Above the line and below the line voting

Senate Ballot Paper Study 2016

AEC
Australian Electoral Commission

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Summary

- From 1983 to early 2016 the Senate voting system required Full Preferential Voting. To vote in this system voters could either
  - Place a single '1' above the line (ATL) to adopt the preferences from a Group Voting Ticket (GVT) formulated by their selected group, or
  - Number every candidate box below the line (BTL).
- Under the 1983–2016 voting system there was a strong positive relationship between the number of Senate candidates and the rate of ATL voting. The more populous states tended to have more candidates and higher rates of ATL voting. Further, the strength of the effect of the number of candidates on ATL voting increased as the number of candidates increased.
- The introduction of Partial Preferential Voting (PPV)[1] in the Senate prior to the 2016 federal election increased the numbering requirement for ATL voting while also reducing the numbering requirement for BTL voting. This substantially increased the relative ease of voting BTL.
- As expected, this led to a higher national rate of BTL voting, with ATL voting rates falling even in States where candidate numbers rose. However, states with high candidate numbers still had higher rates of ATL voting than other states.
  - This was likely influenced by the physical size of ballot papers and voting habits in those jurisdictions.
- The 2016 change in the Senate voting system substantially reduced the influence of candidate numbers on ATL/BTL voting rates. As a result, other factors are likely to be more important drivers of ATL/BTL voting rates in future elections.
- With voter behaviour likely to change further in subsequent elections (as voters, parties and candidates adjust to the new system), there is only a limited basis on which to forecast levels of ATL or BTL voting for the next Senate elections.
- Changes in the composition of the Senate subsequent to the 2016 federal election have not been incorporated into analyses but would not affect the overall findings.

Voting above and below the line

This paper provides a comparison between state and territory rates of above and below the line voting[2] from 1984 to 2016.[3] It also examines the impact of the number of candidates running for election on variations in rates.

Senate ballot papers are divided in two by a thick, black horizontal line, and are classified as either 'above the line' (ATL) or 'below the line' (BTL) votes based on the preferences used for the purposes of counting. ATL voting was introduced at the 1984 federal election in response to high levels of informal voting at previous Senate elections. Electors casting ATL votes adopt preferences provided by their selected group(s), while electors casting BTL votes assign preferences to individual candidates.

Under both the 1983 (used for Senate elections between 1984 and 2014) and 2016 legislation precedence is given to preferences expressed below the line. As a result, papers marked both above and below the line are classified as follows:

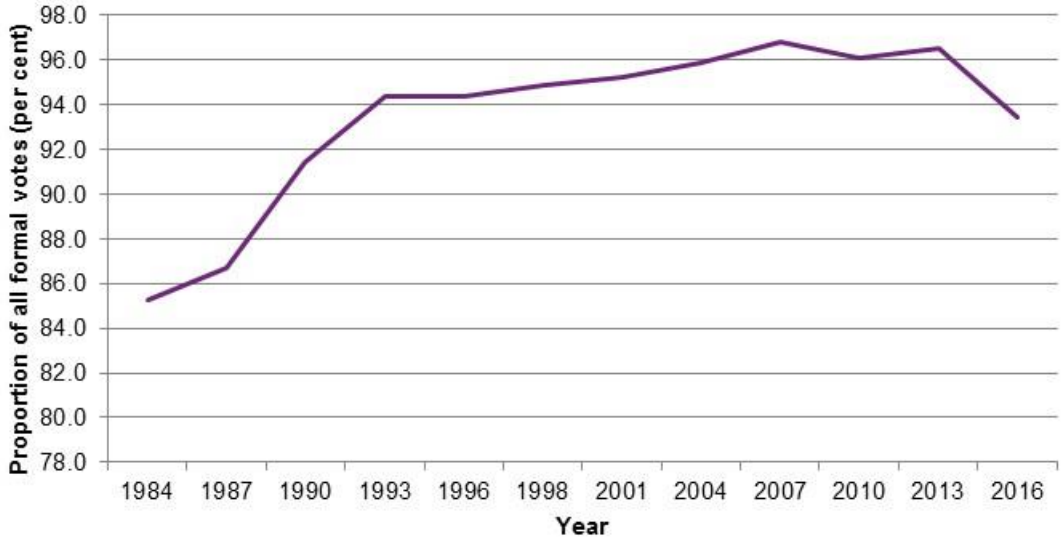
- If the BTL preferences are formal, the ballot paper is treated as a 'BTL'
- If the BTL preferences are informal, and the ATL preferences are formal, the ballot paper is treated as 'ATL'
- If neither set of preferences is formal, the ballot paper is deemed informal.

For the 1984 to 2013 federal elections (and the 2014 Senate election for Western Australia), electors were required to place either a single '1' above the line to adopt the preferences from a Group Voting Ticket (GVT) lodged by their selected group, or number every candidate box below the line in order of their individual preferences.

From the 2016 federal election, electors are now required to either number at least six boxes above the line to adopt the preferences shown within their selected groups on the Senate ballot paper, or number at least twelve candidate boxes below the line in the order of their individual preferences.

As shown in the following chart, the vast majority of Senate ballot papers are ATL votes, and the only elections in which the rate of ATL voting did not increase were in 1996, 2010 and 2016. The 2016 ATL rate was the lowest since 1990. The major factor contributing to this decline is likely to be the 2016 changes to the number of required preferences which made voting BTL much less burdensome while increasing the complexity of voting ATL.

Figure 1. Above the line voting rates, 1984–2016 Senate elections



(Australian Electoral Commission, 2016a)

ATL voting became increasingly common from 1984 to 2013, although the rate of increase slowed following the 1993 election.

In recent elections the more populous states have tended to have higher rates of ATL voting than the smaller states and territories. Table 1 on page 7 shows rates of ATL voting between 2001 and 2016.

There was a move away from ATL voting in the states at the 2016 Senate elections, most notably in Tasmania. By contrast the Northern Territory stayed within its recent historic range, and rates of ATL voting increased in the Australian Capital Territory.

The high rate of BTL voting in Tasmania is likely to be partly attributable to some candidates specifically campaigning for BTL votes (Coulter, 2016; Price, 2016). In the Australian Capital Territory there may have been a lesser incentive to engage in tactical voting under the new system, but no conclusions can be drawn at this stage.

Among a range of factors that affect the rate of ATL (or BTL) voting, the number of candidates on the ballot paper has been found to be the most significant.

Number of candidates and ATL voting

Prior to the 2016 reforms to Senate voting, there appears to have been a relationship between the number of candidates, and the incidence of ATL voting.[4] This was commonly attributed to large numbers of candidates below the line making it far more complex and time consuming for electors to correctly number boxes for up to 110 candidates below the line, rather than to simply place a ‘1’ above the line.[5]

Writing a complete number sequence of candidates below the line requires several things:

- An understanding of the correct marking procedure, requiring
  - Sufficient English literacy,
  - A translator, or
  - A pre-existing understanding of the correct marking procedure
- The ability to distinguish between potentially unknown candidates
- Sufficient numeracy and concentration to mark candidates sequentially with no repetition
- Sufficient time.

Some electors might find it difficult to record BTL preferences for ballot papers with a large number of candidates. This can be especially difficult when casting a vote by telephone.[6]

Large numbers of candidates also result in ballot papers becoming physically cumbersome. In some instances the papers cannot be laid flat on the writing surface of a voting booth, and have to use a small print font in order to fit all the candidates on the ballot paper. Difficulties in reading or physically manipulating the ballot paper may push some electors to prefer ATL voting.

Other factors that influence decisions to cast an ATL or BTL vote are likely to include:

- Familiarity with changes to the voting system, through
  - Experience with similar state or territory voting systems, or
  - Growing familiarity over time
- Degree of comfort with candidate order put forward by parties
- Campaigning by candidates against the party order, as seen in Tasmania in 2016
- Degree of comfort with Group Vote Tickets (under the previous system)
- Desire to preference individual candidates across multiple parties.

Nonetheless there is reasonably compelling evidence that the number of candidates is a significant factor in the decision to vote BTL, and that this becomes more influential the higher the number of candidates. In elections with few candidates, such as in the Australian Capital Territory and the Northern Territory, the weaker influence of the number of candidates may make other factors more influential on the rate of ATL voting.

A regression analysis comparing the numbers of Senate candidates to ATL voting rates from 1984 to 2013 shows a very high correlation between these variables (r=0.74), with the number of candidates explaining over half of the variation in ATL voting rates (r^2=0.55).[7]

The 2016 Senate voting reforms

Changes to the Senate voting system in 2016 (specifically, the introduction of PPV, with the requirement to number either 1 to 6 ATL, or 1 to 12 BTL) increased the effort required to cast an ATL vote while decreasing the effort required to cast a BTL vote.

As expected, the introduction of PPV led to a reduction in the overall ATL voting rate. As shown in Table 1 on page 7, this was borne out in all states and territories other than the Australian Capital Territory. This supports, but does not prove, the hypothesis that:

- Electors are more likely to cast a BTL vote when the relative effort to do so is reduced compared with the effort required to vote ATL
- Electors are more likely to cast an ATL vote if the relative ease of doing so increases compared to voting BTL.

As shown in Table 2 on page 7, the larger states tended to have more candidates in the 2016 senate elections, and lower rates of ATL voting. However the territories offer a counterpoint to the states, with both the Australian Capital Territory and the Northern Territory having higher rates of ATL voting than Tasmania. This supports the hypothesis from the previous section that the higher the number of candidates, the greater the effect it exerts on the decision to vote ATL.[8]

The 2016 changes in the Senate voting system therefore appear to have reduced, but not removed, the influence of candidate numbers on ATL/BTL voting rates. This is demonstrated by a notable decline in the correlation between candidate numbers and ATL voting rates in 2016 compared to elections from 1984 to 2013, as shown in Table 3 on page 8.

Appendix

Tables

Table 1. Rates of above the line voting by state/territory, 2001–2016 Senate elections

State/territory	2001 %	2004 %	2007 %	2010 %	2013 %	2016 %
NSW	97.06	97.63	98.18	97.76	97.90	94.60
Vic.	96.76	97.74	97.95	97.01	97.33	94.69
Qld	95.52	94.84	97.26	96.91	97.00	93.86
WA	94.74	95.82	97.31	96.94	96.17	94.49
SA	92.18	94.10	93.16	94.10	93.47	91.50
Tas.	80.45	81.18	84.17	79.82	89.66	71.88
ACT	77.91	79.13	82.80	75.93	80.13	84.82
NT	90.29	89.66	92.13	90.67	91.89	91.42
Total	**95.24**	**95.85**	**96.78**	**96.12**	**96.49**	**93.47**

(Australian Electoral Commission, 2016a)

Table 2. Numbers of options and voting rates for above the line and below the line voting, 2016 Senate elections

	Above the line voting		Below the line voting	
State/territory	Options no.	Rate %	Options no.	Rate %
NSW	41	94.60	151	5.40
Vic.	38	94.69	116	5.31
Qld	38	93.86	122	6.14
WA	28	94.49	79	5.51
SA	23	91.50	64	8.50
Tas.	21	71.88	58	28.12
ACT	10	84.82	22	15.18
NT	7	91.42	19	8.58
Total	**206**	**93.47**	**631**	**6.53**

(Australian Electoral Commission, 2016b)

Table 3. Correlation between number of candidates and above the line voting rates, 1984–2016 Senate elections

Year	Candidates no.	Above the line voting rate %	Correlation *r*
1984	202	85.27	0.81
1987	255	86.71	0.78
1990	223	91.42	0.81
1993	266	94.38	0.85
1996	255	94.35	0.76
1998	329	94.90	0.80
2001	285	95.24	0.72
2004	330	95.85	0.80
2007	367	96.78	0.81
2010	349	96.12	0.82
2013	529	96.49	0.77
2016	631	93.47	0.47

(Australian Electoral Commission, 2016a)

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End notes

[1] Optional Preferential Voting with a minimum number of preferences.

[2] This paper uses the term ‘rate of ATL or BTL voting’. This refers to the number of ballot papers of a given type (ATL or BTL) compared with the total number of formal votes. That is, the ballot paper type is the numerator and the total number of formal votes is the denominator. Informal votes are not included in this calculation.

[3] This paper includes the ATL/BTL rates for the 2013 Western Australian Senate Election rather than data from the rerun of that election in 2014. This is because comparisons using the 2014 WA Senate results may be potentially misleading due to the unusual nature of that election.

[4] The Senate voting system was modified between 1983 and 2016, but the changes were minor compared to the 1983 and 2016 changes. Changes in that intervening period included the introduction of the s. 282 recount, and the use in the count process of deferral of surpluses and bulk exclusions.

[5] For example, in the public hearing relating to the JSCEM inquiry into the Commonwealth Electoral Amendment Bill 2016 (Joint Standing Committee on Electoral Matters, 2016), as well as a post on the Tally Room regarding below the line voting (Raue, 2016), and a post on Antony Green’s Election Blog (Green, 2014).

[6] Antarctic and Blind and Low Vision electors may cast votes by telephone.

[7] Pearson product-movement correlation coefficients (denoted by a lower case *r*) are used to measure the strength of the linear relationship between two variables. The coefficient of correlation has a value between –1 and +1. The *r* coefficient of 0.74 indicates a strong positive relationship between changes in each variable, that is, as one variable increases, so too does the other. The square of the Pearson’s *r* (denoted as r^2) specifically measures the proportion of the total variation in one variable that is explained by variation in the other variable. The r^2 calculated here of 0.55, means that 55 per cent of the variation in one variable is explained by changes in the other variable.

[8] If the theory that low numbers of candidates has a muted effect on ATL/BTL voting rates, is correct, it indicates that differences between the Australian Capital Territory and the Northern Territory electorates have a marked impact on ATL rates. The AEC has not studied this effect in detail.