРВМ
PERAK	57	PARIT BUNTAR	52657	MALAY	RURAL	PAS	PAS	AMANAH
PERAK	58	BAGAN SERAI	57777	MALAY	RURAL	BN	PKR	PPBM
PERAK	59	BUKIT GANTANG	77361	MALAY	RURAL	PAS	PAS	AMANAH
PERAK	60	TAIPING	81896	MIXED	URBAN	DAP	DAP	DAP
PERAK	61	PADANG RENGAS	30583	MALAY	RURAL	BN	PKR	PKR

State	Seat	Name	Voters	Ethnic Majority	Urban	GE13	GE13 PR	GE14 PH
	Code		(2017Q1)		Development	Winner	Contesting	Contesting
					Category		Party	Party
PERAK	62	SUNGAI SIPUT	53611	MIXED	SEMI URBAN	PKR	PKR	PKR
PERAK	63	TAMBUN	100522	MALAY	SEMI URBAN	BN	PKR	РРВМ
PERAK	64	IPOH TIMOR	81509	CHINESE	URBAN	DAP	DAP	DAP
PERAK	65	IPOH BARAT	79739	CHINESE	URBAN	DAP	DAP	DAP
PERAK	66	BATU GAJAH	86519	CHINESE	URBAN	DAP	DAP	DAP
PERAK	67	KUALA KANGSAR	36301	MALAY	SEMI URBAN	BN	PAS	РРВМ
PERAK	68	BERUAS	49740	CHINESE	RURAL	DAP	DAP	DAP
PERAK	69	PARIT	35260	MALAY	RURAL	BN	PAS	AMANAH
PERAK	70	KAMPAR	65745	CHINESE	SEMI URBAN	DAP	DAP	DAP
PERAK	71	GOPENG	109108	MIXED	SEMI URBAN	PKR	PKR	PKR
PERAK	72	ТАРАН	49657	MIXED	RURAL	BN	PKR	PPBM
PERAK	73	PASIR SALAK	54121	MALAY	RURAL	BN	PKR	РРВМ
PERAK	74	LUMUT	95339	MALAY	SEMI URBAN	PKR	PKR	AMANAH
PERAK	75	BAGAN DATOK	44376	MALAY	RURAL	BN	PKR	PKR
PERAK	76	TELOK INTAN	65155	MIXED	SEMI URBAN	DAP	DAP	DAP
PERAK	77	TANJONG MALIM	67601	MALAY	RURAL	BN	PKR	PKR

State	Seat	Name	Voters	Ethnic Majority	Urban	GE13	GE13 PR	GE14 PH
	Code		(2017Q1)		Development	Winner	Contesting	Contesting
					Category		Party	Party
PAHANG	78	CAMERON HIGHLANDS	31369	MIXED	RURAL	BN	DAP	DAP
PAHANG	79	LIPIS	34327	MALAY	RURAL	BN	PAS	РРВМ
PAHANG	80	RAUB	56905	MALAY	RURAL	DAP	DAP	DAP
PAHANG	81	JERANTUT	61779	MALAY	RURAL	BN	PAS	PPBM
PAHANG	82	INDERA MAHKOTA	73081	MALAY	SEMI URBAN	PKR	PKR	PKR
PAHANG	83	KUANTAN	61032	MALAY	URBAN	PKR	PKR	PKR
PAHANG	84	PAYA BESAR	53397	MALAY	RURAL	BN	PKR	РРВМ
PAHANG	85	PEKAN	86176	MALAY	RURAL	BN	PKR	РРВМ
PAHANG	86	MARAN	40323	MALAY	RURAL	BN	PAS	РРВМ
PAHANG	87	KUALA KRAU	45705	MALAY	RURAL	BN	PAS	РРВМ
PAHANG	88	TEMERLOH	72480	MALAY	SEMI URBAN	PAS	PAS	AMANAH
PAHANG	89	BENTONG	65910	MIXED	RURAL	BN	DAP	DAP
PAHANG	90	BERA	56442	MALAY	RURAL	BN	PKR	PKR
PAHANG	91	ROMPIN	59669	MALAY	RURAL	BN	PAS	PKR
SELANGOR	92	SABAK BERNAM	40055	MALAY	RURAL	BN	PKR	РРВМ
SELANGOR	93	SUNGAI BESAR	50488	MALAY	RURAL	BN	PAS	РРВМ

State	Seat	Name	Voters	Ethnic Majority	Urban	GE13	GE13 PR	GE14 PH
	Code		(2017Q1)		Development	Winner	Contesting	Contesting
					Category		Party	Party
SELANGOR	94	HULU SELANGOR	95736	MALAY	SEMI URBAN	BN	PKR	PKR
SELANGOR	95	TANJONG KARANG	45794	MALAY	RURAL	BN	PAS	РРВМ
SELANGOR	96	KUALA SELANGOR	70748	MALAY	RURAL	BN	PAS	AMANAH
SELANGOR	97	SELAYANG	123023	MIXED	SEMI URBAN	PKR	PKR	PKR
SELANGOR	98	GOMBAK	136296	MALAY	SEMI URBAN	PKR	PKR	PKR
SELANGOR	99	AMPANG	92487	MALAY	SEMI URBAN	PKR	PKR	PKR
SELANGOR	100	PANDAN	94945	MIXED	URBAN	PKR	PKR	PKR
SELANGOR	101	HULU LANGAT	147186	MALAY	SEMI URBAN	PAS	PAS	AMANAH
SELANGOR	102	SERDANG	159404	MIXED	URBAN	DAP	DAP	DAP
SELANGOR	103	PUCHONG	122680	MIXED	URBAN	DAP	DAP	DAP
SELANGOR	104	KELANA JAYA	108315	MIXED	URBAN	PKR	PKR	PKR
SELANGOR	105	PETALING JAYA SELATAN	82930	MIXED	URBAN	PKR	PKR	PKR
SELANGOR	106	PETALING JAYA UTARA	86481	CHINESE	URBAN	DAP	DAP	DAP
SELANGOR	107	SUBANG	146138	MIXED	URBAN	PKR	PKR	PKR

State	Seat	Name	Voters	Ethnic Majority	Urban	GE13	GE13 PR	GE14 PH
	Code		(2017Q1)		Development	Winner	Contesting	Contesting
					Category		Party	Party
SELANGOR	108	SHAH ALAM	116137	MALAY	URBAN	PAS	PAS	AMANAH
SELANGOR	109	KAPAR	163140	MALAY	URBAN	PKR	PKR	PKR
SELANGOR	110	KLANG	104335	MIXED	URBAN	DAP	DAP	DAP
SELANGOR	111	KOTA RAJA	126080	MIXED	URBAN	PAS	PAS	AMANAH
SELANGOR	112	KUALA LANGAT	98553	MALAY	SEMI URBAN	PKR	PKR	PKR
SELANGOR	113	SEPANG	98655	MALAY	SEMI URBAN	PAS	PAS	AMANAH
W.P KUALA LUMPUR	114	KEPONG	69577	CHINESE	URBAN	DAP	DAP	DAP
W.P KUALA LUMPUR	115	BATU	85992	MIXED	URBAN	PKR	PKR	PKR
W.P KUALA LUMPUR	116	WANGSA MAJU	78450	MALAY	URBAN	PKR	PKR	PKR
W.P KUALA LUMPUR	117	SEGAMBUT	79767	CHINESE	URBAN	DAP	DAP	DAP
W.P KUALA LUMPUR	118	SETIAWANGSA	68822	MALAY	URBAN	BN	PKR	PKR
W.P KUALA LUMPUR	119	TITIWANGSA	59677	MALAY	URBAN	BN	PAS	PPBM

State	Seat	Name	Voters	Ethnic Majority	Urban	GE13	GE13 PR	GE14 PH
	Code		(2017Q1)		Development	Winner	Contesting	Contesting
					Category		Party	Party
W.P KUALA	120	BUKIT BINTANG	50739	CHINESE	URBAN	DAP	DAP	DAP
LUMPUR								
W.P KUALA	121	LEMBAH PANTAI	78504	MALAY	URBAN	PKR	PKR	PKR
LUMPUR								
W.P KUALA	122	SEPUTEH	87815	CHINESE	URBAN	DAP	DAP	DAP
LUMPUR								
W.P KUALA	123	CHERAS	72172	CHINESE	URBAN	DAP	DAP	DAP
LUMPUR								
W.P KUALA	124	BANDAR TUN RAZAK	98593	MALAY	URBAN	PKR	PKR	PKR
LUMPUR								
W.P PUTRAJAYA	125	PUTRAJAYA	23908	MALAY	URBAN	BN	PAS	PPBM
NEGERI	126	JELEBU	47262	MALAY	RURAL	BN	PAS	AMANAH
SEMBILAN								
NEGERI	127	JEMPOL	70854	MALAY	RURAL	BN	PAS	РРВМ
SEMBILAN								
NEGERI	128	SEREMBAN	112783	MIXED	URBAN	DAP	DAP	DAP
SEMBILAN								
NEGERI SEMBILAN	129	KUALA PILAH	49195	MALAY	SEMI URBAN	BN	PKR	PPBM
SEMBILAN								

State	Seat	Name	Voters	Ethnic Majority	Urban	GE13	GE13 PR	GE14 PH
	Code		(2017Q1)		Development	Winner	Contesting	Contesting
					Category		Party	Party
NEGERI	130	RASAH	96231	MIXED	URBAN	DAP	DAP	DAP
SEMBILAN								
NEOEDI	101		05010	N / A T A X/		DN	DIZD	DIZD
NEGERI	131	REMBAU	85210	MALAY	SEMI URBAN	BN	PKR	PKR
SEMBILAN								
NEGERI	132	TELOK KEMANG	72687	MIXED	SEMILIRBAN	PKB	PKB	PKB
SEMBILAN	152		72007				1 ICIC	1 Idd
SLIVIDILIAN								
NEGERI	133	TAMPIN	60229	MALAY	RURAL	BN	PAS	AMANAH
SEMBILAN								
MELAKA	134	MASJID TANAH	50184	MALAY	RURAL	BN	PAS	PPBM
	105		(0000	N ( A T A X/	DIDAI	DN	DAD	
MELAKA	135	ALOR GAJAH	68899	MALAY	RURAL	BN	DAP	PPBM
MELAKA	136	TANGGA BATU	82270	MALAY	SEMI URBAN	BN	PKR	PKR
MELAKA	137	BUKIT KATIL	112248	MALAY	URBAN	PKR	PKR	PKR
	100		0(700	OUDJECE		DAD	DAD	DAD
MELAKA	138	KUTA MELAKA	96798	CHINESE	URBAIN	DAP	DAP	DAP
MELAKA	139	JASIN	71915	MALAY	RURAL	BN	PKR	AMANAH
		0						
JOHOR	140	SEGAMAT	53027	MIXED	RURAL	BN	PKR	PKR
	1.41		44447	<b>X ( A T A X</b> )		DN	DIZD	DIZD
JOHOR	141	SEKIJANG	44667	MALAY	KURAL	BN	PKR	PKR
JOHOR	142	LABIS	39838	MIXED	RURAL	BN	DAP	DAP
Č.								

State	Seat	Name	Voters	Ethnic Majority	Urban	GE13	GE13 PR	GE14 PH
	Code		(2017Q1)		Development	Winner	Contesting	Contesting
					Category		Party	Party
JOHOR	143	РАСОН	49585	MALAY	RURAL	BN	PAS	PPBM
JOHOR	144	LEDANG	75672	MALAY	RURAL	BN	PKR	PKR
JOHOR	145	BAKRI	72073	CHINESE	SEMI URBAN	DAP	DAP	DAP
JOHOR	146	MUAR	51626	MALAY	RURAL	BN	PKR	РРВМ
JOHOR	147	PARIT SULONG	59314	MALAY	RURAL	BN	PAS	AMANAH
JOHOR	148	AYER HITAM	46114	MALAY	RURAL	BN	PAS	DAP
JOHOR	149	SRI GADING	49885	MALAY	RURAL	BN	PKR	РРВМ
JOHOR	150	BATU PAHAT	96414	MALAY	SEMI URBAN	PKR	PKR	PKR
JOHOR	151	SIMPANG RENGGAM	42889	MALAY	RURAL	BN	PAS	РРВМ
JOHOR	152	KLUANG	95280	MIXED	SEMI URBAN	DAP	DAP	DAP
JOHOR	153	SEMBRONG	43509	MALAY	RURAL	BN	PKR	PKR
JOHOR	154	MERSING	47882	MALAY	RURAL	BN	PAS	РРВМ
JOHOR	155	TENGGARA	43730	MALAY	RURAL	BN	PAS	РРВМ
JOHOR	156	KOTA TINGGI	46206	MALAY	RURAL	BN	PAS	РРВМ
JOHOR	157	PENGERANG	39626	MALAY	RURAL	BN	PKR	РРВМ
JOHOR	158	TEBRAU	116890	MIXED	SEMI URBAN	BN	PKR	PKR

State	Seat	Name	Voters	Ethnic Majority	Urban	GE13	GE13 PR	GE14 PH
	Code		(2017Q1)		Development	Winner	Contesting	Contesting
					Category		Party	Party
JOHOR	159	PASIR GUDANG	119683	MIXED	SEMI URBAN	BN	PKR	PKR
JOHOR	160	JOHOR BAHRU	99296	MALAY	URBAN	BN	PKR	PKR
JOHOR	161	PULAI	112446	MIXED	URBAN	BN	PAS	AMANAH
JOHOR	162	GELANG PATAH	127039	MIXED	SEMI URBAN	DAP	DAP	DAP
JOHOR	163	KULAI	93800	CHINESE	SEMI URBAN	DAP	DAP	DAP
JOHOR	164	PONTIAN	50927	MALAY	RURAL	BN	PKR	PPBM
JOHOR	165	TANJONG PIAI	56637	MALAY	RURAL	BN	DAP	PPBM

### **10. Appendix 2: Election Simulation Results**

The table below lists the result of 300 election simulations performed for each seat using straight fights between BN and the Opposition. Based on the number of winning scenarios, we calculated the odds of winning the seat as a percentage. For example, P3.ARAU was won in 87% of the simulations for Scenario 2: PH +2pt Swing with a High Risk margin.

- 1. Point Swing to PR refers to the percentage point shift in support for PR. Negative numbers means that support in the seat shifted to BN in GE13 while positive numbers means that the support shifted to PR.
- 2. Avg (Odds of Voting Opposition) is an average probability that we calculate as a rough guideline. This is calculated as the sum of probabilities of individuals voting BN / Opposition for each seat divided by the number of voters. Any seat with **a value below 50** would require a bigger positive swing to the Opposition to win.
- 3. For each scenario we have 2 columns: the first shows the % probability of winning. If there is **no value** that means the seat was won by BN. The second column shows the risk factor even a 100% chance of victory could be due to a small winning margin.
- 4. Any seat with a winning majority of 1 1,000 votes is classified as HIGH RISK
- 5. Any seat with a winning majority of 1,001 2,000 votes is classified as **MARGINAL RISK**

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	<b>\$1:</b>	Risk	S2: PR	Risk	S3: PR	Risk
Code		Contesting	PR (GE13)	Voting	GE13	Factor	+2pt	Factor	+5pt	Factor
		Party		<b>Opposition</b> )	Odds		Swing		Swing	
1	PADANG BESAR	PPBM	-0.59	39.79						
2	KANGAR	PKR	14.09	45.49					100	High
										Risk
3	ARAU	PPBM	-0.91	47.38			87	High	100	
								Risk		
4	LANGKAWI	PPBM	-7.24	30.91						
5	JERLUN	PPBM	-0.81	45.99						

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	<b>S1</b> :	Risk	S2: PR	Risk	S3: PR	Risk
Code		Contesting	PR (GE13)	Voting	<b>GE13</b>	Factor	+2pt	Factor	+5pt	Factor
		Party		<b>Opposition</b> )	Odds		Swing		Swing	
6	KUBANG PASU	PPBM	-1.07	41.46						
7	PADANG TERAP	AMANAH	-7.07	43.88					13	High Risk
8	POKOK SENA	AMANAH	-2.68	52.53	100		100		100	
9	ALOR STAR	PKR	3.81	48.17	100	Marginal	100		100	
10	KUALA KEDAH	PKR	-2.46	52.95	100		100		100	
11	PENDANG	PPBM	-6.32	47.94			63	High Risk	100	
12	JERAI	PPBM	-3.08	48.40			100	Marginal	100	
13	SIK	AMANAH	-5.36	46.52					100	Marginal
14	MERBOK	PKR	-5.41	46.58					100	
15	SUNGAI PETANI	PKR	-1.74	52.85	100		100		100	
16	BALING	PPBM	-9.17	47.00					100	
17	PADANG SERAI	PKR	-3.10	51.32	100		100		100	
18	KULIM-BANDAR BAHARU	PKR	-8.90	47.12					100	
19	TUMPAT	PPBM	-1.33	56.58	100		100		100	

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	<b>S1</b> :	Risk	S2: PR	Risk	S3: PR	Risk
Code		Contesting	PR (GE13)	Voting	GE13	Factor	+2pt	Factor	+5pt	Factor
		Party		Opposition)	Odds		Swing		Swing	
20	PENGKALAN CHEPA	AMANAH	0.55	63.80	100		100		100	
21	KOTA BHARU	AMANAH	1.28	62.49	100		100		100	
22	PASIR MAS	PKR	N/A	55.20	100		100		100	
23	RANTAU PANJANG	AMANAH	0.63	57.54	100		100		100	
24	KUBANG KERIAN	AMANAH	3.36	65.58	100		100		100	
25	ВАСНОК	PPBM	-2.40	50.30	100	High Risk	100		100	
26	KETEREH	PPBM	-1.71	49.31	1	High Risk	100	Marginal	100	
27	TANAH MERAH	PKR	-8.56	45.61					100	Marginal
28	PASIR PUTEH	РРВМ	-2.53	51.72	100		100		100	
29	MACHANG	PPBM	-2.73	49.38	5	High Risk	100	Marginal	100	
30	JELI	РРВМ	-0.35	43.22						
31	KUALA KRAI	AMANAH	-4.23	51.91	100		100		100	
32	GUA MUSANG	РРВМ	-3.22	37.89						
33	BESUT	РРВМ	3.62	43.48						

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	<b>\$1:</b>	Risk	S2: PR	Risk	S3: PR	Risk
Code		Contesting	PR (GE13)	Voting	GE13	Factor	+2pt	Factor	+5pt	Factor
		Party		<b>Opposition</b> )	Odds		Swing		Swing	
34	SETIU	PPBM	0.84	43.25						
35	KUALA NERUS	AMANAH	1.30	50.59	100	Marginal	100		100	
36	KUALA TERENGGANU	AMANAH	6.99	56.59	100		100		100	
37	MARANG	AMANAH	1.38	53.28	100		100		100	
38	HULU TERENGGANU	PPBM	4.27	42.50						
39	DUNGUN	PKR	7.87	52.86	100		100		100	
40	KEMAMAN	PKR	2.59	42.56						
41	KEPALA BATAS	AMANAH	8.78	44.87					55	High Risk
42	TASEK GELUGOR	PPBM	2.85	44.93					100	Marginal
43	BAGAN	DAP	4.44	74.72	100		100		100	
44	PERMATANG PAUH	PKR	-3.83	57.21	100		100		100	
45	BUKIT MERTAJAM	DAP	5.17	77.89	100		100		100	
46	BATU KAWAN	DAP	13.97	69.34	100		100		100	
47	NIBONG TEBAL	PKR	3.62	54.25	100		100		100	

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	<b>\$1</b> :	Risk	<b>S2: PR</b>	Risk	<b>S3: PR</b>	Risk
Code		Contesting	PR (GE13)	Voting	GE13	Factor	+2pt	Factor	+5pt	Factor
		Party		<b>Opposition</b> )	Odds		Swing		Swing	
40		DAD	0.55		100		100		100	
48	BUKII BENDERA	DAP	9.57	75.81	100		100		100	
49	TANJONG	DAP	8.83	82.47	100		100		100	
50	JELUTONG	DAP	3.64	69.72	100		100		100	
51	BUKIT GELUGOR	DAP	7.58	77.86	100		100		100	
52	BAYAN BARU	PKR	1.87	60.79	100		100		100	
53	BALIK PULAU	PKR	-3.45	47.78			42	High Risk	100	
54	GERIK	PPBM	0.71	38.72						
55	LENGGONG	PPBM	5.82	41.10						
56	LARUT	PPBM	-4.17	43.35						
57	PARIT BUNTAR	AMANAH	-0.91	58.18	100		100		100	
58	BAGAN SERAI	PPBM	-5.89	47.14			86	High Risk	100	
59	BUKIT GANTANG	AMANAH	-2.43	50.04	73	High Risk	100		100	
60	TAIPING	DAP	-2.57	57.67	100		100		100	

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	<b>S1</b> :	Risk	S2: PR	Risk	<b>S3: PR</b>	Risk
Code		Contesting	PR (GE13)	Voting	GE13	Factor	+2pt	Factor	+5pt	Factor
		Party		<b>Opposition</b> )	Odds		Swing		Swing	
61	PADANG RENGAS	PKR	-0.20	45.65					100	High
										Risk
()		DVD	0.50	<b>F1 1</b> /	100	Manainal	100		100	
62	SUNGAI SIPUT	PKR	-0.50	51.16	100	Marginal	100		100	
63	TAMBUN	PPBM	-1.49	44.27						
64	IPOH TIMOR	DAP	5.65	75.32	100		100		100	
65	IPOH BARAT	DAP	6.87	71.28	100		100		100	
66	BATUCAIAH	DAP	5 44	75 56	100		100		100	
00	DITIO ONJITI	DIM	5.44	75.50	100		100		100	
67	KUALA KANGSAR	PPBM	1.24	46.53					100	Marginal
68	BERUAS	DAP	3.33	55.79	100		100		100	
(0	DADIT		0.16	40.45						
69	PARII	AMANAH	-2.10	42.45						
70	KAMPAR	DAP	8.33	55.60	100		100		100	
71	GOPENG	PKR	2.78	58.03	100		100		100	
50	TADAL		0.04	00.17						
/2	IAPAH	PPBM	-2.06	39.16						
73	PASIR SALAK	PPBM	-4 70	41 17						
			1.70	11.1/						
74	LUMUT	AMANAH	2.29	53.57	100		100		100	

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	<b>S1</b> :	Risk	<b>S2: PR</b>	Risk	<b>S3: PR</b>	Risk
Code		Contesting	PR (GE13)	Voting	GE13	Factor	+2pt	Factor	+5pt	Factor
		Party		<b>Opposition</b> )	Odds		Swing		Swing	
		-								
75	BAGAN DATOK	PKR	1.14	45.58					100	High
										Risk
76	TELOK INTAN	DAP	4.55	54.74	100		100		100	
77	TANJONG MALIM	PKR	1.46	45.54					100	High
										Risk
78	CAMERON	DAP	9.57	45.75			1	High	100	Marginal
	HIGHLANDS							Risk		-
79	LIPIS	PPBM	2.67	43.32						
80	RAUB	DAP	6.51	52.02	100		100		100	
									100	<b>TT:</b> 1
81	JERANTUT	PPBM	-2.20	45.39					100	High
										Risk
0.0		DVD	E 0.9	EE 08	100		100		100	
82	INDERA MAHKUTA	PKK	5.08	55.98	100		100		100	
83	KUANTAN	PKR	2.09	53 75	100		100		100	
00			2.07	00.10	100		100		100	
84	PAYA BESAR	PPBM	4.27	40.16						
85	PEKAN	PPBM	0.73	24.31						
86	MARAN	PPBM	2.39	40.15						
			0							
87	KUALA KRAU	PPBM	0.25	41.83						

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	<b>S1</b> :	Risk	S2: PR	Risk	S3: PR	Risk
Code		Contesting	PR (GE13)	Voting	GE13	Factor	+2pt	Factor	+5pt	Factor
		Party		<b>Opposition</b> )	Odds		Swing		Swing	
88	TEMERLOH	AMANAH	3.09	50.02	85	High	100		100	
						Risk				
89	BENTONG	DAP	12.83	49.18			100	Marginal	100	
90	BERA	PKR	5.38	46.30					100	
91	ROMPIN	PKR	-0.40	33.55						
92	SABAK BERNAM	PPBM	-1.11	46.61					100	Marginal
93	SUNGAI BESAR	РРВМ	7.24	48.92	2	High Risk	100	Marginal	100	
94	HULU SELANGOR	PKR	-2.32	45.65					100	
95	TANJONG KARANG	PPBM	0.79	43.25						
96	KUALA SELANGOR	AMANAH	-1.60	49.05	1	High Risk	100	Marginal	100	
97	SELAYANG	PKR	5.45	54.02	100		100		100	
98	GOMBAK	PKR	-2.14	51.24	100		100		100	
99	AMPANG	PKR	4.82	57.36	100		100		100	
100	PANDAN	PKR	18.92	64.07	100		100		100	
101	HULU LANGAT	AMANAH	4.88	55.54	100		100		100	

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	<b>S1</b> :	Risk	<b>S2: PR</b>	Risk	<b>S3: PR</b>	Risk
Code		Contesting	PR (GE13)	Voting	GE13	Factor	+2pt	Factor	+5pt	Factor
		Party		<b>Opposition</b> )	Odds		Swing		Swing	
100		<b>D</b> 4 D	1.0.1	(1.00	100		100		100	
102	SERDANG	DAP	4.84	64.30	100		100		100	
103	PUCHONG	DAP	4.76	62.72	100		100		100	
104	KELANA JAYA	PKR	7.54	61.95	100		100		100	
105	PETALING JAYA SELATAN	PKR	8.91	60.57	100		100		100	
106	PETALING JAYA UTARA	DAP	12.30	79.34	100		100		100	
107	SUBANG	PKR	6.69	58.23	100		100		100	
108	SHAH ALAM	AMANAH	-1.17	54.82	100		100		100	
109	KAPAR	PKR	4.53	53.19	100		100		100	
110	KLANG	DAP	0.99	60.22	100		100		100	
111	KOTA RAJA	AMANAH	-0.10	59.09	100		100		100	
112	KUALA LANGAT	PKR	2.25	51.45	100		100		100	
113	SEPANG	AMANAH	4.46	48.77	61	High Risk	100		100	
114	KEPONG	DAP	11.64	81.70	100		100		100	
115	BATU	PKR	0.82	56.59	100		100		100	

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	S1:	Risk	<b>S2: PR</b>	Risk	S3: PR	Risk
Code		Contesting	PR (GE13)	Voting	GE13	Factor	+2pt	Factor	+5pt	Factor
		Party		Opposition)	Odds		Swing		Swing	
116	WANGSA MAJU	PKR	2.92	52.86	100		100		100	_
117	SEGAMBUT	DAP	4.88	63.52	100		100		100	
118	SETIAWANGSA	PKR	1.63	46.00					100	Marginal
119	TITIWANGSA	PPBM	-3.16	47.95			22	High Risk	100	
120	BUKIT BINTANG	DAP	3.81	73.36	100		100		100	
121	LEMBAH PANTAI	PKR	-1.89	47.90			8	High Risk	100	
122	SEPUTEH	DAP	4.34	85.07	100		100		100	
123	CHERAS	DAP	3.82	80.35	100		100		100	
124	BANDAR TUN RAZAK	PKR	4.21	55.23	100		100		100	
125	PUTRAJAYA	PPBM	-3.03	34.99						
126	JELEBU	AMANAH	9.03	40.91						
127	JEMPOL	PPBM	7.97	41.49						
128	SEREMBAN	DAP	7.62	51.72	100		100		100	
129	KUALA PILAH	PPBM	2.49	38.06						

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	<b>\$1:</b>	Risk	S2: PR	Risk	S3: PR	Risk
Code		Contesting	PR (GE13)	Voting	GE13	Factor	+2pt	Factor	+5pt	Factor
		Party		<b>Opposition</b> )	Odds		Swing		Swing	
130	RASAH	DAP	3.84	60.66	100		100		100	
101		DIZD	<b>-</b> 0 (	0.4 50						
131	REMBAU	PKR	-7.36	36.59						
132	TELOK KEMANG	DVD	_3.13	40.51			100	Marginal	100	
152			-3.15	47.51			100	Marginar	100	
133	TAMPIN	AMANAH	3.76	37.12						
134	MASJID TANAH	PPBM	-2.05	29.78						
135	ALOR GAJAH	PPBM	3.15	39.20						
126	TANCCARATI	DVD	0.05	28.07						
150	IANGOA DATU	IKK	0.05	30.27						
137	BUKIT KATIL	PKR	3.40	51.86	100		100		100	
138	KOTA MELAKA	DAP	5.68	61.51	100		100		100	
	I A OD I									
139	JASIN	AMANAH	2.97	39.60						
140	SEGAMAT	PKR	4 82	48.40			100	High	100	
	02012012			10110			100	Risk	100	
								TUSK		
141	SEKIJANG	PKR	12.18	44.42						
142	LABIS	DAP	5.70	48.82			100	High	100	
								Risk		
1.10	DACON									
143	PAGOH	PPBM	4.41	34.34						
1	1					1		1		1

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	<b>S1</b> :	Risk	S2: PR	Risk	<b>S3: PR</b>	Risk
Code		Contesting	PR (GE13)	Voting	GE13	Factor	+2pt	Factor	+5pt	Factor
		Party		<b>Opposition</b> )	Odds		Swing		Swing	
		-					_			
144	LEDANG	PKR	5.69	47.58			42	High	100	
								Risk		
145	BAKRI	DAP	2.63	53.74	100		100		100	
			1.00					TT: 1	100	
146	MUAR	PPBM	4.98	47.78			74	High	100	
								Risk		
1.47	DADIT SUI ONC	ΔΜΑΝΙΔΗ	5.01	27 71						
14/	PARTI SULUNG	AMANAN	5.01	57.71						
148	AYER HITAM	DAP	14.24	40.46						
110		211		10110						
149	SRI GADING	PPBM	9.97	43.00						
150	BATU PAHAT	PKR	11.67	50.09	100	High	100		100	
						Risk				
151	SIMPANG	PPBM	4.72	40.92						
	RENGGAM									
1.50		<b></b>			100		100		100	
152	KLUANG	DAP	6.34	53.49	100		100		100	
152	SEMBDONC	DVD	8.02	25.29						
155	SEMIDROING	I KK	0.02	33.30						
154	MERSING	PPBM	3.95	29.27						
			5.75	_//						
155	TENGGARA	PPBM	-0.93	26.25						
156	KOTA TINGGI	PPBM	1.91	16.48						

Seat	Name	GE14 PH	Point Swing to	Avg (Odds of	<b>S1</b> :	Risk	<b>S2: PR</b>	Risk	S3: PR	Risk
Code		Contesting	<b>PR (GE13)</b>	Voting	GE13	Factor	+2pt	Factor	+5pt	Factor
		Party		Opposition)	Odds		Swing		Swing	
157	PENGERANG	PPBM	-22.81	14.24						
158	TEBRAU	PKR	14.74	52.34	100		100		100	
159	PASIR GUDANG	PKR	10.80	48.35			100	Marginal	100	
160	JOHOR BAHRU	PKR	13.01	43.53						
161	PULAI	AMANAH	12.22	47.79			98	High Risk	100	
162	GELANG PATAH	DAP	11.38	55.23	100		100		100	
163	KULAI	DAP	17.16	57.23	100		100		100	
164	PONTIAN	PPBM	5.94	33.45						
165	TANJONG PIAI	PPBM	10.74	43.57						