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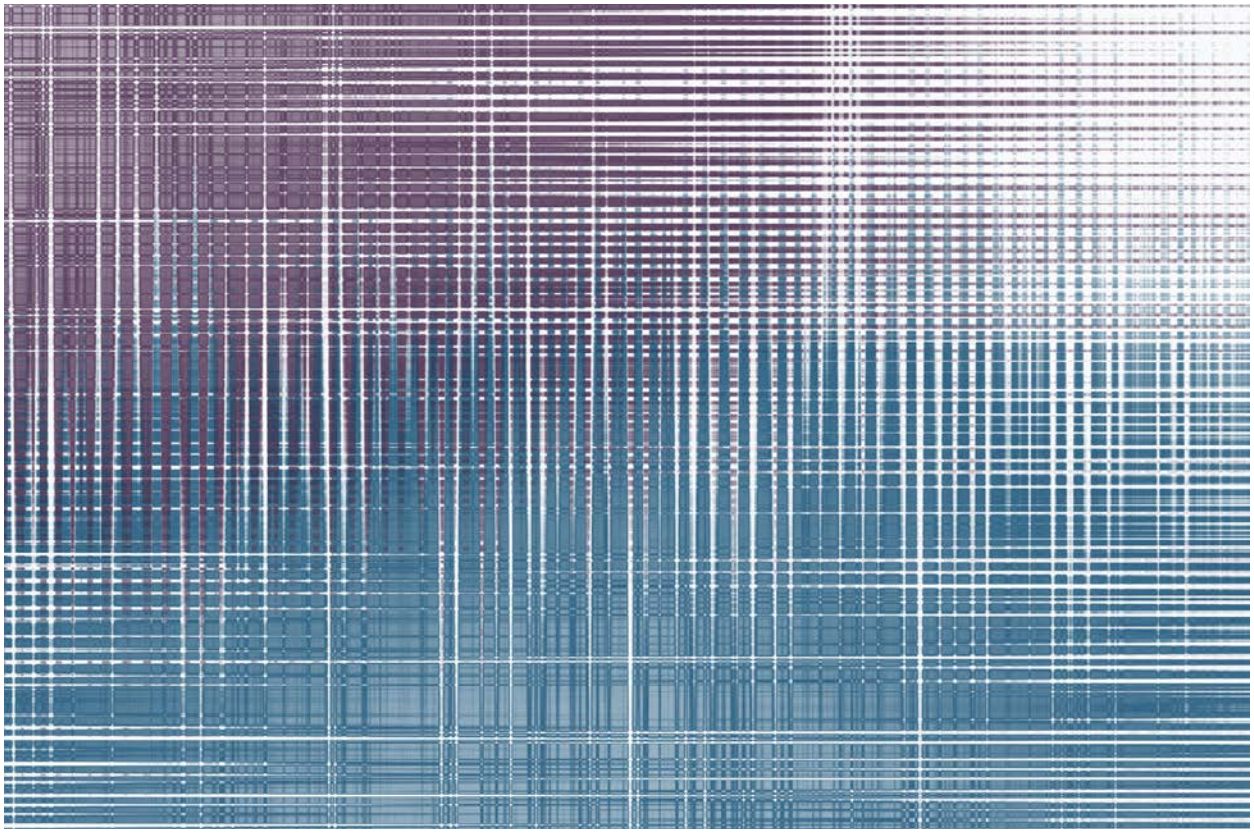

Predicting the unpredicted: what longitudinal data can tell us about the 2019 Australian federal election

N Biddle

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Predicting the unpredicted: what longitudinal data can tell us about the 2019 Australian federal election

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Abstract

On 11 April 2019, the then Governor-General Sir Peter Cosgrove called a Federal election for 18 May. According to the Newspoll published on 7 April, the two-party preferred vote reported Labor with an election-winning lead of 52% to 48% over the Coalition, with almost identical primary votes for the two major parties (39% each). Although there were some minor variations, all other polls, most pundits and the betting markets were all predicting an election win for Bill Shorten and Labor. That is not what transpired on election day. The eventual result was a return of the Scott Morrison Coalition government, with a two-party preferred vote of 51.5% for the Coalition and 48.5% for Labor. Clearly, the polls were not able to accurately predict the election outcome. Despite supposedly being in an era of 'big data', prediction markets that make use of far larger sources of information also failed to predict the election outcome.

This paper summarises analysis of recently available longitudinal data to consider one potential aspect of the Australian election result – variation between who respondents say they will vote for when asked in the lead-up to an election and who they end up voting for. Using linked ANUPoll data, we are able to track respondents at the individual level, with information on actual voting behaviour and voting intentions both at the time the election was called and a number of months before. In addition, we have information on some of the predictors of electoral volatility identified in the literature, as well as some predictors not used in previous analyses. In addition to highlighting a large degree of intra-election volatility that is partially explained by observable characteristics, the main conclusion from the analysis is that differences between polling results and the election outcomes were primary due to those who were undecided in the lead-up to the election, and those who said that they were going to vote for the non-major parties but swung to the Coalition.

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Acronyms

ANU	Australian National University
CSRM	ANU Centre for Social Research & Methods
UK	United Kingdom
US	United States

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Tables and figures

1 Introduction and overview

On 11 April 2019, the then Governor-General Sir Peter Cosgrove dissolved the 45th Australian Parliament and called an election for 18 May. According to the Newspoll published on 7 April,[1] the two-party-preferred vote reported Labor with an election-winning lead over the Coalition of 52% to 48%, with almost identical primary votes for the two major parties (39% each). Even in the final Newspoll released on the day before the election (17 May), Labor had a two-party-preferred lead of 51.5% to 48.5%. Although there were some minor variations, all other polls, most pundits and the betting markets were predicting an election win for Bill Shorten and Labor.

That is not what transpired on election day. The eventual result, as declared by the Australian Electoral Commission on 21 June, was a return of the Scott Morrison Coalition government with 77 seats in the Lower House (and 68 for Labor), and a two-party-preferred vote of 51.5% for the Coalition and 48.5% for Labor. The difference in the primary vote was even greater: 41.4% for the Coalition and 33.3% for Labor.

Clearly, the polls did not accurately predict the election outcome. However, despite supposedly being in an era of 'big data', prediction markets that use far larger sources of information also failed to predict the election outcome. As far back as the early 2000s, Leigh and Wolfers (2006) concluded that 'betting markets and economic models both merited greater prominence in the media and in public discourse'. More recently, with a much richer set of data and significant improvements in estimation methodologies, Williams and Reade (2016) concluded that 'prediction markets appear to provide the most precise forecasts and are similar in terms of bias to opinion polls'. However, a week before the election (8 May), the *Sydney Morning Herald* (Wright & Koslowski 2019) reported that the three leading betting markets in Australia had Labor at odds of between $1.22 and $1.25 to win, and the Coalition at odds of $3.85 to $4.30 to win.

This is far from the first time in a western democracy that the polls leading up to an election have differed substantially from the eventual election outcome. Sturgis et al. (2018) reviewed the 2015 United Kingdom (UK) general election, and concluded that the result 'came as a shock to most observers'. The specifics were a little different in that 'the opinion polls consistently indicated that the outcome was too close to call and the prospect of a hung Parliament therefore appeared almost inevitable', whereas 'the election result saw Labour trail the Conservatives by 6.5 percentage points'. A year or so later, according to Kennedy et al. (2018), 'Donald Trump's victory in the 2016 presidential election came as a shock to pollsters, political analysts, reporters, and pundits, including those inside Trump's own campaign'. In that case, 'election forecasts from highly trained academics and data journalists declared that Clinton's probability of winning was about 90 percent' (Kennedy et al 2018).

While the outcomes of the 2015 UK general election, the 2016 United States (US) presidential election and the 2019 Australian federal election were similar – a victory for the conservative or centre-right party when either a centre-left victory or hung parliament was predicted – the causes of the election result and why polls (and pundits) got it wrong vary. In the UK, Sturgis et al. (2018) concluded that 'the primary cause of the polling miss was that the samples were unrepresentative of the population of voters'. In the US, Kennedy et al. (2018) concluded that 'national polls were generally correct (with respect to the popular vote)' but that the peculiarities of the Electoral College meant that small differences between the polls and final outcomes in key states had large effects on the overall result. They also concluded that there was some evidence for a 'late swing in vote preference toward Trump and a pervasive failure to adjust for the overrepresentation of college graduates'.

In this paper, we exploit recently available longitudinal data to consider one potential aspect of the Australian election result – variation between who respondents say they will vote for when asked in the lead-up to an election and who they end up voting for. As will be discussed, there are a number of reasons for this disjuncture, some real and some due to errors. However, the main point made in this paper is that there is considerable volatility in individuals' views on who they would vote for across relatively short periods of time. This volatility may or may not have always been with us in Australia; we just have not always had the data to measure or explain it. It does, however, make it quite hard to predict election results from cross-sectional surveys in the lead-up to an election, and, in many ways, requires us to be more circumspect and more cautious with the polls that are published in the lead-up to an election.

The remainder of this paper is structured as follows. Section 2 discusses the existing literature, and outlines a framework for understanding the way in which polls might differ from an election result and how they can change through time. This is followed by a discussion of the data used in the analysis, with a particular focus on the linkage of data items through time (Section 3). The sections that follow summarise results, beginning with the patterns (Section 4), determinants (Section 5) and reasons (Section 6) for voter change, followed by a more extended longitudinal analysis (Section 7) and an examination of how attitudes to key policy issues are associated with voter change (Section 8). Section 9 provides a summary and some concluding comments.

2 A framework for understanding voting, polls and voter volatility

A number of models have been proposed for why and how people vote in elections. A standard model used to explain whether or not a person votes is the 'pivotal voter model'. According to Duffy and Tavits (2008), this model states that 'voters have only instrumental concerns – their motivation is to affect the outcome of the election as opposed to noninstrumental motivations, such as warm-glow altruism – and that in making the decision to vote they are rational, self-interested expected payoff maximizers. In particular, people vote if the expected benefit of voting is greater than the cost'. In Australia, with compulsory voting, the more salient decision is who to vote for, conditional on deciding to vote. Here, the marginal cost of voting for those on the electoral roll is often lower than the marginal cost of not voting, and therefore the rational choice model assumes that individuals vote for the candidate who is most likely to reflect their interests or the interests of their family.

An extension of the rational choice model of voting is that people's stated voting intentions ahead of an election are unbiased predictors of their voting behaviour during the election. However, just as Wolfers (2002) has argued that 'voters make systematic attribution errors and are best characterized as quasi-rational', there are a number of potential reasons that people's responses to polls will diverge not only from their own economic interests, but also from who they end up voting for. Or, to borrow a term from Ariely (2008), voters may be preditably irrational with pollsters and when voting, but in different ways.

A number of specific reasons have been given for the difference between the polls and betting markets and the eventual election result. In their review of the 2015 UK general election, Sturgis et al. (2018) gave three potential sources of error: late swing, turnout weighting and sampling. Late swing refers to individual voters voting differently on the day of the election than they had told pollsters they would do. This could be because they actually changed their mind, or because they were reluctant to give an accurate answer to pollsters due to a form of social desirability bias (Krumpal 2013). These two aspects of a late swing are difficult to separate, although insight can be gained by clever use of survey experiments and measurement of interviewer effects. Another form of late swing that needs to be considered is people who tell pollsters that they do not know who they would vote for, but do vote.

The second explanation for errors used in the UK, and particularly in the US, is turnout weighting or likely voter modelling. That is, in most democracies, two decisions need to be made on election day – whether to vote at all and who to vote for. In Australia, with compulsory voting (Jackman 2001, Fowler 2013), this is likely to be a small issue, but one still worth monitoring. The third reason for error – sampling – refers to the extent to which the respondents who complete political polls are representative of those who are eligible to vote in an election.

These three reasons all fall within the total survey error approach developed by Robert Groves (Groves 2004, Groves et al. 2011), and used to understand differences between a particular survey statistic and the population parameter that it is trying to represent. In this case, we can think of the election results as the construct we are interested in, and the Australian electors as the inferential population. The survey statistic is then the result from an opinion poll, and the difference between the two sources of error that pollsters try to minimise and we would like to understand.

Significant errors of representation could occur if those who complete a pollster's survey are very different from those who are eligible to vote in a given election. Differences could arise from those who have a chance to be selected in the survey being different from the target population of the

electorate (coverage error), the outcomes from the sample selected varying from the outcomes from the sample frame (sampling error) or those who eventually complete the survey (in person, online or over the telephone) being different from the selected sample (nonresponse error).

In addition, significant errors of measurement could occur if the questions asked by pollsters are subtly but potentially quite substantially different from what people are asked on election day. In particular, pollsters often ask who you would vote for (out of a list of parties) on a hypothetical election day or if an election was held on the day of the interview. On election day, however, individuals in Australia give a preferential ranking of local candidates that varies based on the electorate in which a person lives. Some of these candidates represent a particular national party and some do not. The party with the majority of elected candidates is then invited to form government. Finally, there are adjustment (or inferential) errors, where the raw responses are converted into a two-party-preferred vote, based on allocation of preferences, weighting of the data and apportioning of those who did not know who they were going to vote for.

Unfortunately, the methodology used for many pre-election polls is opaque, and it is not possible to identify the potential sources of error from the individual polls. With cooperation of the polling companies, aspects of the errors of representation, measurement and adjustment could be separately identified. In this paper, however, the focus is on one form of measurement error – construct validity. That is, the extent to which the question asked of individuals before the election about who they would vote for can be taken as a valid measure of who they eventually vote for on election day.

2.1 Evidence of electoral volatility

One source of such measurement error is temporal volatility: the more people's responses to polling questions vary through time, the less predictive those responses are of the eventual election outcome. Australia is seen to have relatively stable voting patterns because of the use of single-member districts for the House of Representatives and compulsory voting (Jackman 2003). The Australian Election Study has been collecting data on stability and change in political attitudes and behaviour since 1987. These data show that voter volatility has been reasonably small; however, it seems to be increasing. Cameron and McAllister (2018) showed that the percentage of people who said that they always voted for the same party decreased from 63% in 1987 to 40% in 2016, while the percentage of people who considered voting for another party (than their eventual vote) increased over the same period. The relative absence of longitudinal data that track individuals across and within elections, however, means that recall biases leading to an underestimate of voter change cannot be ruled out (Atkeson 1999, Clarke et al. 2008).

For countries that have longitudinal data, measured change in voter behaviour across and within election periods has been quite high. In one of the first cross-country analyses of this issue, albeit with data that are now somewhat dated, Blais (2004) estimated a model with two theoretical factors. First, the author assumed that the propensity to change votes over the course of an election campaign was positively related to the time between the survey and the election (using a quadratic relationship). Second, the author assumed that electoral systems with more stable party structures would have less propensity to change. Both expectations were supported by the data, with propensity change 30 days before election day ranging from 8% in the US to 13% in the UK, 18% in the Netherlands, 19% in Canada and 30% in New Zealand.

This volatility appears to be increasing. According to Geers and Strömbäck (2019), 'Between 1960 and 2014, the share of voters switching party between election campaigns (inter-election volatility) increased from 11 to 36%, while the share of voters switching parties during election campaigns (intra-election volatility) increased from 7 to 17% between 1968 and 2014'.

Van der Meer et al. (2015) used data from a panel study in the Netherlands with 58 waves of data to

understand the characteristics of 'volatile voters'. They conclude that:

> *… volatility reflects voter emancipation rather than disengagement. Although more than half of the respondents (55 percent) change party preference at least once, they mostly stick to one of two ideologically coherent party blocs. Especially middle groups are volatile: people with modal income, with average levels of education and who position themselves in the political centre. However, the lower educated are more likely to switch between dissimilar parties. Our findings question the socialization model: although older voters are relatively loyal when they cast their ballots, they are the most volatile in the years in between.*

Bakker et al. (2016) focused on the psychological characteristics of those voters who switch parties. They found that 'citizens open to experience are more likely to switch parties … Extroverts identify and commit themselves to organizations and stay loyal … [and] electoral volatility is, at least partly, rooted in personality'. In terms of electoral factors, Dassonneville (2016) used data from three British election panels and concluded that:

> *… short-term factors – especially economic issues – do have more weight in determining the vote choices of volatile voters compared with stable voters. However, the results also reveal that the growth in the instability of voting behaviour is driven mainly by the weakening impact of long-term factors and not by increasing importance of short-term determinants of the vote choice.*

Not surprisingly, exposure to information about the election can lead to a change in voting intentions or behaviour. However, the type of information matters. Specifically Geers et al. (2018) have shown that:

> *… exposure to issue news increases the chance of crystallization [switching from undecided to voting for a particular party], whereas it decreases the chance of conversion [switching from one party to another]. Conversely, exposure to poll news increases the chance of conversion, whereas it decreases the chance of crystallization.*

Geers and Strömbäck (2019), on the other hand, focused on the relationship between political knowledge and volatility, in addition to political news exposure. They found 'a significant positive effect of political knowledge on crystallization', whereas for 'reinforcement [the strengthening of the preference for the original voting decision] and conversion' the authors 'found no significant curvilinear effects of political knowledge'.

Some theorised factors have less explanatory power than we might expect. For example, Dassonneville and Stiers (2018) 'show that widely used determinants like political sophistication and disaffection add only modestly to our understanding of volatility'. Preißinger and Schoen (2016), on the other hand, showed that it was not just the election campaign that mattered and that 'between-campaign changes in party preferences and political attitudes were at least as important as within-campaign changes in contributing to inter-election switching'.

In summary, it appears that volatility is increasing, and that there are consistent predictors of volatility, but that the specifics of the election and the electoral system also matter. As discussed in the next section, the data that we have access to have some information on the predictors from the literature; we also have access to new data that (as far as we are able to tell) have not been included in empirical analysis until now.

3 Data and questions

As mentioned previously, there is no known information on intra-election volatility for Australia, and information on inter-election volatility is somewhat dated and is reliant on recall. This lack of research may have been due to the assumption that volatility is low in Australia (and hence uninteresting), but it has certainly been hampered by a lack of available data. We also know very little about the relative importance of the competing explanations for the surprise election result in the 2019 Australian federal election. However, one data collection – ANUpoll conducted on the Social Research Centre's Life in Australia™ panel – although not focused on prediction of election outcomes, does allow us to analyse potential sources of error, with particular insights into the extent to which people change their vote between when they were asked during a survey and on election day.

Life in Australia™ is Australia's first and only probability-based online panel. The data collected through its surveys are particularly powerful because they allow us to track respondents at the individual level, with information on actual voting behaviour and voting intentions (without recourse to recall) at the time the election was called, as well as a number of months prior. In addition, we have information on some of the predictors of electoral volatility identified in the literature outlined above, as well as some predictors not used in previous analyses (as outlined below).

Analysis in this paper is based primarily on two waves of Life in Australia™ data, collected on behalf of the Australian National University. Baseline data come from the April ANUPoll, which was based on wave 26 of Life in Australia™ data collection, fielded between 8 and 26 April 2019 (with 51.2% of respondents having completed by 11 April). The primary question for the analysis in this paper was, 'If a federal election for the House of Representatives was held today, which one of the following parties would you vote for?' Responses from the 2025 in-scope respondents who answered the questions are coded into five categories (with those who refused to answer excluded from the analysis) (Table 1).

The other main variable comes from wave 28 of data collection, enumerated between 3 and 17 June (with 55.9% of respondents having completed by 6 June). Remembering that the federal election took place on 18 May, the primary question of interest for analysis in this paper was, 'In the Federal election for the House of Representatives on Saturday 18 May, which party did you vote for first in the House of Representatives?' Responses from the 1834 in-scope respondents were coded into five categories, again with those who refused, did not know or were ineligible to vote excluded from the analysis (Table 2). Table 2 also includes the final vote tally from the Australian Electoral Commission, excluding those who did not vote (8.1%, which includes 5.5% who voted informally). Weights for the ANUPoll data in Table 2 are based on the wave 28 sample.

Comparing the last two columns in Table 2, we can see that the June ANUPoll 2019 sample overstates the level of support for the major parties, and understates the level of support for 'other' candidates.

Simply using repeated cross-sections (comparing Table 1 with the second column in Table 2), we can see a significant increase in the primary vote for the Coalition, a steady vote for Labor, a small

Table 1 Voting intentions as of April 2019, wave 26 sample

Party grouping	Weighted %
Coalition (including Liberal, National, and Liberal/National)	35.6
Labor	32.1
Greens	13.9
Other	14.3
Don't know (as stated)	4.1

Table 2 **Voting outcomes for 2019 federal election as reported in June 2019, and final first-preference voting**

Party grouping	June ANUPoll (%)		Final vote tally (%)
	Including didn't vote	Excluding didn't vote	
Coalition (including Liberal, National, and Liberal/ National)	42.5	45.6	41.4
Labor	32.0	34.3	33.3
Greens	11.2	12.0	10.4
Other	7.7	8.3	14.9
Didn't vote (as stated)	6.7		

decline for the Greens, and a large decrease in those who said they would vote for another party. In June, there was a slightly larger percentage of people who said that they did not vote as stated than who said in April that they did not know who they would vote for.

3.1 Data linkage

To analyse change through time in voting behaviour, responses in wave 28 need to be linked with responses in wave 26. Fortunately, because the analysis is undertaken through an online panel with a unique survey link provided to respondents, there is no linkage error in the analysis. There is, however, change in who responded to the survey from the panel for each wave.

In total, 156 individuals who were interviewed in wave 28 had not responded to the wave 26 data collection, and 210 individuals who were interviewed in wave 26 were not interviewed in wave 28. Information from waves 26 and 28 was therefore available for 1844 individuals. Individuals were dropped from the sample because they either did not answer the voting question in wave 26 or 28, did not recall who they voted for during the election when asked in wave 28, or were ineligible to vote. Of those who remained, we have information on voting intentions in April for 1692 individuals who were interviewed and gave a valid response in June (Table 3).

Table 3 **Voting intentions as of April 2019 and vote in May 2019 (as reported in June), wave 26 and 28 linked sample, using wave 26 weighted percentages**

Party grouping	April 2019 intention	May vote (June ANUPoll)
Coalition (including Liberal, National, and Liberal/National)	36.9	39.5
Labor	33.1	33.1
Greens	13.2	12.8
Other	14.0	8.1
Don't know (April)/ Didn't vote (May)	2.9	6.5

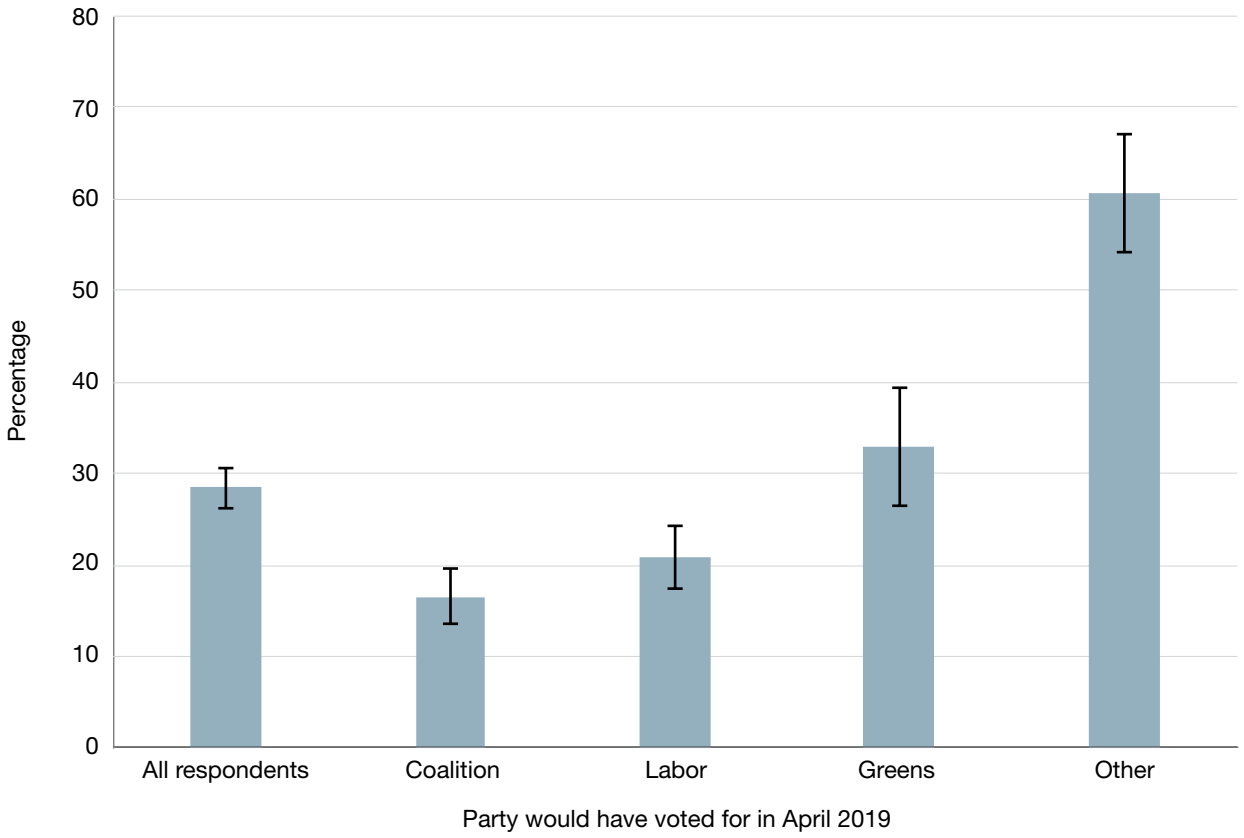
Comparing the results in Table 1 with Table 3, those from wave 26 who were able to be linked to wave 28 (and who had a valid response) were more likely to have said that they would have voted for the Coalition or Labor, and less likely to have said that they would have voted Greens, other or didn't know. An analysis of the linked sample (compared with the April 2019 cross-section) using the observed demographic and socioeconomic variables in model 1 of Table 6 (see Section 5) showed that the only observable characteristic that was associated with nonresponse across waves was age, with the young less likely to be linked than the old (conditional on being in at least one of the waves).

Although our linked sample may be less representative of the cross-sectional samples, the general patterns still remain (found by comparing the two columns in Table 3). Between April and May, the proportion of the linked sample who voted for the Coalition increased, and the proportion who voted Other decreased. Within the linked sample, there were more people who did not vote (in May) than who did not know who they were going to vote for in April.

4 Results – patterns of voter change

Although the results from the repeated cross-sectional analysis (using the linked and unlinked samples) show an increase in the primary vote for the Coalition from early April through to the election itself, it is only with longitudinal data that we can analyse how many people changed their voting intentions and the direction of the changes. The increase in the vote for the Coalition could have resulted from a limited number of people changing their intention and no people changing in the opposite direction. Alternatively, the net change could have occurred from a much larger proportion of people deciding to vote Coalition, but a smaller proportion of people no longer intending to vote Coalition. Both scenarios lead to the same overall vote but tell us something very different about intracampaign volatility. The results from the ANUPoll suggest considerable voter churn.

If we equate 'Don't know' in April, with 'Didn't vote' in May, then 28.5% of people in the (weighted) linked sample reported voting for a different party or party grouping in the May election (those who said they would have voted for an 'other party' are grouped together). That is, longitudinal data show very large gross flows of voters from before the election was called to the election itself; however, this change was not evenly distributed across the baseline voting intentions (Figure 1).



Note: Error bars indicate the 95% confidence intervals.

Figure 1 **Percentage of sample that changed who they voted for, by April 2019 intentions**

Those who said that they would have voted for the Coalition in April were the least likely to have changed (16.5%), followed by Labor (20.8%), Greens (32.9%) and Other (60.7%). To maintain the scale, those who switched from 'Don't know' to one of the party groupings other than 'Didn't vote' (93.5%) are not included in Figure 1. The 'whiskers' around the estimates represent the 95% confidence intervals, and it is quite clear that all the differences are statistically significant.

Although the sample sizes are reasonably small, it is possible to estimate who people ended up voting for, conditional on them changing their vote. Looking at those who changed their vote after the April ANUPoll, Table 4 gives the party or party grouping that they ended up voting for in the May election. The final column gives the percentages for all those who changed their vote, and the final row gives the sample size that the estimates were based on.

Looking at the final column, a large percentage (22.2% or close to a quarter) of the sample who intended to vote for a party in April did not vote in the election. Of those who did vote, the Coalition was the most common voting decision for those who changed their vote.

There were some differences in eventual voting choices based on the party the respondent changed from. Those who intended to vote Coalition ended up voting Labor or Other, whereas Labor voters switched to Coalition or Greens. The vast majority (61.5%) of those who had intended to vote Greens (and switched) ended up voting Labor, whereas around half of those who were going to vote for an 'other' party ended up voting Coalition.

Taken together, the results from Figure 1 and Table 4 highlight a net flow to the Coalition between April and the election, a rough balance of inflows and outflows for Labor, and a slightly larger net outflow from the Greens. There was, however, a very large net outflow from those who said that they would vote for one of the other minor parties or independents. This is summarised in Table 5, with the denominator being the sample in April who had intended to vote for that particular party.

Table 4 **Voting in federal election, by voting intention in April 2019 and those who changed their vote**

	Voting intention in April 2019 (%)					
Vote in May 2019	Coalition	Labor	Greens	Other	Don't know (as stated)	All vote changers (%)
Coalition		39.6	15.4	49.4	42.3	30.6
Labor	37.2		64.9	14.1	21.4	24.0
Greens	16.8	27.4		4.9	24.4	14.0
Other	21.2	7.6	10.8		11.9	9.1
Didn't vote	24.8	25.4	8.9	31.6		22.2
Sample size	75	97	65	121	62	420

Table 5 **Percentage flow of votes into parties between April 2019 and the May federal election**

Flow	Coalition	Labor	Greens	Other	Didn't vote
Inflow	23.7	20.7	30.3	18.6	217.9
Outflow	16.5	20.8	32.9	60.7	93.5
Net	7.2	-0.1	–2.6	–42.1	124.4

5 Determinants of voter change

Individuals change their voting intentions for a number of reasons. Some are specific to the election itself, as we will explore in Section 6. However, characteristics of individuals also make a change more likely. In this section, we analyse the factors associated with voter change, as a function of a range of demographic and socioeconomic variables. We begin with factors available in wave 26 of Life in Australia™, and then extend the analysis (but reduce the dataset) by including factors from previous waves.

The relationships are estimated using the probit model, where we first estimate the probability of an eventual vote in the May election being different from voting intentions in April, conditional on sex, age, Indigenous status, country of birth, education and location. For model 1, these are the only explanatory variables. For model 2, four dummy variables are included, indicating the party who the person said they would have voted for in April – Labor, Greens, Other and Don't know – with Coalition as the base case. For the final two models, we replicate model 1 on those who in April said that they would have voted for the Coalition (model 3) or Labor (model 4). These last two models essentially capture the outflows from Table 5.

Results are presented as marginal effects, or the differences in the probability of changing vote for someone with that characteristic compared with the base case (as described underneath the table), while holding all other variables constant (Table 6).

The results for model 2 confirm those from Figure 1: that those who intended to vote for the Coalition in April were the least likely to have changed their vote. However, once other factors are controlled for and standard errors are taken into account, the difference between Labor and the Coalition is not statistically significant. Those who would have voted for the Greens are more likely to have changed their vote than Coalition voters, with the probabilities for 'other' and 'don't know' voters being substantially higher.

Looking at demographic and socioeconomic characteristics, females were more likely to have changed their vote than males (once previous voting intentions are controlled for), and those at the upper end of the age distribution were less likely to have changed their vote than the relatively young. Geographically, where a person lived (capital city or not) caused no differences, but there were differences by the socioeconomic characteristics of the neighbourhood in which a person lived. The main consistent finding was that those who lived in the most disadvantaged neighbourhoods were the most likely to have changed their votes.

For models 3 and 4, two results stand out as signalling differences between those who intended to vote Coalition and Labor. Those aged 75 or more who had intended to vote Coalition were less likely to change their vote than those who were aged 45–54. However, there was a very large positive marginal effect for those aged 75 or more who intended to vote Labor, with their probability almost twice that of the base case. Unfortunately, the coefficient was not statistically significant by most standard levels of significance (*P* value = 0.119) because the sample size of people over the age of 75 and who had intended to vote Labor was quite small (47 people in the linked sample). Nonetheless, there is weak evidence that at the upper end of the age distribution there are very different rates of volatility for those who would have voted for Labor compared with those who would have voted for the Coalition at the start of the campaign.

The second difference relates to the socioeconomic characteristics of the neighbourhood in which a person lives and the type of city. Specifically, those who would have voted for the Coalition and who lived in the lowest quintile (most disadvantaged neighbourhoods)

were far more likely to change their vote than those in the upper quintile. For Labor, there was no difference. For Coalition voters, on the other hand, those who lived in the middle quintiles (especially the third and fourth) and who intended to vote Coalition were far less likely to change their vote, whereas those who lived in the middle quintile and intended to vote Labor were slightly more likely to change (albeit only with a *P* value of 0.113).

Table 6 focuses on the voting outflows from the particular party groupings between early–mid April and the May election. Table 7 shows the voting inflows, focusing on those who changed their vote to one of the two major parties. Specifically, in the first two models estimated, we focus on the sample of those who in April did not say that they would vote for the Coalition. We then model the probability of voting for the Coalition in the May election, as a function of the demographic and socioeconomic variables in Table 6. In the base-case model, these are the only variables used, whereas in model 2 dummy variables for who the person intended to vote for in April are included. We follow a similar approach in the final two models estimated, but analyse the factors associated with voting for Labor for those who did not say that they would vote for Labor in April.

Results show that those who were most likely to change their vote to the Coalition were generally the base-case individual (Table 7). Compared with these omitted categories, those who were least likely to change their vote to the Coalition were the young (18–34 years old), Indigenous Australians, those who were born in a major English-speaking country (but not Australia), those with degree qualifications and those who live in the most disadvantaged neighbourhoods in Australia.

The story was a little different for those who changed their vote to Labor. For this inflow, the lowest probability of changing was recorded for the relatively old, those born overseas and those who live outside a capital city. There were larger probabilities (compared with the base case) for those with a nondegree qualification and for those who lived in the most disadvantaged neighbourhoods.

Table 6 **Factors associated with changing vote, expressed as marginal effects, between April ANUPoll and May election**

Explanatory variable	Model 1 (base case)	Model 2	Model 3 (Coalition in April)	Model 4 (Labor in April)
Intended to vote Labor		0.031		
Intended to vote Greens		0.141***		
Intended to vote for 'Other' party		0.490***		
Did not know voting intention		0.783***		
Female	0.037	0.051**	0.062	0.035
Aged 18–24	–0.004	0.006	0.113	–0.045
Aged 25–34	–0.034	–0.011	0.079	–0.020
Aged 35–44	0.046	–0.002	0.112*	0.025
Aged 55–64	–0.065*	–0.051*	–0.023	–0.102*
Aged 65–74	–0.116***	–0.075***	–0.065	–0.149**
Aged 75 or more	–0.076*	–0.024	–0.137***	0.150
Indigenous	–0.059	–0.068	0.102	–0.160*
Born overseas in major English-speaking country	0.057	0.007	–0.106*	0.070
Born overseas in other country	0.050	0.054*	0.059	0.113*
Has not completed year 12	0.010	–0.030	–0.073**	–0.019
Has a postgraduate degree	–0.043	–0.055*	–0.010	–0.097
Has an undergraduate degree	–0.001	–0.009	0.030	–0.057
Has a Certificate III/IV or Diploma	0.031	–0.006	0.012	–0.033
Lives in SEIFA quintile 1 (most disadvantaged)	0.094**	0.108***	0.189***	0.004
Lives in SEIFA quintile 2	0.003	–0.030	–0.073	–0.102*
Lives in SEIFA quintile 3	0.069*	0.047	–0.121***	0.094
Lives in SEIFA quintile 4	0.009	–0.004	–0.084**	0.011
Lives outside a capital city	0.011	0.008	0.111**	0.060
Probability of base case	0.245	0.157	0.144	0.208
Number of observations	1644	1644	630	534
Pseudo *R* squared	0.0241	0.1648	0.2148	0.0835

SEIFA = Socio-Economic Indexes for Areas

Notes:

1. The base-case individual is male, is aged 45–54, is non-Indigenous, was born in Australia, has completed year 12 but does not have a post-school qualification, lives in a neighbourhood in the most advantaged quintile, and lives in a capital city. For model 2, the base-case individual is further defined as intending to vote Coalition in April.
2. Variables that are statistically significant at the 1% level of significance are marked with ***; those at the 5% level of significance are marked with **; and those at the 10% level of significance are marked with *.

Table 7 Factors associated with changing vote to a particular party (Coalition or Labor) between April ANUPoll and May election

	Changed to Coalition (marginal effect)		Changed to Labor (marginal effect)	
Expanatory variable	Model 1	Model 2	Model 1	Model 2
Intended to vote Greens		−0.055*		0.139***
Intended to vote for 'Other' party		0.311***		0.025
Did not know voting intention		0.328***		0.129***
Female	0.025	0.067**	0.023	0.011
Aged 18–24	−0.113***	−0.080**	−0.029	−0.037*
Aged 25–34	−0.072**	−0.040	−0.026	−0.031*
Aged 35–44	−0.014	−0.030	0.021	0.006
Aged 55–64	−0.003	−0.022	−0.002	−0.008
Aged 65–74	−0.006	−0.040	−0.056**	−0.047**
Aged 75 or more	−0.024	−0.036	−0.043	−0.037
Indigenous	−0.116*	−0.116**	−0.046	−0.033
Born overseas in major English-speaking country	−0.090**	−0.081**	−0.051**	−0.034*
Born overseas in other country	−0.008	0.022	−0.033*	0.000
Has not completed year 12	−0.005	−0.038	−0.026	−0.012
Has a postgraduate degree	−0.065	−0.074*	0.029	0.008
Has an undergraduate degree	−0.066*	−0.053	0.016	0.007
Has a Certificate III/IV or Diploma	0.037	0.019	0.046**	0.041**
Lives in SEIFA quintile 1 (most disadvantaged)	−0.073**	−0.067**	0.069**	0.058**
Lives in SEIFA quintile 2	−0.021	−0.055	0.024	0.025
Lives in SEIFA quintile 3	−0.052	−0.041	0.045	0.023
Lives in SEIFA quintile 4	−0.054	−0.047	0.005	0.001
Lives outside a capital city	−0.012	−0.024	−0.052***	−0.039***
Probability of base case	0.182	0.143	0.083	0.062
Number of observations	1291	1137	1393	1239
Pseudo *R* squared	0.0430	0.1415	0.0656	0.1091

SEIFA = Socio-Economic Indexes for Areas

Notes:

1. The base-case individual is male, is aged 45–54, is non-Indigenous, was born in Australia, has completed year 12 but does not have a post-school qualification, lives in a neighbourhood in the most advantaged quintile, and lives in a capital city. For model 2, the base-case individual is further defined as intending to vote Coalition in April.
2. Variables that are statistically significant at the 1% level of significance are marked with ***; those at the 5% level of significance are marked with **; and those at the 10% level of significance are marked with *.

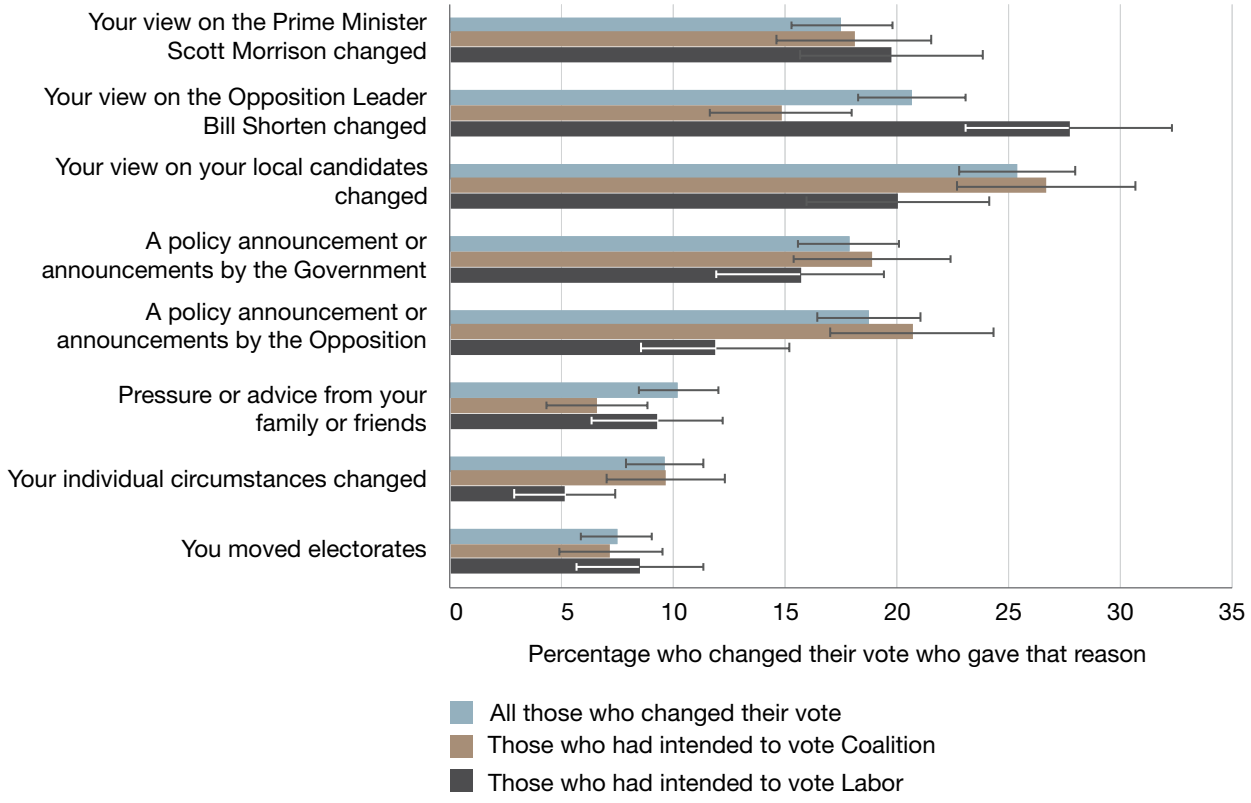
6 Reasons for vote change

For those who had indicated that they voted for a different party in the May election than they had intended to in April, we asked for the reasons why their vote changed. Specifically, the question was prefaced with the following statement: 'In the April Life in Australia™ survey, you indicated that you would vote for <PARTY> if an election were held at the time', with <PARTY> referring to their choice in the April 2019 ANUPoll. Respondents were then asked: 'What influenced your final decision to vote for the <Q15 RESPONSE> in the recent Federal election for the House of Representatives?', with <Q15 RESPONSE> referring to who they said they voted for in the May election. Respondents were asked to tick all that apply from a list of eight pre-specified options, and an 'Other (please specify)' category. The response options were randomly ordered.

Figure 2 summarises the responses to the eight pre-specified response options.

Looking first at all voters, the most common stated reason (given by around one-quarter of the weighted sample) for changing vote was 'Your view on your local candidates changed'. In some ways, this is not surprising. In April (and for most polling), people were asked about which party they would vote for. In a representative democracy, however, people vote for their local candidate who then represents them in parliament. Often, local candidates are not finalised until just before an election is called, and even then may have very little profile. An election campaign draws attention to national issues, but it also draws attention to the local candidates.

Figure 2 **Self-reported reason for change in vote, wave 28 population weights**



Note: Error bars indicate the 95% confidence intervals..

In addition to local candidates, there is a roughly even distribution across the proportion of people who said that they changed their vote based on the leaders of the two major parties or policy announcements of the major parties (all of which were given by 18–21% of respondents). A smaller percentage of respondents (between 7% and 10%) gave individual-specific reasons such as pressure or advice from family or friends, other circumstances changing, or moving electorates.

There were subtle, but important, differences in the reasons given for voting change for those who changed from the Coalition compared with those who changed from Labor. The most common reason given by those who intended to vote for Labor was 'Your view on the Opposition Leader Bill Shorten changed'. This was given by 27.7% of former Labor voters and by only 14.8% of former Coalition voters. For former Coalition voters, the most common reason for change was driven by views on the local candidate. However, there was a bigger difference in the percentage who said it was 'A policy announcement or announcements by the Opposition', with 20.7% of former Coalition voters giving this as one of their reasons compared with 11.9% of former Labor voters.

Collectively, these findings confirm some of the speculation on the May election. First, it was views on the Opposition rather than views on the government that were most salient for those who changed their vote. Second, the Opposition leader (Bill Shorten) pushed more people away from Labor between April and the election than drew people towards Labor. Finally, local candidates appear to matter, at least for the proverbial swinging voter.

7 Change begetting change

A consistent finding from the literature in other contexts of volatility is that those individuals who change who they would vote for over one period are more likely to change their vote over a subsequent period. To test for this in the Australian context, we need data over at least two periods.

Beginning with data from wave 22 of Life in Australia™, which was enumerated in November 2018, those who changed their voting intention between November 2018 and April 2019 were significantly and substantially more likely to vote for a different party in May from who they said they would vote for in April (Figure 3). Of the 1479 individuals for whom we have data for all three waves (22, 26 and 28), 24.8% of the (wave 22 weighted) sample changed voting intention between waves 22 and 26.

Of those who changed votes between November 2018 and April 209, 47.7% changed votes again between April 2019 and the May election. This is more than double the percentage of those who did not change between November 2018 and April 2019. It should be noted that this result holds in a multivariate analysis when we control for demographic and socioeconomic characteristics in November 2018.

A related question that we can ask using these data is whether voting intentions in wave 22 are predictive of actual voting as observed in wave 28, even after we take into account voting intentions in wave 26. More generally, does voting intention at time t predict vote at time $t + 2$, conditional on voting intention at time $t + 1$. Results presented in Figure 4 show that this relationship most definitely holds.

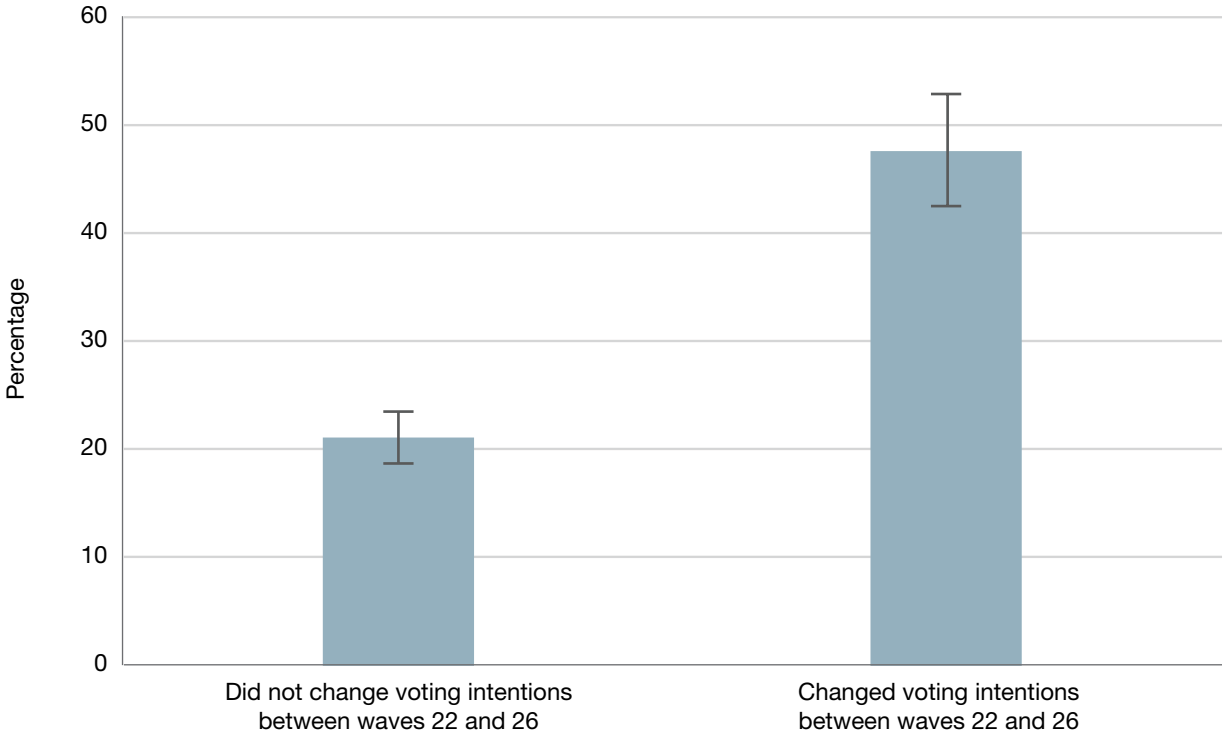
Specifically, we give the percentages of people who changed their vote to the Coalition (Figure 4a) or to Labor (Figure 4b) between April 2019 and the May election, separately by who they said they would have voted for if an election was held in November 2018. Figure 4a excludes those who said that they would have voted Coalition in April 2019, and Figure 4b excludes those who said that they would have voted Labor.

There are a few key findings from Figure 4. First, if you said you would have voted for the Coalition in November but not in April, or Labor in November but not in April, then there is a reasonably high chance (38.2% and 35.3%, respectively) that you ended up changing back to that party by election day. There are, however, quite large differences across the two graphs. For those who said that they were not going to vote Coalition in April, previous Labor and Greens voters had a very low probability of ending up voting Coalition. Those who said that they would have voted 'other' or 'didn't know' in November had a much higher probability. Virtually no-one who said they would have voted Coalition in November swung towards Labor between April and the election, but there was a reasonably high proportion of previous Greens supporters (13.6%) who swung towards Labor. The 'other' and 'don't know' voters (in November) had a much smaller swing towards Labor than they did towards the Coalition.

These relativities hold when we control for demographic/socioeconomic factors, as well as when we control for voting intention in April. What they show, however, is that, if you know someone's voting intention in the months leading up to an election, you can use that to get a more accurate prediction of who they would eventually vote for on election day.

There was some indication that those who said they would have voted for an 'other' party or did not know who they would have voted for were more likely to vote Coalition than one of the other two major parties (Labor or Greens) at the forthcoming election. Specifically, looking at those who said that they would have voted for an 'other' party in April and excluding those who said the same thing or did not know who they would vote for in November, 50.4% said that they would have voted for the Coalition in November,

Figure 3 **Voting change between April 2019 and May election, by voting change between November 2018 and April 2019, wave 22 weighted percentage**

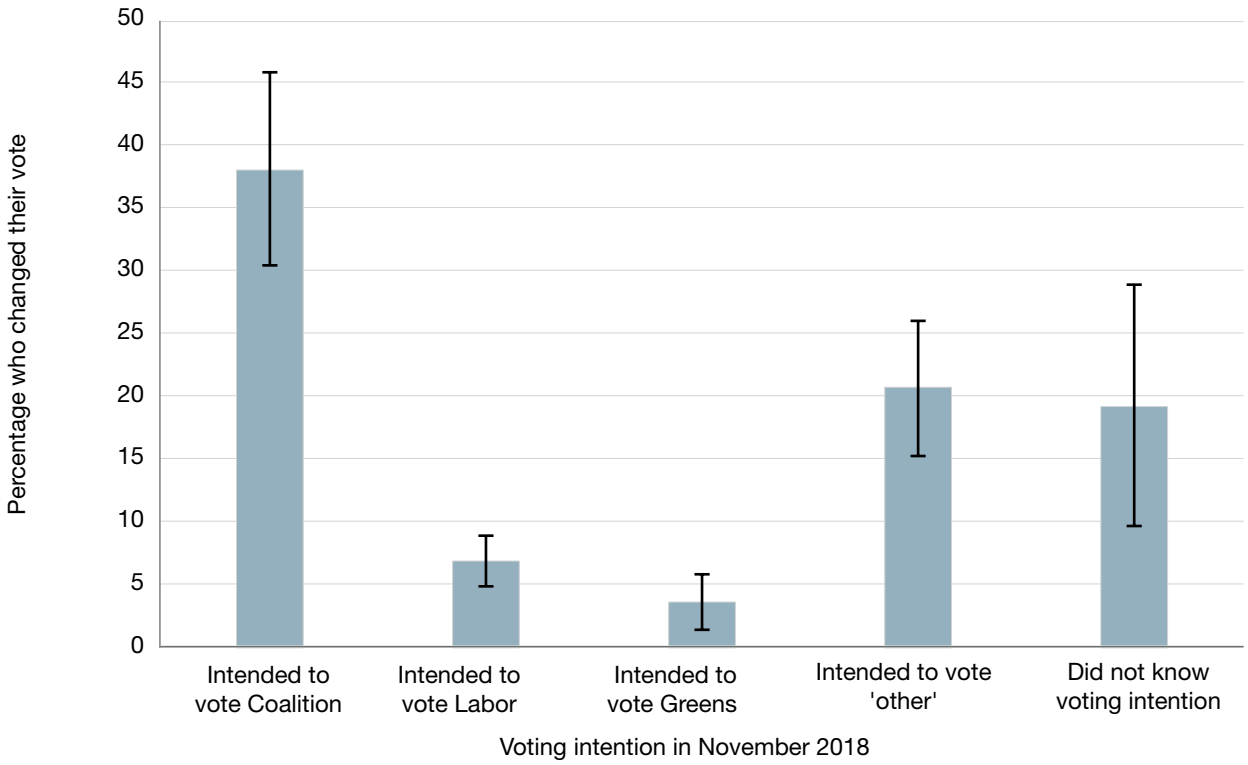


Note: Error bars indicate the 95% confidence intervals.

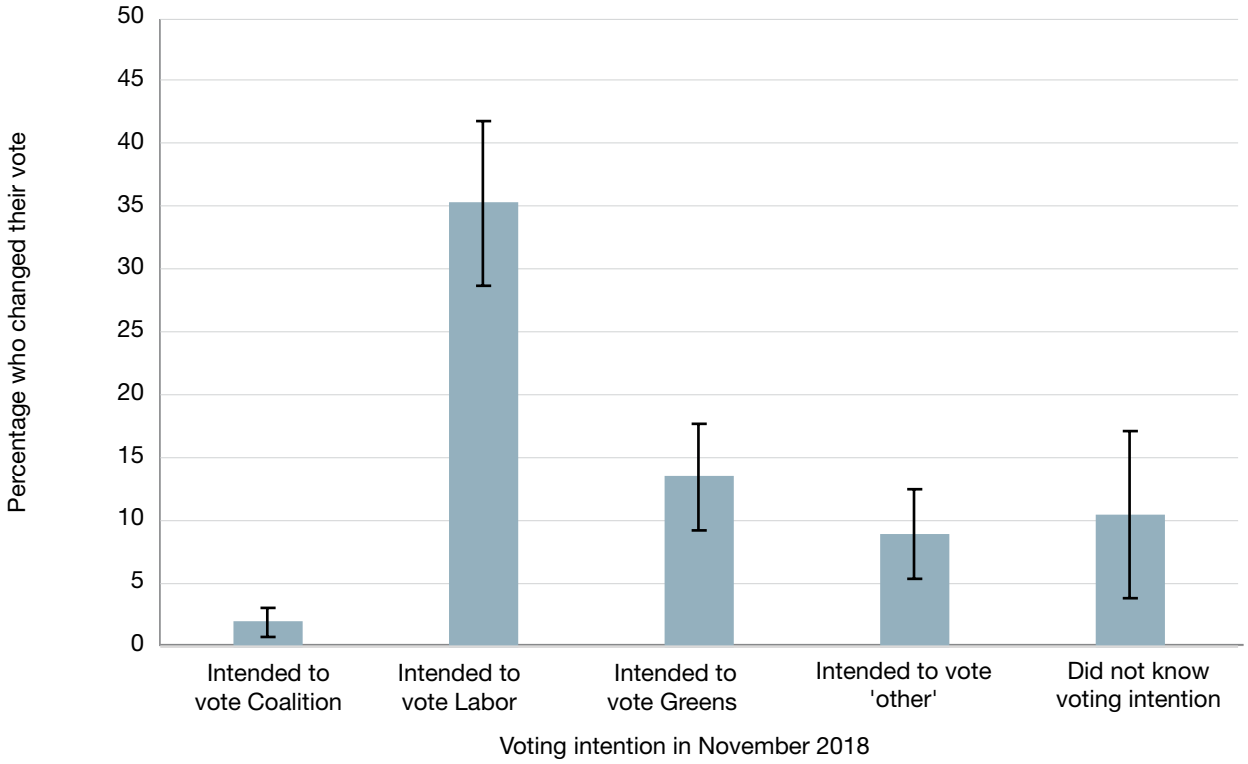
compared with 37.7% for Labor and 11.9% for the Greens. For those who did not know who they were going to vote for, and using the same exclusions, 47.6% said that they would have voted for the Coalition in November compared with 25.8% for Labor and 13.6% for the Greens. The 2019 election was partly a story of people leaving the Coalition between November and April, and returning during the election campaign.

Figure 4 **Voting change between April 2019 and May election, by intended vote in November 2018**

a Changed to Coalition



b Changed to Labor



Note: Error bars indicate the 95% confidence intervals.

8 Voter satisfaction and policy attitudes

Moving beyond the specific reasons for voter change reported by respondents to wave 28 of Life in Australia™, there are a number of psychological and attitudinal measures that also predict volatility in the lead-up to, and during, election campaigns. In this final section of results, we discuss and present empirical findings for a number of these measures that are captured in wave 26 of Life in Australia™, as well as data from previous waves that we have access to. Some of these factors may be particular to the most recent election campaign, whereas other factors may be capturing more general relationships.

Although local candidates and party leaders were some of the main reasons given for voter change when asked in June, policy announcements were also an important reason given by a large number of respondents. We did not probe what the specific policy announcements were, but we can get some insight into the relationship between policy and voter change by looking at how responses to particular policy questions in previous waves are correlated with voting behaviour in the May election, taking into account respondents' voting intentions reported in April. Specifically, the five dependent variables that we analyse are the probability of:

1. changing vote between April and the May election
2. voting for the Coalition in the May election
3. voting for the Coalition in the May election for those who said they would have voted for another party in April
4. voting for Labor in the May election
5. voting for Labor in the May election for those who said they would have voted for another party in April.

A number of policy issues (or variables) were not strongly correlated with party change in general, or with swings towards either the Coalition or Labor. For example, satisfaction with the direction of the country (in April) was not associated with any of the three longitudinal dependent variables (1, 3 and 5, above), although it was associated with voting for the Coalition. Four issues, however, were strongly associated with voter change and are summarised in this section.

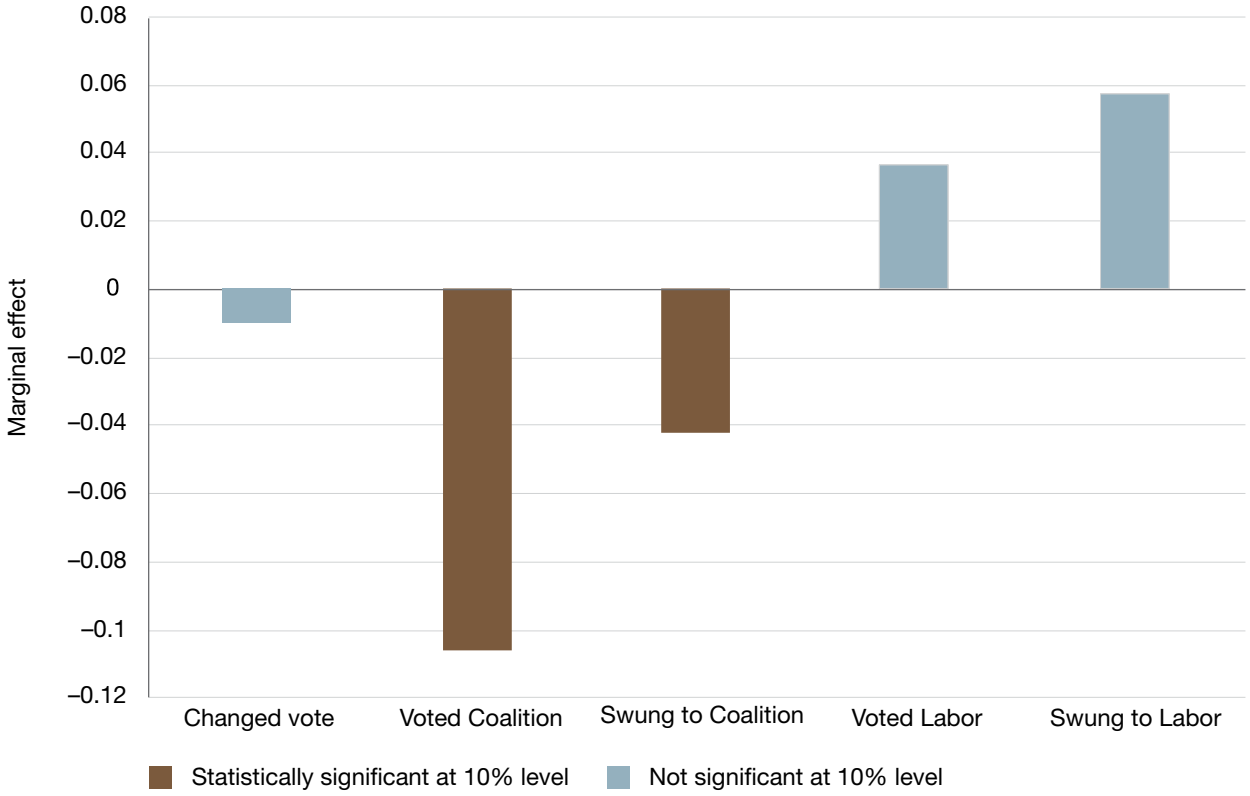
The first issue is respondents' views on population issues, which did not feature heavily in the election campaign, but did in the months preceding the election. In the November 2018 ANUPoll, we asked respondents, 'The Australian population is now a little over 25 million … Do you think Australia needs more people?' Figure 5 gives the difference in probability for the five outcomes outlined above between those who said 'Yes' to that question and those who said 'No'. These differences are after holding constant the observed characteristics included in previous estimations (eg Table 7).

In Figure 5, those estimations for which views on population growth are statistically significantly associated with the dependent variable at the 10% level of significance are given in brown; those that are not significant are in blue. The estimations show that not only were those who are in support of population growth more likely to have voted for the Coalition, this variable was also associated with those who changed their vote to the Coalition.

Looking at broader policy issues, in the August 2018 ANUPoll (wave 19), we asked respondents for their views on the appropriate role of government (Biddle et al. 2019). We constructed a 'belief in government' (BiG) index, with higher values for those who felt that government had a role to play in 1 of 12 policy areas. This index has a mean of zero and a standard deviation of 1. A 13th policy area (border protection) was not found to be highly correlated with the other 12, and was not included in the index.

Not surprisingly, those who were more likely to agree that government had a role in the key policy areas were more likely to have voted Labor

Figure 5 **Relationship between views on population and vote in the May federal election**



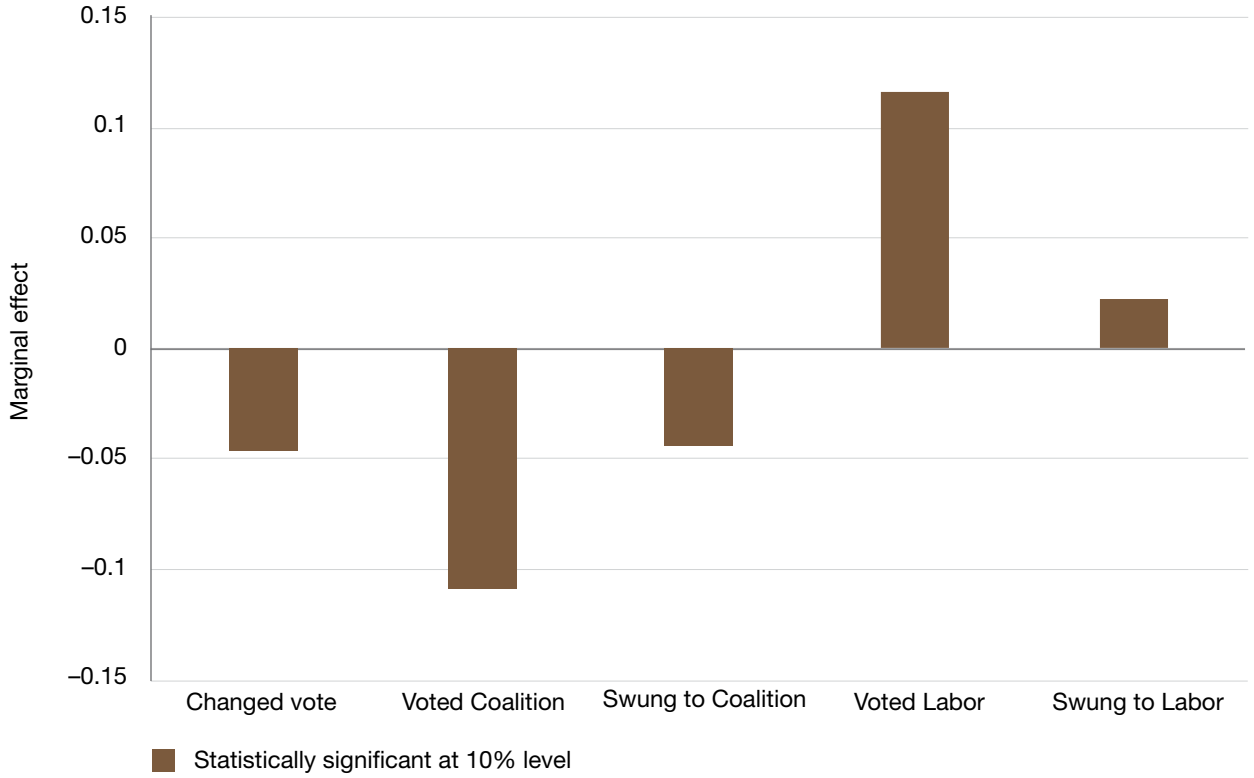
and less likely to have voted for the Coalition. However, as shown in Figure 6, the BiG index is also significantly associated with voter change (in general), and swinging towards the major parties (albeit in opposite directions). These results are presented as the change in probability from a 1 standard deviation change in the BiG index from the mean.

Some specific roles of government were particularly predictive of swings towards the Coalition or Labor. Those who felt that government's role was definitely to 'Provide a decent standard of living for the unemployed' or 'Impose strict laws to make industry reduce their environmental harm / impact' were less likely to swing towards the Coalition. On the other hand, those who thought the government's role was to definitely 'Control who enters Australia's borders' were significantly and substantially more likely to swing towards the Coalition. Only one specific role of government was strongly predictive of a swing towards Labor – 'Give financial help to university students from low-income families'.

In the same survey (wave 19), we asked a series of questions on beliefs related to populism. From these questions, which were highly correlated with each other, we created an index of populism that also has a mean of zero and a standard deviation of 1. Despite the election being categorised as 'propelled by a populist wave' (Cave 2019), the results presented in Figure 7 show no differences in the populism index between those who swung towards the Coalition between April and May and those who did not, and that those who voted for the Coalition actually had lower values on the index than those who did not. There was, however, an association with those who changed their vote (regardless of the party they changed from), as well as a positive association with those who swung towards Labor. At least with the measures used in Biddle et al. (2019), the election could be categorised as an insufficiently populist wave.

The final variable that we show to be related to voter volatility is willingness to take risks (with regard to financial decision making). To capture this, we asked a series of questions in the April 2019 ANUPoll, adapted from questions in the Global Preferences Survey (Falk et al. 2018). After creating an index of willingness to take risk (with

Figure 6 **Relationship between views on the role of government and vote in the May federal election**



a mean of zero and a standard deviation of 1), those who are more willing to take risk were more likely to change their vote during the election campaign (Figure 8). The direction of this change was different for the different parties. In cross-sectional terms, those who were more willing to take risks, were less likely to have voted for the Coalition. Risk aversion did not, however, predict a swing towards the Coalition (at least not significantly so). There was, however, a very significant association between willingness to take risks, and a swing towards Labor. Specifically, those who were least risk averse were the most likely to swing towards Labor.

This last finding is perhaps not surprising given the context of the election. Apart from changes to the tax system (which were in many ways a continuation of previous Coalition policy), the Coalition did take a large policy agenda to the election campaign. Labor, on the other hand, had a number of policy proposals, some of which could have been of concern for those who were relatively risk averse.

Figure 7 **Relationship between views on populism and vote in the May federal election**

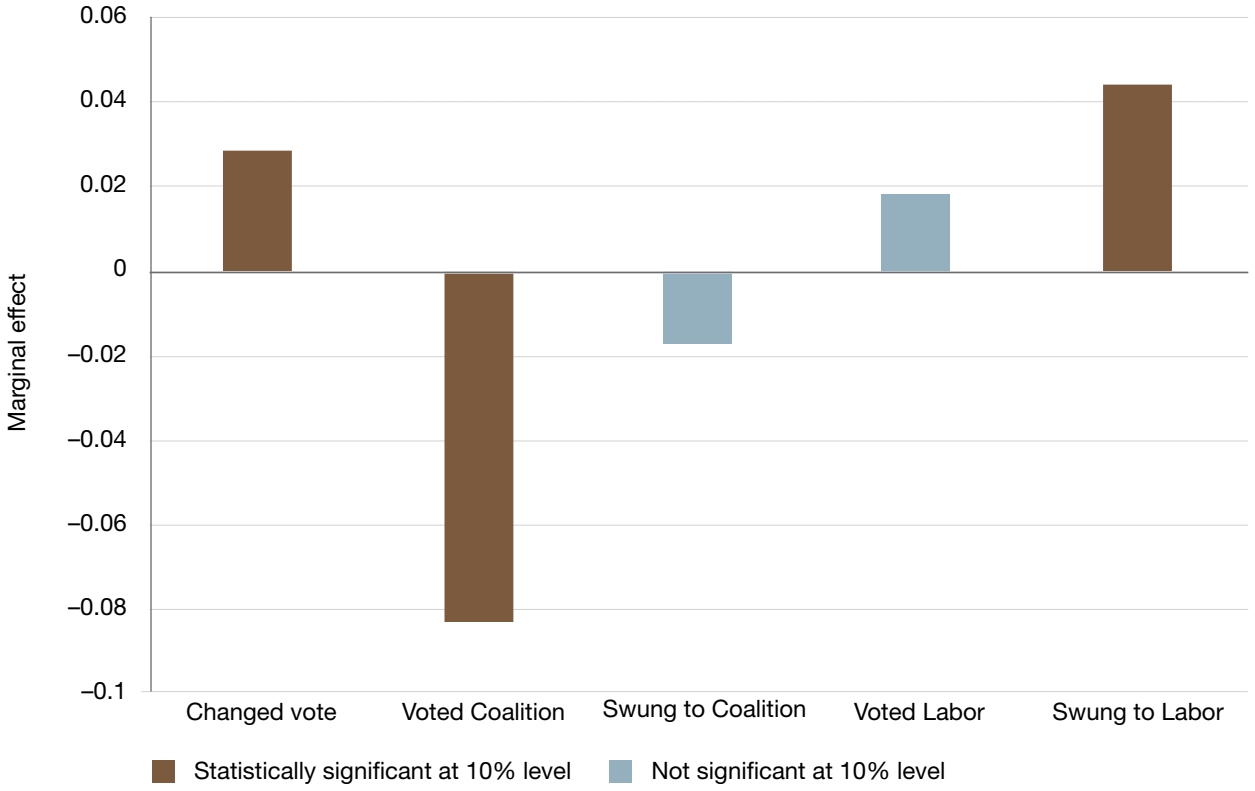
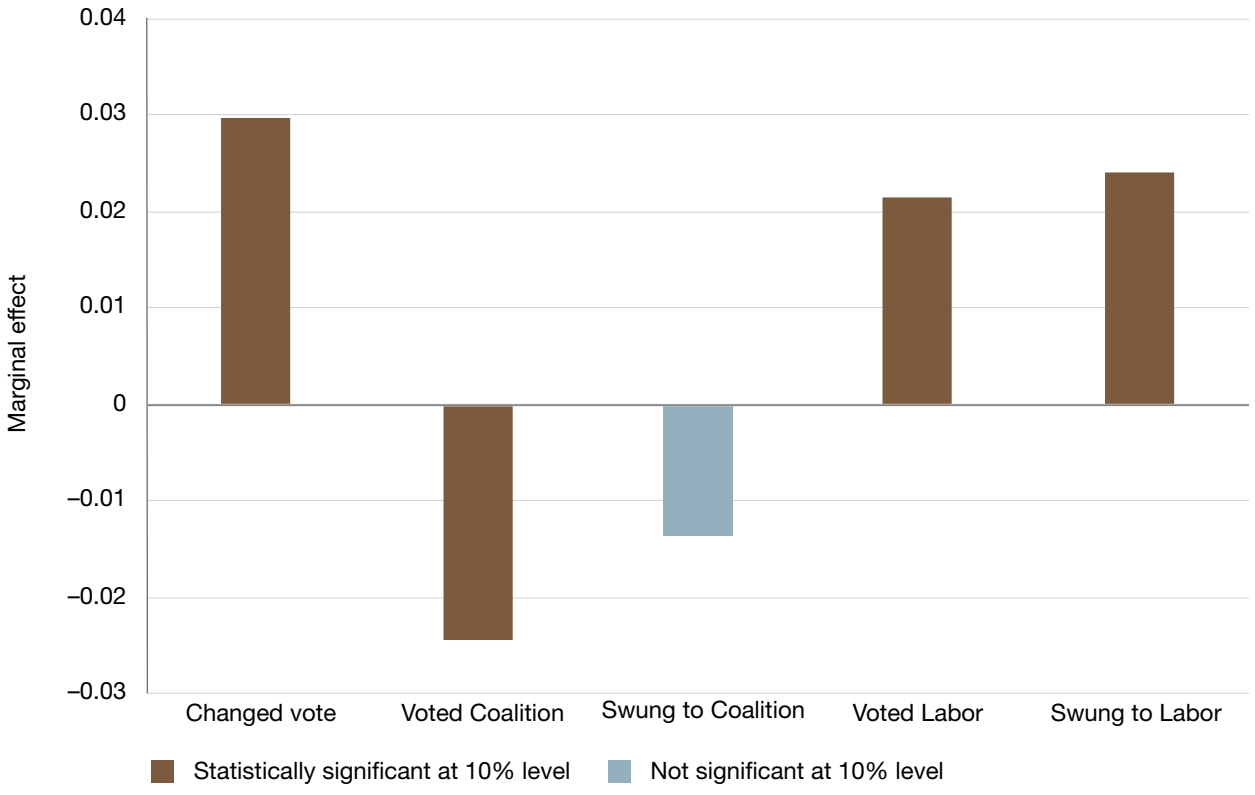


Figure 8 **Relationship between willingness to take risks and vote in the May federal election**



9 Summary and concluding comments

The May 2019 federal election resulted in a surprise win for the Liberal/National Coalition, and saw Prime Minister Scott Morrison returned to power. This is despite Scott Morrison only taking over the role half a year earlier after a leadership challenge to the former prime minister Malcom Turnbull, and almost all published polls in the months leading up to the election predicting a win for the Labor party led by Bill Shorten. However, the 2019 election campaign was one in which the main opposition party had a very expansive policy agenda, whereas the government's election campaign was mainly focused on the expansion of tax cuts further up the income distribution.

One of the positive outcomes from the election was a focus on the uncertainty around political polling. Polls are just sample surveys of a similar but not identical question that people answer on election day, often undertaken on a small and highly unrepresentative sample of the population. There is considerable skill and science around turning that survey into something meaningful. And the election polls tend to get pretty close. However, like any survey, they are prone to errors of measurement and representation. Furthermore, adjustments that take place after the data have been collected can also induce, rather than reduce, error.

One source of data that can shed light on potential sources of error is longitudinal surveys that track the responses of individuals over time. Although longitudinal data are also prone to errors of representation (people drop in and out of such surveys), the data summarised in this paper allow us to test for differences between which party someone said they would vote for if a hypothetical election was held in early–mid April and who they said they actually voted for in the May election when asked in June. Although these data are not as powerful for describing the factors associated with who someone voted for (a cross-sectional survey such as the Australian Election Study is better suited to this), they are far and away the most powerful and robust for understanding voter volatility and changes in voting intention.

9.1 Summary of findings

The analysis of this longitudinal survey shows a very high rate of voter volatility, with more than one-quarter of those surveyed in April 2019 (and linked to the June 2019 survey) voting for a different party than they said they would vote for. This voter volatility is important to understand in and of itself, but it appears to have been a key determinant of why the election result was different from that predicted by the polls. Specifically, we observed a net swing towards the Coalition of 7.2% (relative to the April voting intentions), no real change for Labor (–0.1%), a larger net outflow from the Greens (–2.6%) and a very large flow away from the 'other' parties (–42.1%). The sample sizes for our survey are reasonably small, and the baseline data are not completely representative (though we do use weights), so not too much reliance should be placed on the specific numbers. However, the results show a swing towards the Coalition during the election campaign that came mainly from those who had intended to vote for minor parties or who did not know who they would vote for. Needless to say, this swing was not picked up by the polls.

The data also allow us to look at the characteristics of those who did change their vote, as well as the reasons given for doing so. On the first question, females, the relatively young, and those in the most disadvantaged neighbourhoods were the most likely to have changed their votes. However, there were some important differences from the April voting intentions. It would appear that those who were at the older end of the age distribution were most likely to change away from Labor but not away from the Coalition. Those who swung away from the Coalition were in the middle of

the age distribution, and lived in either the most advantaged or the most disadvantaged areas. Finally, if you changed your voting intention in the lead-up to the April poll, you were far more likely to change again between April and the election.

The most common reason given for changing votes (across the sample) was views on the local candidate changing. This highlights the greater attention placed on local issues as the election campaign progresses. What is interesting is that aspects of the Opposition leader or campaign were given as important reasons for vote change when those who intended to vote Labor or Coalition were analysed separately. For those who intended to vote Labor but did not end up doing so, it was their view of Bill Shorten that changed. For those who intended to vote Coalition but did not, it was Labor policy announcements that changed their view. This confirms the narrative that it was the government that ran a small target campaign and it was Bill Shorten and the Opposition that (positively or negatively) shifted votes.

Our results also allow us to analyse those who swung towards the major parties. Given that swings towards the Coalition decided the election, we can learn a lot about the election result and the failures of the polls to predict the election outcomes by looking at those who did not intend to vote for the Coalition (in April) but ended up doing so. These individuals were more likely to be female, at the upper end of the age distribution, non-Indigenous, without a university education, and living outside the most disadvantaged areas in Australia. Some of these characteristics (e.g. age, relative advantage) align with the rational choice model of voting behaviour, whereas others (low education) are somewhat at odds.

These individuals also tended to be less supportive of population growth and less likely to think that the government has a strong role to play (particularly on unemployment and the environment). Despite the narrative some have drawn, however, they were no more likely to support populist views. One interesting finding about people swinging towards Labor was that those who were the least risk averse were the most likely to do so. If Labor had been able to convince a slightly larger percentage of those who were relatively risk averse to change their vote to Labor, the election outcome could have been quite different.

9.2 Implications of the results

As far as we know, ANUPoll is the only dataset in Australia that has voting intention in April and eventual vote in May for the same individuals. The insights from the analysis of this dataset highlight the power of such longitudinal data, as well as the limitations of cross-sectional polling (even right up to the election). There are implications of our findings for the polling profession, for our general understanding of voter volatility and for the specific case of the May 2019 federal election.

From a total survey error approach, who a person says they would vote for on a particular day is a good, but far from perfect, predictor of who they end up voting for. Errors of representation are an important topic, but beyond the scope of this paper. This paper has, however, documented a number of sources of measurement error. First, polling is on parties; votes are for candidates. Second, it is next to impossible to take into account the characteristics and views of local candidates when undertaking polling far ahead of an election, or even at the start of a campaign. Furthermore, the 'other' party and 'don't know' voters are a considerable source of uncertainty when it comes to polling, as are those who changed their voting intention in the lead-up to the start of the election campaign. They appear to have had a large effect on the May election, and more care and transparency about how these groups are treated should be a focus of any adjustments to polling methodology in Australia.

There are general implications from the analysis presented in this paper for understanding intra-election volatility. First, as previous volatility is highly predictive of current volatility, longitudinal data or recall data (as a second-best solution) that have more than two waves are necessary for understanding volatility. Some predictors of voter volatility are consistent, regardless of who the person said they would vote for. Females, those who are relatively young, those born in a non-English-speaking country, those who did not have a postgraduate degree, and those living in

the most disadvantaged areas are all more likely to change votes. These findings support previous results, but also extend them with new data on Australia and a richer set of controls.

Finally, there are specific implications for understanding the May election. The election appears to have been decided by the late swing towards the Coalition, which was not picked up by repeated cross-sectional surveys. Characteristics of the sample predicted this swing: female, not young, non-Indigenous, did not have a degree, did not live in most disadvantaged area. However, in terms of political attitudes, those who changed their vote towards the Coalition tended to be similar to those who said they would have voted for the Coalition all along.

Notes

1. https://www.theaustralian.com.au/nation/newspoll

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