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**ANALYSIS OF INFORMAL VOTING
DURING THE 2004
HOUSE OF REPRESENTATIVES
ELECTION**

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Abstract

In every election, some votes cast are informal or invalid. Several things can render a ballot paper informal and, in Australia, rules for formality differ between state and federal elections, and between Senate and House of Representatives ballots.¹ In the mandatory full preferential voting system used in federal elections for the House of Representatives, a ballot will be considered informal if:

- all squares are not completed with a sequential number of preferences
- insufficient or illegible preferences are expressed
- ticks, crosses or other non-numerical symbols are used instead of numbers
- ballots are blank, or have marks that may identify the voter, or are deliberately made informal with marks, slogans, etc
- the ballot is not authenticated by the initials of the presiding officer.

These ballots do not count towards any candidate, and are counted separately. For analytical purposes, the AEC sorts and categorises informal ballot papers into several *categories* according to the reason for their informality.

The level of informal voting (the ‘informality’ of an election) is influenced by many factors. In Australia, these include differences between the voting systems of the states and that of the Commonwealth, and sociological factors. The AEC published a paper in 2001 which fully examined these factors

This research paper profiles informality in the 2004 election for the House of Representatives, and attempts to explain *increases* in informal voting since the 2001 election using 2004 data. The paper uses a multiple regression model to examine informality levels and the *change* in the number of candidates for all 150 Divisions. The findings of the paper emphasize that a change in the number of candidates contributes to variations in informality. In 2004 there were an average of 7.27 candidates per division, an increase from 6.92 percent in 2001. Informality increased nationally from 4.80 percent of the total of ballots in 2001 to 5.18 percent in 2004.

The paper also examines correlations between socioeconomic indices and categories of informality. The paper concludes that the main cause of the rise in informality from 2001 to 2004 is the increase in ballots declared informal because no preferences are stated and scribbles, profanities or other marks are written on the ballot. This ‘Marks or scribbles’ category has also increased as a proportion of all informal ballots (from a national average of 6.39% in 2001 to 14.27% in 2004). Had this category of informality remained static in 2004, overall informality would not have changed significantly from the 2001 House of Representatives election.

¹ For a detailed history of informal voting, see Electoral Backgrounder Number 18, *Informal Voting*, Australian Electoral Commission, August 2004. ISSN No 1440-8007.
http://www.aec.gov.au/_content/how/backgrounders/18/EB_18_Informal_Voting.pdf

I. Introduction

In every election, some votes cast are informal or invalid. The degree of informality is influenced by many factors. In Australia, these include compulsory voting, differences between the voting systems of the states and the Commonwealth, and sociological factors. A 2003 paper published by the AEC (*Informal Vote Survey—House of Representatives 2001 Election*) provided an extensive analysis of the causes of informal voting in Australia and reviewed the sociological factors that explain levels of informality.

This paper seeks to identify factors that influenced the increase in informal voting from the 2001 House of Representative elections to the 2004 elections (from 4.8% of votes cast to 5.18%). The paper examines the hypothesis that an increase in the number of candidates influenced the number of informal votes in 2004. The paper also looks at changes in the numbers and proportions of informal votes of different types from 2001 to 2004.

II. Methodology

The AEC retains ballot papers, sorted by polling place, from each election. Informal ballots from 2004 were sorted by informality and categorised by informality type. This data is compiled by electoral divisions and published in a separate attachment to this paper (Appendix: Research Report Number 7—*Analysis of the Increase in Informality During the House of Representatives 2004 Election—Divisional Summaries*).

The results were entered into a database at polling place level and aggregated to divisional and state levels. Changes from 2001 to 2004 within categories of informal votes were compared and tested against other factors, including the number of candidates on the ballot.

Changes in informality were not compared with changes in sociological factors as census data has not changed since 2001. Instead, this paper focuses on other independent variables that may account for the increase in informal voting. The paper also looks at sociological factors that might influence the types of informality, particularly ballots intentionally made informal with marks and slogans.

The paper uses a multiple regression model to correlate the increase in the informal vote against the number of candidates per ballot, and to correlate informality within categories with the socioeconomic index produced by the Australian Bureau of Statistics.

III. Informality in Australia since 1983

Australia ‘has one of the highest levels of spoiled or informal ballots among established democracies’.² Levels of informal voting at the last two elections are consistent with informality levels in the 1984 and 1987 elections.

The AEC’s 1987 analysis of informal voting showed that 48% of informal ballots were informal because of ‘defective numbering’, 25% because of ‘ticks or crosses’, 16% because they were blank, and 10% because of scribbles or writing without a valid indication of preferences.³

The treatment of ‘Langer-style’ votes changed in 1998. Langer-style ballots are typically numbered so that, at a point chosen by the elector, the preferences stop or begin to repeat (for example, 1, 2, 3, 3, 3 ...). Before 1998, such ballots were counted up to the point that the numbering stopped or became non-consecutive, and were then classified as exhausted. Until 1993, the number of Langer-style votes was small, but in 1996 there was a considerable increase. It is possible this was due to the well-publicised court action against Albert Langer. Since legislative change in 1998, Langer-style votes have been counted as informal, and their number has declined considerably.

In 2004, as shown in Table 1, informality increased at a national level to 5.18%, from 4.8% in the previous election.

Table 1: Informality over the past 20 years

Informal voting in House of Representatives elections (%)									
	2004	2001	1998	1996	1993	1990	1987	1984	1983
New South Wales	6.1	5.4	4.0	3.6	3.1	3.1	4.6	5.7	2.2
Victoria	4.1	4.0	3.5	2.9	2.8	3.5	5.3	7.5	2.2
Queensland	5.2	4.8	3.3	2.6	2.6	2.2	3.4	4.5	1.3
Western Australia	5.3	4.9	4.2	3.2	2.5	3.7	6.6	7.1	2.0
South Australia	5.6	5.5	4.5	4.1	4.1	3.7	6.6	7.1	2.0
Tasmania	3.6	3.4	3.1	2.4	2.7	3.3	5.0	5.9	2.3
Australian Capital Territory	3.4	3.5	2.9	2.8	3.4	3.0	3.5	4.7	2.2
Northern Territory	4.4	4.6	4.2	3.4	3.1	3.4	5.8	4.6	4.4
Australia	5.18	4.8	3.8	3.2	3.0	3.2	4.9	6.3	2.1

More on the history and background of formal voting requirements and informality can be found in the AEC’s Electoral Backgrounder Number 18, *Informal Voting*.⁴

² McAllister I, Makkai T, and Patterson C, 1992. *Explaining Informal Voting in the 1987 and 1990 Australian Federal Elections*, Australian Government Publishing Service, Canberra.

³ <http://www.australianpolitics.com/voting/informal/informal-house.shtml>

⁴ Electoral Backgrounder Number 18, *Informal Voting*, Australian Electoral Commission, August 2004. ISSN No 1440-8007. http://www.aec.gov.au/_content/how/backgrounders/18/EB_18_Informal_Voting.pdf

IV. Informality in the 2001 House of Representatives election

In 2003, the AEC published the *Informal Vote Survey for the House of Representatives 2001 Election*.⁵ The survey provided an overview of informal voting at the 2001 federal election and focused on variations in informal voting. Factors contributing to voting informality in Australia include differences in State and Federal electoral systems, and sociological factors. The paper detailed the number of informal votes by category. AEC Research Report Number 8 (*Appendix of Divisional Summaries / Informality 2004*) includes a breakdown of informality by division for 2004.

The key issues from the analysis of the 2001 election were as follows.

- The informal vote (as a percentage of the total votes cast) has been continuing to increase at each election.
- The largest category of informal votes were informal because the elector marked only a number '1' on the ballot paper.
- The 'No. 1 only' informal vote was particularly common in Queensland and New South Wales, where preferential voting is optional in state elections.
- Informal votes increased with the number of candidates on the ballot paper.

Sociological factors

The 2003 paper tested the hypothesis that sociological and institutional factors influence informal voting and found that the 'Not fluent in English' variable is both the major predictor of informal voting and statistically highly significant. The 'Persons with low education attainment' variable also correlated with higher levels of informality.

Difference between electoral systems at state and federal levels

Differences between voting procedures at the federal and state levels, and between the voting systems for the Senate and the House of Representatives, may also contribute to voting informality. In the 'full preferential' system used in elections for the House of Representatives, the elector must number every square on the ballot paper to cast a formal vote, but not all elections in Australia use a full preferential system. New South Wales and Queensland both practise 'optional preferential' voting at the state level. Furthermore, state elections have differing criteria for formality.

Compulsory voting

Several studies indicate that compulsory voting may be one of many factors contributing to informality, and that blank ballots may in some cases be the 'functional equivalent of abstention'.⁶ These studies show that while the link between compulsory voting and informal voting is difficult to prove, some informal votes could be protest votes from voters who would have otherwise abstained under a non-compulsory system. Informal ballots with either protest slogans or marks making the numbering illegible made up about 6.6% of informal votes in 2001.

V. Survey of informality in the 2004 House of Representatives election

Between 2001 and 2004, there was a slight increase in the percentage of informal votes for House of Representatives elections. In 2004, 13,098,461 Australians were enrolled to vote, and a total of

⁵ Medew R, 2003. *Informal Vote Survey—House of Representatives 2001 Election*, Australian Electoral Commission, Canberra.

⁶ Lavareda, José Antôáio, 1991. *A democracia nas urnas: o processo partidario eleitoral brasileiro*, Rio de Janeiro. Also referenced in Medew, 2001.

12,354,983 votes were cast, a participation rate of 94.32%. Of the total votes cast, 639,851 (5.18%) were counted as informal, an increase in 0.36 percentage points (or 7.5% of total informal votes) since 2001.

The high informality rates at the 2001 election resulted in several activities by the AEC to address and reduce informal voting. Several different initiatives were undertaken, including an enhanced public awareness program in New South Wales and Queensland to address the possible impact of optional preferential voting systems used for state elections. In addition to regular advertising, this involved having posters in all polling places to remind electors to number every square on the House of Representatives ballot paper. Issuing officers were also provided with a script, and instructed to remind all electors of this requirement when issuing ballot papers.

In New South Wales, community information sessions were conducted during August and September 2004 in Auburn, Parramatta, Liverpool, Cabramatta, Blacktown and the Canterbury–Bankstown area. These areas were selected because of the high levels of informal voting recorded at the 2001 election. Information sessions conducted in conjunction with Migrant Resource Centres were designed to educate ethnic community leaders and service providers, who in turn acted as intermediaries within their local communities to inform others about how to participate fully in the election process and make their votes count.

The 2004 informality levels suggest that there needs to be continued emphasis on activities and programs within divisions with high levels of informality.

Appendix: Research Report Number 7—*Analysis of the Increase in Informality During the House of Representatives 2004 Election—Divisional Summaries* has a full breakdown of informal votes by category for each division.

Breakdown of informality by category

In general, informal ballots can be broken into the following categories:

- Blank
- Number 1 only
- Ticks and crosses
- Langer-style voting (eg 1, 2, 3, 3, 3 ...)
- Non-sequential (eg 1, 2, 400, 327...)
- Voter identified
- Marks on ballot and no preference stated
- Slogans making preferences illegible
- Other, including other symbols
- Incomplete numbering.

There are some differences between how informal votes were categorised in 2001 and how they were categorised in 2004. In 2004, Langer-style votes were simply counted as ‘Non-sequential’, and separate categories were established for incomplete votes and votes that used non-numeric symbols (in 2001, any vote that listed an incomplete number of preferences was categorised as ‘Other’, along with those using non-numeric symbols). While electoral officials were given instructions on how to categorise informal ballots for both elections, in some cases they may have differed in their interpretation of the categories. This is largely because some informal ballots satisfy multiple criteria, and might therefore be placed in more than one category. For example, if a ballot paper has

non-sequential numbering, ticks and crosses, and marks and slogans, it could be placed in any one of three categories.

To make categories used in 2001 and 2004 more nearly equivalent for statistical and comparative purposes, they have been adjusted as follows.

- ‘Other 2004’ includes ‘Other symbols’.
- ‘Langer-style’ was not counted in 2004. These ballots would have been included in ‘Non-sequential’ in 2004.
- ‘Incomplete numbering’ was counted only in 2004. In 2001, ballots with incomplete numbering would have been categorised as ‘Other’.

Because some ballots categorised simply as ‘Other’ in 2001 were subcategorised into ‘Incomplete’ in 2004, the 2004 ‘Other’ category can be expected to be smaller (all other factors being equal).

Figure 1 and Table 2 show the proportions of informal votes by category for the 2001 and 2004 elections. For comparative purposes, Figure 1 combines the 2004 ‘Incomplete numbering’ category with ‘Other’, since those ballots would have been categorised as ‘Other’ in 2001. Table 2 lists these categories separately.

Figure 1: Informality, by category, 2001 and 2004

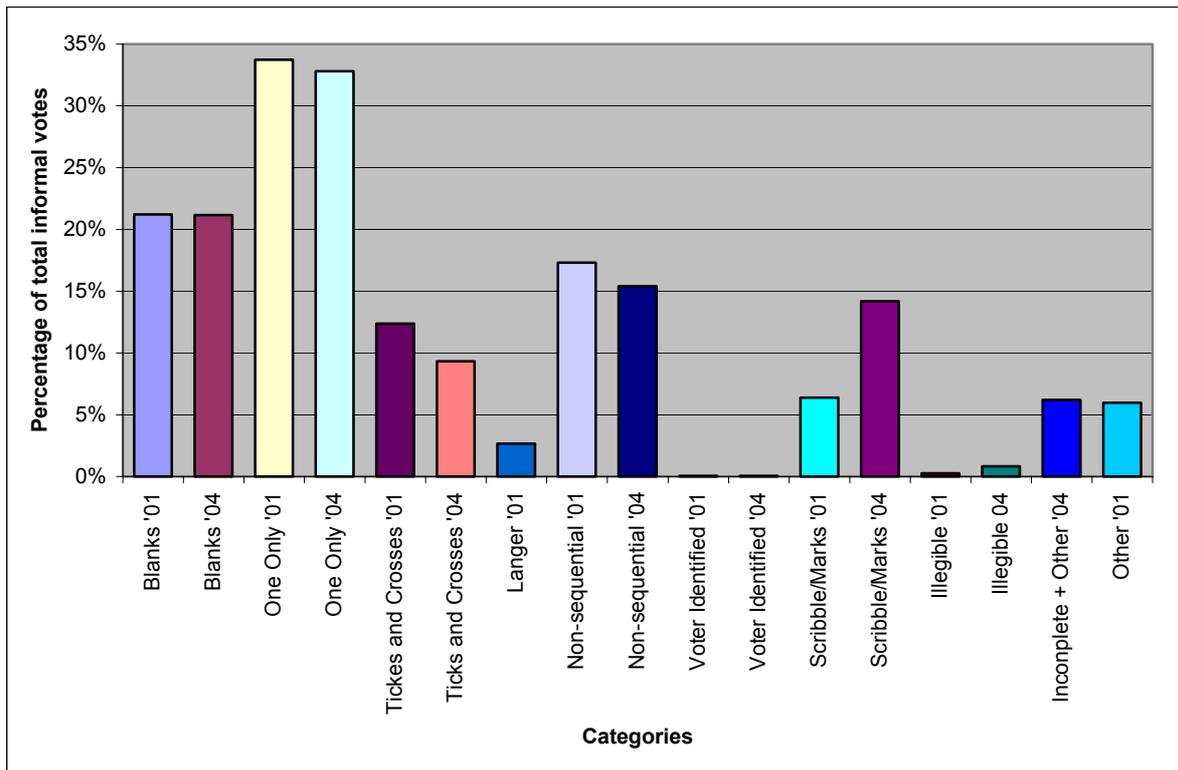


Table 2: Informality, by category, 2001 and 2004 (% of total informal votes)

Category	National average 2001	ACT	NSW	NT	Qld.	SA	Tas.	Vic.	WA
Blanks									
2004	21.15	23.58	21.18	18.77	15.24	23.16	28.21	24.16	22.89
2001	21.22	30.84	20.38	20.74	15.67	24.52	27.86	24.95	23.36
Number 1 only									
2004	32.83	35.57	35.65	27.65	44.57	30.91	22.37	21.81	25.25
2001	33.72	28.76	32.47	27.95	46.42	36.63	23.60	26.05	29.87
Ticks and crosses									
2004	9.34	8.00	10.71	9.00	7.37	11.72	11.42	7.40	9.18
2001	12.92	8.99	12.57	10.62	11.46	14.95	15.84	12.97	9.93
Langer-style									
2001 only	2.86	0.83	2.37	14.56	2.00	1.05	6.88	3.22	4.18
Non-sequential									
2004	15.35	4.88	15.22	19.85	9.79	14.12	8.19	20.39	19.31
2001	17.31	7.66	22.52	15.06	10.49	13.40	13.17	14.15	21.75
Voter identified									
2004	0.04	0.00	0.04	0.05	0.06	0.05	0.07	0.06	0.02
2001	0.05	0.04	0.04	0.00	0.03	0.03	0.02	0.07	0.11
Marks and scribbles									
2004	14.27	20.21	9.62	15.60	15.65	13.72	24.66	20.14	15.94
2001	6.39	4.20	5.49	2.98	4.91	5.97	12.11	8.23	7.78
Slogans making numbers illegible									
2004	0.83	0.58	0.73	1.13	0.97	1.37	0.62	0.78	0.60
2001	0.26	0.05	0.28	0.00	0.30	0.57	0.01	0.42	0.18
Other									
2004	1.82	3.32	1.55	4.23	1.73	1.69	1.71	2.21	1.83
2001 (includes other symbols)	5.98	18.63	3.87	8.09	8.72	2.87	0.51	3.98	2.83
Incomplete numbering									
2004 only	4.39	3.05	5.23	3.71	4.63	3.05	2.75	3.05	4.97
Average number of candidates:									
2004	7.27	5.00	7.64	6.00	7.32	6.91	5.00	7.00	8.30
2001	6.92	6.50	7.90	6.50	6.63	5.92	5.40	6.10	7.70

Table 3: Divisions with highest/lowest informality in 2004 and comparison with 2001 informality

State	Division	Total informal % 2001	Total informal % 2004	Socioeconomic index ^a	Geographical classification
Division with lowest informality levels in 2004					
Vic.	Higgins	2.68	2.76	High	Inner Metropolitan
NSW	New England	1.97	2.77	Lower	Rural
Vic.	Bendigo	3.72	2.87	Low	Provincial
Vic.	Indi	5.22	2.88	Lower Middle	Rural
Vic.	Kooyong	2.57	2.90	High	Inner Metropolitan
Vic.	Corangamite	3.38	3.04	Upper Middle	Rural
Vic.	Deakin	2.56	3.06	High	Outer Metropolitan
Tas.	Denison	2.91	3.10	Upper	Inner Metropolitan
Vic.	Melbourne	3.77	3.27	Lower Middle	Inner Metropolitan
Vic.	Ballarat	2.88	3.34	High	Provincial
Divisions with highest informality levels in 2004 ^b					
NSW	Werriwa	8.51	7.98	Lower Middle	Outer Metropolitan
NSW	Kingsford Smith	6.14	8.43	High	Inner Metropolitan
NSW	Parramatta	6.21	8.53	High	Inner Metropolitan
NSW	Watson	7.52	9.10	Lower	Inner Metropolitan
NSW	Fowler	12.75	9.11	Low	Outer Metropolitan
NSW	Prospect	8.99	9.24	Lower Middle	Outer Metropolitan
NSW	Chifley	9.20	10.10	Low	Outer Metropolitan
NSW	Blaxland	9.78	10.70	Lower Middle	Inner Metropolitan
NSW	Reid	11.08	11.71	Lower Middle	Inner Metropolitan
NSW	Greenway	6.79	11.83	Upper Middle	Outer Metropolitan

a Medew R, 2005. 'Analysis of Electoral Divisions Classification', Australian Electoral Commission. 2001 ABS Census data used.

b These divisions had a high level of informality despite public awareness campaigns and new initiatives aimed at educating electors about how to cast a formal vote.

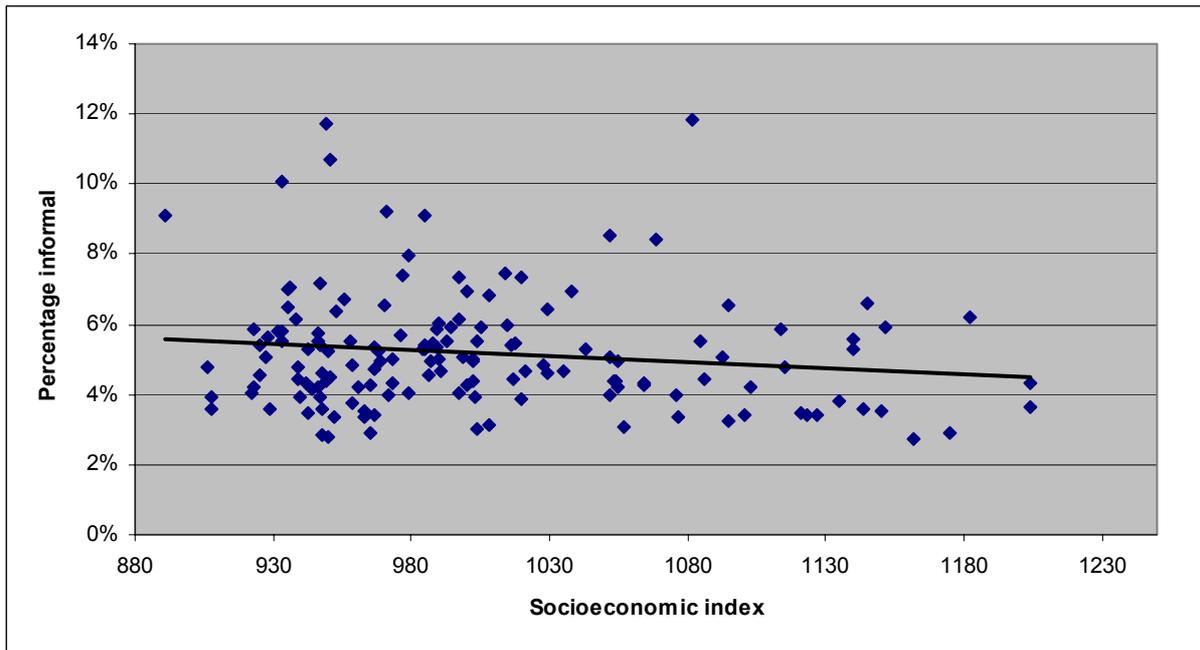
In 2004, the 10 divisions with the highest levels of overall informality were *all* in Sydney. Using the Australian Bureau of Statistics' socioeconomic index, which is based on 2001 census statistics, three out of 10 of these divisions are classified as low, lower or lower middle.⁷ In contrast, the divisions with the lowest levels of informality are in a range of socio-economic classifications, geographical locations and states.

Whilst the ranking of divisions with the highest and lowest informality levels may have changed slightly, the comparison of informality levels above reveals that informality levels did not vary significantly between 2001 and 2004.

A correlation scattergram (Figure 2) shows a very slight correlation between overall levels of informality and an area's socioeconomic index. A regression of this data reveals that this correlation is not statistically significant.

⁷ Medew R, 2005. 'Analysis of Electoral Divisions Classification', Australian Electoral Commission.

Figure 2: National level of informality, percentage against socioeconomic index



Informality and geographical location

While there has been an increase in informal voting across all division locations, informal voting levels have been consistently higher in metropolitan areas for the past two elections (Table 4).

Table 4: Increases/decreases in informality, 2004

Division location	Total informal / formal 2001	Total informal / formal 2004	Average no. of candidates 2004	Average change in candidates from 2001	% points increase / decrease in informality
Rural	4.56%	4.79%	7.49	+0.07	+0.23
Provincial	4.60%	4.81%	7.11	-0.56	+0.22
Outer Metropolitan	5.06%	5.43%	7.19	+0.51	+0.37
Inner Metropolitan	4.95%	5.52%	7.26	+0.83	+0.57

Declaration votes

Informality levels across all types of declaration votes rose in 2004 consistent with the overall increase in informality from 2001.

An analysis of all declaration votes by state (Table 5) suggests that people who cast postal and pre-poll votes have lower incidences of informality. Postal voters often have long periods of time at home to read through the ballot and the instructions, and are not hurried by the normal business of election-day voting, which might contribute to informality levels.

The informality level for absent votes is 5.13 percent, consistent with the informality level for all votes cast - 5.18 percent. Informality levels among provisional voters have typically been higher – in 2001, 6.73%, in 2004 6.82%.

Table 5: Declaration votes 2004

State	Absent votes	Informal absent	Postal votes	Informal postal	Pre-poll votes	Informal pre-poll	Provisional votes	Informal provisional
ACT	4,368	168	7,567	104	33,289	744	2,643	165
<i>Total informal</i>		3.85%		1.37%		2.24%		6.24%
NSW	245,680	14,283	189,256	4,743	259,022	8,986	28,544	2,290
<i>Total informal</i>		5.81%		2.51%		3.47%		8.02%
NT	2,070	93	3,107	43	10,050	268	1,183	61
<i>Total informal</i>		4.49%		1.38%		2.67%		5.16%
Qld.	132,752	5,941	136,977	3,018	116,870	3,393	14,667	1,033
<i>Total informal</i>		4.48%		2.20%		2.90%		7.04%
SA	61,997	3,326	44,662	839	40,807	1,224	4,843	391
<i>Total informal</i>		5.37%		1.89%		3.00%		8.07%
Tas.	15,038	421	15,837	249	14,465	275	3,353	184
<i>Total informal</i>		2.80%		1.57%		1.90%		5.49%
Vic.	180,961	8,692	176,645	3,071	187,468	5,128	22,201	1,139
<i>Total informal</i>		4.80%		1.74%		2.74%		5.13%
WA	102,246	5,307	39,226	840	56,078	1,550	13,078	906
<i>Total informal</i>		5.19%		2.14%		2.76%		6.93%
Total	745,112	38,231	613,277	12,907	718,049	21,568	90,512	6,169
Total informal '04		5.13%		2.10%		3.00%		6.82%
Total informal '01		4.89%		1.69%		2.81%		6.73%

Blanks

The proportion of informal ballots declared informal because they were blank did not change significantly between the 2001 and 2004 elections. Table 11 in the appendix of this paper lists the 10 divisions with the highest proportion of blank ballots in the 2004 election, with figures for those divisions in 2001. Figure 8 in the appendix charts blanks against the socioeconomic index.

Across all states and territories, percentage levels of informal blank ballots were at similar levels in 2001 and 2004.

Marks

The only category with significant changes between 2001 and 2004 was 'Marks and scribbles'. Ballot papers categorised under this heading are perhaps the most indicative of political protest. Most of these papers have been marked with slogans and words of protest against the political and electoral system, without the elector expressing a sufficient number of preferences. Such papers most clearly indicate the voter's intention to cast an informal ballot. This could perhaps be attributed to apathy, dissociation from the electoral process or dissatisfaction with the choice of candidates.

Had the proportion of ballots informal because of marks and scribbles stayed constant from 2001 to 2004, there would have been approximately 49,973 fewer informal ballots in 2004. This would have reduced the overall informality rate to 4.78%, close to the rate of 4.8% in 2001. That is, if the level of informality due to marks had stayed the same, total informality would also have been virtually unchanged.

The 10 divisions with the lowest level of informal ballots due to scribbles and marks were in inner or outer metropolitan areas in New South Wales (Table 6).

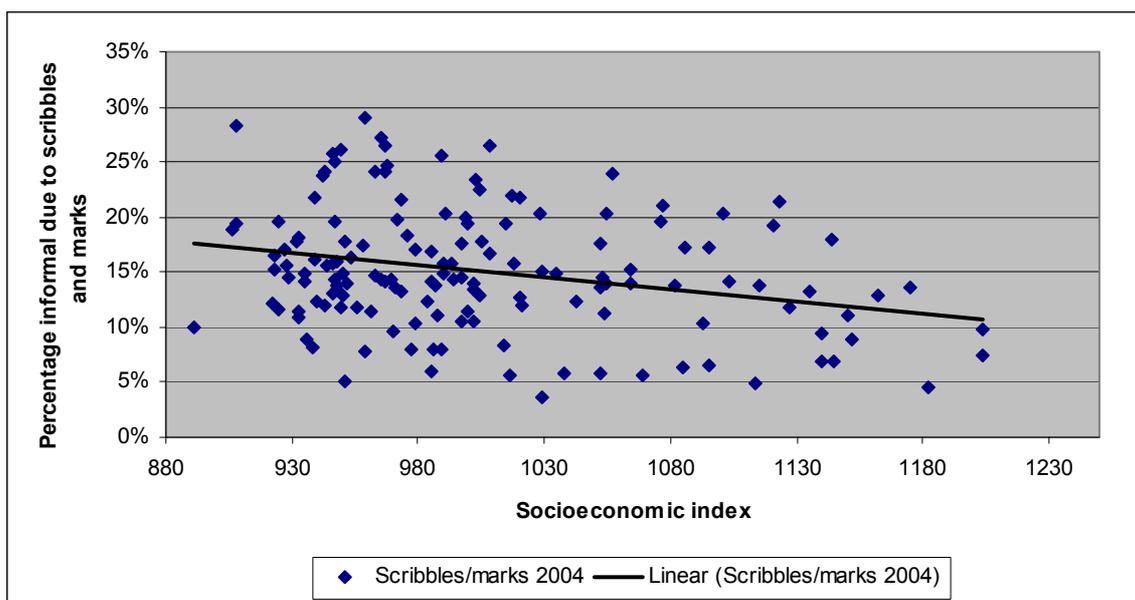
Table 6: Divisions with highest and lowest percentages of informality due to marks and scribbles⁸

State	Division	Informal from scribbles/marks 2004 (%)	Informal from scribbles/marks 2001 (%)	Socioeconomic index	Geographical classification
Divisions with highest percentages of informal ballots in marks/scribbles category					
Vic.	Maribyrnong	29.11	0.64	Lower Middle	Inner Metropolitan
Tas.	Lyons	28.27	15.70	Low	Rural
Vic.	Indi	27.18	4.58	Lower Middle	Rural
Tas.	Denison	26.50	13.76	Upper Middle	Inner Metropolitan
Vic.	Scullin	26.40	11.16	Lower Middle	Outer Metropolitan
Vic.	Corangamite	26.15	3.75	Upper Middle	Rural
Vic.	Gippsland	25.70	8.03	Low	Rural
Vic.	Batman	25.57	0.17	Upper Middle	Inner Metropolitan
Tas.	Bass	25.10	4.22	Low	Provincial
Vic.	Calwell	24.73	1.36	Lower Middle	Outer Metropolitan
NSW	Cook	6.41	4.67	High	Outer Metropolitan
Divisions with lowest percentages of informal ballots in marks/scribbles category					
NSW	Watson	6.06	4.19	Lower Middle	Inner Metropolitan
NSW	Barton	5.86	4.95	Upper Middle	Inner Metropolitan
NSW	Parramatta	5.79	4.69	High	Inner Metropolitan
NSW	Greenway	5.66	3.66	Upper Middle	Outer Metropolitan
NSW	Kingsford Smith	5.64	5.09	High	Inner Metropolitan
NSW	Blaxland	5.10	6.05	Lower Middle	Inner Metropolitan
NSW	Bennelong	4.91	5.83	High	Inner Metropolitan
NSW	Wentworth	4.62	7.52	High	Inner Metropolitan
NSW	Cunningham	3.63	0.72	Upper Middle	Provincial

A correlation scattergram (Figure 3) confirms the examination of the top 10 divisions and indicates a slight negative correlation between the percentage of informality due to marks and scribbles and the socioeconomic index.

⁸ In 2001 the percentage of ballot papers in this category was particularly small. In 2004 these numbers increased along with the corresponding percentages. For example, in 2001 Maribyrnong had 27 ballot papers informal due to marks and scribbles out of a total of 4309 informal ballot. This contrasts with 2004 levels in Maribyrnong, with 1161 ballot papers invalid in this category out of a total of 3989 informal ballot papers.

Figure 3: Informality due to marks and scribbles, 2004, against socioeconomic index



Number 1 only

Full preferential voting for the House of Representatives requires every square to be numbered in order, but not all elections in Australia require this. Of the 50 divisions with the highest percentage of informal votes (ranging from 5.46% to 11.83%), 35 are in either Queensland or New South Wales, the two states where preferential voting is optional at the state level.

The state with the largest proportion of ‘Number 1 only’ informal votes in 2004 was Queensland with 44.57% of informal votes, falling from 46.42% in 2001). In New South Wales, the proportion of ‘Number 1 only’ votes rose by more than three percentage points, from 32.47% to 35.65% (see Table 7; Figure 7 in the appendix to this paper charts these votes against the socioeconomic index).

Table 7: Divisions with the highest proportions of ‘Number 1 only’ informal votes

State	Division	Total informal 2001 (%)	Total informal 2004 (%)	Socioeconomic index	Geographical classification
Qld.	Ryan	55.62	38.10	High	Outer Metropolitan
Qld.	Lilley	55.16	45.05	Upper Middle	Inner Metropolitan
NSW	Bradfield	54.88	49.32	High	Inner Metropolitan
Qld.	Dickson	54.13	46.65	Low	Outer Metropolitan
Qld.	Longman	51.33	47.82	Low	Outer Metropolitan
Qld.	Leichhardt	49.64	54.01	Upper Middle	Rural
Qld.	Herbert	49.40	48.43	Upper Middle	Provincial
Qld.	Petrie	49.25	50.93	Upper Middle	Outer Metropolitan
NSW	Cook	49.17	44.75	High	Outer Metropolitan
Qld.	Moreton	49.00	49.25	High	Inner Metropolitan

Ticks and crosses

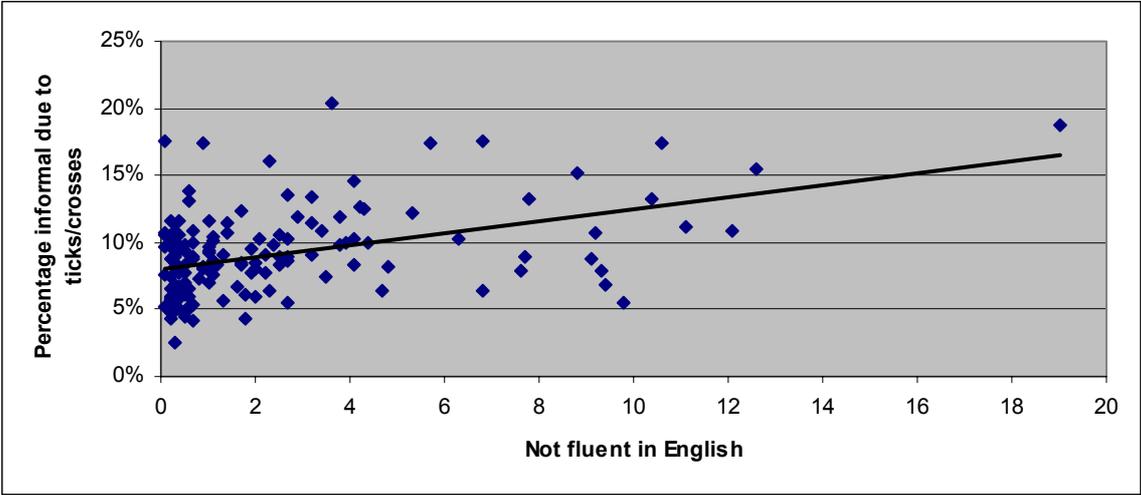
The use of ticks and crosses renders a House of Representatives ballot informal for Australian federal elections. The national average percentage of papers counted as informal for this reason fell from 2001 to 2004.

Eight of the 10 divisions with the highest proportion of informality due to ticks and crosses were in New South Wales. However, this proportion fell in New South Wales from 12.57% in 2001 to 10.71% in 2004. Table 12 in the appendix to this paper lists the 10 divisions with the highest proportion of informal ballots declared informal in 2004 because of ticks and crosses.

In Queensland and New South Wales, around 50% of informality is caused by either ‘Ticks and crosses’ or ‘Number 1 only’. These are potentially avoidable types of voting informality, in which people are *attempting* to vote correctly but are perhaps confused by differences between state and federal voting systems.

Furthermore, it is apparent that there is a positive correlation between the percentage of informality due to ‘Ticks and crosses’ and the statistical census variable, ‘Not fluent in English’ (see Figure 4). The AEC’s 2003 analysis of the 2001 election showed that the ‘Not fluent In English’ variable is a predictor of informality and is highly significant statistically. A regression analysis shows that this variable is a major predictor for ‘Ticks and crosses’ informality.⁹ Figure 9 in the appendix charts ‘Ticks and crosses’ against the socioeconomic index.

Figure 4: 2004 Ticks and crosses as percentage of overall informality, and variable ‘Not fluent in English’



Possible targeted actions to reduce informality

Since it is reasonable to assume that informal ballots in the ‘Marks’ and ‘Blanks’ categories indicate intentionally informal or ‘protest’ votes, the ‘Number 1 only’, ‘Ticks and crosses’, ‘Non-sequential’ and ‘Incomplete’ categories might best be targeted to lower the overall national informality rate. Table 8 shows the predicted effects on overall rates from reductions in all categories.

⁹ Medew R, 2003. ‘Informal Vote Survey—House of Representatives 2001 Election’, Australian Electoral Commission, Canberra.

Table 8: Hypothetical changes in overall informality based on reductions within categories

Highest categories of informality	Raw total in 2004 (% of overall informality)	National informality if category reduced by 25%	National informality if category reduced by 50%	National informality if category reduced by 75%
Blanks	21.15%	4.84%	4.57%	4.30%
'One' only	32.83%	4.69%	4.27%	3.85%
Ticks and crosses	9.34%	4.99%	4.87%	4.75%
Marks	14.27%	4.92%	4.74%	4.56%
Non-sequential and incomplete	19.74%	4.85%	4.60%	4.35%

VI. Informality and number of candidates on ballot

It has been hypothesised that the proportion of informal votes increases with the number of candidates on the ballot paper. In 2004, the average number of candidates per divisional ballot was 7.27, an increase of 4.9% from 6.93 candidates per ballot in 2001. Greenway (New South Wales) was the division with the highest level of informal voting (11.83%) and the highest number of candidates (14).

Table 9 compares informality, by state and nationally, with the number of candidates on the 2001 and 2004 ballot papers.

Table 9: Informal voting and number of candidates

	NSW	Qld.	Vic.	WA	SA	Tas.	ACT	NT	National
2001 informal (%)	5.42	4.83	3.98	4.92	5.54	3.40	3.52	4.64	4.82
2004 informal (%)	6.12	5.16	4.10	5.32	5.56	3.59	3.44	4.45	5.18
Change in percentage points	+0.70	+0.33	+0.12	+0.40	+0.02	+0.19	-0.08	-0.19	+0.36
2001 average no. of candidates	7.90	6.63	6.10	7.70	5.92	5.40	6.50	6.50	6.92
2004 average no. of candidates	7.64	7.32	7.00	8.30	6.91	5.00	5.00	6.00	7.27
Change in percentage points	-0.26	+0.69	+0.90	+0.60	+0.99	-0.40	-1.50	-0.50	+0.35

A simple regression analysis (Table 10) to test the correlation of informality with the increase / decrease in the number of candidates on the ballot produces the following results:

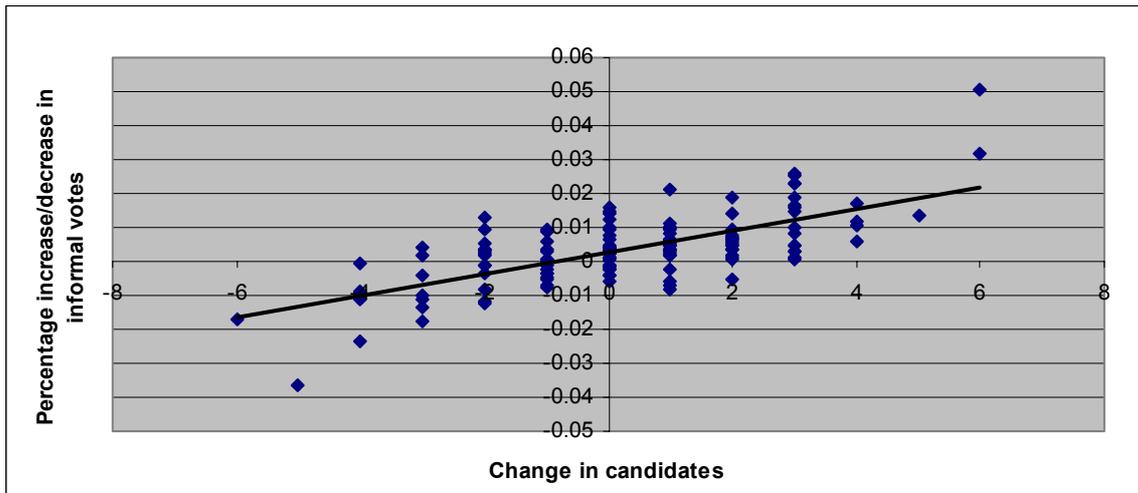
Multiple R: 0.688565
R Square: 0.474121
Adjusted R Square: 0.47052

Table 10: Regression analysis

	Coefficient	Standard error	T-stat	P-value	Lower 95%	Upper 95%
Intercept	0.002595	0.000604	4.325439	1.2810E-05	0.001409	0.0037854
No. of candidates	0.003192	0.000278	11.47304	4.0E-22	0.002642	0.0037420

Generating a line of regression produces Figure 5.

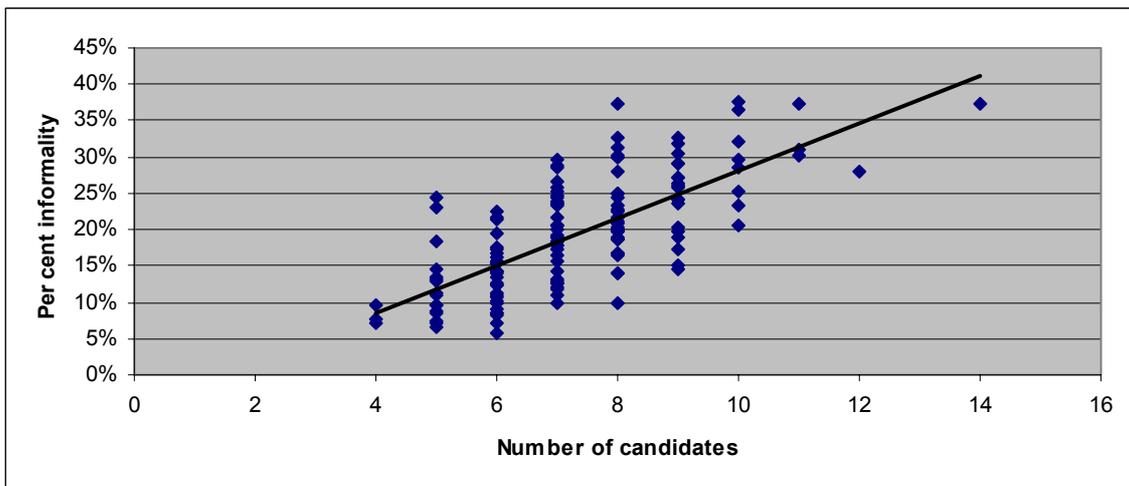
Figure 5: Percentage change in informal votes and change in total number of candidates between 2001 and 2004



The 'number of candidates' variable is a strong predictor of informality. Unsurprisingly, Greenway, the seat with the highest number of candidates (14) and the largest increase in the number of candidates from 2001 (six), had the highest percentage of informal voting.

Furthermore, a scattergram (Figure 6) shows that, as the number of candidates increases, so does the percentage of 'Incomplete' and 'Non-sequential' informal ballots.

Figure 6: Incomplete and non-sequential votes in 2004, against number of candidates



This analysis confirms the hypothesis: the more candidates an elector has to give preferences to, the more likely it is that the elector will make an error in fully and sequentially numbering all the boxes on the ballot.

VII. Conclusions

Between 2001 and 2004, there was an increase in the percentage of informal votes for House of Representatives elections. Of the total votes cast, 639,851 (5.18%) were counted as informal, an increase in 0.36 percentage points (or 7.5% of total informal votes) since 2001.

In summary, this analysis of the increase in informal voting in House of Representatives elections from 2001 to 2004 reveals the following:

- There was a significant increase in the percentage of ballots made informal by marks and scribbles. If the informality level in this category had not increased in 2004, overall informality would have stayed at 2001 levels.
- The strongest predictor of the rise in informality is an increase in the number of candidates on the ballot paper.
- Ballots that are informal because the elector has marked 'Number 1 only' or 'non-sequential' make up the almost 50 percent of overall informality in all states and territories.
- The 10 divisions with the highest informality levels were in among the 27 divisions with the highest non-English speaking background levels nationally. This has been an issue identified in the last two federal elections.

The differences in the voting systems between the states and territories, and in the ways ballots are deemed informal in those systems, continue to have an impact on informality at the federal level. Levels of ballots marked with 'Number 1 only' remain high in New South Wales and Queensland in 2001 and 2004 federal elections. New South Wales is due to hold its next state general election on 24 March 2007 and Queensland is also likely to hold its next state election in 2007, although the date is not yet fixed. The next federal election is also expected in the latter half of 2007. Therefore, if the AEC and its stakeholders do not address the impact of optional preferential voting in these states, informality at federal elections is likely to remain high in these states.

The AEC will consult with its stakeholders and members of the public to consider how it can work to more effectively reduce informal voting. These consultations will result in a number of recommendations, some or all of which may be piloted and implemented at the next election.

Appendix of additional tables and graphs

Figure 7: 'Number 1 only' informal votes and socioeconomic index

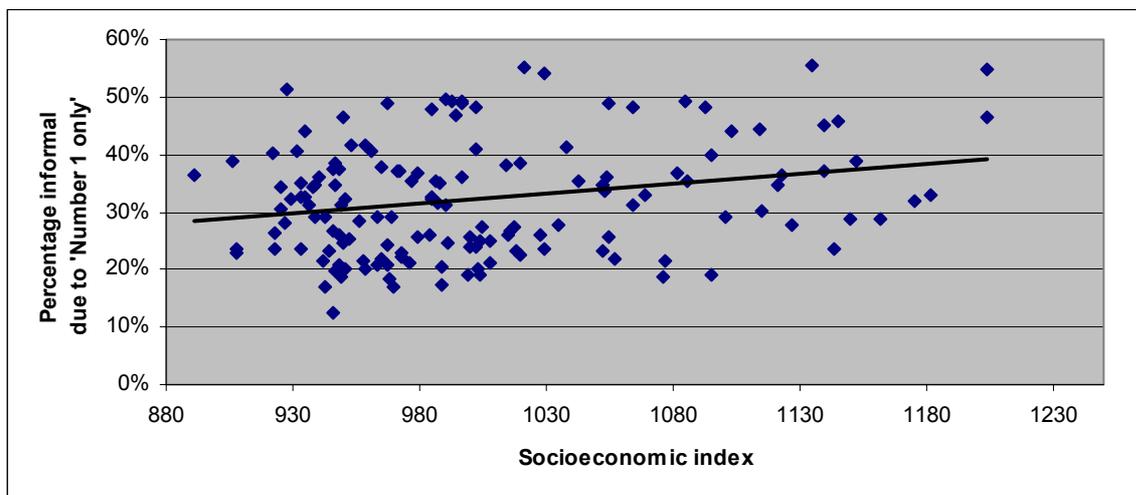


Table 11: Divisions with highest percentage of 'blanks only'

State	Division	Blanks 2004 (%)	Blanks 2001 (%)	Socioeconomic index	Geographical classification
Tas.	Bass	29.79	31.99	Low	Provincial
NSW	Parkes	29.18	23.26	Low	Rural
Vic.	Holt	29.16	29.76	Low	Outer Metropolitan
SA	Barker	28.98	26.32	Low	Rural
Vic.	Scullin	28.83	23.20	Lower Middle	Outer Metropolitan
Vic.	Wannon	28.77	28.15	Lower Middle	Rural
Vic.	Lalor	28.70	27.43	Lower Middle	Outer Metropolitan
Vic.	Indi	28.61	21.42	Lower Middle	Rural
Tas.	Denison	28.31	25.99	Upper Middle	Inner Metropolitan
Tas.	Franklin	28.11	25.45	Lower Middle	Outer Metropolitan

Figure 8: Blanks against socioeconomic index, 2004

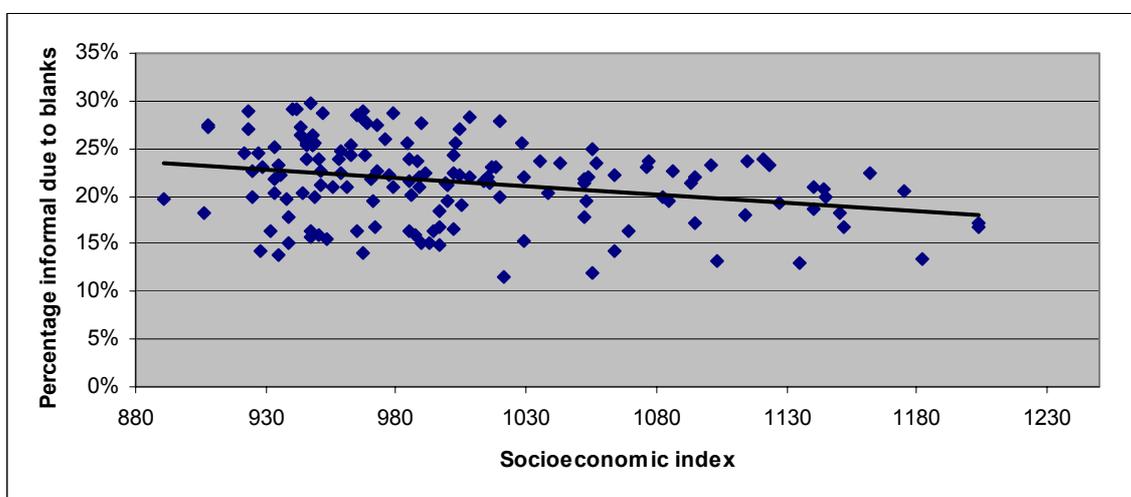


Table 12: Divisions with highest percentage of ticks and crosses

State	Division	Ticks and crosses 2004 (%)	Ticks and crosses 2001 (%)	Socioeconomic index	Geographical classification
NSW	Throsby	20.33	18.26	Low	Provincial
NSW	Fowler	18.70	14.79	Low	Outer Metropolitan
Tas.	Braddon	17.56	17.36	Low	Rural
NSW	Barton	17.53	16.71	Upper Middle	Inner Metropolitan
SA	Port Adelaide	17.48	14.52	Low	Inner Metropolitan
NSW	Riverina	17.46	13.98	Lower Middle	Rural
NSW	Grayndler	17.38	15.52	High	Inner Metropolitan
NSW	North Sydney	16.05	15.90	High	Inner Metropolitan
NSW	Watson	15.51	18.67	Lower Middle	Inner Metropolitan
NSW	Prospect	15.19	17.01	Lower Middle	Outer Metropolitan

Figure 9: Ticks/crosses and socioeconomic index, 2004

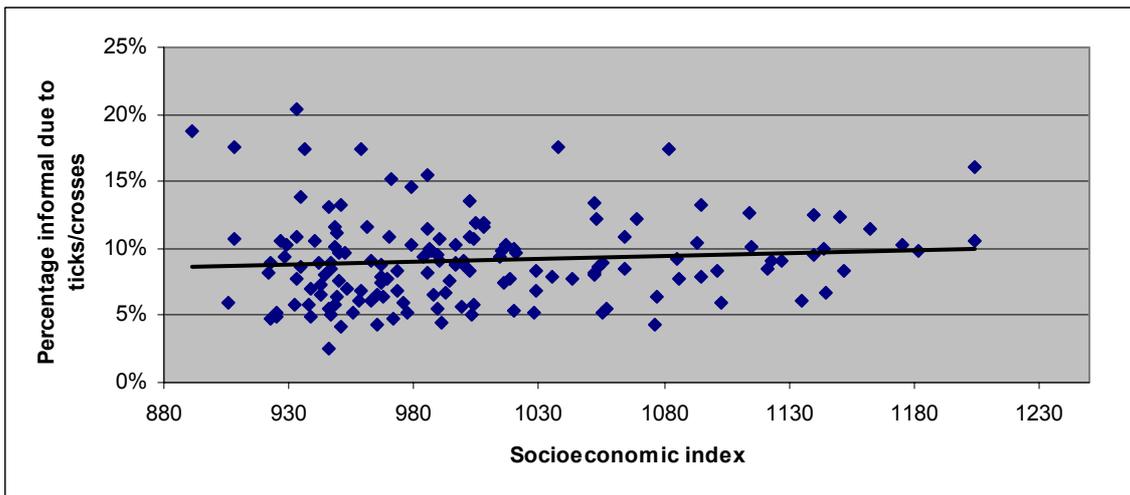
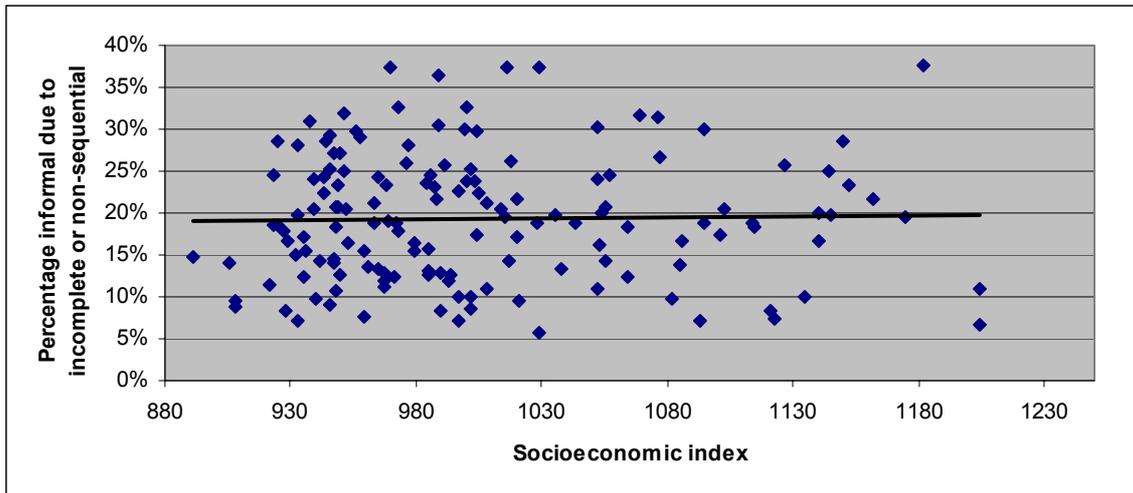


Table 13: Divisions with highest percentage of incomplete and non-sequential ballot

State	Division	Number of Candidates	Total non-sequential + incomplete (%)	Socioeconomic index	Geographical classification
NSW	Wentworth	10	37.65	High	Inner Metropolitan
NSW	Cunningham	11	37.32	Upper Middle	Provincial
NSW	Greenway	14	37.32	Upper Middle	Outer Metropolitan
Vic.	Gellibrand	8	37.27	Lower Middle	Inner Metropolitan
WA	Kalgoorlie	10	36.43	Upper Middle	Rural
SA	Hindmarsh	9	32.63	Upper Middle	Inner Metropolitan
Vic.	Flinders	8	32.56	Lower Middle	Outer Metropolitan
Vic.	McMillan	10	31.98	Lower Middle	Provincial
NSW	Kingsford Smith	9	31.72	High	Inner Metropolitan
Vic.	Jagajaga	8	31.42	High	Outer Metropolitan

Figure 10: Incomplete/non-sequential and socioeconomic index



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