

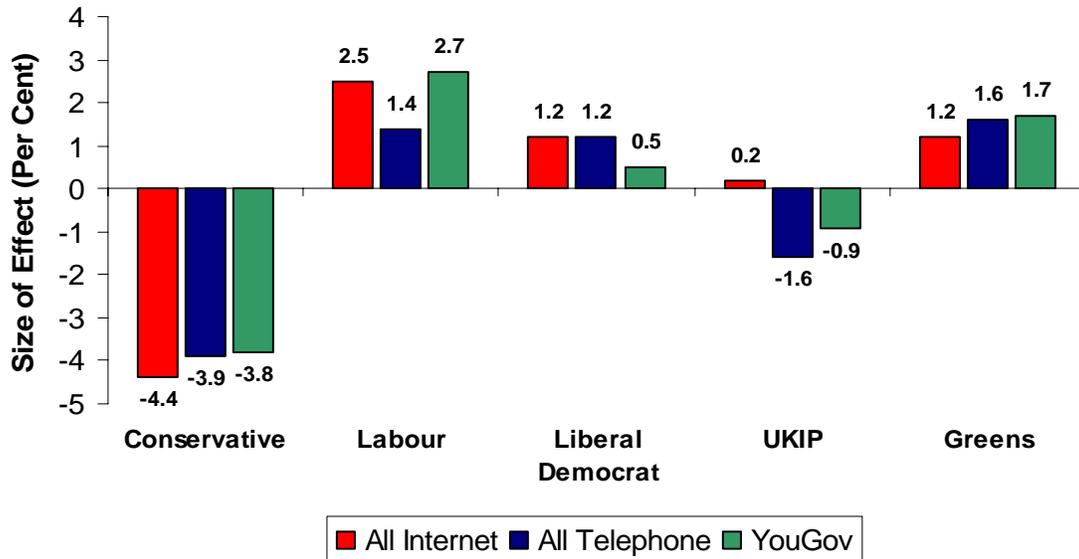
Voting Intentions During the 2015 UK General Election Campaign: Analyzing Mode and House Effects in Opinion Polls

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A Bayesian state space dynamic factor model is used to estimate 'mode' and 'house' effects on party vote shares in 212 public opinion polls conducted by nine polling agencies over the four months and one week before the May 7, 2015 general election (Jan 1 to May 6, 2015).¹ The polling houses are: YouGov, ComRes, ICM, IPSOS/MORI, Populus, Opinium, TNS, Survation and Ashcroft.² Results of the mode effect analyses are summarized in Figure 1 which also shows YouGov numbers from separate analyses of house effects.

Figure 1. Mode and YouGov House Effects in Vote Intention Surveys, January 1- May 6, 2015



¹ Analyses were conducted using R 2.15.2 and Winbugs 1.4.3. The statistical model is described in Simon Jackman, 'Pooling the Polls Over an Election Campaign'. *Australian Journal of Political Science*, 2005, 40: 399-417.

² Polling houses conducting at least 10 published polls during the Jan 1- May 6, 2015 period are included in the data set. Ashcroft polls are conducted by Populus, but are treated separately here.

Principal Findings

- Internet and telephone polls underestimated the Conservative vote by 4.4% and 3.9%, respectively (Figure 1). The difference between internet and telephone mode underestimates is not 'statistically significant' (Bayesian credible intervals for the posterior distributions overlap).
- Internet and telephone polls overestimated Labour's vote share by 2.5% and 1.4%, respectively. The mode difference in the overestimate is statistically significant.
- Internet and telephone polls overestimated Liberal Democrat and Green vote shares. Differences between these internet and telephone overestimates are not statistically significant.
- Telephone polls underestimated UKIP's vote share (1.6%), whereas internet polls overestimated UKIP's vote share by a very small amount (0.2%). This mode difference is statistically significant.
- YouGov's house coefficient is statistically significant in all of the analyses of house effects (Figure 1 and Table 1). YouGov underestimates the Conservative vote share by 3.8% and underestimates the UKIP share by .91%. YouGov overestimated the Labour, Liberal Democrat and Green vote intention shares by 2.7%, .46% and 1.7%, respectively.
- Biggest vote intention share misses for various parties:
 - Conservatives - TNS misses by -6.2% and Survation misses by -6.1%
 - Labour - Populus misses by +2.9%
 - Liberal Democrats - ICM misses by +1.9%
 - UKIP - ICM misses by -4.6% and IPSOS/MORI misses by -4.3%
 - Greens - IPSOS/MORI misses +3.9%
- Statistically significant house effects are the norm for all nine polling agencies—38 of 45 possible house effects are statistically significant ($p < .05$) (see Table 1). The size of significant house effects varies from a low of .46% (YouGov overestimate of Liberal Democrat vote intentions) to a high of 6.2% (TNS underestimate of Conservative vote intentions).
- The three polling houses with the smallest absolute house effects across the five parties are: ComRes = 1.56%, Opinium = 1.76% and YouGov = 1.92%.
- All polling houses underestimated Conservative vote intentions and overestimated Labour, Liberal Democrat and Green vote intentions. Some houses overestimated UKIP vote intentions and others, underestimated UKIP vote intentions.

Table 1. House Effects on Vote Intention Shares for Nine Polling Agencies,
January 1 - May 6, 2015

Polling Agency	Political Party					Average Absolute House Effect
	Conservative	Labour	Liberal Democrat	UKIP	Greens	
YouGov	-3.76*	2.74*	.46*	-.91*	1.73*	1.92
ComRes	-3.40*	2.31*	.75*	-.89*	.47	1.56
ICM	-2.34*	2.17*	1.89*	-4.56*	1.10*	2.41
IPSOS/MORI	-3.45*	2.71*	.37	-4.29*	3.19*	2.80
Populus	-4.82*	2.94*	1.71*	-.12	.82*	2.08
Opinium	-3.04*	2.66*	0.00	-.89*	2.23*	1.76
TNS	-6.19*	1.93*	.22	1.86*	1.25*	2.29
Survation	-6.07*	1.25*	1.29*	3.31*	0.00	2.38
Ashcroft	-4.39*	.27	.93	-1.44*	2.76*	1.96

* - statistically significant, $p < .05$.