Fair Representation for the Territories

A Submission to the Joint Standing Committee of Electoral Matters

Inquiry into Commonwealth Electoral Amendment (Ensuring Fair Representation of the Northern Territory) Bill 2020.

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Introduction

On 3 July 2020, Australian Electoral Commissioner Tom Rogers issued his determination on the number of representatives to be elected from each state and territory at the next House of Representatives election. The determination was made according to Section 46 of the Commonwealth Electoral Act 1918 and, as required, was issued one year and one day after the first sitting of the current House of Representatives.

The determination made three adjustments compared to current state and territory representation in the House of Representatives. Victoria will gain one seat and elect 39 members at the next election. Western Australia will lose one seat and elect 15 members at the next election. The Northern Territory will lose its second member and elect only one representative to the next parliament.

The changes in state representation are not controversial and made according to Section 24 of the Commonwealth Constitution.

However, Section 24 does not govern Territory representation. Under Section 122 of the Constitution, it is for the Commonwealth Parliament to determine territory representation "to the extent and on the terms which it thinks fit".

The Northern Territory's two current seats clearly represent strong and distinct communities of interest within the territory. The electorate of Solomon is an entirely urban district covering metropolitan Darwin and Palmerston. Lingiari covers the rest of the Territory, Darwin's rural areas, the indigenous communities across the tropical top end, the urban areas of Katherine, Alice Springs and smaller communities in between, as well as remote indigenous communities distributed across the vast area of central Australia.

There is consensus in the Northern Territory that returning to only one member diminishes representation for the territory's diverse local interests.

It is within the power of the Commonwealth Parliament to legislate for a reversal of the lawful determination made by the Electoral Commissioner. The question to be addressed by the Joint Standing Committee on Electoral Matters (JSCEM) in its current inquiry is – what is the best method for allowing the Northern Territory two retain its two seats?

The bill being inquired into by JSCEM proposes to fix the Northern Territory as having a minimum two seats. It is within the power of the Parliament to legislate in this manner, as it did prior to 1990 in determining seat numbers for both the Northern Territory and the Australian Capital Territory.

The purpose of my submission is to propose a different method. Rather than legislate a minimum number of seats, I propose to change the formula used to allocate seats to the territories.

My proposal is to change the formula for allocating seats in Section 48 of the Commonwealth Electoral Act that would have the following benefits

- would on current numbers save the Northern Territory's second seat
- would create a fairer basis for representation of both territories into the future
- could be applied for allocation of seats to states
The Commonwealth of Australia was formed by the federation of the six self-governing Australian colonies in 1901. At the time the Northern Territory was part of South Australia, and what was to become the Australian Capital Territory remained part of NSW.

The Commonwealth assumed responsibility for the Northern Territory in 1911, and the ACT was excised from NSW the same year. Canberra had been designated as the future capital in 1908, though it did not replace Melbourne as the capital until the provisional Parliament House opened in 1927. The migration of government departments up the Hume Highway to make Canberra the real national capital took much longer.

Section 24 of the Constitution sets out a formula to allocate representation to each of the states. Whether there would be territory representation, and on what terms it should be allowed, was a power given to the Commonwealth Parliament by Section 122 of the Constitution. Parliament can grant representation to territories “on the terms it thinks fit”.

One of the oddities of Section 122 is that it does not include the constitutional guarantees concerning members and senators from the states. There is no guarantee that a territory Senator has only one vote. There is no limit to the number of territory members that the parliament may “see fit” to allow. Territory representatives do not have to be directly elected and there is no “nexus” between the number of territory House and Senate representatives. There have been arguments these limits should be dealt with by constitutional amendment, but there has been little appetite for pursuing them down the road of constitutional referendum.

The ACT and NT were granted representation in the House by separate acts of parliament, the NT in 1922, the ACT in 1948. Both members had only limited voting rights until the ACT was granted full powers in 1966 and the NT in 1968. The ACT was granted a second seat by legislation in 1973. The territories were allocated two Senators each in 1975. The Hawke government’s 1983 electoral reforms incorporated territory representation into the Commonwealth Electoral Act.

Following the 1984 election, the Joint Select Committee on Electoral Reform inquired into representation of territories and new states. It recommended several changes that were incorporated into the Electoral Act by 1990, the most important being that the allocation of representation to territories would be determined by the same formula that applied to states. The separate territory representation acts were repealed following these changes.

There are several other provisions on minimum representation for the territories that won’t be discussed in this submission. These are –

- Both the NT and ACT are guaranteed one seat in the House.
- No other territory can have representation unless its population is greater than half a quota.
- If not granted separate representation, Norfolk Island and Jervis Bay are treated as part of the ACT, and Christmas and Cocos (Keeling) Islands treated as part of the NT.

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The ACT and NT are entitled to two Senators, a figure that can be increased to equal half its House representation once either territory has more than six House seats.

Calculating the National Quota for Allocating Representation

The 1985 Inquiry recommended that the formula for state representation set out in Section 48 of the Commonwealth Electoral Act also be used for determine territory representation. The Northern Territory and ACT were guaranteed a minimum one representative [Section 48(2B)]. Original states are guaranteed a minimum five representatives by Section 24 of the Constitution.

The formula set out in Section 48 copies the formula in Section 24 of the Constitution. As interpreted by past High Court cases, Section 24 as incorporated in the Electoral Act specifies the following procedure.

- The population of the six original states is determined from the latest statistics of the Commonwealth
- The population is divided by twice the number of state Senators to determine a quota
- The population of each state is divided by the quota to calculate a quotient
- Each state is allocated the number of seats equal to the whole number part of the quotient
- Any state where then the fractional party of the quotient is greater than 0.5 is allocated an extra seat
- Original states are allocated five seats even if the allocation based on the quotient would be fewer than five.

The operation of the first two dot points in the formula means that the population of the territories, and the existence of territory senators, cannot influence the allocation of representatives to the states.

In the 2020 determination, the population of the six states was 24,845,330. Dividing by twice the number of state senators (144) produced a quota of 172,537 (rounded).

The quotients of four states were rounded down and the state allocated the whole number of seats. Western Australia’s quotient was 15.30, rounded down to 15 and losing a seat. Victoria’s quotient was 38.55, rounded up to allocate 39 seats, a gain of one. Tasmania’s quotient was 3.11 and is was allocated the minimum five seats as an original state.

The 1990 changes to Section 48 would have applied the same formula in determining territory representation. However, a change was made in 2004 that has altered how the state allocation process is applied to territories.

Adjustments for the Territories – Saving the NT’s Second Seat in 2004

The inclusion of territories in the Section 48 formula granted the Australian Capital Territory a third seat for the 1996 election, but reverted it to two seats for the 1998 election. It also granted the Northern Territory a second seat ahead of the 2001 election, but the Electoral Commissioner’s determination in 2003 would have reverted the Northern Territory to a single seat for the 2004 election.
In the 2003 determination, the Northern Territory’s population was 199,760, producing a quotient of 1.4978 quotas and short of the 1.5 figure needed for second seat. In population numbers, the Northern Territory fell short of being entitled to a second seat by 294 people.

Then Country Liberal MHR for Solomon, Dave Tollner, proposed a bill that would restore the NT’s second seat and guaranteed two seats in the future. The bill was referred to the Joint Standing Committee on Electoral Matters for an inquiry. The result was an amendment to Section 48 of the Electoral Act so that the formula for the territories was adjusted to take account of statistical error in the population estimates.²

For both the Northern Territory and ACT, the Australian Bureau of Statistics provides a value representing twice the standard error of the population estimate. If the quotient produced by the quota was below the cut-off value of 0.5 between the upper and lower bounds (1.5 in the case of the NT), but above 0.5 after including twice the statistical error, the territory could be allocated the seats for the upper bound (two in the case of the NT).

The error margin saved the NT’s second seat for the 2004 election. It also allowed the ACT to be allocated a third seat in the 2017 determination, and allowed the ACT to retain its third seat in the 2020 determination.

Tables 1 and 2 below are drawn from the Electoral Commissioner’s 2020 determination. They show the population of both territories after including the external territories. Table 1 shows the quotas and seats allocated based on population alone, Table 2 shows the calculation after applying the statistical error.

<table>
<thead>
<tr>
<th>Table 1 – 2020 Territory Determination Before Statistical Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
</tr>
<tr>
<td>Australian Capital Territory</td>
</tr>
<tr>
<td>Northern Territory</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2 – 2020 Territory Determination After Statistical Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
</tr>
<tr>
<td>Australian Capital Territory</td>
</tr>
<tr>
<td>Northern Territory</td>
</tr>
</tbody>
</table>

Table 1 is the calculations that would apply if the state formula were applied. It would have resulted in both the ACT and the Northern territory losing seats.

Table 2 applies the error margin instituted in 2004. This was enough to save the ACT’s third seat, but was not enough to save the Northern Territory’s second seat.

Lessons from Apportionment in the United States

The structure of the Commonwealth parliament was influenced by the structure of the Congress of the United States of America. As in the United States, the Australian states were granted equal representation in the Senate, but representation in the House of Representatives is allocated proportional to population.

Beyond this surface similarity, there are differences in detail between the operation of apportionment in the two federation –

- US apportionments take place every 10 years after a census. Since 1975, Australian apportionment is determined in each term of parliament.
- The US Constitution has no default formula for apportionment while the Australian constitution has a default formula very similar to one previously used in the United States, Webster’s Method.
- The US Constitution does not specify a size for the House of Representatives, but it has been fixed at 435 seats at every apportionment for the last century. The Australian Constitution specifies only that the House should be nearly twice the size of the Senate.
- The United States has 50 states of vastly different sizes. Seven US states are currently allocated a single member, five have two members, three have three members, and six have four members. Four states have more than 25 members, the largest state California allocated 53.
- As the US chooses to fix the size of the House, the application of formulas is more complex than the Australian formula which does not assume a fixed size House. The US formulas are applied iteratively, an initial allocation modified to make the allocated seats match the fixed size House.

The US process has spawned a vast literature on apportionment. There are two centuries of apportionment data, multiple apportionment methods, and numerous changes to the number and size of states.

Much of the literature is focussed on one attribute for formulas, whether they favour large or small states in the allocation of seats. Much of that literature is irrelevant in Australia because –

- The Australian House of Representatives is not fixed in size, so the fact a state gains or loses a representative is not necessarily related to another state gaining or losing a representative.
- Australia has six states not 50, and none are as proportionally small as the smallest US states.
- Small original states are guaranteed a minimum five seats, rendering irrelevant much of the literature that assumes a single seat minimum.
- Historically the five minimum has applied to only two states, Western Australia 1901-1949 and Tasmania since 1901.

However, one of the apportionment methods discussed in the US literature but never used for apportionment, Dean’s Method, has some relevance to the discussion of allocating seats to the Australian territories.

The key difficulty with apportionment is matching the proportions of the population living in each state match up with a whole number of seats. The proportion of population is a real number, that is a number with a decimal fraction, while seats are allocated as integers, whole numbers without decimals.
Both the Australian and US formulas start with a quota determined by dividing the population by a fixed number. In the US this is 435, in Australia twice the number of Senators, currently 144. For each state, a quotient is calculated by dividing the state’s population by the national quota.

There are three possible stages in allocating seats to states from quotients –

1. An initial allocation of seats is made based on the whole number part of the quotient.
2. A second allocation is made based on rounding the decimal part of the quotient. In Australia, which uses what the Americans know as Webster’s Method, ‘natural’ rounding based on a 0.5 fractional quota is used. Other methods used in the US apply different rounding points.
3. The allocations at steps one and two are adjusted to produce a fixed size House. (This is not done in Australia as the size of the House is not fixed.)

(In the United States, these three steps are now done as a single iterative process based on an allocation table.)

The problem with rounding using Webster’s method, the method used in Australia, is that the impact on average enrolment per representative varies according to the size of the state. For example based on the 2020 apportionment –

- Going from 38 to 39 seats in Victoria decreases the average population per member from 175,029 to 170,540, a difference of 4,489
- Cutting Western Australia from 16 seats to 15 seats lifts the average population per member from 164,942 to 175,939, a difference of 10,997.
- Cutting the ACT from three seats to two lifts the average population per member from 143,186 to 214,780, a difference of 71,594.
- Cutting the Northern Territory from two members to one increases the average from 247,280 to 123,640, and average of 123,640.

The use of natural rounding at 0.5 quotas has a greater impact on average population per member on small population states and territories than it does on large states and territories.

If a state is allocated ‘n’ seats on values between (n-0.5) and (n+0.5), then its variation will be given by the formula (0.5 / n). As states have a minimum allocation of five seats, that variation can never be greater than (0.5 / 5) which is a 10% variation. For the two territories, that variation becomes 17%, 25% and 50%.

As seats are allocated in whole numbers, there will always be this distortion. But there are rounding points other than Webster’s 0.5 method.

The method I am proposing is Dean’s Method, which rounds at what is known as the harmonic mean. Dean’s Method has been rejected as an apportionment method in the United States because it is too favourable to small states. This argument is not relevant to the Australian debate because –

- The Australian House of Representatives is not fixed in size.
- The minimum state allocation is five seats, a level of representation at which the differences between Dean’s Method and other methods becomes very small.
- In Australia it would apply to Territory representation, which is seats additional to state representation, so any seats allocated to territories by Dean’s method do not alter State representation.
If the argument over favouring large or small states is removed, then Dean's method has three properties that make it attractive as a method to allocate seats to territories.

- It allocates seats to states and territories based on putting the resultant average population per member nearest to the national quota.
- It has the mathematical property of minimising difference between average population per representative across states and territories.
- At the rounding point, the average under-representation per member for the lower bound allocation is equal to the average over-representation if the number of seats allocated is the upper bound.

Comparing the Webster and Dean Methods.

This technical discussion requires a little bit of algebra. Let me define -

- \( L \) as the lower bound or rounded down value of the quotient
- \( U \) as the upper bound or naturally rounded up value of the quotient

Webster's Method is the arithmetic mean of \( L \) and \( U \), that is \((L+U)/2\).

As \( L \) and \( U \) are whole numbers either side of a decimal fraction, \( U = L + 1 \)

Therefore Webster's rounding point is \((L + L + 1)/2 = L + 0.5\)

Dean's method uses what is known as the harmonic mean as the rounding point. Instead of a fixed rounding point of 0.5. The rounding point varies according to the value of the lower bound \( L \).

The Dean's method harmonic mean is \( L + [L/(2L + 1)] \)

By this proposed method, the rounding point varies depending on the value of the whole number of seats to be allocated, where it is fixed at 0.5 with the current method.

Table 3 compares the rounding point values for the two methods up to 10 seats per state or territory. The proposed method converges on the existing method as the number of seats to be allocated increases.

Table 3 – Formula Rounding Point for Current and Proposed Methods

<table>
<thead>
<tr>
<th>Lower Bound Seats</th>
<th>Upper Bound Seats</th>
<th>Current Method (Webster)</th>
<th>Proposed Method (Dean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>1.5000</td>
<td>1.3333</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>2.5000</td>
<td>2.4000</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>3.5000</td>
<td>3.4286</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>4.5000</td>
<td>4.4444</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>5.5000</td>
<td>5.4545</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>6.5000</td>
<td>6.4615</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>7.5000</td>
<td>7.4667</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>8.5000</td>
<td>8.4706</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>9.5000</td>
<td>9.4737</td>
</tr>
</tbody>
</table>
For the Northern Territory, the following points can be made –

- The average enrolment per member for the NT would be 247,280 for one seat, and 123,640 for two seats.
- The National quota in 2020 is 172,537. The average population per member for two members calculates closer to the national quota than the average for one member.
- Dean’s method would round at a point that allocates two seats closer to the national average, while Webster’s method would allocate one seat, further from the national average.

For the Australian Capital Territory, using the original enrolment without statistical error shown in Table 1, the following points can be made –

- The average enrolment per member for the ACT would be 214,780 for two seats, and 143,186 for three seats.
- The National quota is 172,537. The average population per member for three members is closer to the national quota than the average for two members.
- Dean’s method would round at a point that allocates three seats closer to the national average, while Webster’s method would allocate two seats, further from the national average.

Let me examine the operation of the two formulas for the two territories at apportionments since 1991.

Applying Alternate Seat Allocation Methods to the Northern Territory

Table 4 below shows the number of seats that would have been allocated by the two methods at each apportionment since 1991. The 1991 apportionment was the first to apply the state formula to the territories. Determinations where there is a difference between the methods are by underlining in the final column.

<table>
<thead>
<tr>
<th>Determination/Election</th>
<th>Quota</th>
<th>Current Method (Webster)</th>
<th>Proposed method (Dean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991/1993</td>
<td>1.3773</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1994/1996</td>
<td>1.4284</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1997/1998</td>
<td>1.4540</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1999/2001</td>
<td>1.5239</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2003/2004</td>
<td>1.4978</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2006/2007</td>
<td>1.5054</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2009/2010</td>
<td>1.5362</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2011/2013</td>
<td>1.5263</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2014/2016</td>
<td>1.5572</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2017/2019</td>
<td>1.5020</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2020/2021</td>
<td>1.4332</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Compared to the current method, Dean’s method using the harmonic mean would have delivered the Northern Territory two seats for every election since 1993. That’s three elections early than the first two-member election in 2001, and the Northern Territory would have retained its second seat at both the 2003 determination and the current determination.
Applying Alternate Seat Allocation Methods to the ACT

Under the existing seat allocation formula, the ACT has had three seats at only two elections, in 1996 and in 2019. The ACT passed the current 2.5 quotient to be granted a third seat for the 1996 election, but fell short for the 2019 election, only allocated the third seat based on the standard error adjustment. The ACT again fell short of 2.5 quotas in the 2020 determination but will retain three seats via the standard error calculation.

Table 5 below shows the number of seats that would have been allocated by the two methods at each apportionment since 1991. The 1991 apportionment was the first to apply the state formula to the territories. Determinations where there is a difference between the methods are by underlining in the final column.

<table>
<thead>
<tr>
<th>Determination/Election</th>
<th>Quotas</th>
<th>Current Method (Webster)</th>
<th>Proposed method (Dean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991/1993</td>
<td>2.4656</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1994/1996</td>
<td>2.5042</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1997/1998</td>
<td>2.4947</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>1999/2001</td>
<td>2.4254</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2003/2004</td>
<td>2.4209</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2006/2007</td>
<td>2.3751</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2009/2010</td>
<td>2.3858</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2011/2013</td>
<td>2.3849</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2014/2016</td>
<td>2.4392</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2017/2019</td>
<td>2.4793</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2020/2022</td>
<td>2.4897</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Compared to the existing method, Dean's method would have allocated a third seat for the 1993, 1998, 2001, 2004 and 2016 elections. It would have also allocated an extra seat for the 2019 election, and for the current apportionment, without having to rely on the use of statistical error.

Can Dean's Method be Applied to the States?

In the 1961 determination, Western Australia’s quotient was 8.4703 and Queensland’s 17.4387. Both states were due to lose a seat. As the law stood at the time, determination of seats using the Section 24 formula was not the final step of the process. The representation numbers did not apply until new electoral boundaries passed through parliament.

When the Country Party threatened to vote with Labor to defeat the new boundaries, the Menzies government withdrew the redistribution proposal and the allocation of seats to states, and the electoral boundaries, remained unchanged for the 1963 and 1966 elections.

The Representation Act was amended in 1964 to apply a different formula to that set out in Section 24. The calculation of quota and quotient remained the same, but all quotients were rounded up to the next whole number, an extra seat allocated to any state with a quotient fraction greater than zero.

If the 1964 rule were applied to the 2020 determination, NSW with 47.11 quotas would have been allocated a 48th seat, Western Australia with 15.30 quotas allocated a 16th seat, and South Australia
with 10.20 quotas would have been allocated an 11th. All five mainland states would have received an extra seat above the quotient integer value and there would have been three extra House seats.

This legislative enactment was invalidated by McKellar’s case (1977), the allocation formula reverting to its Section 24 construction.

But the High Court’s ruling in McKellar did not mean that Parliament had no power to amend the formula in Section 24. What it ruled was that the formula in the Representation Act was not “as near as practicable” as the formula in Section 24. No evidence was offered that the Representation Act provision was more proportional than Section 24.

The judgment made reference to Article 1, Section 2 Clause 3 of the US Constitution that representation in the House of Representatives be allocated to states according to their respective population. It also referenced the various methods used in the USA to achieve this end.

But as Chief Justice Barwick noted, the US Constitution has no equivalent of Section 24’s numerical relationship between the size of the House and the Senate, the two-to-one nexus provision. As implemented in the United States, the size of the House of Representatives is for Congress to determine, the chosen allocation formula then used to apportion seats to states.

Justice Stephen noted that the two constitutional requirements related to Section 24 were

... first that the number of members of the House of Representatives ‘shall be, as nearly as practicable, twice the number of senators” and, secondly, the proportionality requirement, that “the members chosen in several States shall be in proportion to the respective numbers of their people”. Of these two requirements the latter is absolute in form while the former is in qualified terms.

Stephen then went on to explain how compared to the formula in Section 24, the method in the Representation Act was both less proportional and not as close as practicable to twice the size of the Senate. As he noted –

... it is one thing to require the concept of a perfect nexus between the numbers in the two chambers to give way to the extent necessary for the attainment of more perfect proportionality of representation; it is quite another to sacrifice both proportionality and nexus at one and the same time and to do so without promoting any purpose which has been accorded any constitutional recognition.

Stephen went on to note with reference to US literature that there were other methods for proportional allocation of seats to states, and that if one of those were used, the High Court might not strike down the method. But as he noted, that was not the position the Court was ruling on in relation to the Representation Act.

Justice Gibbs was less interested in ruling on proportionality and struck the legislation down based on “near as practicable”. He also ran through the history of several US apportionment methods that had been either used or proposed by the time of Federation. The Australian constitution’s authors had been uncertain of the precise method of insuring proportionality and left it to Parliament to otherwise provide.

As I argued earlier, Dean’s method can be argued as being more proportional than the existing method in Section 24 because it allocates seats in a manner designed to minimise differences in average population per member across states, something that is not a property of the existing method.
This difference is most noticeable with the territories. States are allocated the minimum number of five seats, a level of representation at which Dean’s Method converges on the current apportionment formula.

I have examined every apportionment undertaken since Federation and calculated the relevant values for Dean’s method. Out of 26 apportionments, or 156 state allocations, only one state at one apportionment produced a difference. By my calculations, Dean’s Method would have allocated South Australia a 12th seat at the 1967 apportionment where the current method would have reduced South Australia to 11 seats. (I can provide the Committee with copies of my calculations.)

Recommendations

Recommendation 1
The proposal to fix the number of members for the Northern Territory should not be adopted.

Adopting the fairer formula proposed in the submission allows the Northern Territory to retain its second seat for the foreseeable future. If the Northern Territory's population continues to decline relative to other jurisdictions, the issue can be re-visited.

Recommendation 2
The use of the state seat allocation formula derived from Section 24 of the Constitution for the territories should be replaced by Dean’s method based on applying a harmonic mean.

The current state-based formula is unnecessarily harsh in allocating seats to the two territories. Adopting Dean’s formula will produce a fairer representation for both territories, ensuring the seats allocated produces an average population per member closer to the national average.

Recommendation 3
If Dean’s Method is adopted, the current mechanism applying statistical error to the calculations should be abandoned.

The use statistical error looks like a fix to solve a problem in 2003 rather than a long-term solution to allocating Territory representation.

Recommendation 4
If it is decided to legislate a two-seat minimum for the Northern Territory, then it should be in conjunction with applying Dean’s formula for additional seats.

As noted with recommendation 2, Dean’s formula is fairer for both territories, and fixing both territories is a more satisfactory outcome than just dealing with the Northern Territory.

Recommendation 5
Consideration should be given to applying Dean’s Method to the states as well as the territories.

As outlined above, it can be argued that Dean's method is more proportional than the existing Webster method defined in Section 24, even if on rare occasions it produces a House that is not as near as practicable to twice the size of the Senate.

It would be best if the allocation of seats to jurisdictions is the same for both states and territories. Section 24 allowed the Parliament to replace the existing allocation formula, and Dean’s method as a more proportional method than Webster’s has a strong chance of surviving any High Court challenge.