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Dear John

**WESTERN AUSTRALIA'S COMMENTS ON SOCIO-DEMOGRAPHIC
COMPOSITION AND LOCATION DISABILITIES**

Attached are Western Australia's comments on the Commission's discussion papers on the above matters.

Yours sincerely

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Enc.

Socio-Demographic Composition (SDC)

Broad Measures

Whichever approach the Commission uses, we believe that it is important for it to measure the costs that States actually face which are beyond their control (subject to data constraints, materiality etc). At this stage, we are inclined to support the view that, in the case of SDC, it is hard to see how broad measures are likely to achieve this.

If relatively broad assessments are developed, we believe it important (as part of the process for developing potential new methods during the 2010 Review) to compare them with detailed assessments and to focus on understanding the reasons for any observed differences.

- It would be a mistake to assume that, if there is a difference, the broader assessment must be inaccurate. Broader measures are not necessarily less meaningful than detailed ones – the detail may not be entirely relevant, or it may be measured with enough uncertainty that it does not actually add to the accuracy of the result.¹
- Conversely, we do not believe that approximations should be introduced just for the sake of doing so, as this may compromise HFE.

Proxy Measures

We do not believe that the term “proxy measures” has been clearly defined. It appears to be used to describe sub-global measures. However, it also appears to be used to describe approaches similar to the current disability assessments, with some simplifying approximations introduced².

As such, we do not have an *a priori* opinion of proxy measures, each of which must be judged on its merits.

The Commission has suggested using regression analysis to develop proxy measures.

Although regression analysis may appear to be an attractive approach, we are hesitant to endorse its use. We believe it is necessary to establish a causal relationship. To be confident that the relationship estimated by a regression model is sensible and will continue to be reliable into the future, it is necessary to have a good understanding of the underlying processes (i.e. to be able to say *how* and *why* one variable affects another).

¹ An example is the hospital costs factor, which relies on simplistic assumptions about patient transfers. We believe that HFE would be better served by using a general dispersion factor.

² For example, use indigeneity and socio-economic status as a proxy for all SDC influences.

Modelling done at a global level would likely need to be complex. There may be numerous relevant independent variables and interactions among them, and the relationships will probably be non-linear. On the other hand, modelling at a more detailed level would encounter the same data issues as the current approach.

Transparency is also an important issue. If the Commission elects to use a regression model for any of its assessments, it should provide sufficient information to the States to enable them to reproduce and evaluate its results.

Cross-Tabulation

The complexity of cross-tabulations comes mainly from the number of variables, not the number of categories into which each variable is divided. A data matrix with a large number of cells does not *ipso facto* concern us. Although the accuracy for sparse cells is likely to be poor, their impact on the assessments is likely to be minimal (the Commission itself has done analysis that supports this).

We believe that reducing the number of categories into which variables are divided is not a fundamental simplification, but rather an issue of materiality. For example, age groups may be merged if it is found that the impacts they have on expenditure needs are not materially different.

To illustrate, the SDC Discussion Paper suggests that simplification could be achieved by reducing the number of dissections of each variable in the much-maligned Inpatient Services assessment cross-classified data set. This would involve replacing:

- a 2,080 cell data set cross-classified by age, sex, indigeneity, region, socio-demographic status and English fluency; with
- a 96 cell data set cross-classified by age, sex, indigeneity, region, socio-demographic status and English fluency.

This would mean less numbers to process, but would not really make the assessment any simpler. However, we note that the original data is not actually cross-classified by socio-demographic composition and English fluency, which are artificially applied by the Commission. Removing these adjustments (or doing them in a simpler manner) would result in genuine simplification.

Defining the Disabilities

Indigeneity

This is more than just a matter of whether a person ticks a box on a Census form. We agree that it is useful to consider the following three groups of indigenous people.

- Those who are largely assimilated into mainstream society. If their needs are not materially different from those of non-indigenous people, this group may not need to be counted at all.
- Those who live in or around cities or towns, but who are disconnected from society. This group is the most problematic – although they generate significant needs, they are difficult to count.
- Those who live according to traditional culture (i.e. in distinct, generally remote, communities). They are relatively easy to count, and there is strong evidence³ that their needs are greater than would be expected if remoteness and indigeneity were considered separately. Costs of service delivery to remote communities are likely to increase in the future as States seek to address unmet need, and also place more emphasis on cultural sensitivity.

Because of the difficulty in identifying the second group, the Commission has in some cases divided the indigenous population into remote and non-remote. Broadly speaking, this reassigns the second group between the first and third categories. The Commission then derives separate cost weightings for remote and non-remote indigenous people vis-à-vis non-indigenous.⁴

Given the difficulty in identifying the second group, we believe that this is an acceptable approach. However, we note that this approach could be improved by adding indigenous persons in distinct non-remote communities to the remote indigenous persons.⁵ We also support further research into how to better identify the groups of indigenous persons with differential cost impacts.

³ For example: “There was little difference between the two population groups [i.e. indigenous and non-indigenous] in the cities, but in the outer-regional and remote areas indigenous separation [i.e. de-admission from hospital] rates were between 87.7% and 165.2% higher.” *Expenditures on Health for Aboriginal and Torres Strait Islander Peoples, 2001-02*, Australian Institute of Health and Welfare, 2005.

⁴ The non-remote indigenous population require a separate cost weight as they include a significant number of indigenous persons from the second group.

⁵ Weights would need to be calculated for the combined group, but in many cases may be similar across this group.

We also suggest that a lump sum approach (as used for isolation) may be applicable to indigeneity. The disadvantages experienced by indigenous people – poor health, inadequate housing, low educational attainment, poverty, and crime – tend to be interwoven. Expenditure intended to improve outcomes in one category may affect other categories as well. Conversely, it may be futile to address one disability unless others are addressed at the same time. Therefore we question whether it is meaningful to assign any increased cost of service provision to a single category.

The following are examples of the higher cost of service delivery to indigenous people, especially those living in remote areas.

- Per-capita health expenditure by State governments is 2.4 times as great for indigenous people as for non-indigenous.⁶ The ratio is highest for the more remote jurisdictions (Northern Territory, Western Australia) and lowest for the less remote (Tasmania, ACT), suggesting that the effect of indigeneity is greater when combined with remoteness. One reason for the difference in public expenditures is a shortage of private general practitioners in remote areas,⁷ which causes residents of those areas to use hospitals for primary health care. An indicator of the extent of this practice is the fact that Commonwealth Medicare and PBS expenditure per patient is only one third as high in very remote areas of Western Australia as in metropolitan areas.⁸
- The per-capita crime rate for indigenous people is about ten times as high as that for non-indigenous. The ratio is even higher in more remote areas – in the Goldfields-Esperance region of Western Australia, it is about 20 for crimes of violence and 25 for theft-related crimes.⁹
- Service delivery is more time-consuming, and therefore more expensive, if clients have difficulty understanding and being understood by service providers – 19% of remote indigenous people reported having difficulty communicating with service providers, compared with 8% of non-remote indigenous people.¹⁰ Residents of remote indigenous communities are significantly more likely to speak a language other than English at home.

We also refer the Commission to our submissions to the 2004 Review, and to the Indigenous Funding Inquiry.

⁶ *National summary of the 2003 and 2004 jurisdictional reports against the Aboriginal and Torres Strait Islander health performance indicators*, Australian Institute of Health and Welfare, 2006.

⁷ The same is true of specialists such as consultant psychiatrists; see *National Mental Health Report 2005*, Commonwealth Department of Health and Ageing, 2005.

⁸ *Health Services in the City and the Bush: Measures of Access and Use Derived from Linked Administrative Data*, Commonwealth Department of Health and Aged Care, 2001.

⁹ Western Australian Police Department.

¹⁰ *National Aboriginal and Torres Strait Islander Social Survey 2002*, Australian Bureau of Statistics, 2004.

Socio-Economic Status

Basing the definition of 'poor' on an income threshold requires choosing a level at which to set it. We suggest that the appropriate basis for doing so is what States do (i.e. how poor a household needs to be to qualify for assistance under the national average of States' current policies). If holding a concession card is the usual means of qualifying, or if States use criteria that are strongly correlated with holding a card, then perhaps we need not measure income at all.

Similarly, adjustments to income thresholds (to take account of factors such as household size or regional living costs) would need to depend on the extent to which States provide more assistance to some households than to others on the basis of those factors.¹¹ In any case, such adjustments add complexity to the assessment, so they would need to meet the materiality criteria.

Counting the number of households whose income is below some threshold takes no account of degrees of poverty. If States provide more assistance to households that are in greater need,¹² then it may be necessary to measure the amount by which a household's income falls short of the threshold.

English Fluency

Immigrants from non-English-speaking countries, especially those admitted for humanitarian reasons, will take some time to become proficient in English and familiar with Australian society. During that time, agencies will face higher costs in delivering services to them, and may have to deliver additional services (e.g. education regarding legal rights and obligations). But if immigrants are still not proficient after several years, it is (arguably) an indication that the State is not making an effort to teach them, which is a policy decision. Therefore we think that the key measure is the number of recent arrivals, not the total number of residents, from non-English-speaking countries.

Cultural and Linguistic Diversity

We agree that the effect of cultural and linguistic diversity is nebulous. Diverse cultures are not all equally diverse in terms of their expenditure needs, so it may be misleading simply to count all immigrants. Most immigrants are unlikely to have additional needs. If the Commission were to assess needs for cultural and linguistic diversity, it probably only has to cover humanitarian migrants.

¹¹ Any concessions on service fees that are charged per person (such as public transport fares and schooling costs) will be of greater value to larger households. In Western Australia, the income threshold for public housing eligibility increases with household size and is 41% higher in remote regions. Also, the rebate for electricity usage charges available to holders of a concession card increases according to the number of dependent children in the household.

¹² For example, if the rental charged for public housing is capped at 25% of household income (as it is in Western Australia), then the implicit subsidy is greater for poorer households.

Immigrants from countries with persistent corruption and political instability tend to distrust government agencies. As a result, they may defer seeking assistance until their situation is critical, and require more expensive remedies than would have been possible had earlier intervention occurred. Again, the appropriate measure is the number of recent arrivals from applicable (generally non-English-speaking) countries.

Materiality

We do not wish to see materiality thresholds applied blindly to cut out small adjustments. Instead, the Commission should ask whether these adjustments improve equalisation, or whether a less detailed approach is just as meaningful.

Some of the questions the Commission has raised about adjustments to data sets (e.g. classification of mission schools) could be seen as data quality issues. We would be interested to know if the Commission intends applying materiality tests when determining if extra resources should be applied to improving data quality.

Data Sources and Reliability

The Commission will be aware of the Productivity Commission's publications on service delivery.

We would not be surprised if special data collections are required, and we will co-operate with any that are made. However, we think that they should be delayed until later in the review process, when there is a clearer understanding of the preferred methods. In addition, they should be highly focused.

- They should seek only the data that are required to quantify disabilities.
- Exploratory work on what is feasible should be done through the use of draft data requests, which can be sent to agencies to determine whether or not they can provide the data.
- Exploratory requests on policies and practices are not desirable, unless clearly required to develop the assessments.

Use of Consultants

We have generally not had a high opinion of consultancy work done on the implementation of HFE, except where it has been aimed at quantifying something that is well specified.

Complex issues require lengthy study to be appreciated with sufficient depth for the resulting recommendations to be valuable. Engaging consultants for the necessary period of time would probably be prohibitively expensive, and engaging them for an inadequate period could be a complete waste.

Accordingly, we would support using outside experts only for well-defined issues for which specialised expertise or an objective judgement is required. Data collection is another task that may be suitable for consultants.

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Location

Splitting the Assessment

As indicated in the Commission's discussion paper, there are various approaches that could be tried to assess location disabilities in a more aggregated way. However, we have found that it is generally easier to think in terms of the traditional factors of dispersion, isolation, input costs, etc, as this readily identifies the source of the disability. Nevertheless, we are happy to consider any proposal for a more aggregated assessment.

Isolation

We support further exploration of the idea that tonne-km of imports could be used as a proxy measure of isolation. However, it would be necessary to account for the possibility that the more isolated States have a lower volume of trade, *ceteris paribus*, because of their higher transport costs. We also note that travel and labour-related costs such as relocation allowances and recruitment incentives would still need to be captured.

Western Australia is experiencing labour shortages in various trades and professions, so many agencies must advertise inter-State to obtain staff. We hope to provide data showing the costs associated with recruitment and relocation. Obviously these would be meaningful only in comparison with similar data obtained from other jurisdictions.

Dispersion

Methods of Assessment

Table 4 of the Commission's Discussion Paper shows, for each State, the mean distance and median distance of the population from the State capital. We think these measures are poor indicators of dispersion. The median takes no account of how distant the more distant half of the population is from the capital. Even the mean cannot discern whether the more distant part of the population is concentrated in regional centres or is widely scattered.

The ARIA approach correctly recognises that the State capital is not the only locality with which service delivery units interact. However, we note that ARIA implicitly weights distance from smaller centres by more than distance from larger ones, meaning that the least weight is given to the distance from the State capital. This is unlikely to be an accurate reflection of the amount of interaction that actually occurs between service units and population centres of various sizes, which would seem to be the appropriate basis for the weights.

We also contend that the ARIA+ scale is flawed because it does not discriminate sufficiently well among very remote localities. For example, Mount Magnet is 570 km from Perth along the Great Northern Highway, and its ARIA+ score is 12.27 ('very remote'). However, Kalumburu is about 570 km from Derby (itself some 2500 km from Perth) along an unsealed road suitable only for 4WD vehicles and impassable during much of the monsoon season, and its ARIA+ score is 15.00 (the maximum for the scale, and also 'very remote'). The latter location is clearly far less accessible, and therefore more costly to service, but the scores do not reflect the extent of the difference, and the categorisation suggests no difference at all.¹³

The reason for ARIA's lack of discernment is that its calculated distance ratios are capped at a value of three before summing, to prevent extremely remote localities from receiving astronomical scores. However, capping causes some information to be discarded. We suggest that a more appropriate method would be to use uncapped scores, but transform the distance ratios so that remoteness increases with distance at a diminishing rate. This method would better reflect the relationship between distance and cost, and would retain the ability to distinguish among very remote localities.

It may be possible to develop appropriate indicators by closer examination of the current methods. For example, the current approach to measuring freight costs uses only a few quotes. If costs were obtained for a wider range of locations and parcel sizes, the broad relationships might become clearer. Alternatively, it might demonstrate that broad indicators are not feasible.

Evidence of Existence of a Dispersion Disability

The Commission has asked the States to make the case for the existence of location disabilities.

There are numerous reasons why population dispersion increases costs, including the impacts on travel, freight and telephone costs, and the higher staffing costs.

¹³ The Western Australian Department of Education and Training uses a distance-based formula to determine some components of School Grants - its factors for Mount Magnet and Kalumburu are 21 and 61 respectively. Similarly, the Western Australian Department of Health applies a rural and remote access subsidy to Health Services' operating grants - its loadings for Meekatharra (Mount Magnet would be similar) and the Kimberley are 8% and 15% respectively. The Department suspects that the latter value is an underestimate and is planning further data collection. In any case, it measures the remoteness of the larger towns in the Kimberley, not the more remote communities.

To illustrate, the following are examples of the attraction and retention incentives offered by Western Australian Government agencies to staff in remote areas.

- The Public Service Award 1992 contains provision for District Allowances to be paid to officers located in remote areas, the maximum being \$6,245 per annum (doubled if the officer has dependents) in Fitzroy Crossing.
- Doctors and nurses employed in remote areas by the Department of Health receive an annual leave travel allowance equal to the return airfare to Perth, plus five days' additional travel time.
- Teachers employed in remote areas by the Department of Education and Training receive locality allowances that vary with distance from the metropolitan area, and subsidies for rent, travel and air-conditioning.
- Police Officers stationed at remote communities receive the temporary rank of Sergeant, a 25% salary loading (but no overtime), a location allowance of \$3,000 per annum, and rent-free accommodation.

Urban Influences

The Commission hopes to develop a single measure that will be applicable to all relevant assessments.

However, urbanisation affects each service category in a different way (as the Commission's current methodology recognises), meaning that it is actually many separate disabilities. A single measure would be valid only if all those disabilities are strongly correlated with one another, but the evidence for such correlation is weak at best.¹⁴

In addition, we are not convinced that any level of detail will justify all of the urban influences disabilities that are currently assessed. Citing the 'complexity of life in large cities', without stating how this complexity raises the costs of service provision, is especially unpersuasive. In any case, claims of disability need to be supported by evidence of higher actual expenditure per capita.

¹⁴ Perth has a higher rate of illicit drug use than Sydney or Melbourne, which contributes to a higher rate of property crimes such as burglary. This disability is one that is not positively correlated with other components of the 'urban complexity' factor.

Counter-Terrorism

Although Defence is a Federal responsibility, the Commonwealth requires the States to contribute to the protection of infrastructure against terrorist attack, and to the policing of the coastline and territorial waters. Large urban centres are potential terrorist targets, but we contend that the risk is roughly proportional to population.

However, Western Australia has a disproportionately large burden because:

- it has 36% of Australia's coastline (excluding islands), much of which is very distant from major population centres;
- its northern neighbour is Indonesia, where terrorist attacks have previously occurred; and
- the oil and gas installations of the North-West Shelf are highly valuable and attractive targets.

Data requirements

It seems to us that any method requires data by location. These data could be either:

- actual expenditure by State agencies; or
- input prices faced by State agencies.

Many State agency financial systems are not designed to report expenditures by location. However, payroll costs (which are a large component of the total) may be assignable to locations, and would therefore be a reasonable proxy. We support further investigation of this approach.

However, caution would be needed, as there is a tendency for some agencies to assign their least-experienced (i.e. lowest-paid) staff to remote locations, imparting a downward bias to the estimate of costs in remote regions. This bias is illusory, as all States will have lesser-experienced staff working somewhere. Also to the extent that locality allowances are flat dollar amounts (which is generally the case), the use of lesser-experienced staff in remote regions does not result in a cost saving.¹⁵

We agree that there could be merit in considering cost by region, provided that this data can be obtained.

¹⁵ There would be some cost saving if locality allowances were set in proportion to base pay. However, States with a smaller proportion of their population in remote regions would benefit relatively more from these cost savings, as they would be more easily able to find enough lower-paid staff to service these regions.

Measuring input prices would not capture geographic variations in the quantity of services provided, or in the quantity of inputs required to produce a given amount of output.¹⁶ Nevertheless, we consider the method to be worthy of further consideration. The current measure of freight charges is an example of this approach, but we consider that it relies on far too narrow a sample.

Use of Consultants

Our comments in the corresponding section of our SDC comments also apply here.

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¹⁶ For example, it would recognise that the price of petrol is higher in remote regions, but not that police officers must use more petrol to cover a large, sparsely-populated area.