

# UK Election 2015 – wisdom of crowds?

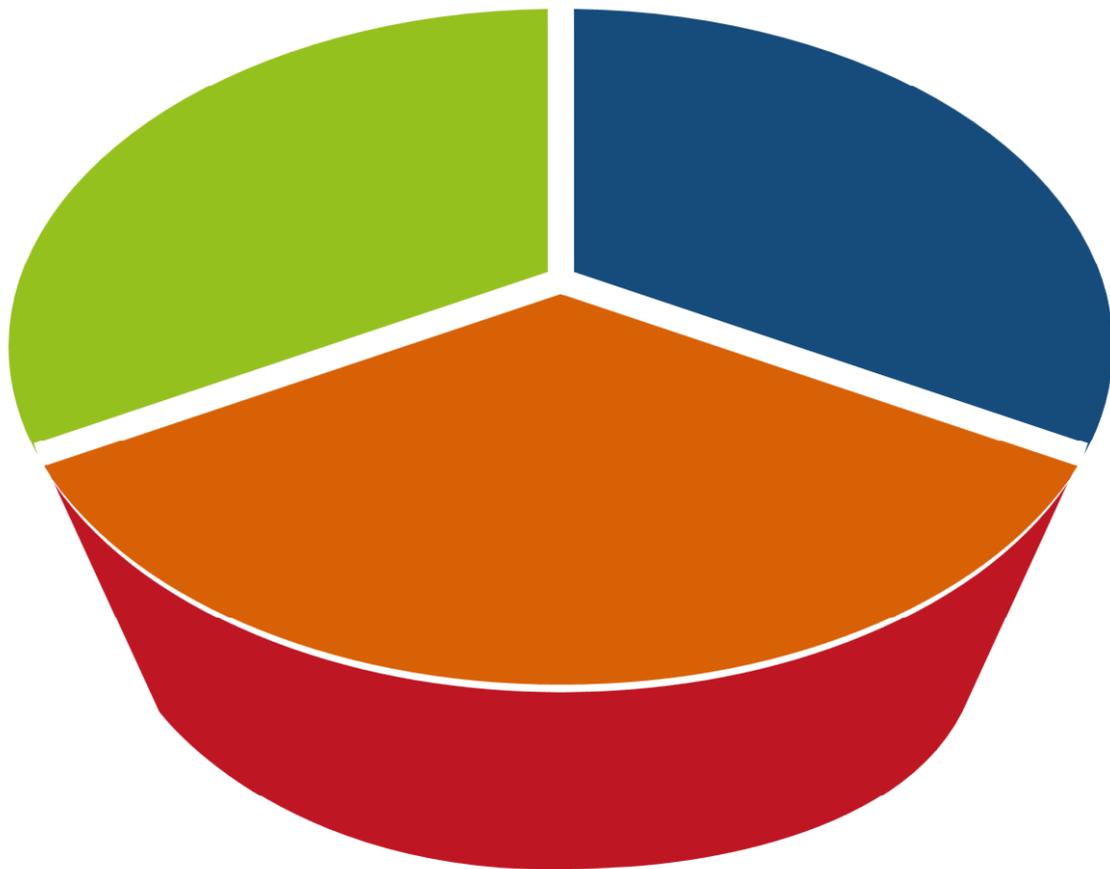
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*An investigation by X-MR*

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### **About X-MR:**

*X-MR was founded in 2005 by Geoffrey Roughton and Iain MacKay to innovate with software in collection and interpretation of questionnaire survey data.*

*We conduct and promote survey research using both outsourced interviewing and our own [InABl.inK](http://InABl.inK) web platform.*

*The principals of X-MR are both long-standing members of the UK Market Research Society and we adhere to their Code of Conduct and the mandates of the Information Commissioner.*

## Introduction

X-MR have been asking people about their expectation for the outcome of the general election since October 2014:

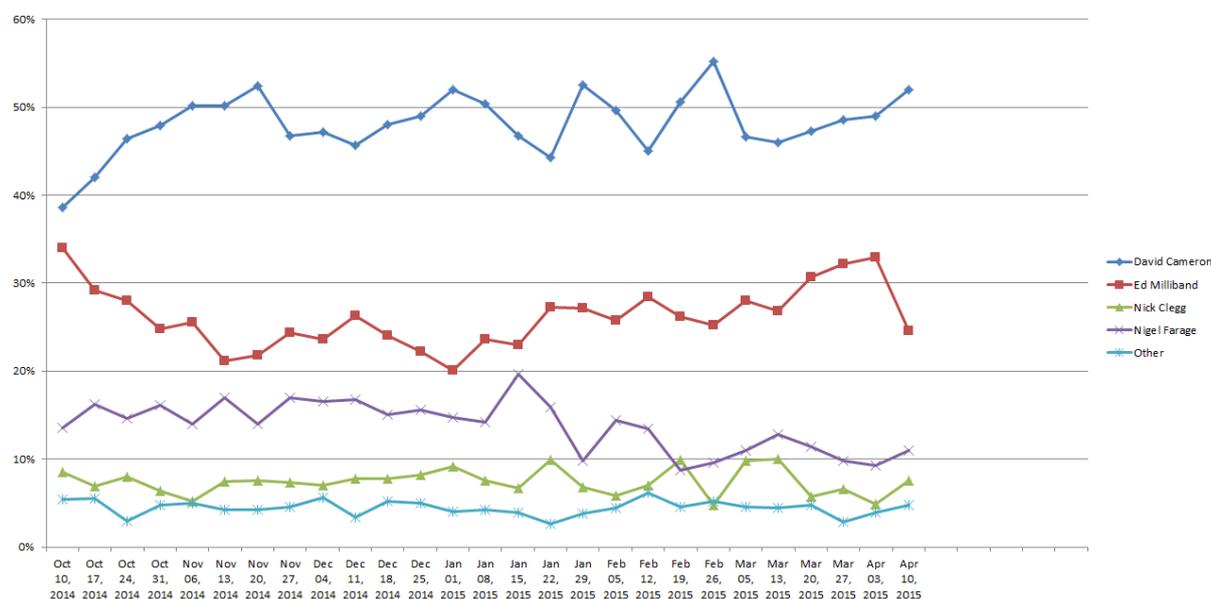


Figure 1 - "Who do you think most likely to be UK Prime Minister after the May 2015 election (whatever your personal preference)?"

Our intention is to compare this wisdom-of-crowds approach to conventional polling. We present this question using the Google Survey platform to 500 UK adults each week.

To emphasise – we are not asking people about their own intention, but their personal expectation of the collective decisions of the electorate as a whole.

We have consistently found that David Cameron is well ahead in expectation to lead the next government, contrary to all opinion polling that puts the Conservatives at best neck-and-neck with Labour in terms of voting intention, and additionally facing adverse constituency boundaries.

We have used two alternative interviewing methodologies yielding the same broad picture.

We have also attempted some investigations of expectations at the constituency level. We describe some results that we believe justify immediate further investigation with much larger samples, given the imminent opportunity to confirm the methodology on May 8<sup>th</sup>.

We hope our work so far will encourage others with an interest in political forecasting to sponsor the remainder of this work.

*We are publishing only unweighted data. We have analysed our data across the whole period so far and found no significant variations in respondent's assessment across age, gender or regional groups.*

## Motivation

The inspiration for the project came from two sources:

- The **Scottish independence referendum** in September 2014 had the outcome 55% No and 45% Yes. This was well in line with the expectations in the betting markets, notably [Betfair](#) who paid out on No bets days before the referendum itself, and had consistently shown No as well odds-on. However, opinion polls were calling it a close thing until almost the very end. Betfair in their own writing about the event compared it to the 2012 US Presidential election, which had a very similar divergence between opinion polls and betting markets, with the betting markets calling the result more accurately.
- The **UKIP by-election victory in Clacton**, where Douglas Carswell was re-elected by a decisive increment in votes after defecting from the Tories. This attracted our attention because at the time one of the authors had been preparing a conference paper involving the [Multiple Deprivation Index](#) computed by the Department for Communities and Local Government. It was an interesting coincidence that Clacton constituency contains the most deprived local area in England (Tendring), and led us to speculate whether UKIP's appeal to estranged Labour voters might be greater than most people think.



Figure 2 - Tendring: the most deprived district in England (source: Google Streetview)

Consequently we decided to conduct a regular survey asking people not about their own intentions, but about their expectation for the election outcome.

## Betting markets

Bearing in mind the proven value of betting markets as prediction markets, we have been monitoring some UK betting prices to compare with our survey results. We identified three different bookmakers whose markets can be used to infer the allegiance of the next Prime Minister. The results, sampled several times during the period under study, may be seen in the spreadsheet [Betting market analysis](#). Probabilities are inferred after adjusting for the betting over-round.

It seems that there is very little activity in those markets that allow inference of probabilities for Prime Minister specifically, even this close to the event, so their value as predictors is unlikely to be very good. However the consensus seems to be that the outcome is pretty close to evenly matched between David Cameron and Ed Miliband as Prime Minister.

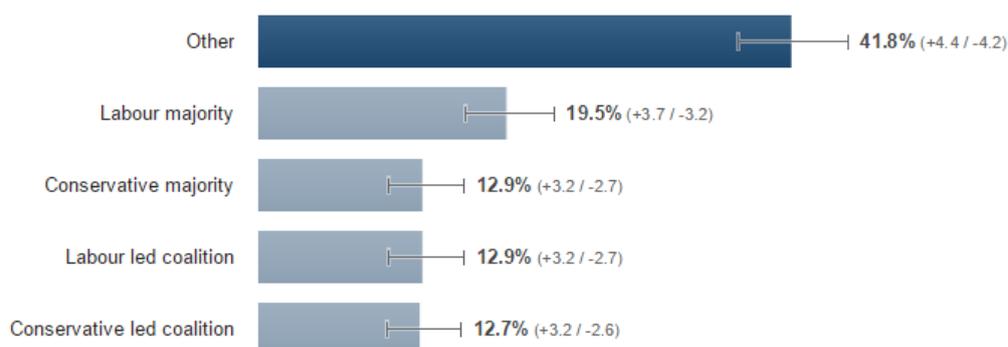
## Initial steps

All our surveys, unless otherwise specified, have been made using [Google Surveys](#) on a random sample of UK adults, with age, gender and approximate location inferred by Google. Answers are presented to respondents in random order with an “others” alternative.

## First wording

Our first survey was run over the weekend from October 3<sup>rd</sup> 2014, asking not about individuals but about parties, with the following result:

SINGLE ANSWER  
What do you think will be the outcome of the General Election in May 2015 (whatever your personal choice)?  
Results for all respondents. Weighting: Off. (502 responses)  
Winner statistically significant. ⓘ



The surprising thing to us was the dominance of “Other” as easily the most likely outcome. While this includes options like minority government by one or other major parties, it’s clear a lot of people have something in mind without recent precedent.

## UK Election 2015 and the wisdom of crowds

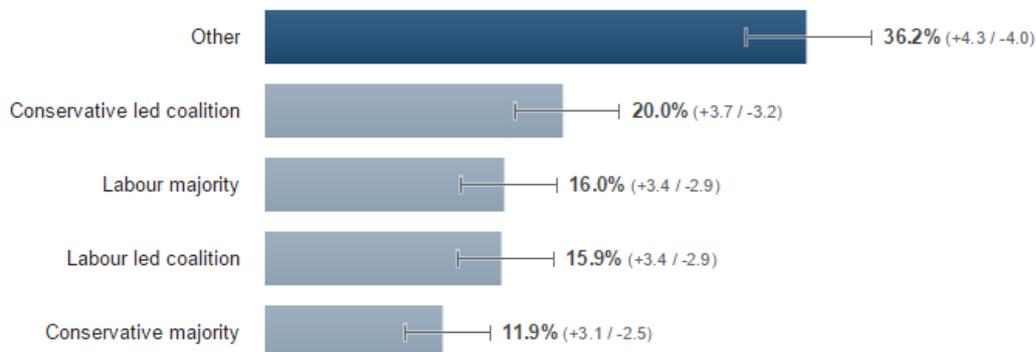
Or, possibly, our sample was of inadequate size or flawed in some other way. To examine the size issue we ran the survey again the following week, with this outcome :

SINGLE ANSWER

What do you think will be the outcome of the General Election in May 2015 (whatever your personal choice)?

Results for all respondents. Weighting: Off. (511 responses)

Winner statistically significant. 



It seems that our crowd is settled on some other alternatives. So we now decided to explore what this “Other” option might mean by asking who people thought most likely to be Prime Minister.

### Revised wording

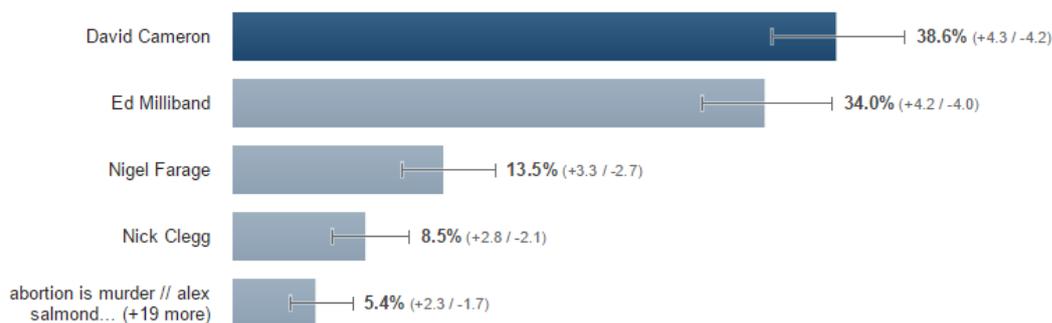
For the weekend of October 17<sup>th</sup> we asked 500 respondents who they expected to be the next Prime Minister:

SINGLE ANSWER

Who do you think most likely to be UK Prime Minister after the May 2015 election (whatever your personal preference)?

Results for all respondents. Weighted data unavailable for this view. (503 responses) 

Confidence too close to call. 



While very few pundits expect any possibility other than a Labour or Conservative Prime Minister, clearly a substantial minority feel other alternatives are feasible.

We have asked this question with the same wording in every subsequent weekend, with the results shown in Figure 1 above.

## Methodological variations

Google make much of the [quality of their results](#) compared to other internet survey methodologies, but since our results were so dramatically different from conventional expectations we decided to try our question using two further different approaches.

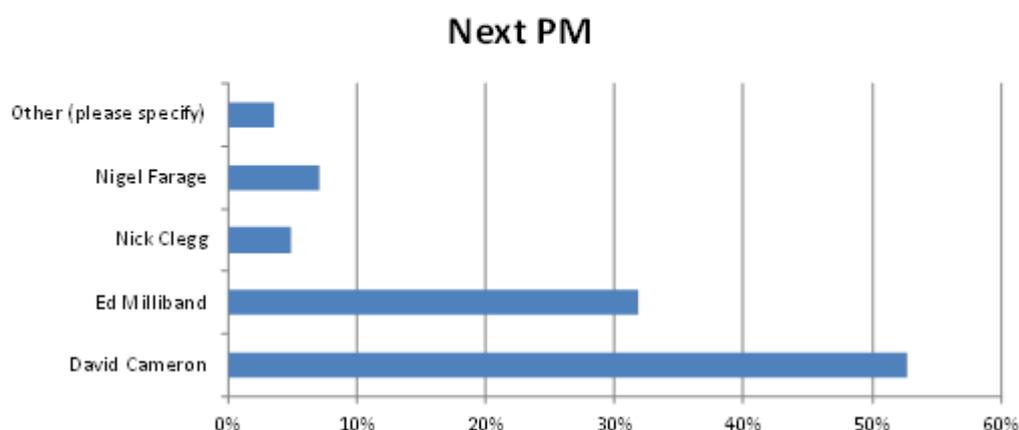
### Crowdfunder survey

[Crowdfunder](#) is a crowdsourcing platform. It permits any simple task that can be realised as a web application and in particular as a single-page form to be delegated to people whom Crowdfunder has recruited. It is optimal for small numbers of workers performing many similar work items, but can be used for a survey paradigm, i.e. a large number of workers performing a work item (questionnaire) just once. We used 500 of Crowdfunder's workers to respond to the Prime Minister question using X-MR's own [inabl.ink](#) questionnaire scripting engine to collect the data.

This worked well on a purely technical basis – but it took four weeks for Crowdfunder to present the questionnaire to 500 different UK based workers. It wasn't practicable to attempt to achieve 500 completes balanced on demographic criteria because of time constraints, and of course all the participants are people motivated to complete simple online tasks for modest remuneration and therefore not representative of the UK electorate as a whole.

*(Aside: Crowdfunder is a technically excellent platform for this kind of work, and is very well suited to tasks such as semantic coding, voice transcription and questionnaire translation. X-MR can readily assist anyone who wishes to experiment with crowdsourcing as an alternative lower-cost solution for such requirements).*

TOTAL	509	%	± (95%)
David Cameron	268	53%	4.3%
Ed Milliband	162	32%	4.0%
Nick Clegg	25	5%	1.9%
Nigel Farage	36	7%	2.2%
Other (please specify)	18	4%	1.6%

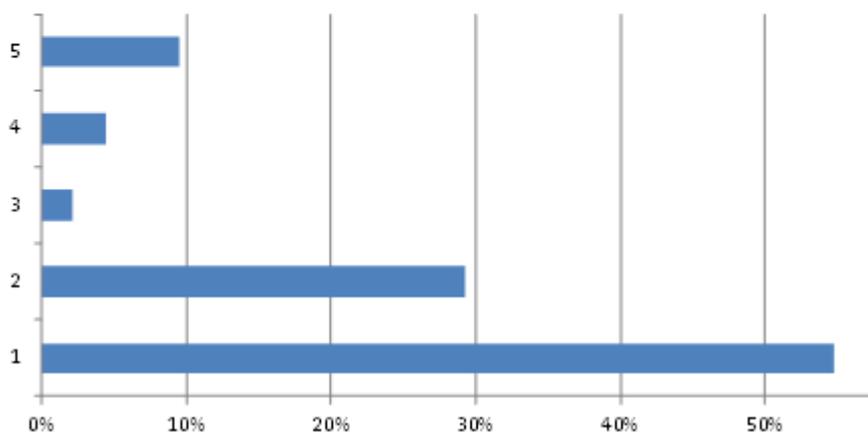


This survey took from 2<sup>nd</sup> January to 24<sup>th</sup> January to conduct and the results are broadly in line with those from Google over that period.

### Conventional web survey (13<sup>th</sup>-15<sup>th</sup> February)

We asked [Fly Research](#) to put our question to members of their panel during the period 13<sup>th</sup>-15<sup>th</sup> February. They used a sample of 1002:

TOTAL	1002	%	± (95%)
David Cameron	549	55%	3.1%
Ed Milliband	293	29%	2.8%
Nick Clegg	21	2%	0.9%
Nigel Farage	44	4%	1.3%
Other	95	9%	1.8%



Our nearest Google survey put Cameron on 45%, Miliband on 28%, Clegg on 7% and Farage on 13%, with the same ordering of candidates.

## Constituency level investigation

To obtain an estimate of seats won with conventional polling techniques is very difficult – for a discussion see [electionforecast.co.uk](http://electionforecast.co.uk).

We have experimented with wisdom-of-crowds for constituency forecasts as follows:

- We asked respondents about their expectation for parties in their local constituency
- We experimented with several different questions
- We conducted separate surveys in each UK nation (as the list of candidate parties varies)
- We have repeated these surveys at intervals

## Choice of question

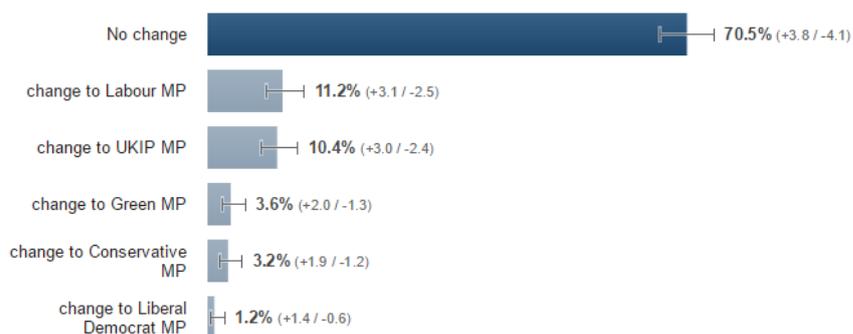
### Winning new seats (England, 14 Jan 2015)

SINGLE ANSWER

Do you think the political party of your local MP will change at the General Election - whatever your own preference- and if so, who will win?

Results for all respondents. Weighting: Off. (501 responses)

Winner statistically significant. 📊



This is slightly surprising given the expectation of David Cameron as Prime Minister, and much more so with the implication of some 60 UKIP seats – implausible but not impossible.

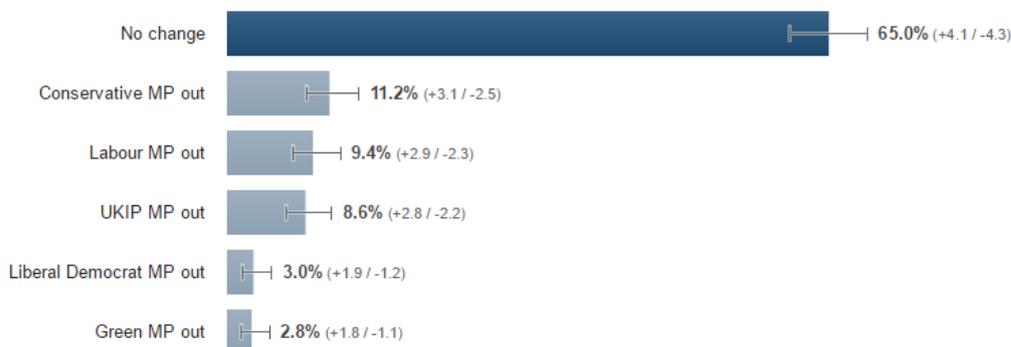
### Losing current seats (England, 19 January 2015)

SINGLE ANSWER

The political party of your own local MP may change at the General Election. What do you expect (whatever your personal choice)?

Results for UK England. Weighting: Off. (500 responses)

Winner statistically significant. ⓘ



Here we have a more difficult problem. If 8.6% of the population think they have a UKIP MP and will lose them, and the sample is at all reasonably distributed around England, then more than 50 UKIP MPs will lose their seats. However there were only 2 in the Parliament! We considered possibly the question was misunderstood and so tried an alternative wording.

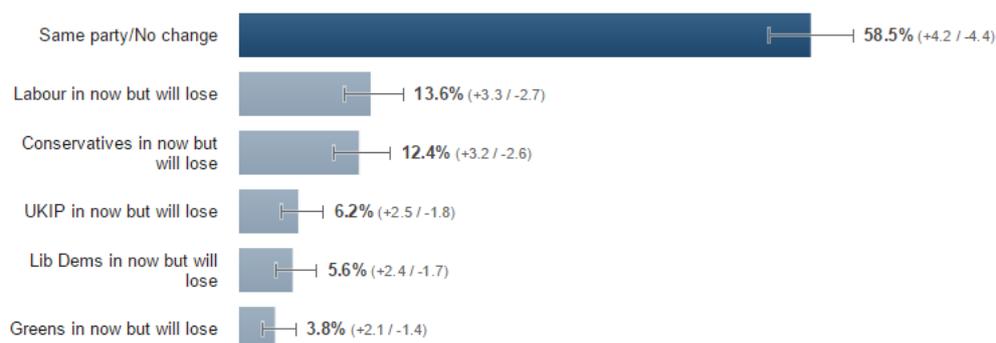
### Losing current seats 2 (England, 20 Jan 2015)

SINGLE ANSWER

What change do you expect in your own local constituency at the General Election this May (whatever your personal choice)?

Results for all respondents. Weighting: Off. (501 responses)

Winner statistically significant. ⓘ



It is not often in research we ask questions where we can check the answers. It seems that many respondents have either not understood the question, or not answered in good faith, and we have a substantial level of ‘noise’ in the results. We can only speculate whether the reliability of answers is any better in a conventional survey where respondents are reporting their own intentions.

We now thought the way forward might be to ask people the party affiliation of their current MP, and (separately) ask what they expect after the election. The difference between these two might be a useful estimate of the changes to come in the distribution of seats.

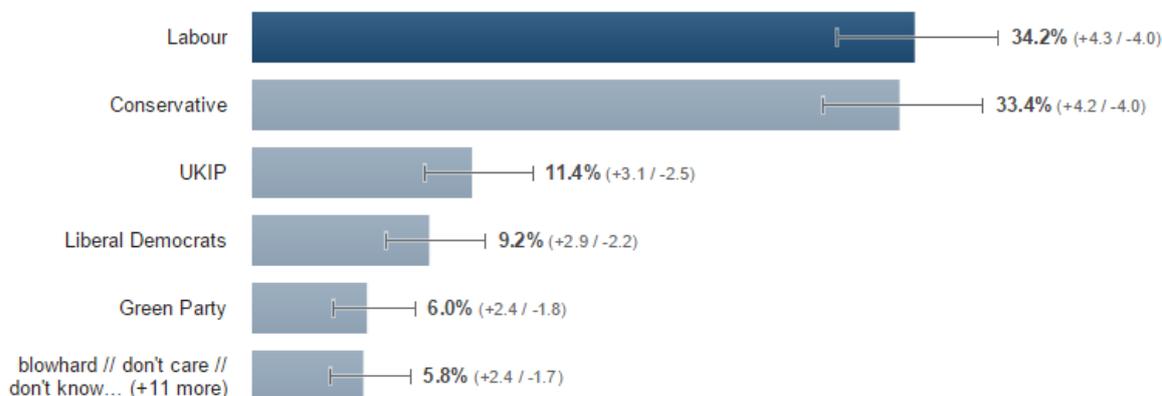
### Current MP affiliation (England, 7<sup>th</sup> Feb 2015)

SINGLE ANSWER

Can you tell us please, which political party does your own current local Member of Parliament belong to?

Results for all respondents. Weighting: Off. (500 responses)

Confidence too close to call. 



Party	Actual % in last Parliament	Reported % in last Parliament	Difference %
Labour	36%	34%	-2%
Conservative	55%	33%	-22%
Liberal Democrat	8%	9%	1%
UKIP	0.4%	11%	11%
Green	0.2%	6%	6%

These results suggest that the level of ‘noise’ is very high indeed, with a tendency to greatly underestimate the Conservatives and overstate the minor parties.

Of course this problem can be avoided if the respondent’s constituency is determined by other means. Technical limitations in the Google platform prevented this but the issue of response reliability remains with other questions whose answers cannot be checked.

Our approach has been to examine differences and changes between responses rather than their absolute values in the hope that they will be more informative.

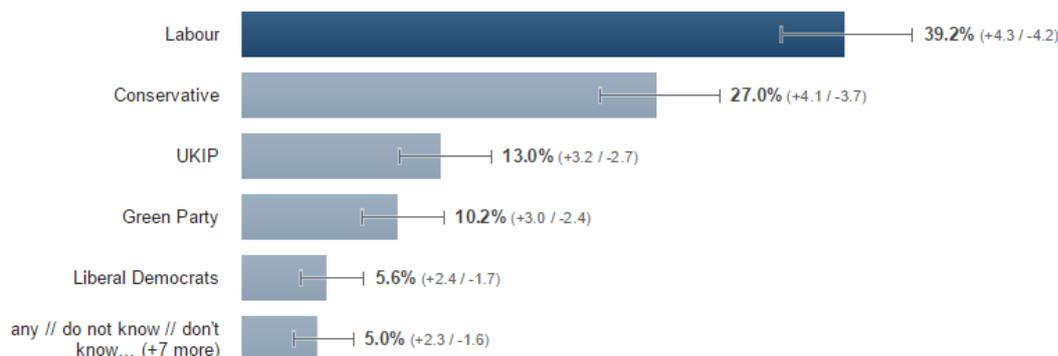
### Expected MP affiliation – initial wording (England, 21 Jan 2015)

SINGLE ANSWER

Knowing your local constituency, which party do you expect to win that seat at the General Election (your own vote may be different)?

Results for all respondents. Weighting: Off. (500 responses)

Winner statistically significant. 



We revised the wording before deploying the question throughout the UK.

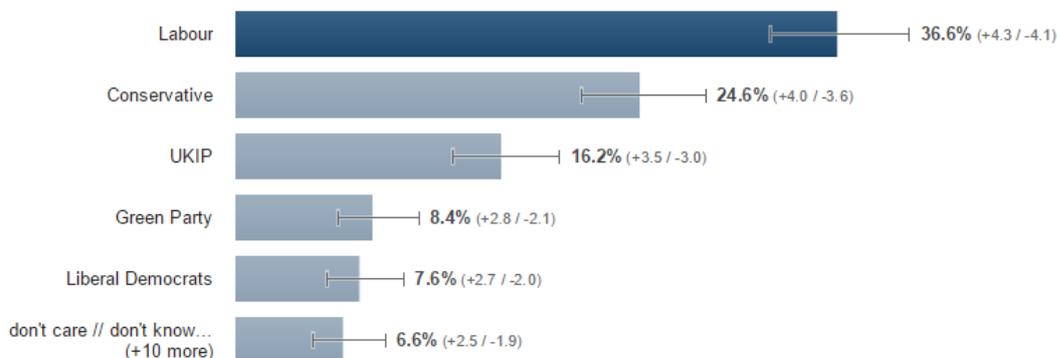
### Expected MP affiliation (England, 30 Jan 2015)

SINGLE ANSWER

Knowing your own area, which party do you expect to win your local seat at the General Election (your own vote may be different)?

Results for all respondents. Weighting: Off. (500 responses)

Winner statistically significant. 



If seat estimates are to be based on the difference between these answers and the baseline answers, then although a broad picture emerges of substantial Conservative losses and Labour gains in England, it can't be well quantified without a much larger sample yielding narrower percentage confidence limits.

## Individual nation studies (Jan/Feb 2015)

The three other nations of the UK each have a population an order of magnitude smaller than England, so the density of respondents within constituencies is much higher. We deployed the question for the party list of each of the four nations in the first week of February 2015.

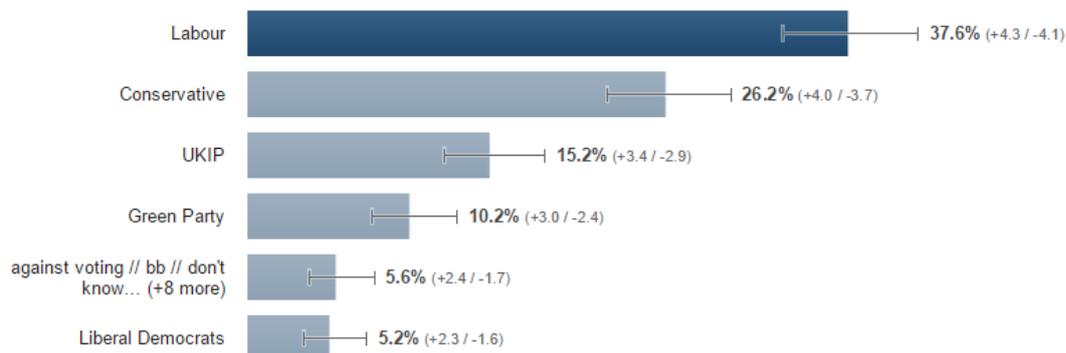
### England (5 Feb 2015)

SINGLE ANSWER

Knowing your own area, which party do you expect to win your local seat at the General Election (your own vote may be different)?

Results for all respondents. Weighting: Off. (500 responses)

Winner statistically significant. ⓘ



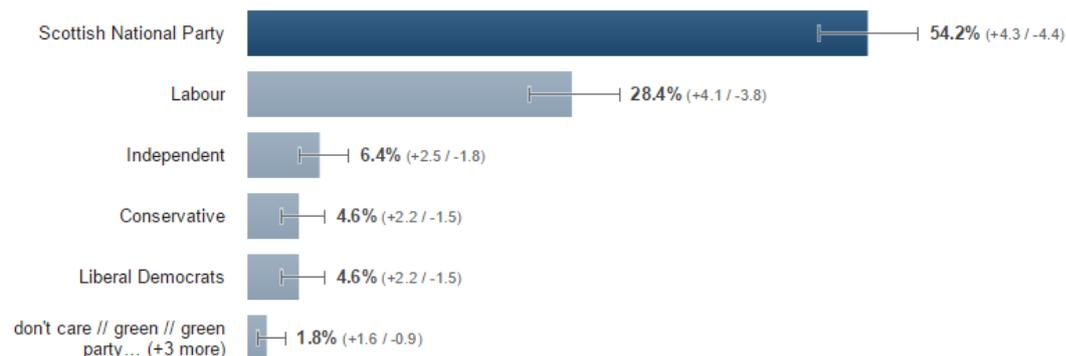
### Scotland (30 Jan 2015)

SINGLE ANSWER

Knowing your own area, which party do you expect to win your local seat at the General Election (your own vote may be different)?

Results for all respondents. Weighting: Off. (500 responses)

Winner statistically significant. ⓘ



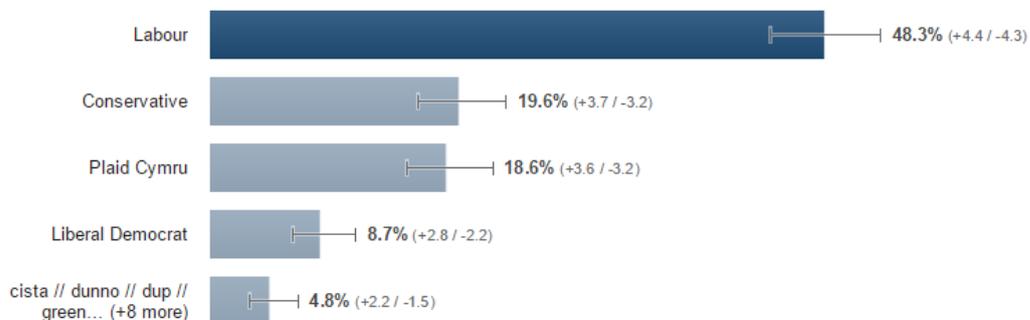
### Wales (1-4 Feb 2015)

SINGLE ANSWER

Knowing your own area, which party do you expect to win your local seat at the General Election (your own vote may be different)?

Results for all respondents. Weighting: Off. (505 responses)

Winner statistically significant. ?



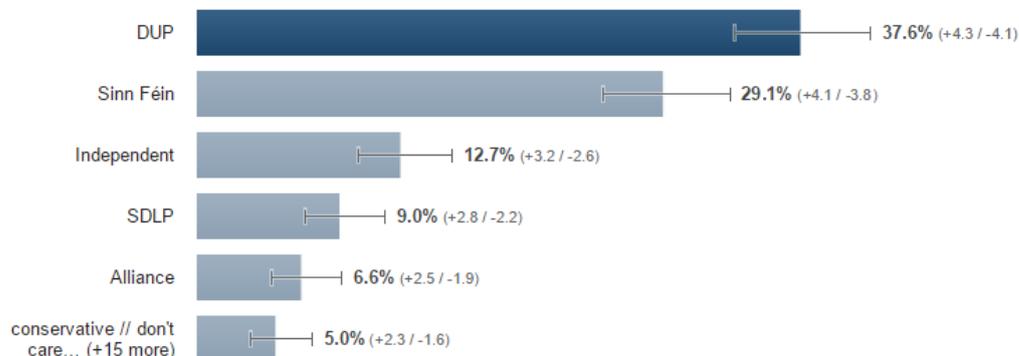
### Northern Ireland (1 Feb 2015)

SINGLE ANSWER

Knowing your own area, which party do you expect to win your local seat at the General Election (your own vote may be different)?

Results for all respondents. Weighted data unavailable for this view. (502 responses) ?

Winner statistically significant. ?



## Numerical speculations

As a first step we took the results from February and did the following:

- Used the percentage expectation for local seats to estimate seats in the new Parliament, country by country
- Adjusted the estimates for England based on the errors in reporting described above

With the following outcome:

	Last Parliament	New Parliament	Change	New %
Seats	650	650		
Labour	257	242	-15	37%
Conservative	303	257	-46	40%
Liberal Democrat	56	39	-17	6%
UKIP	2	28	26	4%
Green	1	14	13	2%
Independent	3	7	4	1%
SNP	6	33	27	5%
Plaid Cymru	3	8	5	1%
DUP	8	7	-1	1%
SDLP	3	2	-1	0%
Alliance	1	1	0	0%
Sinn Féin	5	6	1	1%
Respect	1	1	0	0%
Speaker	1	1	0	0%
Other				

Although such a prospect may be dismaying for anyone desiring a stable government, it is consistent with the expectation that David Cameron is the most likely new Prime Minister.

## Next steps

We will be continuing the weekly survey up until the week before the election.

We believe the constituency surveys (MP previously and MP forthcoming) should be repeated once more, with a much larger sample for England, to attempt to reduce the margins of errors in the estimates.

Wisdom-of-crowds polling is much less expensive than conventional techniques, but the proof of the pudding is in the eating.

We are seeking sponsorship from anyone with an interest in political research to assist with the costs of these final exercises.