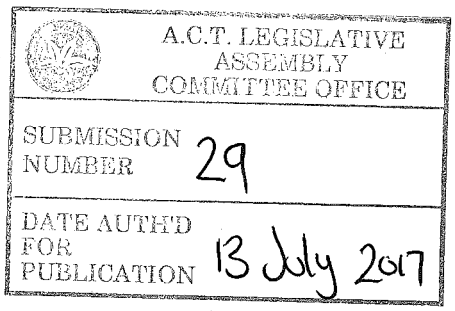
LEGISLATIVE ASSEMBLY
FOR THE AUSTRALIAN CAPITAL TERRITORY

SELECT COMMITTEE ON THE 2016 ACT ELECTION AND ELECTORAL ACT
Ms Bec Cody MLA (Chair), Mr James Milligan MLA (Deputy Chair)
Ms Tara Cheyne MLA, Ms Caroline Le Couteur MLA, Mr Andrew Wall MLA,

Submission 29

Name - **PROPORTIONAL REPRESENTATION SOCIETY OF AUSTRALIA**
(AUSTRALIAN CAPITAL TERRITORY BRANCH)



PROPORTIONAL REPRESENTATION SOCIETY OF AUSTRALIA
(AUSTRALIAN CAPITAL TERRITORY BRANCH)

STRIVE TO ENHANCE VOTER INFLUENCE

Submission by the Proportional Representation Society of Australia (Australian Capital Territory Branch) to the Select Committee on the 2016 ACT Election and the Electoral Act

July 2017

Key observations arising from the 2016 election

The 2016 election produced seat bonuses for the Labor and Liberal parties akin to what has happened in five-member electorates most times since 1995.

The Proportional Representation Society of Australia (Australian Capital Territory Branch) is alarmed at proposals to limit the placement of signs by candidates to areas where it appears there is a greater risk to road safety than in most suburban settings. When candidates are seeking to bring themselves to electors' attention in the hope of being included in their order of preferences, artificial restrictions on campaigning should be avoided. In fact, as happens in some local government elections conducted through postal voting, candidates should be allowed to submit a brief statement in favour of their candidacy at the time of nomination, for posting on the Elections ACT website before pre-poll voting with recommended fewer restrictions begins, and for inclusion in one of the official mailouts to all electors.

More official energy and resources should be applied to explaining that the marking of preferences is simply an instruction about the order in which candidates may have access to any unused value of an elector's single transferable vote, and that electors wanting to make

the most of their vote in all circumstances should continue numbering until they find all the remaining candidates uniformly without merit in all possible situations.

The ACT Branch agrees with the ACT Electoral Commission's recommendation to limit losses by fraction during the distribution of preferences, but suggests that working be to eight or ten decimal places: in these circumstances, transfer values could reasonably also be expressed as truncated decimal fractions rather than in an exact fractional form as up to now. Examples are given to show that it is sensible to give votes an initial value of 100 or 1,000 in elections where the quota will be rather small as that avoids the prospect of the last vacancy being filled on the basis of far fewer votes than the quota. Options for allowing all ballot papers contributing to a candidate's election to be eligible for transfer when a surplus is being distributed are also presented.

The abandoned challenge to the validity of one of the 2016 election outcomes draws attention to the defective nature of the current remedies available if a major dispute or an error occurs during the conduct of an election, or if the Court of Disputed Returns needs to make orders after a mishap has occurred. The scanning of ballot papers in preparation for an automated distribution of preferences makes it much easier to avert possible disasters requiring fresh poll attendance than in federal elections. Nevertheless it is important to examine our electoral legislation thoroughly for reassurance that mistakes can be appropriately rectified quickly and that the Court of Disputed Returns is always in a position to resolve disputes at minimum inconvenience to electors.

Historical Hare-Clark perspective

The Proportional Representation Society of Australia (Australian Capital Territory Branch) has been actively involved in the struggle to obtain and maintain effective voting for Canberrans since its formation. The ACT Branch was a founding member of the Hare-Clark Campaign Committee that energetically helped attract two-thirds public support for proportional representation at the electoral system plebiscite in February 1992, and played a prominent role in the preliminary and campaigning activity leading to the entrenchment, again by a two-thirds majority, of the key Hare-Clark principles in February 1995.

We have been unwavering in our promotion of the voter empowerment and fairness to all candidates and parties that the Hare-Clark system with Robson Rotation brings and have consistently supported efforts to achieve improved electoral administration including the setting of basic standards for party registration. Elections ACT has led the nation through pathbreaking initiatives such as the changes in undertaking scrutiny procedures using best-available methods that now lead to very accurate scanned electronic storage of full voting particulars in the week following an election, and upgraded efforts to take the mark-off of electors' names when they vote to the next step that technological changes and available resources safely permit.

In our view, our major electoral legislation that was passed by the Legislative Assembly in 1994 was at the forefront of Australian experience as voters' interests were consistently put first in the drafting of amendments to a very unsatisfactory starting point provided by the Follett Government following the decisive plebiscite outcome: in particular, Robson Rotation was properly implemented and it was unanimously agreed that ballot papers would be accepted as formal as long as they had a single first preference - they would of course contain an instruction to mark at least as many preferences as there are vacancies to be filled, in accordance with the official description of the Hare-Clark system prepared by the Australian

Electoral Commission; there was also a deliberate effort to keep exhausted votes to the minimum possible.

Bipartisan agreement was achieved on the key Hare-Clark principles that would take a two-thirds Assembly majority or approval by a majority of electors at referendum to adjust, circumvent or flout: after legislation governing the conduct of referenda was passed, only one MLA voted against the *Proportional Representation (Hare-Clark) Entrenchment Bill 1994* that included safeguards against sudden or tactical changes to the size of the Legislative Assembly, should the federal parliament cede power over such matters.

We have subsequently seen both positive and negative steps, the latter most notably in the abandonment in 2008, uniquely in Australian electoral practice, of separate columns for non-party groups. That change, at odds with one unambiguous feature of the 1992 official description of the Hare-Clark system, deprived groups whose hopes for legislative changes are dashed late in the term of an Assembly of the chance to generate a readily-recognisable ballot paper presence unless they have assumed the worst and started party registration activity by the end of June in an election year.

In an extremely positive direction, following significant research by both the Canberra Branch of the Statistical Society of Australia and the Electoral Commissioner, Robson Rotation arrangements were refined to minimise any possible down-the-column advantage to particular continuing candidates when someone is excluded or a surplus is distributed following a candidate's election. The printing of additional rotations followed unanimous agreement by the Legislative Assembly to substitute an expanded schedule of rotations for the original specific entrenched schedule.

While only some features of our Hare-Clark system were set out in detail in the official description preceding the 1992 plebiscite on the electoral system, when the Electoral Bill was being debated after a short-lived attempt to white-ant the operation of Robson Rotation, a conscious decision was made to follow Tasmanian scrutiny provisions as much as possible to highlight the faithfulness with which the Assembly majority were seeking to implement the striking two-thirds plebiscite outcome.

The specific provisions drawn up were not based on consensus in other jurisdictions but on sound principles articulated on the floor of the Assembly that have served the ACT particularly well: only five MLAs have subsequently been elected without achieving a quota, compared with for instance seven out of twenty-five MHAs in Tasmania at the March 2014 election, both because at least some votes for excluded candidates here are always immediately transferred to others without a quota, and because the current transfer value of non-transferable papers is kept within the quota of just-elected candidates to the degree possible.

The reason why odd numbers are entrenched for the size of ACT electorates is that they guarantee that a majority of votes translates into a majority of seats. Parties aspiring to govern know that their prospects of ultimate success improve the closer they can come to achieving 50% support in any electorate, rather than having some lower percentage as their real target in pursuit of obtaining half the available seats.

It should not be beyond the Assembly to aspire to lead the nation on other matters connected with allowing electors to make the most of their single transferable vote, or to adopt the fruits of detailed investigations in particular jurisdictions or advances in scanning technology and

computing potential after there has been appropriate discussion centred on the small number of key principles involved in quota-preferential scrutinies.

Proportional representation using the single transferable vote: it isn't complex

First, as in most preferential elections, when the single transferable vote is in use it is important to understand that **each person has just one vote**. The marking of preferences on a ballot paper indicates **the order** in which the voter wishes (what remains unused of) that vote to **assist individual** (continuing) **candidates.**

The fundamental aim when applying the single transferable vote is to have as many people as possible voting effectively, by directly helping to elect one or more candidates to fill available vacancies. In other words, wasted or ineffective votes are deliberately kept to a minimum.

No wastage of votes on candidates who don't need them

The **quota** is the **lowest** number of votes at which candidates are **mathematically certain of being elected**: except possibly when there are very few formal votes (and essentially working to several decimal places makes greater sense), it is calculated by dividing the total formal votes by one more than the number of vacancies to be filled, and increasing the answer to the next highest whole number.

Once someone reaches the quota, there is no need for more votes to be piled up. In fact, to minimise wastage of votes, any **surplus** beyond the quota is **distributed to the continuing candidates** (those neither already elected nor excluded) in accordance with the wishes of those electors whose whole vote hasn't been used up in the process. Any transfer from the elected candidate will usually be at a fractional value.

No wastage of votes on candidates who can't get elected

If there isn't a surplus to distribute, the candidate with the **fewest** votes is **excluded**. All ballot papers credited to that candidate are **transferred to the next available continuing candidates**, as individually indicated on each of them. Because these ballot papers have not helped the excluded candidate, they move on at the same value as that at which they were received.

Finally, the exclusion of a candidate may mean that there are exactly as many continuing candidates as there are vacancies still to be filled. In that case, all these continuing candidates are declared elected without necessarily the need for further transfers (as occurs in Tasmania but not in the Australian Capital Territory).

Finding the next available (continuing) candidate on any particular ballot paper

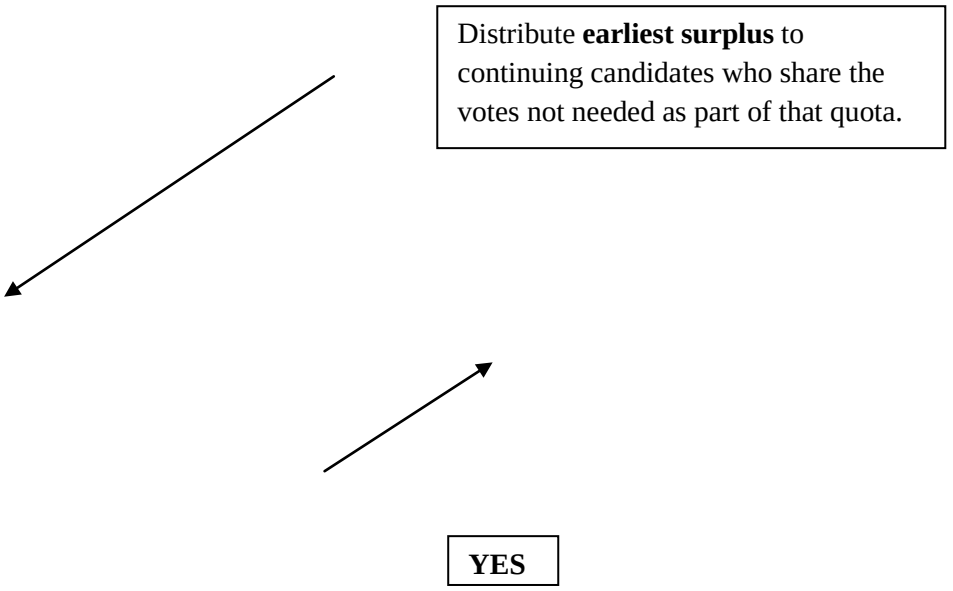
When ballot papers are being transferred, the number next to the name of the elected or excluded candidate involved must be smaller than that alongside the name of any other candidate not yet excluded or elected. Provided that there are no duplications or omissions of numbers in between, the ballot paper will next be credited to whoever of the remainder has the lowest number alongside (this is the same as having the next highest preference).

It is clear that a single first preference could be enough for a formal vote, as is the practice in the Australian Capital Territory, and that voters should always be encouraged to mark at least

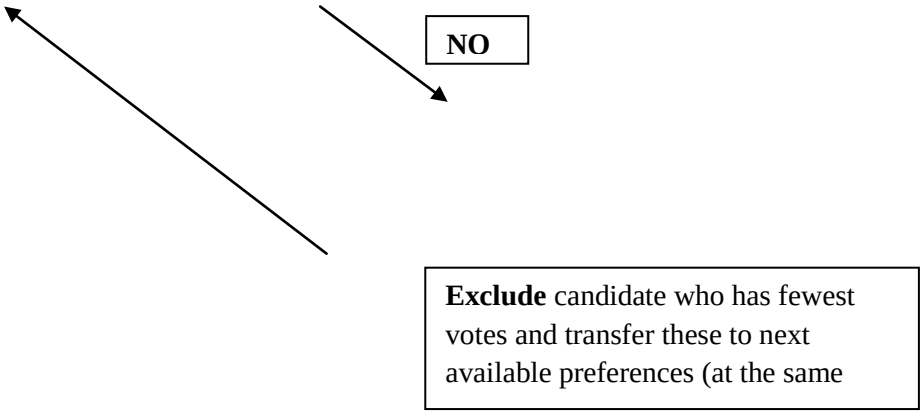
as many real preferences as they have thereafter. By marking later preferences, they cannot diminish the prospects of election of those whom they most strongly support.

Flow-chart for a quota-preferential election

1. Calculate the quota as your first step. Then keep asking the one key question below - <u>is anyone ready for election?</u>



2. Does any candidate have a quota?



3. If the number of continuing candidates falls to the number of unfilled vacancies, declare them all elected (in the Australian Capital Territory, if elected candidates haven't all reached the quota, as part of preparation for possible countback during the term of the next Assembly, exclusions are carried out straight away along with distributions of subsequent surpluses).

While the Hare-Clark system has served us extremely well since 1995, there is nothing amiss with asking whether we can do even better for voters and candidates than currently. Just as there have already been worthwhile changes and remarkable technological developments over the past twenty years, we should not fall into any trap of blindly resisting sound proposals for change and only acting after an event in which an anomaly or injustice has become apparent.

The election of October 2016

When there are five vacancies, the quota is just under 16.7%, so support levels around 30% are likely to result in two of five seats (40%), and, particularly with Robson Rotation in operation, there are prospects of converting 40% of first preferences into a majority of seats (60%).

In October 2016, majorities of seats were obtained by one party in Yerrabi, Brindabella and Ginninderra with respectively 43.9%, 41.9% and 41.4% of first preferences, but 42.8% Liberal support resulted in two of Murrumbidgee's seats, the only occasion where the proportion of seats gained by a successful party was less than its level of strong support. Two of five seats were obtained on first-preference support as low as 31.0% for the Liberals in Kurrajong.

The ACT Greens won a seat in Kurrajong starting with 18.8% of first preferences and in Murrumbidgee with 10.6%, but found 9.7%, 7.1% and 5.1% respectively in the others insufficient as a springboard for success. Similarly, the Australian Sex Party found 7.9% of first preferences in Brindabella not enough to avoid exclusion just before the final vacancies were determined.

The seat bonuses obtained by Labor and the Liberals as preferences were distributed, set out in Table 1, were of the same combined magnitude as occurred previously in five-member electorates in all elections other than those of 1995 and 2008, though in the past a greater advantage tended to be gained by the party polling fewer votes as its representation there was lifted to 40%.

Table 1: Comparison between first preferences and seats

	Votes %	Seats %
Labor	38.4	48
Liberal	36.7	44
ACT Greens	10.3	8
Australian Sex Party	3.1	-
Other	11.5	-

Such large bonuses could not have been expected in seven-member electorates where the quota is just over 12.5% and therefore 37.5% support guarantees three seats (42.9%), or in nine-member electorates where the quota slightly exceeds 10% and hence 40% support leads to at least four seats (44.4%). The maximum proportion of votes that might be ineffective falls from 16.7% to 12.5% and 10% as the number of vacancies in a seat increases from five to seven and then nine.

Only one successful candidate failed to reach the quota, Nicole Lawder falling 144 votes short in Brindabella, just the fifth person to be elected with less than a quota since the introduction of the Hare-Clark system in 1995.

On this occasion, there were no really narrow gaps between candidates with significant support when one had to be excluded towards the end of the scrutiny. Steven Bailey of the Australian Sex Party came closest, being roughly 300 votes behind the last excluded Labor candidate in Brindabella.

The outcomes affirmed the long-standing rule of thumb that somewhere near half a quota is needed for a party to feel grounds for optimism in a particular electorate.

Three of the elected candidates in Ginninderra, Murrumbidgee and Yerrabi were women and two each in Brindabella and Kurrajong, resulting in the current Assembly having majority female membership, a noteworthy first in Australian experience.

Changes in dealing with fractions worthwhile

In its report on the 2012 election, the ACT Electoral Commission identified a flaw in the legislative provisions for attempting to break multiple ties in levels of surplus at a particular count during the scrutiny on the basis of whether:

1 of the contemporary candidates had more total votes than any other contemporary candidate at the last count at which all the contemporary candidates had unequal total votes.

The Commission agreed that its proposed remedy was inferior to the solution suggested by the ACT Branch for the most complex circumstances:

If some of the candidates to be separated are tied with most votes at the most recent count where not all of them had the same progress total, the search continues among previous counts but is now confined to the smaller group of still-tied candidates. By repeating this process as often as is necessary, either one candidate is eventually legitimately established as the first whose surplus should be distributed, or a draw by lots is shown to be necessary among a group of candidates with the same progress totals at each previous count.

In a tight outcome, electors don't want to discover that one candidate's progress total was a single vote ahead at a critical count just because she received parcels of 40 and 10 ballot papers each of transfer value 0.1 whereas a party colleague received parcels of 38 and 12 ballot papers each with value 0.1: there are in each case in total 50 papers all of the same value and it is clearly unfair to treat the two candidates differently in such circumstances, that is being credited with five votes in the first instance but only four in the second. Similarly, a candidate might unreasonably be excluded by lot and miss out on being elected just because one or more votes were unnecessarily declared to be lost by fractions and, to add insult, perhaps then even at least partially gained by fractions as the unjustifiable exclusion was carried out.

It is therefore a positive and pathbreaking development nationally that the ACT Electoral Commission has proposed keeping progress totals to six decimal places, thereby reducing loss by fractions that arises in every scrutiny to an insignificant portion of a single vote. All jurisdictions except New South Wales and the Commonwealth originally in 1948 have adopted a blanket short cut in the days of manual counting that causes potentially several dozen votes to be declared lost by fractions: that exception, involving also sampling when

distributing surpluses, raised as many of the highest fractional remainders to one as was necessary to avoid any loss by fractions, and called the rest zero.

A decision to open up progress totals to being something other than integers removes the desirability of keeping transfer values exact (as simple fractions rather than decimals rounded down) because there is no longer the risk of losing whole votes by fraction when that prospect is avoidable through retention of high levels of precision. For instance, if the transfer value is 1/6 and thirty ballot papers are for a particular candidate, that particular progress total increases by five votes: using a rounding of 0.166666 for the transfer value removes 0.000002 of the parcel's value, allowing just four extra votes to be credited under the current applicable definitions; however if all calculations are undertaken to six decimal values, typically only very small portions of a single vote are lost due to the truncated rounding involved.

There have been occasions when around 10,000 ballot papers have been transferred to continuing candidates as a surplus is being distributed. That could make a difference of 0.01 or thereabouts to someone's progress total when calculations are rounded down to six decimal places. To put more robustly into effect a desire to avoid anomalies from losses by fraction and resort to tie-breaking procedures where possible, it would be slightly more prudent to operate to eight or ten decimal places for both transfer values (converted from exact fractional values should there be a decision to make all ballot papers contributing to a candidate's election eligible for further transfer) and progress totals.

Adjustments to the quota when the number of votes is small

While it is not material for public elections with large numbers of votes, where the quota is going to be rather low as for the Aboriginal and Torres Strait Islander Elected Body (ATSIEB), it is better to give each ballot paper value 100 or 1,000 (and therefore essentially work to two or three decimal places before any decision is made about how progress totals are to be treated) to avoid increasing the quota to a degree where it can become quite likely that the last elected candidate will not have to come very close to attaining it.

For instance, if there are 120 votes for seven vacancies, the customary value for the quota is 16, and hence after six vacancies are determined, there are just 24 votes left through which to fill the final vacancy. If each ballot paper is instead given value 100, the quota becomes 1,501 (or 15.01 votes) and after 6 vacancies have been filled, there is unused value of 2,994 (or 29.94 votes) through which to fill the final vacancy, making it much more likely that the quota will again be achieved by the final candidate.

That approach of assigning value greater than one to each vote when relatively few are cast is one practical way of complying with the ideal that elected candidates not be required to accumulate more votes than are strictly necessary to guarantee their election. It cannot be done by persisting with the current standard definition but keeping progress totals to several decimal places.

When the quota is relatively low, there is a possibility that the initial upwards rounding materially affects how many votes remain unused when the last vacancy or two is determined: the quota itself needs to be adjusted downwards without creating the potential for new anomalies. It is best to effectively set the quota itself to two or three decimal places by giving each vote a value of 100 or 1,000 as this avoids any artificial lowering in practice of the election hurdle towards the end of the scrutiny.

The potential effect can most easily be grasped by taking another example involving low total votes and therefore a small quota. For instance if there are 48 votes when five vacancies are to be filled, the standard definition puts the quota at 9, and therefore means that 36 votes may be used in electing the first four candidates: in those circumstances, just over 6 votes would be enough to secure the last vacancy. Calling each vote 100 at the outset puts the quota at 801 (in effect 8.01 votes), and therefore means that the first four vacancies take up 3,204 in value, leaving 1,596 in play when the last vacancy is being determined: it can readily be seen that no longer do six votes become enough for success as value of at least 798 will be necessary if there isn't any exhaustion when candidates are excluded. Even more starkly, should the 48 votes determine seven vacancies, the standard quota would be 7, meaning that only 6 votes would remain unused when the final vacancy is being determined, and that just over three votes might suffice for the last elected candidate: on the other hand, giving each vote value 100 puts the quota at 601 and therefore leaves unused value of 1,194 when the final vacancy is to be filled, avoiding any artificial easing of the election hurdle for the last successful candidate.

Although the effects at the end of the scrutiny are no longer quite as stark when the quota is several dozen as in ATSIEB elections, too much can still be asked of the first few candidates to be elected, allowing those successful at the end of the scrutiny the prospect of doing so on the basis of several votes fewer than the quota. For instance, in 2011 there were 173 formal votes for the seven vacancies, setting the quota at 22: the last two candidates in contention for the final vacancy had 18 and 15 votes respectively while six votes were recorded as lost by fractions and just two exhausted. In 2008, 226 votes were admitted to the scrutiny, putting the quota at 29: with two vacancies still to be filled, the last three continuing candidates had 22, 23 and 26 votes respectively, while six had been lost by fractions and four exhausted. Ascribing the value 100 or 1,000 to each vote at the outset would avoid such situations to the extent possible.

Rather than seeking to apply the same definitions in all scrutinies that Elections ACT conducts, it would be preferable to give electoral officials the discretion through regulation or legislative instrument to set each vote's value at 100 or 1,000 when the ordinary definition would leave the quota below 50 or 100, say. That would comprehensively tackle the possibility of too high an initial upwards rounding in setting the quota materially lowering the hurdle for election at the end of the scrutiny while retaining all advantages from allowing progress totals to take on fractional decimal values.

Possible deferment of a surplus transfer

A number of opportunities for improvement in the scrutiny rules and calculations were not picked up in 1994 because what was being proposed was identical to Tasmanian provisions or close enough for nothing worthwhile to be gained by attempting to tinker with such details when more violent attacks were being launched on key aspects of the Hare-Clark system that two-thirds of voters had endorsed at plebiscite in 1992. What was achieved systematically though, apart from ensuring that Robson Rotation was implemented properly, was keeping exhausted votes to a minimum while giving electors maximum freedom in how they exercised their franchise even though that might not always be entirely in accordance with the ballot paper instructions foreshadowed by the Australian Electoral Commission prior to the 1992 plebiscite.

A potential minor alteration, present in the scrutiny rules of a number of jurisdictions including federally, involves the possible deferment of a surplus transfer where that could not affect the next exclusion to take place.

In New South Wales this is expressed as:

> a transfer of votes under this subclause is not made unless the surplus of the elected candidate, together with any other surpluses not transferred, exceeds the difference in numbers between the votes of the 2 continuing candidates lowest on the poll

whereas a more comprehensive test procedure is set out in federal legislation.

Such a provision can result in quotas being reached more quickly because more votes, starting with some of full value, are transferred at the exclusion than in dealing with the surplus(es) involved: before computerised counting was introduced, implementing such a step could result in a significant saving of time and effort without introducing obviously-anomalous effects. It is still a matter worth considering in current circumstances or new ones that might be contemplated.

Not confining transfers of surpluses to the last parcel of votes received

Now that there are computerised scrutinies after ballot papers have been scanned, it is reasonable to ask whether ACT procedures for dealing with surpluses should not shift, from following the Gregory transfer that has been used in Tasmania since the statewide introduction of the Hare-Clark system in 1909, to adopting the weighted inclusive Gregory transfer that was legislated in Western Australia for Legislative Council and local government elections after a thorough review of the academic literature following controversy over the application of the defective Senate (unweighted) inclusive Gregory transfer value approach at the Mining and Pastoral Region election of 2001.

Under the Gregory transfer, proposed late in the nineteenth century by J B Gregory of Melbourne and enthusiastically supported and widely promoted by Melbourne University Mathematics Professor E J Nanson, only the parcel of votes taking a candidate beyond the quota is eligible for further transfer: the ballot papers received at earlier counts are regarded as fully used up in electing the candidate concerned (electors should be satisfied that their vote has been fully effective), though it can be reasonably argued that such a distinction is rather arbitrary and historically associated with making manual scrutinies much easier to complete.

In 1983, a previous Irish-inspired Gregory transfer method using sampling to transfer a partially-representative surplus all at value one was replaced in the Senate by a crude and distorting approach of defining the transfer value as the surplus divided by the total number of ballot papers contributing to the candidate's election. The failure to consider at what value ballot papers were received introduces the possibility of significant distortion in the distribution of a surplus because it exaggerates the impact of very large parcels of relatively small transfer value, as the example below will show.

The non-transferability in 1974 of thousands of ballot papers with first preferences for Neville Bonner, third on the Coalition list in Queensland, followed immediately by numbers for Labor candidates, had drawn attention to the desirability of all ballot papers helping elect a candidate to be eligible for further transfer, rather than just those received in the parcel taking the progress total beyond the quota. The previous approach, of making the surplus an accurate sample of ballot papers in the parcel taking the candidate beyond the quota

according to what was the next available preference indicated, was also known to leave open the possibility of unrepresentativeness of further preferences, and would not be exactly replicated in any recount.

The weighted inclusive Gregory transfer allows all ballot papers contributing to a candidate's election to be eligible for further transfer, after calculation of a surplus factor by which all previous transfer values are multiplied. This approach, capable of straightforward adaptation to the ACT's circumstances of optional preferential voting to ensure that transfer values never increase, avoids anomalies by taking the same proportion of each ballot paper's remaining value to have been used in the election of the candidate and allowing the remaining proportion to be available to continuing candidates

These differences are best illustrated by a simple example in which the quota is 10,000 votes. Perez has 9,500 first preferences and is elected upon receiving 6,000 ballot papers all of value one-half, with progress total 12,500 and hence a surplus of 2,500 to distribute.

Under the Gregory transfer that applies in the Australian Capital Territory and Tasmania, only the 6,000 ballot papers last received would be eligible for transfer, at value 2,500/6,000 = 5/12 if all had a further preference for a continuing candidate.

The Senate approach would see all 15,500 ballot papers helping to elect Perez being transferred at value 2,500/15,500 = 5/31: in this case, 84% of each first preference is deemed to be used up, but just 42% of the remaining value of the ballot papers received at value one-half.

Under the weighted inclusive Gregory method, there is a surplus of 2,500 to be transferred, from ballot papers with aggregate value 12,500, so the surplus factor is 2,500/12,500 = 1/5. The first preferences would all be transferred at value 0.2 while the remaining ballot papers would be transferred at value 0.5x0.2 = 0.1: 80% of each ballot paper's previous value would be used in electing Perez and the remaining 20% available for transfer to continuing candidates

This information is summarised in the table below that also provides a break-up of the contribution to the surplus of the two parcels of votes received. The first preferences contribute nothing under the Gregory transfer, determine 1,532 votes of the surplus transfer under the Senate unweighted inclusive Gregory approach and 1,900 votes of the surplus transfer under Western Australia's weighted inclusive Gregory method. If parcel-oriented differences usually arise in the marking of further preferences, outcomes can change noticeably according to which method of transferring surpluses is used.

Table 2: Differences that transfer value definitions can make

	Transfer value	Proportion of previous value used	Division of surplus	Proportion of surplus
ACT Gregory transfer definition				
First preferences	0	100%	0	0%
Other votes at 0.5	5/12	16.7%	2,500	100%
current Senate definition				
First preferences	5/31	83.9%	1,532	61.3%
Other votes at 0.5	5/31	41.9%	967	38.7%
weighted inclusive				

Gregory method				
First preferences	0.2	80%	1,900	76%
Other votes at 0.5	0.1	80%	600	24%

Even more marked differences would arise if it were 6,000 papers at transfer value 1/6 that put Perez beyond the quota, with a progress total of 10,500 votes. Under the ACT's Gregory transfer, these papers alone would be transferred, at value 1/12 (assuming they all had a next available preference); under the flawed Senate approach all 15,500 papers would move on to the next available preference or become exhausted in each instance, at value 1/31 (with the percentage composition of the surplus being just 61% on the basis of the parcel of first preferences even though that start contributed 90% of Perez's progress total when she reached the quota); the first preferences would be transferred at value 1/21 under the weighted inclusive Gregory method and the remainder at value 1/126 (whereupon the surplus would be distributed in the ratio 19:2, matching the votes each parcel contributed to the progress total of Perez).

Dividing the surplus by the total number of ballot papers contributing to a candidate's election always gives undue influence to those ballot papers within the quota with the lowest previous transfer values, and may result in some electors effectively getting more than one vote should a particular transfer value rise during the course of a scrutiny, as happened in 2016 in Senate scrutinies for all states other than South Australia.

While a change to the weighted inclusive Gregory method would represent a noteworthy advance upon what has been and continues to be a first-rate system, it would also be possible to apply the more sophisticated computer-oriented Meek approach that is in use in some New Zealand elections. Meek would mimic weighted inclusive Gregory in the example discussed above, but it also allows already-elected candidates to receive further votes as others are elected or excluded: in such cases, transfer values to continuing candidates are scaled up appropriately but no change is made to the order in which candidates have previously been elected or excluded.

A thorough review of the underlying principles and the research literature was undertaken in Western Australia by political scientist Dr Narelle Miragliotta following controversy over transfer values in the Mining and Pastoral Region (including one that increased as a surplus was being distributed) after the 2001 Legislative Council elections. Her comprehensive report *Determining The Result: Transferring Surplus Votes in the Western Australian Legislative Council* assessing the options commonly under consideration was released in 2002 and is available at *http://www.elections.wa.gov.au/sites/default/files/content/documents/Determining_the_result.pdf*.

Former Western Australian Attorney-General Jim McGinty recognised that the prospect of a transfer value increasing during the course of a scrutiny was completely unacceptable, and proceeded with amendments that introduced the weighted inclusive Gregory method for both Legislative Council and local government elections.

When voters are given some real latitude in the marking of preferences as in the Australian Capital Territory, it is vital that adequate official advertising resources be applied to make as many as possible aware that numbering more preferences can only increase the chances of making their vote fully effective. There also needs to be a slight refinement of the Western

Australian surplus fraction concept to successfully apply the weighted inclusive Gregory methodology and simultaneously keep exhausted votes to a minimum.

First, the total transferable vote weight for continuing candidates, the aggregate amount by which their progress totals would increase if all the ballot papers were transferred at their current value, needs to be established: if, in the normal run of events, it exceeds the surplus, the surplus factor becomes the surplus divided by the total transferable vote weight and all previous transfer values are multiplied by it when the surplus is transferred to continuing candidates; otherwise, all of the previous transfer values remain unchanged and some exhaustion of votes is unavoidable as the transfer is made.

In the Australian Capital Territory, except for a handful of surpluses arising from first preferences, they tend to be small and occur towards the end of each scrutiny. That introduces a random element into whether particular parcels take a candidate's progress total just beyond the quota or whether it remains just short. Further preferences in the parcel helping to elect a candidate sometimes may be quite different from the patterns displayed by the bulk of that person's supporters. Any early preferences obtained from electors wishing to primarily support another party currently result in those ballot papers not being transferred again. Where narrow margins determine who gets excluded at particular counts, it may be how surpluses are distributed that makes the difference between a particular candidate being elected or not.

Reducing the quota whenever votes are exhausted

The Droop quota, usually calculated at the outset of a scrutiny as the first integer greater than the number of formal votes divided by one more than the number of vacancies to be filled, is the point at which candidates are mathematically assured of being elected.

A federal attempt to introduce a reducing quota in 1983 was abandoned when it was pointed out by the Proportional Representation Society of Australia that a confusion in the drafting between non-transferable and exhausted ballot papers meant that there was no guarantee of electing the right number of Senators. However that failure is no reason to abandon efforts to avoid elected candidates having to accumulate more votes than they actually need to be assured of election once ballot papers start to exhaust, because it is possible to continually reduce the quota on the basis of sound principles in those circumstances.

There are three approaches possible for making adjustments free of potential anomalies: two only look forward, accepting that vacancies still to be filled will require fewer votes than were asked of the candidates already elected, whereas the third goes back and increases transfer values from all earlier surpluses, without interfering with the order of exclusions undertaken so far during the scrutiny.

The simplest approach reduces the quota by taking account of just the number of exhausted votes, dividing the number of votes for elected and continuing candidates by one more than the total number of vacancies to be filled, and increasing this quotient to the next integer. An impeccable refinement uses just the number of votes for continuing candidates and the number of unfilled vacancies to establish in a similar manner a new quota for the remaining vacancies that will be slightly smaller still. Both of these methods accept that candidates already elected have more votes in their quotas than will be required of those still to achieve success.

An alternative approach, first set out by English mathematician Dr Brian Meek in the late 1960s, adopts the second definition immediately above but also retrospectively adjusts downwards the quotas of those already elected, which means increasing their surpluses and therefore the values at which the ballot papers involved are now credited to current continuing candidates. It also at all times allows transfers to candidates already elected who under more traditional counting rules are normally by-passed once they have reached the quota.

Further detailed particulars of Meek's approach and helpful associated references are set out in Dr Miragliotta's research paper mentioned above. This sophisticated set of counting rules avoids some anomalies that can arise under simpler ones, and removes the possibility of electors achieving more of what they really want through their single transferable vote by strategically rearranging their preference order (although exactly how they might achieve such ends usually cannot be predicted in advance with any confidence): requiring computerised calculations, it was initially endorsed by the Electoral Reform Society of Great Britain and Ireland, and is in use as part of the single-transferable-vote methodology for electing local governments and district hospital boards in New Zealand.

Any attempt to have a reducing quota would need to be carefully worded and might require a two-thirds Assembly majority because of the specific wording surrounding the principle of being declared elected when the Droop quota, rather than any other possibility that might be resorted to in pursuit of slanted outcomes, is reached:

> a candidate whose total votes equal or exceed a relevant quota as defined in schedule 4 of the *Electoral Act 1992*, being that schedule as in force on 1 December 1994, shall be declared elected

Under a reducing quota, this requirement would still be met but the circumstances in which a candidate might be declared elected without having reached the entrenched Droop quota would be extended beyond situations at the end of scrutinies when one or more candidates with the highest progress totals are declared to fill the remaining vacancy or vacancies.

Encouraging electors to make the most of their vote

The Proportional Representation Society of Australia (Australian Capital Territory Branch) views with alarm suggestions that corflutes be restricted to certain narrowly-defined areas as that appears to cut across the implied constitutional right of political communication and is not based on any safety imperative. We have always encouraged aspiring candidates and parties to get out and about in the community as early as possible in order to make a favourable impression on electors who will be considering whether to include particular individuals when marking their ballot paper. While not all approaches are necessarily effective and some people object to a brief proliferation of corflutes in their neighbourhood, these are not grounds for prohibiting legitimate outreach unless public safety is being compromised. It can be left to individuals to sort out whether they are impressed or aggrieved by such campaign presence before they make their way into a polling place free of last-moment harassment by phalanxes of people handing out how-to-vote cards as happens in federal elections.

As more emphasis is being placed on increased levels of pre-poll voting and there is a sensible recommendation by the ACT Electoral Commission to no longer require such voters to declare that they will not be able to attend a polling place on election day, we suggest that the time and energies of electoral officials be directed in a far more positive light. Where

postal voting prevails in local government elections in other jurisdictions, there is usually a mechanism for candidates to submit, at or shortly after the time for nomination closes, a photograph and statement of 150-200 words within particular format and content guidelines, for posting on the internet and inclusion in the mailout of ballot papers to electors. This would provide a basic level playing field at the close of nominations and allow electors easy access to certain comparative material no matter when they chose to vote. The standard format could include the possibility of having at the bottom one link to some other internet presence were electors wanting to see further details of policies and attitudes. Both the Elections ACT website and any despatched brochure would make it clear that the information therein has been supplied by individual candidates who all take responsibility for the accuracy of what they have submitted.

While those with greater energy, resources and internet proficiency could turn those attributes to their further advantage, at least all candidates would have the opportunity to present some basic information about themselves cheaply to anyone in their electorate who was interested, irrespective of what media coverage ensued of the final weeks of the campaign. Should cost objections be raised, there is clearly potential to reassign some of the generous increased public funding provision enacted by the previous Assembly to ensure that such activity can readily be paid for.

More emphasis in official advertising could also usefully be placed on explaining that the marking of preferences is simply an instruction about the order in which continuing candidates can have access to whatever remains unused of a vote, and therefore it is in the interests of any elector wanting to make the most of his or her vote in circumstances that are unavoidably uncertain to continue to number until the remaining candidates are uniformly scorned as unworthy of support in all possible situations.

Expanding the remedies available when something goes wrong during an election

Western Australia's fresh Senate election in 2014 exposed deficiencies in most Australian provisions dealing with a Court of Disputed Returns, as the remedies available (not upgraded for greater needed flexibility when the Senate moved first to proportional representation in 1948) are: voiding an entire election; disqualifying candidates or otherwise finding them not duly elected; or finding candidates duly elected although not so declared. This is all set out federally in the winner-take-all language of the two previous Senate electoral systems rather than based on the new fundamental criterion of whether the quota for election was achieved, and has been closely mimicked elsewhere and also not overhauled upon the introduction of proportional representation in individual jurisdictions.

After the loss of 120 ballot papers previously set aside as informal and 1,250 accepted as above-the-line votes en route to the central recount centre in Western Australia, the Australian Electoral Commission petitioned the Court of Disputed Returns for the 2013 Senate election there to be voided: several candidates and electors also filed petitions within the statutory period available. The extensive 1983 amendment of the *Commonwealth Electoral Act 1918* had opened up the possibility of the AEC petitioning for specific types of declarations and required rulings within three months in those instances.

His Honour Justice Hayne summarised the issues to be settled as follows:

> Was the result of the election likely to be affected by the loss of the ballot papers? Can this Court now decide who should have been elected? Can it do so by looking at records

of earlier counts of the lost ballot papers? And need it now examine ballot papers whose formality is disputed? Or must it instead declare the election absolutely void?

Having observed that the procedures for a recount are set out in prescriptive detail in the federal legislation, Justice Hayne ruled that there was no opportunity to draw evidence from earlier scrutiny activity in an attempt to fill in the information gaps created by the ballot papers lost during the recount. His Honour found that the electors who had committed the lost ballot papers into ballot boxes were prevented from voting and that their number was far greater than the smallest gap in progress totals determining an exclusion during the incomplete recount: consequently an illegal practice as defined in the *Commonwealth Electoral Act 1918* had occurred that could have prevented two different candidates from rightly being declared elected.

The candidates declared elected to the fifth and sixth vacancies were therefore not duly elected and it was in this instance not possible to say who was duly elected. As a result, the entire election was voided and electors were required to vote again in a process beginning afresh with updated electoral rolls for Western Australia in place and another call made for nominations.

Would a similar outcome be possible or even expected in the ACT in such circumstances without a change in our legislation? This will require a systematic examination of what can go wrong or be in contention to ensure there is sufficient authority and available flexibility for either Elections ACT or the Court of Disputed Returns to quickly and fairly achieve as contemporaneous territory-wide electoral justice as is possible.

Appropriate remedies need to be available when possibly-material errors in electoral procedure have occurred and not been promptly rectified relying on authority set out in the legislation. Otherwise, where there are very narrow margins at some points of exclusion in future, those particularly upset at the most likely outcome will be aware that the disappearance, defacement or destruction of only a small batch of votes or incontrovertible evidence associated with these could lead to an order for a fresh election.

The Australian Capital Territory's recount provisions are not as prescriptive as those in federal legislation, but a deal of uncertainty would remain without insertion of specific amendments that minimise the possibility of resort to remedies as unsatisfactory as that ultimately adopted in Western Australia. The decision-making powers of our Court of Disputed Returns are summarised as follows before more detail is provided about inquiry into certain matters (including what questions are resolved conclusively one way or another on receipt of particular evidence), and the overriding need for any intervention to be based on the outcome being in doubt as a result of what has transpired:

265 Declarations and orders

The Court of Disputed Elections shall hear and determine an application and may—

(a) declare the election void; or

(b) declare that a person who has been declared elected was not duly elected; or

(c) declare that a person who has not been declared elected was duly elected; or

(d) dismiss the application in whole or in part;

and may make any orders in relation to the application that the court considers appropriate.

The powers of the Court of Disputed Returns in the Australian Capital Territory are closely based on those set out in Section 360 of the *Commonwealth Electoral Act 1918* that was significantly amended in both 1922 and 1983, and cosmetically in 2010: they are set out in black-and-white terms perhaps suitable only for adjudicating upon the filling of winner-take-all vacancies rather than taking proper account of the importance of achieving the quota in the simultaneous election of several MLAs using proportional representation.

Much more attention has been paid to electronic aspects of voting and scrutiny procedures in the Australian Capital Territory than is set out federally or in other jurisdictions. This reflects the leading role Elections ACT has played in developing new procedures based upon application of developing technology:

187 (3) In recounting ballot papers, the commissioner—

(a) may reverse a decision made earlier in the scrutiny; but

(b) must deal with the ballot papers in a way that is consistent with this part.

187C Recount of electronic scrutiny of ballot papers

(1) This section sets out the alternative ways in which a recount of the electronic scrutiny of ballot papers may be conducted.

(2) The recount may be conducted by recounting data from electronic ballot papers kept on a backup copy of electronic data produced at a polling place or scrutiny centre.

(3) If an approved computer program is used to find out the result of a scrutiny, the recount may be conducted—

(a) by rerunning the program; or

(b) by reloading the data into a different copy of the program and running the program.

(4) If practicable, the recount may be conducted—

(a) by re-examining the accuracy of any preference data entered into the computer program from paper ballot papers; or

(b) by conducting—

(i) a partial or full manual scrutiny of paper ballot papers from which preference data has been entered into the computer program; or

(ii) a combination of manual scrutiny of those paper ballot papers and a computerised scrutiny of electronic ballot papers.

Some strengthening of wording might be appropriate to maximise the prospects of scanned ballot papers and rulings previously made in relation to them normally being accepted as a replica of the intention on the originals in case copies of some of those on paper cannot be physically produced for consideration by the Court of Disputed Returns. Alternatively, broader language might be inserted allowing other convincing evidence of high reliability to be presented and accepted.

It is also important to ensure that where it could make a difference to the overall outcome, all legitimate votes and all eligible candidates are included with minimal possible imposition upon the voters affected by errors. For instance, Tasmania had the spectacle in Denison in March 2014 of 2,338 attempted postal ballot papers being damaged by an out-of-control automated letter-opening facility that wasn't operated properly: 163 of these ballot papers could not be repaired and therefore had to be treated as informal. Fortunately in this case there would not have been any impact on the final outcome and the election declaration itself wasn't exposed to challenge, whereas it might have been if a margin for exclusion or election towards or at the end of the scrutiny was fairly narrow.

Two of our electoral provisions dealing with emergencies do not necessarily appear to have the scope for dealing with the correction of all errors that are discovered which have denied electors a proper opportunity to vote and could affect a close outcome, even though the latter provides for delays of up to 21 days in the conduct of an election when polling day proceedings somewhere have to be suspended.

159 Extension of time for conducting elections

(1) Despite any other provision of this Act, before or after the day when an election is required to be held, the Executive may, by written notice, make provision for—

(a) extending the time for holding the election; or

(b) meeting any difficulty that might otherwise interfere with the due conduct of the election; or

and any provision so made shall be valid and sufficient for that purpose.

(2) A notice under subsection (1) is a notifiable instrument.

Note A notifiable instrument must be notified under the *Legislation Act 2001*.

(3) On notification under the *Legislation Act 2001* of a notice under subsection (1), the commissioner must publish a copy of the notice in a newspaper.

160 Suspension and adjournment of polling

(1) The commissioner may suspend the polling at a polling place on polling day if for any reason it is not practicable to proceed with it.

(2) Subsection (3) applies if—

(a) the polling is suspended; and

(b) the commissioner believes on reasonable grounds that it is not reasonably practicable for an elector affected by the suspension to cast a vote at another polling place.

(3) The commissioner must determine a day (that is as soon as practicable, but within 21 days, after the suspension) as the day when polling is to resume.

(4) If it is impracticable to resume the polling at the same polling place, the determination must state the polling place where polling may be resumed.

(5) A determination under subsection (2) is a notifiable instrument.

Note A notifiable instrument must be notified under the *Legislation Act 2001*.

(6) On the resumption of polling, only an elector who was entitled to vote on the day when the poll for the election was required to be held and who has not already voted is entitled to vote.

In the light of the Western Australian and Tasmanian examples mentioned above, even though Elections ACT pays great attention to training of casual staff and supervision of all critical aspects of elections, it is desirable to examine all provisions and current procedures to ensure that there is sufficient flexibility for the fair and appropriate handling of imaginable matters, generally relating to candidates or votes, that might be promptly corrected in accordance with well-set-out rules, or brought before the Court of Disputed Returns.

First, just as there is a provision, as in other jurisdictions, that the correctness of the roll is not a matter for inquiry, it would make sense to have a mechanism for settling nomination disputes (matters of rejection rather than more general ineligibility questions) before polling begins, even if that in extremis might mean postponing the election by one or more weeks. If there is any uncertainty about the non-acceptance of the nomination of one or more eligible candidates, another election will be forced if it is later found that an error has been made, because it will follow that voters have not had a proper opportunity to express their views.

Should one or more candidates be disqualified because of findings by the Court of Disputed Returns, a provision that their names be simply passed over on each ballot paper, as is done should a candidate die before election day, will usually provide electoral justice in those circumstances. Nevertheless, it is true that the Tasmanian parliament hurriedly amended legislation to specifically cover multiple vacancies potentially arising simultaneously when three Labor candidates in Denison were challenged in 1979 on the grounds of alleged campaign expenditure in excess of statutory limits.

Another mechanism is required for ensuring that all votes are appropriately considered at minimum additional inconvenience to electors. There must be sufficient flexibility to allow problems or defects to be rectified quickly in the easiest and most appropriate manner, for instance by allowing just the affected polling places or electors to be polled again, as could easily have solved the WA problem of missing papers. In Tasmania's case, it should have been possible to identify the electors whose postal ballot papers were irrevocably destroyed and afford them another opportunity to lodge their vote that way: having such a power in the provisions governing the conduct of the election would be better than requiring the mishaps to necessarily be resolved through findings and orders of the Court of Disputed Returns.

In addition, the risk of unjust non-election through changes of elector attitude over time must also be suitably confined. For instance, in the Western Australian case there was no doubt that three Liberals and one Labor candidate had originally been elected with quotas, and their positions should not have been in any jeopardy subsequently.

Western Australia's procedure for filling casual vacancies in the Legislative Council provides useful guidance for how such expressions of voter intent can be respected in circumstances where all electors are asked to return to polling places. There is a full recount, with the vacancy being taken by the first previously-unelected consenting candidate to achieve a quota or otherwise be declared elected: in some circumstances, those who have already contributed to the election of one or more incumbents will also potentially have an influence in who gets to fill the casual vacancy.

It is specifically declared that the positions of those previously elected and continuing cannot be affected by such a procedure, in part because there is no guarantee that, with a different set of consenting candidates, those who were initially elected would necessarily be successful again if they previously relied on extensive transfers from others.

The same criterion of obtaining a quota when there are a particular overall number of vacancies to be filled should continue to apply, but the number of available places can be restricted to the degree necessary to ensure that those initially with a quota or otherwise certain of election also enter the Assembly.

In the Western Australian case, only the last two vacancies would have been in play and with ballot papers with fixed column orders, a requirement that these remain unchanged would have prevented Labor and the Liberals from gaming the situation by altering their column order in hot pursuit of the available vacancies, rather than relying on demonstrating additional voter support. While Robson Rotation obviates the need for such anti-gaming measures in the ACT, having a provision that allows the Court of Disputed Returns to make whatever orders it deems necessary to achieve a just outcome in a particular situation would be sensible.

An ordinary quota-preferential scrutiny with such an unobjectionable set of constraints would produce the fairest outcome in these circumstances or any others where certain candidates could be appropriately declared elected by the Court of Disputed Returns and detailed orders brought down about how any remaining vacancies were to be filled. As the disqualification of any candidate would still leave intact the remainder of the preference order that each individual has indicated, it would only be in extreme circumstances that a fresh call for nominations could be entertained.

By allowing the replacement of a limited number of ballot papers, the bypassing of names of disqualified candidates and the declaration that particular candidates achieved the quota and should not have their positions put into question in subsequent fresh voting and counting, it would usually be possible to achieve electoral justice that comes as close as is possible to being contemporaneous with voting that occurred elsewhere around the Australian Capital Territory.

The flexibility to undertake or order any other limited corrective action that facilitated a fair assessment of voters' wishes as much as possible in line with those expressed in initial voting should be inserted into the powers of the Electoral Commissioner and the Court of Disputed Returns, along with appropriate broad guidance about how it might be arrived at in extreme situations in accordance with the principles that apply when Western Australian Legislative Council casual vacancies are filled.