

Top line findings

Senate Ballot Paper Study 2016

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Summary

Table 1. Summary statistics, 2013–2016 Senate elections

Item	2013	2016	Change ^a
Turnout			
Number	13,822,161	14,406,706	584,545
Proportion of enrolled population (%)	93.88	91.93	-1.95
Proportion of eligible population (%) ^b	87.09	87.34	0.26
Votes ^c			
Formal (%)	97.04	96.06	-0.98
Above the line (%) ^d	96.49	93.47	-3.02
Below the line (%) ^d	3.51	6.53	3.02
Followed ballot paper instructions (%) ^d	99.49	93.44	-5.81
Allowed by savings provisions (%) ^d	0.51	6.56	5.81
Exhausted (%) ^d	0.05	7.52	7.47
Informal (%)	2.96	3.94	0.98

(Australian Electoral Commission, 2016a; Australian Electoral Commission, 2016c)

- This research paper presents findings of various analyses of voter behaviour and the operation of the 2016 federal election counts. Subsequent changes in the composition of the Senate have not been incorporated but would not affect the findings.
- Senate turnout as a number (that is, the total number of votes cast) grew by 584,545 from 2013 to 2016. However enrolment growth over the same period was stronger, which resulted in a decline in the turnout rate.
 - Senate turnout for 2016 was 584,545 (4.2 per cent) higher than in 2013.
 - Enrolment for 2016 was 948,166 (6.4 per cent) higher than in 2013.
- The Senate turnout rate was 91.9 per cent, the lowest rate since 1925 and almost two percentage points lower than in 2013.
 - Causes of variation in turnout are difficult to determine and it is likely that a range of factors are involved. These factors may also vary between divisions (for example, the

^a Change is measured in numeric change for numbers, and as percentage point change for percentages.

^b Based on preliminary estimates of the eligible population, subject to revision.

^c Number of votes is the same as the turnout number.

^d Proportion of formal ballot papers.

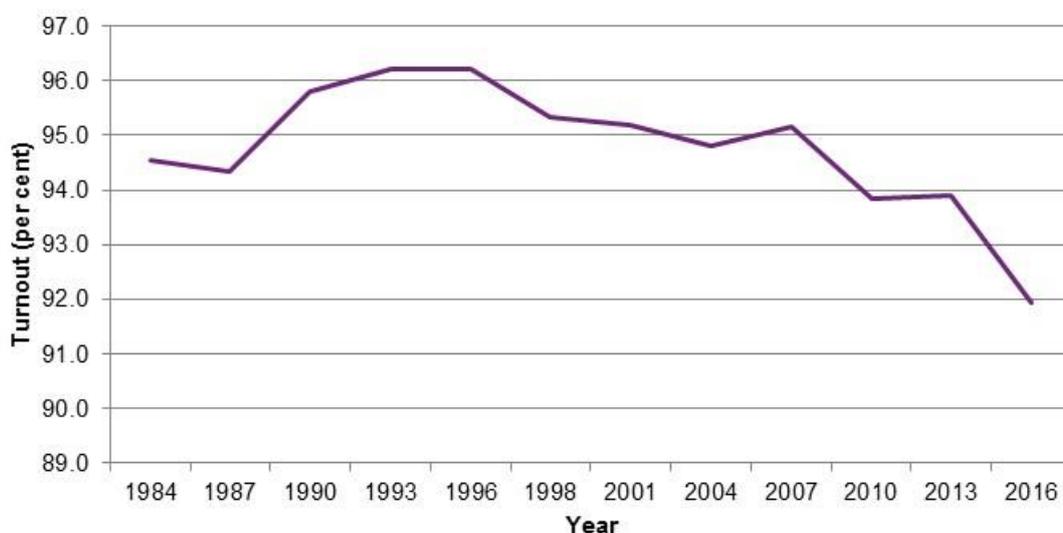
drivers of low turnout in rural divisions may not be the same as those driving low turnout for inner city divisions in Sydney and Melbourne).

- As official measures of turnout do not take into account the enrolment rate at the time of the election and include informal ballot papers (which are not used in determining election results), alternative statistics can be used to provide additional context.
 - Comparing turnout to the population who are eligible to vote (which removes enrolment as a factor) shows an estimated ‘turnout’ of 87.3 per cent for 2016, a rise of 0.3 percentage points from 2013.
 - Comparing formal votes to the population who are eligible to vote (removing both enrolment and informal vote) shows an ‘effective participation rate’ of 83.9 per cent for 2016, a decline of 0.6 percentage points from 2013.
- Nationally 13,838,900 ballot papers were deemed to be formal, and 567,806 were deemed informal. The informality rate for the 2016 Senate elections was 3.94 per cent, compared to 2.96 per cent in 2013.
 - New South Wales had the highest rate of informal voting in 2016 (4.4 per cent), while the Australian Capital Territory had the lowest (2.2 per cent).
- For the 2016 Senate elections, 12,934,792 above the line (ATL, 93.5 per cent) and 904,108 below the line (BTL, 6.5 per cent) ballot papers were counted. By comparison, 12,941,989 ATL (96.5 per cent) and 471,030 BTL (3.5 per cent) ballot papers were counted for the 2013 Senate elections.
- Of the formal ballot papers counted:
 - 93.4 per cent had at least the instructed number of effective preferences
 - 6.6 per cent had less than the instructed number of effective preferences, but were saved as formal
 - 358,744 of those ballot papers that were saved as formal were counted as number ‘1’ only ATL (2.6 per cent of all formal ballot papers).
- Nationally, 7.5 per cent of formal ballot papers exhausted, up from 0.05 per cent in 2013.
 - New South Wales had the highest rate of exhausted ballots (9.2 per cent). There were no exhausted ballots in the Northern Territory.

Senate turnout

The Senate turnout rate for 2016 was 91.9 per cent, down from 93.9 per cent in 2013. This was the lowest turnout rate since 1925 (91.3 per cent), which was the first election run under compulsory voting. The fall in turnout in 2016 continued a downward trend that began in 1996, with brief arrests in 2007 and 2013.

Figure 1. Voter turnout, 1984–2016 Senate elections



(Australian Electoral Commission, 2016b)

Causes of variation in turnout are difficult to determine and it is likely that a range of factors are involved. These factors may also vary between divisions (for example, the drivers of low turnout in rural divisions may not be the same as those driving turnout for inner city divisions in Sydney and Melbourne). Factors that may have contributed to the decline in the turnout rate between 2013 and 2016 include:

- The timing of the election (specifically, that 2016 turnout might have been lower because the election was held in winter and during school holidays in most states and territories)
- Some socio-demographic and socio-economic characteristics of the electorate (particularly age, gender, Indigeneity, and socio-economic status)
- Election-specific and attitudinal factors (such as the perceived competitiveness of the election, seat margins, the likelihood of a change in government as well as community attitudes regarding enrolment and/or voting)
- A higher enrolment rate can mean there are more people on the roll who are less willing to vote.

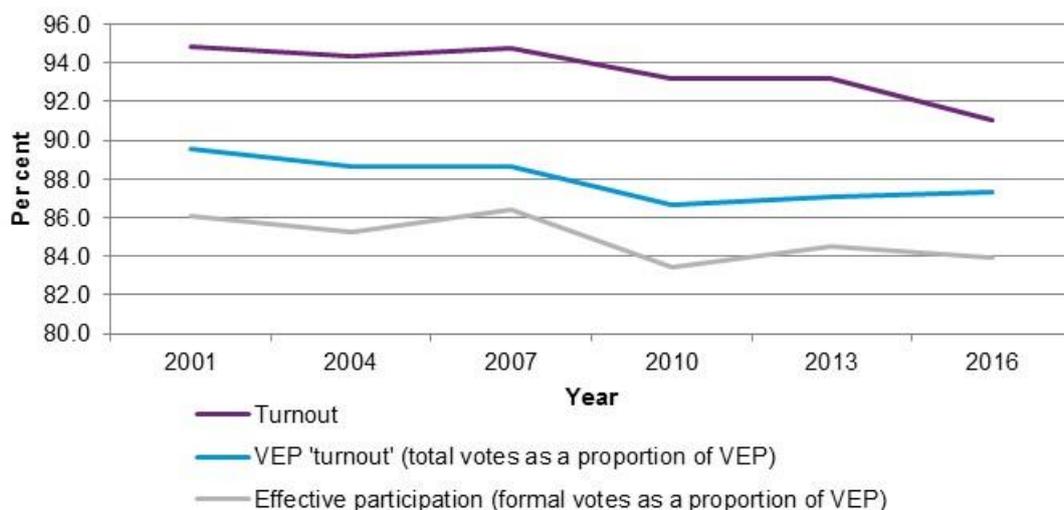
In terms of the turnout rate, the increased growth in enrolment due to Federal Direct Enrolment and Update (FDEU) processes may enrol some people who are less engaged in the electoral process. For the 2016 event, enrolment rose by 948,166 (6.4 per cent) compared to 2013. The number of Senate ballot papers counted rose by 584,545 (4.2 per cent) over the same period. However only 31 per cent of the additions to the roll between the 2013 and 2016 election were generated via FDEU. Turnout from FDEU enrolled new electors (in particular) was lower in 2016 than in non-FDEU groups.

However while roll growth can have a negative influence on the *rate* of turnout, it increases the opportunity for electors to vote, and results in an increase in turnout as a *number*. The end result of this is an improved delivery of the voting franchise.

In order to remove the effect of enrolment from turnout, the AEC uses the Voting Eligible Population (VEP) as a denominator. When turnout is compared to the VEP, Senate turnout rose by about 0.3 percentage points between 2013 and 2016. This followed a 0.4 percentage point increase between 2010 and 2013. There is nonetheless an overall decline since 2001 (the earliest year for which reliable VEP data are currently available).

As turnout includes both formal and informal ballot papers cast, informal ballot papers can be excluded to analyse effective participation in the election. When formal votes are compared to the VEP, the effective participation rate for the Senate declined by about 0.6 percentage points between 2013 and 2016. This followed a 1.1 percentage point increase between 2010 and 2013.

Figure 2. Turnout and effective participation, 2001–2016 Senate elections



Australian turnout, aided by compulsory voting, remains high by international standards. However there is a notable downward trend for both the Senate and the House of Representatives.

Proportions of above and below the line votes

Ballot papers are classified into 'above the line' (ATL) or 'below the line' (BTL) based on the preferences that were used for the purposes of counting. Current legislation gives precedence 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 an 'ATL'
- If neither set is formal, the ballot paper is deemed informal.

Historically, larger states have had higher proportions of ATL voting. This was largely due to the high numbers of candidates below the line, and the previous requirement to preference all candidates when voting BTL. It was therefore expected that a move to Partial Preferential Voting¹ would decrease ATL voting, particularly in the larger states.

As the table below shows, this expectation was largely borne out, although Tasmania and the Australian Capital Territory were unusual.

Table 2. Above and below the line votes, 2016 Senate elections

State/territory	ATL no.	BTL no.	Total no.	ATL %	ATL swing percentage points
NSW	4,249,550	242,647	4,492,197	94.60	-3.30
Vic.	3,314,376	185,861	3,500,237	94.69	-2.64
Qld	2,555,956	167,210	2,723,166	93.86	-3.14
WA	1,290,839	75,343	1,366,182	94.49	-1.68
SA	970,934	90,231	1,061,165	91.50	-1.97
Tas.	243,774	95,385	339,159	71.88	-17.78
ACT	216,086	38,681	254,767	84.82	+4.69
NT	93,277	8,750	102,027	91.42	-0.47
Total	12,934,792	904,108	13,838,900	93.47	-3.02

(Australian Electoral Commission, 2016c)

The decline in ATL voting in Tasmania far exceeded declines elsewhere.

- Tasmania was unusual in the 2016 election in that two Senate candidates chose to run aggressive campaigns to encourage voters to preference them first below the line. This may partly explain the extent of the increase in below the line voting.

- The Hare-Clark system used for Tasmanian state elections may also predispose voters towards below the line voting, however this is also the case in the Australian Capital Territory.

There is no ready explanation for the increase in ATL voting in the Australian Capital Territory.

Number of preferences marked

The *Commonwealth Electoral Act 1918* stipulates the manner in which ballot papers are supposed to be marked. It also stipulates rules (formality criteria) by which ballot papers which are incorrectly marked can still be admitted to the count.

Table 3. Correct marking and formality criteria, 2016 Senate elections

Type of vote	Correct marking	Formality criteria
Above the line	An uninterrupted sequence from 1-6, or higher	A single number 1 above the line
Below the line	An uninterrupted sequence from 1-12, or higher	An uninterrupted sequence from 1-6 below the line, with no repeated numbers

Commonwealth Electoral Act 1918.

Two particular issues were identified prior to the election with regards to compliance with voting instructions. These were the publication and media attention given to the formality criteria, and a long history of '1' only being a valid ATL vote.

Additionally, there is the possibility that electors may have become confused about the number of boxes they were required to number due to habit or misinterpreting which instructions related to above or below the line voting.²

The following tables show the number of effective preferences marked for each state/territory, for both ATL and BTL voting. Effective preferences are the preferences that could have moved (i.e. transferred) the ballot paper. Where a number sequence has been interrupted, *no further marks are considered*. This means that the number of effective preferences does not necessarily indicate the number of marks on the paper.

For example:

- A sequence of 1, 2, 3, 4, 5, 6, 7, 8, would be counted as having 8 preferences
- A sequence of 1, 2, 3, 4, 5, 6, 6, 7, 8 would be counted as having 5 preferences
- A sequence of 1, 2, 3, 4, 5, 6, 7, 9, 10 would be counted as having 7 preferences
- Informal ballot papers do not have effective preferences, and are therefore not considered here.

The following tables are aligned to both the voting instructions and the formality requirements. The vast majority of ballot papers, whether above or below the line, had sufficient preferences to meet or exceed the instructed number of preferences (6 ATL, 12 BTL).

Table 4. Effective preferences marked as a proportion of all above the line votes, 2016 Senate elections

State/territory	One only %	Two to five %	Six %	Seven or more %	Total %
NSW	4.52	4.28	85.93	5.27	100.00
Vic	2.04	3.65	88.65	5.65	100.00
Qld	1.72	3.50	89.03	5.75	100.00
WA	1.99	3.59	88.63	5.79	100.00
SA	2.18	3.22	86.91	7.70	100.00
Tas.	1.26	2.86	85.24	10.63	100.00
ACT	1.44	2.04	83.37	13.14	100.00
NT	2.28	2.65	56.11	38.95	100.00
Total	2.77	3.74	87.31	6.17	100.00

(Australian Electoral Commission, 2016a)

As indicated in the above table, most voters (87 per cent) effectively marked the instructed minimum of six boxes if voting above the line. A further 6 per cent of voters marked more than six boxes. Notably, voting with a '1' only, the ATL standard since 1984, was uncommon (accounting for less than 3 per cent of all ATL votes).

The smaller states and territories had higher proportions of electors marking more than six boxes, partly due to an increased tendency to number all of the boxes. The Northern Territory had seven groups, meaning that electors only had to mark one additional box to complete the entire ATL sequence.

Table 5. Effective preferences marked as a proportion of all below the line votes, 2016 Senate elections

State/territory	Six %	Seven to eleven %	Twelve %	Thirteen or more %	Total %
NSW	3.91	3.47	71.99	20.63	100.00
Vic	3.57	5.82	59.15	31.45	100.00
Qld	3.19	3.40	70.60	22.80	100.00
WA	3.43	5.31	61.77	29.49	100.00
SA	3.66	2.33	64.44	29.57	100.00
Tas.	2.25	2.50	67.43	27.82	100.00
ACT	1.04	1.83	65.19	31.93	100.00
NT	2.89	7.97	58.42	30.72	100.00
Total	3.34	3.85	66.59	26.23	100.00

(Australian Electoral Commission, 2016a)

For BTL ballot papers, again the most common approach was to mark the minimum number of boxes as instructed on the ballot paper. However, a lower percentage of BTL voters took this approach than ATL voters. A considerably higher proportion of BTL voters (26 per cent versus 6 per cent of ATL voters) marked more than the minimum instructed number of boxes.

New South Wales and Queensland had lower rates of electors voting for 13 or more candidates. This might be related to a combination of the Optional Preferential Voting systems used in those states³, and the high numbers of candidates serving as a deterrent to expressing more preferences.

Exhausted ballot papers

A ballot paper is considered 'exhausted' when, following a distribution of a surplus, or the exclusion of a candidate, it can no longer be distributed to a candidate. It should be noted that exhaustion does not mean that a ballot paper had no impact on an election. A ballot paper may be involved in the election of multiple candidates before it exhausts.

Under the 1983 Senate voting reforms, exhaustion was a rare occurrence due to the use of Full Preferential Voting. Following the introduction of Partial Preferential Voting in the 2016 Senate voting reforms, exhaustion was expected to be considerably more common.

As shown below, this expectation was correct to a large extent in most states and territories.

Table 6. Exhausted votes 2013–2016 Senate elections

State/territory	2016 Senate elections			2013 Senate elections			Swing percentage points
	Exhausted votes no.	Formal votes no.	Exhausted %	Exhausted votes no.	Formal votes no.	Exhausted %	
NSW	414,656	4,492,197	9.23	1,918	4,376,143	0.04	+9.19
Vic.	300,283	3,500,237	8.58	1,944	3,381,529	0.06	+8.52
Qld	208,964	2,723,166	7.67	1,065	2,619,461	0.04	+7.63
WA	85,766	1,366,182	6.28	866	1,310,278	0.07	+6.21
SA	21,556	1,061,165	2.03	540	1,038,434	0.05	+1.98
Tas.	9,531	339,159	2.81	348	336,953	0.10	+2.71
ACT	109	254,767	0.04	62	246,742	0.03	+0.02
NT	0	102,027	0.00	22	103,479	0.02	-0.02
Total	1,040,865	13,838,900	7.52	6,765	13,413,019	0.05	+7.47

(Australian Electoral Commission, 2016c)

The Northern Territory Senate election had no exhausted ballot papers because there were only two vacancies, and two candidates had a full quota on first preferences. Accordingly no ballot papers were distributed, and no ballot papers could exhaust. However while it is technically true that no ballot papers exhausted, it is also the case that 27,253 ballot papers (26.7 per cent of the formal ballot papers) did not contribute to electing a candidate.

Informality

For the 2016 federal election the Senate informality rate was 3.9 per cent, an increase of 1.0 per cent from 2013.⁴ By comparison the overall House of Representatives informality rate was 5.1 per cent in 2016, and 5.9 per cent in 2013.

Senate informality rose in all states and territories in 2016, although this was from a low base and total informality remained relatively low.

Table 7. Informal votes by state and territory, 2016 Senate elections

State/territory	Formal votes no.	Informal votes no.	Total votes no.	Informality rate %	Swing percentage points
NSW	4,492,197	213,073	4,705,270	4.53	+1.21
Vic.	3,500,237	153,499	3,653,736	4.20	+0.83
Qld	2,723,166	95,831	2,818,997	3.40	+1.24
WA	1,366,182	47,371	1,413,553	3.35	+0.85
SA	1,061,165	36,545	1,097,710	3.33	+0.68
Tas.	339,159	12,221	351,380	3.48	+1.02
ACT	254,767	5,754	260,521	2.21	+0.23
NT	102,027	3,512	105,539	3.33	+0.66
Total	13,838,900	567,806	14,406,706	3.94	+0.98

(Australian Electoral Commission, 2013; 2016c)

Note: This table uses 2013 and 2016 Senate election data on calculate swings. The 2016 Tally Room uses data from the 2014 Western Australia Senate election, which changes the total swing to 1.01.

The 2016 Senate voting system reforms were not specifically designed to address informal voting, although a number of elements of the new system could reasonably have been expected to result in lower levels of informality. These elements included:

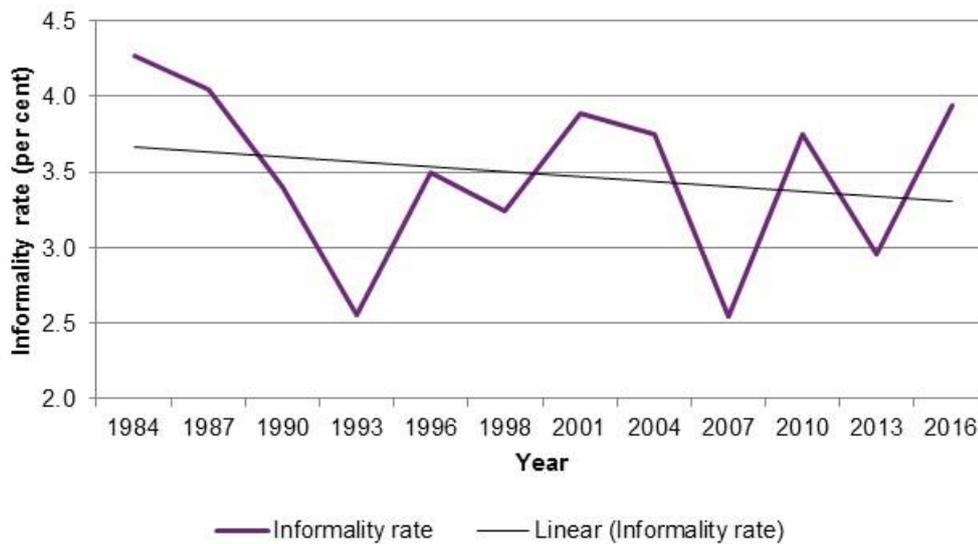
- The new system has simpler, more inclusive rules of formality
- Most formal votes cast under the previous system would also have been formal in the new system⁵
- The AEC ran an extensive information campaign
- There was extensive media reporting on the new voting system.

However there are a number of other factors that could have placed upward pressure on informal voting, including:

- An increase in the proportion of first time voters due to the large increase in youth enrolment rates and the broader success of Federal Direct Update and Enrolment
- Political disengagement
- Confusion regarding the correct way to fill in the ballot paper.

The 2016 Senate informality rate was not a historic high. Since 1984, when the previous system came into effect, informality rates were higher in 1984 (4.3 per cent) and 1987 (4.1 per cent).

Figure 3. Informality rate, 1984–2016 Senate elections



(Australian Electoral Commission, 2016b)

The following table shows the proportions of each type of informality.

Table 8. Informal voting by scanning category, 2016 Senate elections

State/territory	No Preferences %	Informal preferences %	Paper alteration %	Voter identified %	Other %	Total
NSW	66.03	33.85	0.09	0.01	0.01	100.00
Vic.	60.89	38.98	0.11	0.01	0.00	100.00
Qld	64.97	34.82	0.17	0.04	0.00	100.00
WA	65.50	34.27	0.20	0.04	0.00	100.00
SA	63.55	36.24	0.11	0.08	0.02	100.00
Tas.	60.14	39.79	0.07	0.00	0.00	100.00
ACT	65.36	34.15	0.31	0.16	0.02	100.00
NT	60.25	39.55	0.00	0.20	0.00	100.00
Total	64.09	35.76	0.12	0.03	0.01	100.00

(Australian Electoral Commission, 2016a)

Notes:

- 'No preferences' includes no preferences recorded although other marks may be present
- 'Informal preferences' includes preferences that did not meet formality criteria
- 'Paper alteration' includes ballot papers that were altered in such a way as to render the voter's intent unclear (e.g. renaming candidates or parties)
- 'Voter Identified' includes ballot papers on which the voter identified themselves
- 'Other' includes ballot papers that were not confirmed as authentic because, for example, did not contain the issuing officer's initials or bear the official mark, did not match a required template, was disfigured before being cast or for other reasons.

The majority of informal votes in all states and territories recorded no preferences. Of the remaining informal ballot papers, most had informal preferences, while all other forms of informal voting were rare. Comparable data are not available for previous Senate elections, but the high proportion of ballot papers with no recorded preferences could indicate a high rate of intentional informal voting. When the 2016 Informal Ballot Paper Study for the House of Representatives is further advanced, more information will be available about trends in assumed intentional and unintentional informal voting.

References

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End notes

¹ Partial Preferential Voting sits between Optional Preferential Voting and Full Preferential Voting. Partial Preferential Voting allows an elector to stop numbering preferences after a minimum number.

² It is also possible that some electors may have marked Senate ballot papers reading House of Representatives ballot paper instructions, which include a number of preferences to be marked.

³ Optional Preferential Voting will not be in effect for the next Queensland state election, due to a recent legislative change to Full Preferential Voting.

⁴ Note that this figure uses data from the 2013 Western Australia Senate election. Accordingly it does not match the 2016 Tally Room.

⁵ BTL ballot papers could previously be formal with any number of valid preferences as long as they met the savings provision requirements, rather than requiring a minimum of six valid preferences.