Government of **Western Australia**
Department of **Treasury**

Assessing Indigenous Disadvantage in Commonwealth Grants Commission Assessments

Discussion Paper

May 2024

Assessing Indigenous Disadvantage in Commonwealth Grants Commission Assessments

Acknowledgement of Country

This report was prepared by the Department of Treasury (WA Treasury) on the traditional Country of the Wadjuk people of the Noongar Nation.

WA Treasury respectfully acknowledges the Traditional Custodians of Country throughout Western Australia and their continuing connection to Country, Culture and Community.

We pay our respects to all members of Western Australia's Aboriginal communities and their cultures and to Elders past and present.

We acknowledge and pay tribute to the strength and stewardship of Aboriginal people in sustaining the world's oldest living culture and value the contribution Aboriginal people make to Western Australia's communities and economy.

We recognise our responsibility as an organisation to work with Aboriginal people, families, communities, and organisations to make a difference and to deliver improved economic, social and cultural outcomes for Aboriginal people.

Further information relating to this report may be obtained by emailing igr@treasury.wa.gov.au

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Executive Summary

Indigenous people tend to be more disadvantaged than non-Indigenous people across a range of economic and demographic factors.[1] While relative disadvantage is present in the Indigenous populations of most States and Territories (States), the degree of disadvantage varies substantially.

The Commonwealth Grants Commission (CGC) splits Indigenous and non-Indigenous people into different groups, and then applies different socio-economic indices of disadvantage to these groups: the Indigenous Relative Socio-economic Outcomes (IRSEO) index; and the Non-Indigenous Socio-economic Indexes for Areas (NISEIFA), respectively. This allows the CGC to apply different State service use rates based on quintiles of disadvantage, across both indices.

A recent trend is for more advantaged people to identify in censuses as Indigenous, particularly in major cities on the east coast. These people are unlikely to have the same service use rates as more disadvantaged Indigenous people across the country; indeed, some would use services to the same degree as their non-Indigenous neighbours. This would not be a problem if the CGC were able to assess Indigenous disadvantage adequately. It attempts to do so by calculating different use rates for different socio-economic cohorts, using IRSEO quintiles.

However, service use rates across all quintiles are often very similar for Indigenous people (particularly with Justice), and are substantially higher than use rates for non-Indigenous people. This observation implies that the socio-economic measurements are not doing a good job of separating groups based on service use. We argue that this is because not all the disadvantage faced by Indigenous people is captured in socio-economic indices. Such indices are missing a number of measures that lead to greater use (and cost), due to index construction, and because data on some factors that influence State service use are not being collected. Therefore, we do not believe the CGC's socio-economic measures accurately assess the level of service use by different Indigenous cohorts. The measures should be reviewed.

The CGC should consider whether IRSEO is fit for purpose (whether it comprehensively measures the propensity of Indigenous cohorts to use services). The CGC should look for ways it could develop and implement other factors of disadvantage in its assessments in order to capture the effect of disadvantage on use rates more appropriately. These factors could include exposure to trauma through family separation policies, a higher prevalence of certain illnesses, and socio-economic characteristics. The influence of these factors is not uniform across States. It is possible that a single index of disadvantage is too broad to cover factors that increase State service use for all assessments. It may require the creation of multiple indices for different assessments that make use rates more representative of the impact of disadvantage on the use of that service.

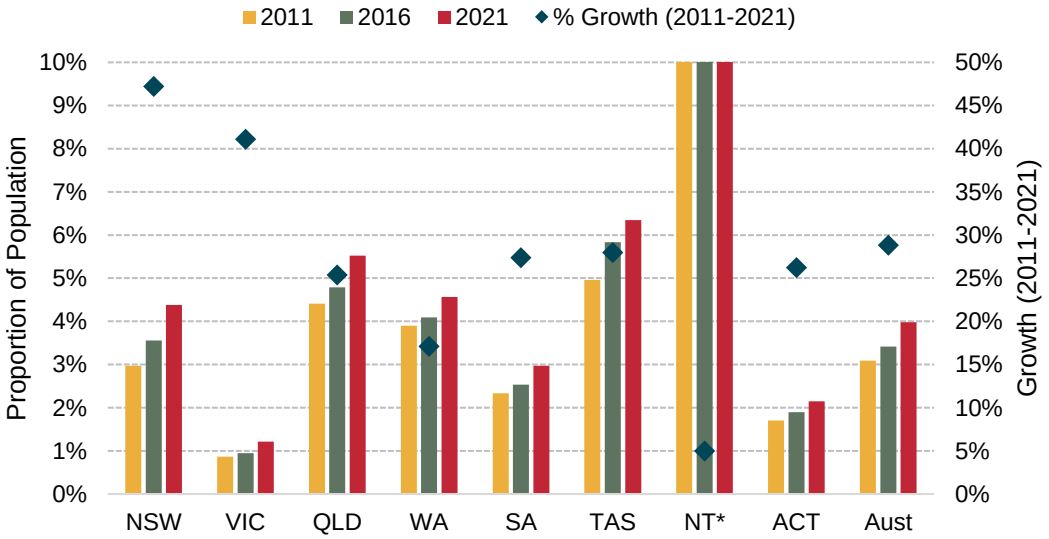
[1] Note that the term Indigenous is used in this paper to describe people who identify as Aboriginal or Torres Strait Islander, and non-Indigenous is used to describe people who do not.

Increasing Indigenous identification

Since 2006, a trend that increases the propensity to identify as an Indigenous person has been present in Australian Bureau of Statistics (ABS) Census figures. This trend varies with each census, but is particularly concentrated in younger people in non-remote areas, particularly in New South Wales and Victoria. Chart 1 highlights the differences in growth in Indigenous populations across different States, between censuses. Growth is particularly strong in New South Wales and Victoria, and low in Northern Territory and Western Australia.

Chart 1

Indigenous proportion of State populations, and growth between censuses, 2011–2021

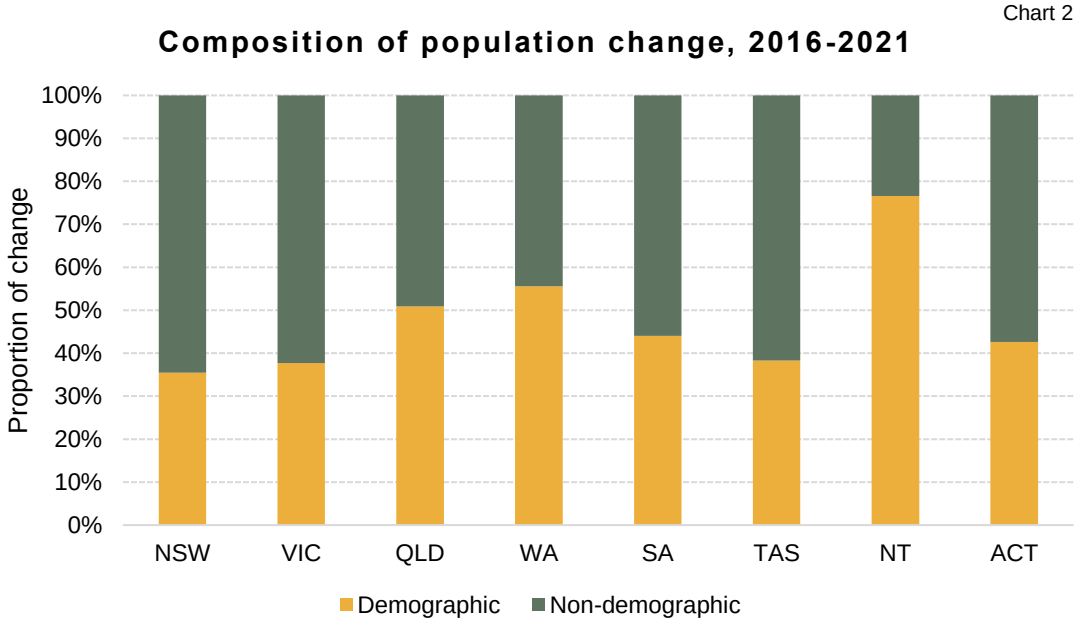


* The maximum Indigenous proportion of the population was capped 10% for legibility, the Northern Territory Indigenous proportion of the population was 42.4% in 2011, 43.6% in 2016 and 44.5% in 2021.

Source: WA Treasury analysis of ABS Census data 2011, 2016, and 2021.

The population figures include both demographic and non-demographic changes. Demographic change includes natural population changes due to births and deaths, as well as migration, while non-demographic change is related to changes in identification. Analysis by the ABS of changes in Indigenous populations between 2016 to 2021 indicates that non-demographic change made up a large proportion of the total population change for New South Wales, Victoria, Tasmania and the Australian Capital Territory, and made up a lower proportion of change for Queensland, Western Australia, and the Northern Territory (see Chart 2).

Chart 2



Source: WA Treasury analysis of ABS Census data, 2016 and 2021.

The ABS hypothesised that one of the main reasons for the changing propensity to identify was that the newly-identified population typically had one parent who did not identify as being Indigenous, and this parent would not identify their child as Indigenous.[2] In later censuses, it is believed that the non-Indigenous parents of Indigenous children become more sensitive to the Indigeneity of their children, or that the children themselves become more sensitive to their own status, due to social trends. So, with each census, the trend is for parents to more appropriately classify the children at birth as being Indigenous, as well as correcting past misclassifications when the children reach between 5 to 19 years of age. This leads to an increase in Indigenous identification. While the trend will be temporary by nature, it will probably take some time to play out.[3]

This is intuitive as Indigenous people in the States that have seen significant increases in identification are more likely to have a non-Indigenous parent (compare Chart 1 with Chart 3).

There appears to be substantive differences in socio-economic disadvantage between those who have newly identified as Indigenous in the last few censuses, and those who have consistently identified as Indigenous. Longitudinal analysis of Indigenous identification between the 2011 Census and 2016 Census indicates that the newly-identified population have better employment and educational outcomes than the consistently-identifying population.[4]

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2 Australian Bureau of Statistics (2018) *Census of Population and Housing: Understanding the Increase in Aboriginal and Torres Strait Islander Counts* ABS, Canberra, available online: https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/understanding-change-counts-aboriginal-and-torres-strait-islander-australians-census/2016#changing-propensity-to-identify

3 If the trend continues, it must reach a point where all children with least one Indigenous parent are classified as Indigenous.

4 Shalley, F, Griffiths, K, & Wilson, T (2023) *No Longer Indigenous*. Population Research and Policy Review, 42(4), 42-53, available online: https://doi.org/10.1007/s11113-023-09801-2

Chart 3

Proportion of Indigenous population with one non-Indigenous parent, 2016

Note. The data used in the above analysis is indicative, as it is a limited sample with potential errors in the linking of datasets between censuses, as well as input errors from respondents as respondents are assuming the Indigenous Status of their parents.

Source: WA Treasury analysis of Australian Census Longitudinal Dataset 2011-16 through ABS Tablebuilder.

This should be a concern for the CGC, as most assessments separate Indigenous and non-Indigenous populations into cohorts, with different use rates for State services applied to them. While each cohort is separated into quintiles based on their level of disadvantage, there are many situations where the use rates for all Indigenous quintiles are higher than the use rates for the most disadvantaged non-Indigenous quintile (see discussion of offence rates in the next section).

This means that an Indigenous person can never be assessed to use certain State services less than any non-Indigenous person. It also means that each person who newly identifies as Indigenous will be allocated the higher Indigenous use rate and cost. This will incorrectly increase the assessed expenses of States where people newly identify as Indigenous. As the increasing number will not increase the national expenditure on services (the underlying demographic has not changed), it will also dilute the per-Indigenous use and cost rates. This will reduce the assessed GST needs of States with relatively more people who have consistently identified as Indigenous, without reducing their actual expenses.

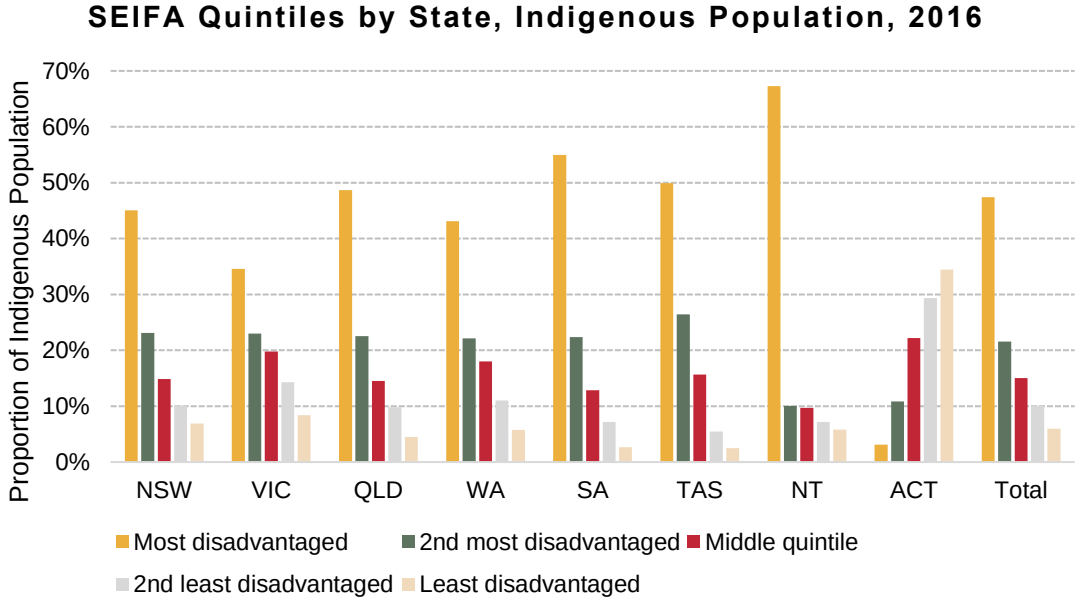
CGC Assessment of Indigeneity

The Indigenous status of the population has been a driver of expense assessments since the first CGC report on State Tax Sharing and Health Grants in 1981, where Indigenous populations impacted the social composition factor that was applied to State expenses. The reason for this is that Indigenous people tend to use State services at higher rates, and in some instances, additional costs are incurred by Indigenous people.

While higher use rates are correlated to Indigenous people, and being Indigenous is correlated with disadvantage, their disadvantage is driven by factors other than their identity. These factors include, for example, exposure to trauma through family separation policies, a higher prevalence of certain illnesses, and socio-economic characteristics. The influence of these factors is not uniform across States.

To partially address this, in 2010, the CGC considered Indigenous status in relation to socio-economic status, using the ABS' Socio-economic Indexes for Areas (SEIFA). Indigenous people in different States experience different levels of disadvantage, but Chart 4 shows that Indigenous people in all States except for the ACT are overrepresented in the most disadvantaged quintile.

Chart 4

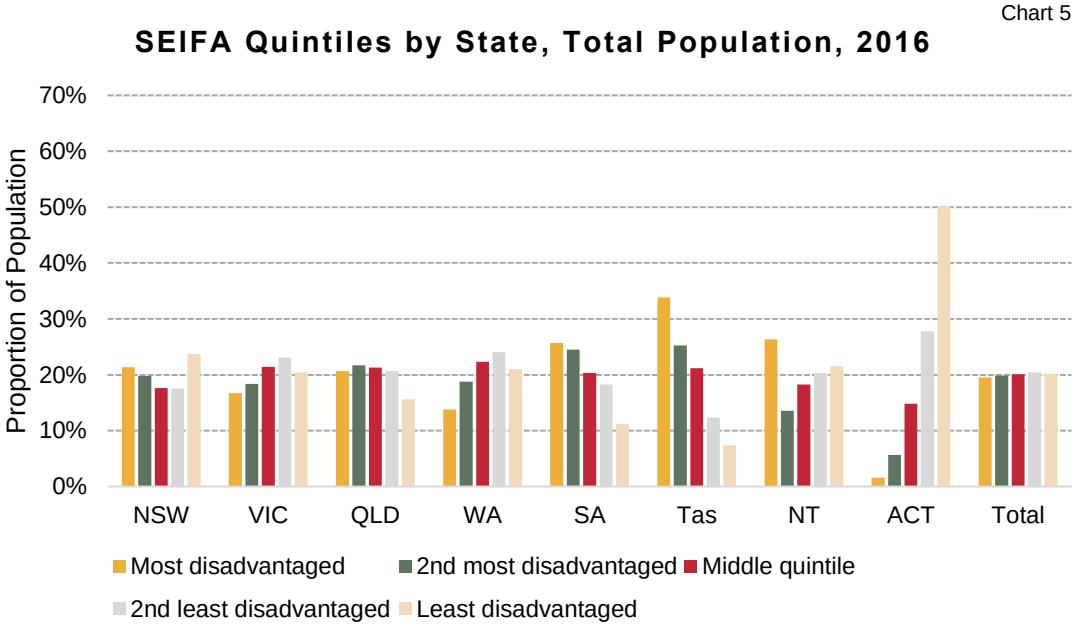


Source: CGC Assessment Simulator, 2020 Review

In 2015, the CGC again changed its approach to include separate indices for non-Indigenous and Indigenous population cohorts. The justification was an attempt to better account for Indigenous disadvantage. As Indigenous people are overrepresented in the more disadvantaged SEIFA quintiles, they did not adequately depict the degree of extreme disadvantage faced by some Indigenous people. In some cases, the majority of Indigenous people in a State can fall into the most disadvantaged SEIFA quintile, even though the use rates for different services would still vary within the Indigenous population in that quintile.

The difference in socio-economic status between Indigenous and non-Indigenous people varies by State, where most States experience a relatively large difference, while Tasmania and the Australian Capital Territory feature similar profiles (and South Australia to a lesser extent) of disadvantage between Indigenous and non-Indigenous populations (compare Chart 4 with Chart 5).

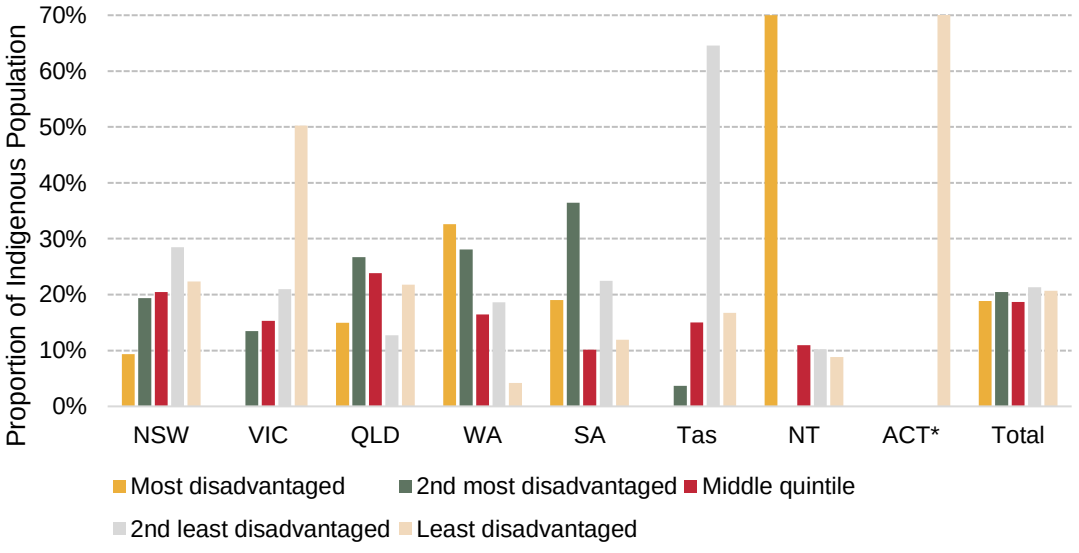
Chart 5



Source: CGC Assessment Simulator, 2020 Review

The NISEIFA and IRSEO indices classify the socio-economic status of non-Indigenous and Indigenous population by area. NISEIFA was produced by the ABS for use by the CGC, while IRSEO is produced by the Centre for Aboriginal Economic Policy Research (CAEPR) at the Australian National University. Both indices use ABS census data, but their variables differ. The differences between States are more significant with IRSEO (compare Chart 4 to Chart 6). In addition, Chart 4 shows that, when compared to the whole population at the national level, Indigenous people are more disadvantaged (the 'Total' histogram is skewed to greater disadvantage). Chart 6 shows that the IRSEO index unsurprisingly features a more even quintile distribution at the national level. Hence, the people in any given IRSEO quintile will be more disadvantaged than those in the same NISEIFA quintile.

Chart 6



* 100% of the Indigenous people in the ACT are in the Least disadvantaged quintile.

Source: CGC Assessment Simulator, 2020 Review

IRSEO is an improvement on SEIFA for measuring Indigenous disadvantage. Chart 6 shows a remarkably different profile to Chart 4 for all States other than Western Australia and the Northern Territory. Although Chart 4 implies, for example, that Indigenous Victorians and Tasmanians are skewed towards being more disadvantaged within the total State population, when compared to just Indigenous people under IRSEO (Chart 6), they are relatively less disadvantaged. Indeed, there are no Indigenous Victorians or Tasmanians in the most disadvantaged quintile, and very few Indigenous Tasmanians below the middle quintile. New South Wales' Indigenous people are also less disadvantaged under IRSEO.

As noted above, we would expect use rates under the NISEIFA histogram to overlay those under the respective IRSEO histogram, but be shifted further away from disadvantage. That is, the most disadvantaged Indigenous quintile would show higher use rates than the most disadvantaged non-Indigenous quintile. It would not make sense to consider that use rates of the least disadvantaged Indigenous cohort would be higher than the most disadvantaged non-Indigenous cohort. Yet, this is the case for some CGC assessments, where there is a complete decoupling of use rates between the two histograms.

It is particularly apparent in the CGC's Justice assessment, where Table 1 shows the least disadvantaged Indigenous people are assigned significantly higher offender rates than the most disadvantaged non-Indigenous cohort. The same trend can be seen for prisoner rates.

Table 1

Offence Rate per 1,000 persons by Indigenous Status and Socio-economic quintile, CGC 2020 Review

	Most disadvantaged	2nd most disadvantaged	Middle quintile	2nd least disadvantaged	Least disadvantaged
Indigenous	225	222	197	135	187
Non-Indigenous	44	27	18	15	12

Source: CGC 2020 Review assessment simulator – WA Treasury analysis of 610-10 Police SDC Assessed expenses State references

Further, Table 1 shows that offender rates are relatively similar across Indigenous quintiles, when compared to non-Indigenous rates. This implies that the socio-economic indicators are not doing a good job of separating groups based on service use.

We can see in Chart 4 that each State has a significant portion of the Indigenous population that are not in the most disadvantaged quintile, so there are many Indigenous people that share the same socio-economic status as non-Indigenous people. Yet, as noted above, use rates in some CGC assessments are relatively flat across IRSEO quintiles, and feature no overlap with the use rates for NISEIFA quintiles.

This implies that either the relationship between disadvantage and use rates is limited for Indigenous people (contrary to the conceptual case), or that the way disadvantage is measured using IRSEO is too limited to correctly generate use rates for each quintile; that it misses important drivers of use rates. We consider it must be the latter, given the strong conceptual case for the former.

This, and the increasing propensity for people to identify as Indigenous (discussed above) would not be a concern if the CGC were able to assess Indigenous disadvantage adequately, and the disadvantage scores assigned to the population related to the increased cost of providing State services for these different groups. However, we do not believe that the CGC's socio-economic measures assess use rates by disadvantage accurately, as the Indigenous index features a limited selection of variables, and many variables that would likely have a significant impact on the use of State services are not taken into account.

Limitations in assessing disadvantage

The CGC's assessment of disadvantage is largely based on indices produced using ABS census data. There are potential issues with the level of detail the ABS collect on Indigenous disadvantage in Australia, and the way these indices are constructed that have implications for the way disadvantage is assessed.

Limitations of the Standard Indigenous Question

The ABS asks the Standard Indigenous Question (SIQ) in the census to determine the Indigenous status of the respondent. The question simply asks the respondent if they are of Aboriginal or Torres Strait Islander origin.

The Commonwealth working definition of Indigeneity states that:

> *An 'Aboriginal' or 'Torres Strait Islander' is a person of Aboriginal or Islander descent who identifies as an Aboriginal or Islander and is accepted as such by the Community with which he is associated.*

These two definitions are at odds with one another, as the Commonwealth definition of Indigenous identity specifies that for an individual to be Indigenous, they need to be accepted by the community with which they are associated, while the ABS question only asks whether an individual is of Indigenous descent. The ABS acknowledges this difference, and believes that collecting data on whether an individual is accepted by their community is impractical for the census survey format.

The differences between the two definitions were discussed in the 2014 ABS review of the Indigenous status standard.[5] This review investigated whether the SIQ was fit for purpose based on consultation with a number of government bodies that use census information to make funding decisions, as well as Indigenous stakeholders. The review found that there were concerns with changing the SIQ because it would reduce comparability of new data to data in previous years. This is despite that most Indigenous stakeholders would prefer a SIQ that did not use the concept of 'origin' as having an Indigenous ancestor is not the same as having an Indigenous cultural identity.

[5] ABS (2014) *4733.0 - Information Paper: Review of the Indigenous Status Standard*, 2014, Australian Bureau of Statistics, available online: https://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/4733.0Main%20Features72014?opendocument&tabname=Summary&prodno=4733.0&issue=2014&num=&view=

Furthermore, other countries collect additional information on the identity of Indigenous people. The New Zealand census includes a question asking to which ethnic group the respondent belongs, and of what tribe or community they are part. Policymakers in New Zealand then focus on the Maori ethnic group, rather than the entire cohort of people with Maori descent. Similar data is collected for Indigenous people in the USA, and Canada.[6]

The ABS considers the SIQ fit for purpose. But the lack of more detailed data on Indigenous identity in the census makes it difficult to determine whether the Indigenous population in Australia is made up of people who actively consider themselves Indigenous, or if they just have Indigenous ancestry. It is likely that this distinction also plays out in different rates of State service use.

Limitations of Indigenous indices of disadvantage

The need to develop an index of Indigenous disadvantage has been apparent over the years, and there has been a number of attempts going back as far as 1991.[7] These indices were typically developed for specific research projects rather than for policy development and featured a limited number of variables.[8]

The CGC funded the ABS to complete a study into experimental measures of Indigenous disadvantage, with a number of different indices developed to highlight different aspects of disadvantage in 2000.[9] These indices used ABS Census data, National Aboriginal and Torres Strait Islander Survey (NATSIS) data, and perinatal data from the Australian Institute of Health and Welfare (AIHW). Separate indices were developed to assess grants for health (including child health), education, housing and infrastructure, and economic factors.[10,11]

IRSEO was developed by CAEPR to assist policy makers to determine where relative and absolute need is the greatest for Indigenous people, as SEIFA was not effective at determining relative disadvantage for the small and dispersed Indigenous population, without removing non-Indigenous people from the analysis.[12] However, it has a number of limitations that impact its usage as a definitive driver of the use of State services.

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6 *ibid*.

7 Biddle, N (2009*) Ranking Regions: Revisiting an Index of Relative Indigenous Socioeconomic Outcomes* Centre for Aboriginal Economic Policy Research CAEPR Working paper No. 50/2009, available online: https://openresearch-repository.anu.edu.au/bitstream/1885/147804/1/CAEPRWP50_0.pdf

8 Gray, MC, Auld, AJ (2000) *Towards and Index of Relative Indigenous Socioeconomic Disadvantage*, Centre for Aboriginal Economic Policy Research Discussion Paper No.196, available online: https://caepr.cass.anu.edu.au/research/publications/towards-index-relative-indigenous-socioeconomic-disadvantage

9 Commonwealth Grants Commission (2001) *Indigenous Funding 2001 – Volume 3 – Consultants Reports* Inquiry into Indigenous Funding 2001, available online: https://aiatsis.gov.au/sites/default/files/e_access/book/a329445/a329445_v3/a329445_v3_abs_index_a.pdf

10 *ibid*.

11 Note that this was not for GST distribution assessment purposes, but for the distribution of other grants.

12 Biddle, N (2013) *CAEPR Indigenous Population Project, 2011 Census Papers – Paper 13 Socioeconomic Outcomes*, Centre for Aboriginal Economic Policy Research, available online: https://caepr.cass.anu.edu.au/sites/default/files/docs/2011CensusPaper_13_Socioeconomic_Outcomes_1.pdf

IRSEO variables are chosen to align with Closing the Gap targets, and there is a smaller number of variables compared to SEIFA. They do not include information on health, language or other cultural factors.[13] These limitations may result in IRSEO not capturing the true context of disadvantage in an area. Table 2 shows the factors included in the indices.

For example, IRSEO only includes data for people aged older than 15, which limits its effectiveness if children in an area do not share a profile of disadvantage with adults in the area, and removes the possibility of looking at disadvantage drivers that involve families, such as the employment status of parents.

Table 2

Variables included in socio-economic indices

NISEIFA	IRSEO
• People with stated annual household equivalised income between $1 and $25,999 (approx. 1st and 2nd deciles) • People aged 15 years and over whose highest level of education is Year 11 or lower (Includes Certificate I and II) • People aged 15 years and over who have no educational attainment • People (in the labour force) unemployed • Employed people classified as 'labourers' • Employed people classified as Machinery Operators and Drivers • Employed people classified as Low Skill Community and Personal Service Workers • Occupied private dwellings paying rent of $1- $166 per week • Occupied private dwellings requiring one or more extra bedrooms (based on Canadian National Occupancy Standard) • Occupied private dwellings with no cars • Occupied private dwellings with no internet connection • People aged under 70 who have a long-term health condition or disability and need assistance with core activities • People who do not speak English well • One parent families with dependent offspring only • People aged 15 and over who are separated or divorced • Families with children under 15 years of age who live with jobless parents	• Population 15 years and over with an individual income above half the Australian median • Population 15 years and over who have completed Year 12 • Population 15 to 24 years old attending an educational institution • Population 15 years and over who have completed a qualification • Population 15 years and over employed • Population 15 years and over employed as a manager or professional • Population 15 years and over employed full-time in the private sector • Population who live in a house that is owned or being purchased • Population who live in a house with at least one bedroom per usual resident

Source: Commonwealth Grants Commission (2018) *Geography Used by the Commission Staff Draft Assessment Paper – CGC 2018-01-23-S*

[13] *ibid.*

This issue is more significant for Indigenous populations, as people under 15 make up a larger proportion of the Indigenous population than the non-Indigenous population (33% of the Indigenous population and 18% of the non-Indigenous population).[14]

IRSEO also does not take into account health characteristics, such as whether an individual has a disability, or cultural characteristics, such as whether an individual speaks an Indigenous language at home, or speaks English poorly.

While the CGC divides Indigenous people into IRSEO quintiles for most assessments, there are situations where Indigenous-specific cost weights and use rates are used without being cross classified for socio-economic status. Hence, these assessments regard Indigenous people as homogenous. For example, the assessment of expenses for schools includes a factor that takes into account the number of people in schools with a high concentration of Indigenous students, because the regression used in the assessment indicates that it has a significant influence on costs.

Additionally, the housing assessment includes an Indigenous cost weight factor that acknowledges an increased cost of housing for Indigenous people. This cost weight is not cross classified with socio-economic status, which implies that social housing costs more to provide for any Indigenous person, regardless of their socio-economic status. Although social housing will only be provided to people with low incomes, it is more than just low income that will see a person/family in the most disadvantaged cohort, and low income is not a necessary indicator to attract social housing (think retirees).

A further problem when relying solely on socio-economic status indices is that they are constructed by area. This assumes that all people in an area are of similar socio-economic status. This is generally not a concern, but in some mining areas of Western Australia's north, highly-disadvantaged Indigenous people reside in the same areas as highly-paid, lesser-disadvantaged mining employees. Mining companies are increasingly bringing Indigenous people who live in the local area into their workforce. The result is an IRSEO score for the area that averages the lesser-disadvantaged with highly-disadvantaged Indigenous people, diluting the needs of the latter.

Implications for amalgamating socio-economic quintiles

In some assessments, such as Justice and Welfare, the CGC groups quintiles. For example, in the Justice assessment, the five quintiles of disadvantage are combined into three categories, where the most disadvantaged category comprises the two more disadvantaged quintiles, and the least disadvantaged category comprises the two least disadvantaged quintiles. The middle quintile is unchanged. This is done because there are some confusing results where the second least disadvantaged quintile implies lower use rates than the least disadvantaged category. The confusing results could simply be due to a deficient index.

[14] AIHW (2023) *Profile of First Nations People*, available online: https://www.aihw.gov.au/reports/australias-welfare/profile-of-Indigenous-australians

We can see from the analysis in this paper that Indigenous people in the most disadvantaged quintile live in substantially different contexts to less disadvantaged Indigenous people (see Chart 12). When the CGC amalgamates quintiles (as it does in the Justice and Welfare assessments) it is combining vastly different cohorts, even if the impacts appear to be minor. Amalgamation should only be done in exceptional circumstances, and the most disadvantaged quintile should always be isolated. Improving the IRSEO index, or creating a new index to include extra factors, may make the disadvantage percentile scores more accurate and remove the need for aggregation.

Unique drivers of disadvantage

If the IRSEO percentile score that applies to an area does not adequately capture the true disadvantage in an area, residents can be inaccurately assigned to IRSEO quintiles. As IRSEO quintiles are used to calculate use rates for State services, the percentile scores must represent disadvantage in a comprehensive way that relates to the use of these services. The IRSEO index in its current form is unlikely to be sufficient to do this because it does not include other unique drivers of Indigenous disadvantage, and because of limitations in the question asked by the ABS in censuses to determine a respondent's Indigenous status. These limitations can lead to use rates for the most disadvantaged groups being inappropriately low, or use rates for the least disadvantaged groups being inappropriately high.

While measures of disadvantage that are related to income and employment outcomes are appropriate for the non-Indigenous population, Indigenous people face a number of unique challenges that stem from racism, oppression, and dispossession.[15]

There are factors that likely influence service usage and disadvantage that are not captured directly or indirectly by IRSEO, and the influence of these factors differs across the Indigenous population of each State. As a result, people are placed into IRSEO quintiles based on the limited number of socio-economic factors included in the index, without accounting for these other drivers of disadvantage. If people are not placed into cohorts that reflect their use of State services, they will have incorrect use rates applied to them.

Family separation

Over the course of the 20th century, State government policies to separate Indigenous children from their parents and put them in State government care, or the care of missions in regional areas, led to a number of issues that are still impactful today.

The policies of the day claimed that children were removed 'for their own good', or that policies were essentially benign in intent. However, the separation of children from their families has had long-term negative consequences. The Australian Human Rights

[15] Australian Institute of Family Studies (1993) *Aboriginal Australians and Poverty*, available online: https://aifs.gov.au/research/family-matters/no-35/aboriginal-australians-and-poverty

Commission's *Bringing Them Home* report[16] found that children removed from their families are disadvantaged in ways that have great relevance to CGC assessments. These children:

- are more likely to come to the attention of the police as they grow into adolescence;
- are more likely to suffer low self-esteem, depression and mental illness;
- had been almost always taught to reject their Aboriginality and Aboriginal culture;
- are unable to retain links with their land;
- cannot take a role in the cultural and spiritual life of their former communities; and
- are unlikely to be able to establish their right to native title.

Intergenerational trauma can be felt by the descendants of those removed from their families through their level of attachment and relationships with care givers, the functioning of their families, and alienation from extended family, culture and society. This can be exacerbated through prolonged exposure to stress, where the descendant relives the trauma through their relatives.[17]

When children were removed from their parents under 'stolen generation' policies, they were often kept in poor conditions with insufficient resources, and were at a higher risk of physical and sexual abuse. These people experience poor mental health, loss of culture, and a lack of parental role models due to being institutionalised or taken into foster care. Compared to Indigenous people not removed from their families, these people are 1.4 times as likely to have a profound disability or poor mental health, 1.5 times as likely to receive government payments as their primary income source,[18] 1.5 times as likely to have been charged by police, 2.5 times as likely to have been incarcerated, and 1.3 times as likely to report their health to be poor.[19]

These issues extend to their descendants, with Indigenous children whose primary carer was removed from their family prior to 1972 being 1.5 times likely to have emotional or behavioural difficulties compared to Indigenous children whose primary carer was not removed from their family.[20]

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16 Australian Human Rights Commission (1997) *Bringing Them Home Report*, available online: https://humanrights.gov.au/our-work/projects/bringing-them-home-report-1997

17 Menzies, K (2019) *Understanding the Australian Aboriginal Experience of collective, historical, and intergenerational trauma*, International Social Work, 62(3) p.6, available online: https://www.researchgate.net/publication/336093257_Understanding_the_Australian_Aboriginal_experience_of_collective_historical_and_intergenerational_trauma

18 Australian Institute of Health and Welfare (2021) *Aboriginal and Torres Strait Islander Stolen Generations aged 50 and over: updated analyses for 2018–19. Cat. no. IHW 257*. Canberra: AIHW, available online: https://www.aihw.gov.au/getmedia/d7a0f2d9-c965-471c-86a7-919edcb3458f/aihw-ihw-257.pdf?v=20230605181817&inline=true

19 Australian Bureau of Statistics (2010) *4704.0 – The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples, October 2010, Social and Emotional Wellbeing: Removal From Natural Family*, ABS, Canberra, available online: https://www.abs.gov.au/ausstats/abs@.nsf/lookup/4704.0chapter470oct+2010

20 De Maio JA, Zubrick SR, Silburn SR, Lawrence DM, Mitrou FG, Dalby RB, Blair EM, Griffin J, Milroy H, Cox A. (2005) *The Western Australian Aboriginal Child Health Survey: Measuring the Social and Emotional Wellbeing of Aboriginal Children and Intergenerational Effects of Forced Separation*. Perth: Curtin University of Technology and Telethon Institute for Child Health Research, available online: https://www.telethonkids.org.au/globalassets/media/documents/aboriginal-health/measuring_social_and_emotional_wellbeing.pdf

As each State had a different family separation policy in place, the impact of forced separation is felt differently across States, and is often unrelated to the distribution of the Indigenous population, or the socio-economic status of the population.

Chart 7 shows the results of analysis produced by the AIHW that analysed the proportion of the Indigenous population removed from their families, and their descendants. The chart shows that New South Wales, Queensland, Western Australia, and the Northern Territory have the largest populations of Indigenous people. It shows that more than half of the Indigenous people in Western Australia are descendent of someone who was removed from their family as part of stolen generation policies. This is substantially more than the proportion in other States, where 1 in 3 people in New South Wales and Queensland, and only 1 in 6 people in Tasmania, are descendants of people removed.

Many aspects of intergenerational trauma that exist due to family separation will not be reflected in socio-economic indices, but will have an impact on the level of spending across States, particularly when educating the descendants of Indigenous people removed from their families, providing police services, and providing mental health and medical support.

Chart 7

Number of people removed from their families prior to 1972 and their descendants by State, 2018-19 estimates

* Figures for Tasmania and Australian Capital Territory are based on data derived from a limited sample and should be used with caution.

Source: Australian Institute of Health and Welfare (2021) *Aboriginal and Torres Strait Islander Stolen Generations Aged 50 and Over*: updated analyses for 2018–19, Cat. no. IHW 257, Canberra

Higher prevalence of illness

Indigenous people see a high prevalence for particular illnesses, and the general health of the Indigenous population tends to be poor relative to the non-Indigenous population.

IRSEO does not include a factor to capture the prevalence of illness or disability in the population, but the CGC Health assessment does take into account socio-economic disadvantage when determining how much a State needs to spend on each person. As a result, if the socio-economic profile of a State does not align with the health outcomes of the population, the socio-economic score assigned to an area will not reflect the level of State spending needed to service the area.

Rates of dementia in Indigenous people aged 45 years or over are among the highest in the world, with Indigenous people 3 to 5 times as likely to have dementia compared to the national average. Indigenous people also see onset of dementia at a younger age, with the median age of onset being 72 for Indigenous people and 79 for non-Indigenous people. This prevalence is expected to increase as life expectancy for Indigenous people increases over time. Deaths due to dementia vary by State and are not necessarily correlated with socio-economic disadvantage.[21] South Australia, Queensland, and Western Australia have substantively different IRSEO disadvantage profiles, but similar rates of death from dementia (compare Chart 6 to Chart 8).

Chart 8

Rate of death due to dementia per 100,000 Indigenous people by State, 2019-21

Note. Data for Victoria, Tasmania and the Australian Capital Territory are not available.

Source: Australian Institute of Health and Welfare (2024) *Population health impacts of dementia among First Nations people*, AIHW, Canberra, available online: https://www.aihw.gov.au/reports/dementia/dementia-in-aus/contents/dementia-in-priority-groups/population-health-impacts-dementia-first-nations

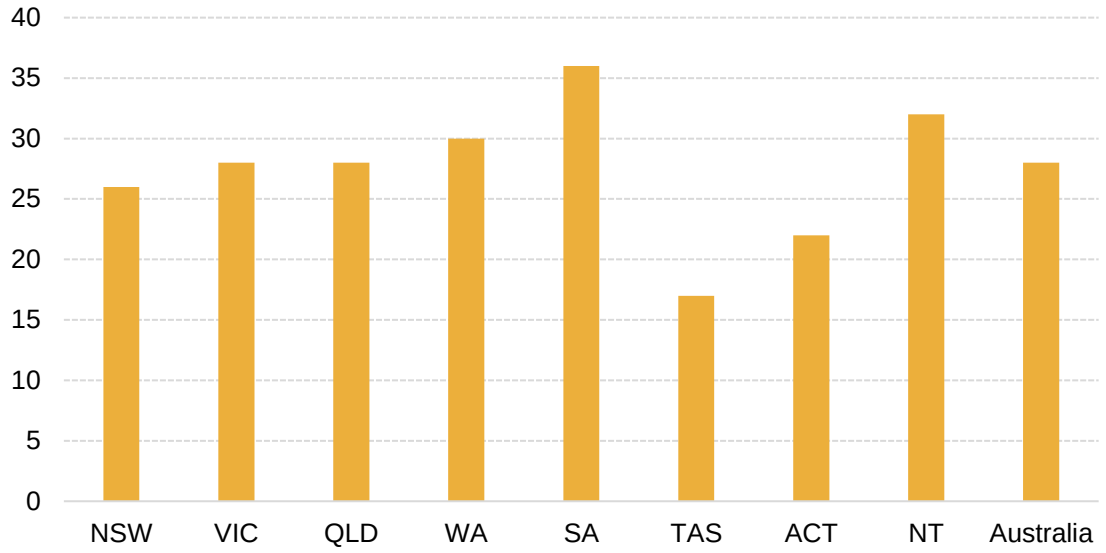
[21] Australian Institute of Health and Welfare (2024) *Population health impacts of dementia among First Nations people* AIHW, Canberra, available online: https://www.aihw.gov.au/reports/dementia/dementia-in-aus/contents/dementia-in-priority-groups/population-health-impacts-dementia-first-nations

In addition, Indigenous people are also three times as likely to have diabetes,[22] 1.5 times as likely to die from cardiovascular diseases,[23] and more than twice as likely to report having high levels of psychological distress, compared to non-Indigenous people.[24]

Further, hospitalisation rates for mental-health-related conditions for Indigenous people vary significantly by State, and the rates are not correlated with a disadvantaged Indigenous population, with Victoria's relatively advantaged Indigenous people experiencing hospitalisation rates in line with New South Wales and Queensland (compare Chart 6 to Chart 9).

Chart 9

Rate of hospitalisation due to mental-health related conditions for Indigenous Australians per 1,000 people by State, 2017-19



Source: WA Treasury analysis of National Hospital Morbidity Database, available online: https://www.indigenoushpf.gov.au/measures/3-10-access-mental-health-services

English proficiency

IRSEO does not include a variable to capture English proficiency within the Indigenous population, but NISEIFA does. It is intuitive that an individual's English proficiency would impact the employment prospects of that individual, and would be correlated with poor socio-economic outcomes and increased service use. Chart 10 compares English proficiency in Indigenous Areas (IARE) by IRSEO score.

[22] Australian Institute of Health and Welfare (2023) *Diabetes: Australian Facts,* Canberra, available online: https://www.aihw.gov.au/reports/diabetes/diabetes/contents/how-common-is-diabetes/all-diabetes

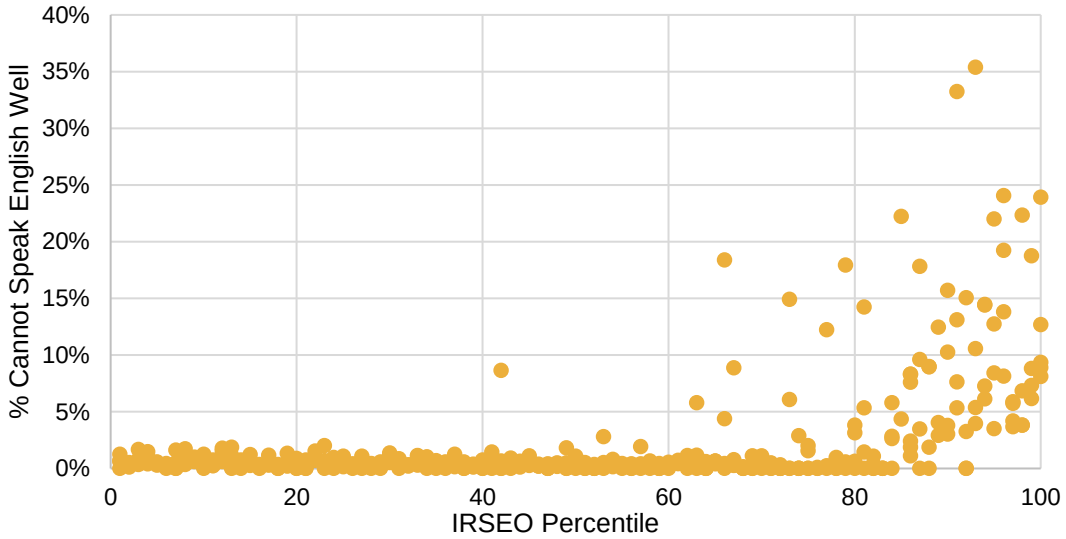
[23] Davy, C, Harfield, S, McArthur, A *et al*. (2016) *Access to primary health care services for Indigenous peoples: A framework synthesis,* Int J Equity Health 15, 163, available online: https://doi.org/10.1186/s12939-016-0450-5

[24] Australian Institute of Health and Welfare (2024) *3.10 Access to mental health services* AIHW, Canberra, available online: https://www.indigenoushpf.gov.au/measures/3-10-access-mental-health-services

It is clear that the portion of the Indigenous population who are not proficient in English (cannot speak English well, or speak English at all) fall into the most disadvantaged quintiles. While English proficiency levels generally align with IRSEO percentile scores, to include it as a variable in an index that considers additional drivers of disadvantage may improve the relationship between percentile scores and service use rates.

Chart 10

Proportion of Indigenous population in an Indigenous Area who do not speak English well or at all, by IRSEO percentile, 2016



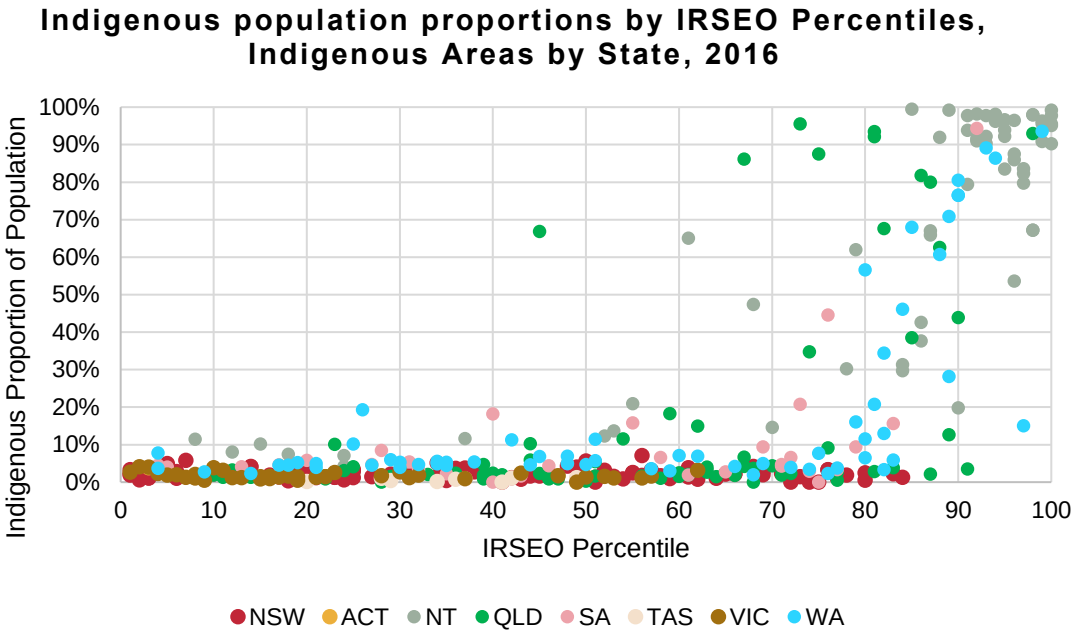
Source: WA Treasury analysis of IRSEO Index results for 2016 and 2021 and ABS Census 2021.

Concentration of Indigenous people in an area

Areas with a high concentration of Indigenous people tend to be more disadvantaged. In addition, the more disadvantaged quintiles tend to include Indigenous towns and dispersed remote settlements. Chart 11 and Chart 12 plot the distribution of Indigenous concentration by IARE and IRSEO score. The more disadvantaged areas feature a very high concentration of Indigenous people, and these areas tend to be Indigenous towns and more remote. They are also more likely to be in the Northern Territory, Western Australia, and Queensland. More advantaged areas tend to have an Indigenous population concentration below 5%.

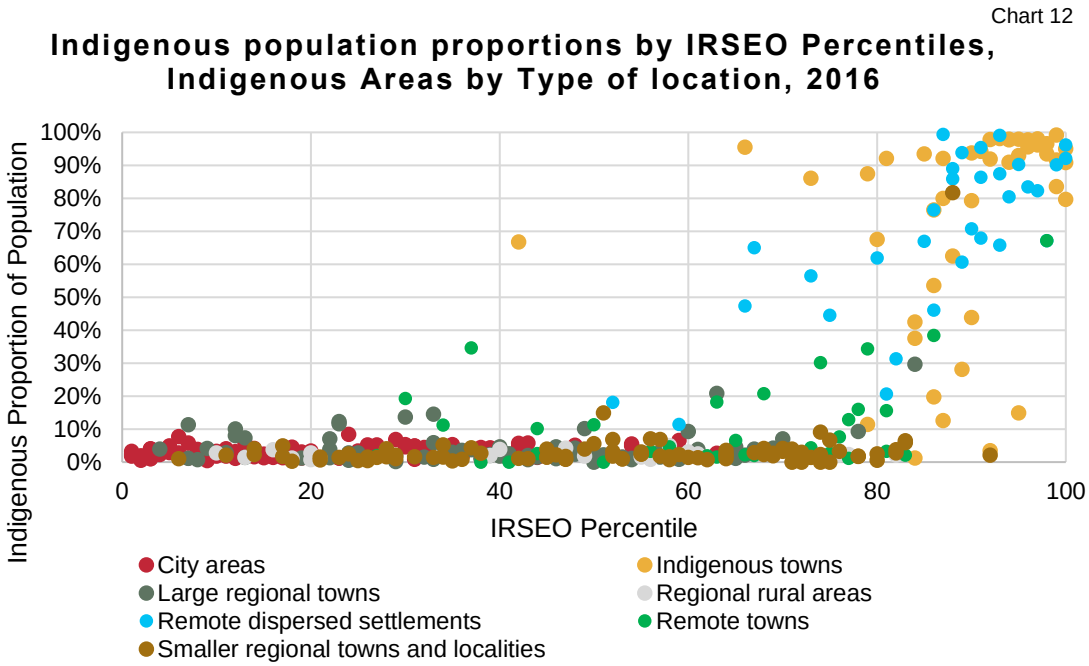
Chart 12 shows that the Indigenous population in Indigenous towns and regional settlements are the most disadvantaged Indigenous people in Australia, and largely make up the bulk of the most disadvantaged IRSEO quintile.

Chart 11



Source: WA Treasury analysis of IRSEO Index results for 2016 and 2021, and ABS Census 2021.

Chart 12

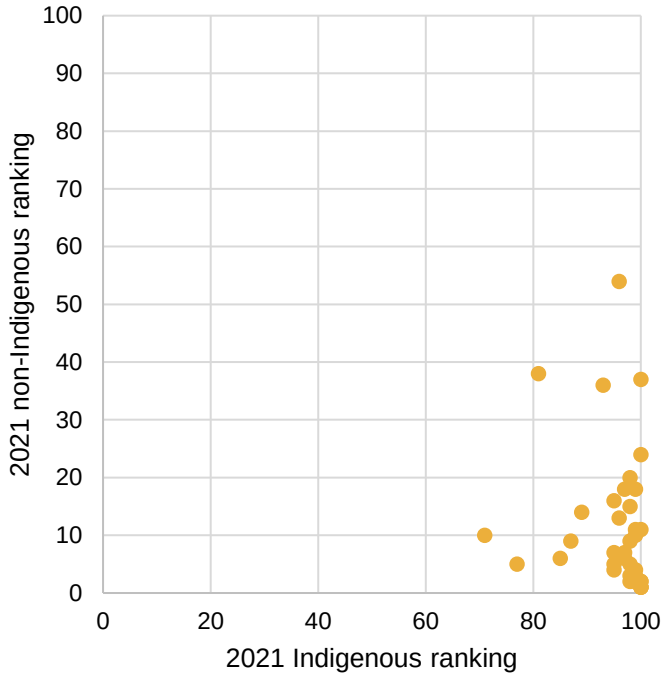


Source: WA Treasury analysis of IRSEO Index results for 2016 and 2021, and ABS Census 2021.

It could be hypothesised that Indigenous people in dispersed settlements and Indigenous towns are disadvantaged due to their remote location. However, the non-Indigenous populations in these areas tend to be far more advantaged. Chart 13 indicates that the Indigenous population in these areas often falls into the most disadvantaged IRSEO quintile, while the non-Indigenous population is most often in the least disadvantaged IRSEO quintile.[25,26]

Chart 13

Indigenous and non-Indigenous IRSEO Percentiles, Indigenous towns and remote settlements, 2021



Source: WA Treasury analysis of IRSEO Index results for 2021.

Again, while Indigenous concentration levels generally align with IRSEO percentile scores, to include it as a variable in an index that considers additional drivers of disadvantage may improve the relationship between percentile scores and service use rates. Should the CGC consider that Indigenous concentration is not an appropriate variable in the IRSEO index, it could be considered as a factor in regression analysis, similar to the Indigenous concentration factor in the regression analysis in the CGC's assessment of school expenses.

[25] The percentile rankings for the non-Indigenous population are created by a Pooled Indigenous and Non-Indigenous Relative Socio-economic Outcomes (PINIRSEO) index, which uses the same input variables as IRSEO, but can be applied to the non-Indigenous population.

[26] Biddle, N., Markham F. (2023) *Area Level Socioeconomic Outcomes for Aboriginal and Torres Strait Islander Australians in the 2016 and 2021 Censuses*, Centre for Aboriginal Economic Policy Research, available online: https://openresearch-repository.anu.edu.au/bitstream/1885/301275/3/CAEPR_WP_Biddle_and_Markham_2023_Area_level_socioeconomic_outcomes_.pdf

Conclusion and steps forward

We consider that the CGC's use of the separate indices of IRSEO and NISEIFA better captures Indigenous heterogeneity. However, IRSEO is limited as it does not capture the effects on Indigenous disadvantage that come from factors not included in its variables.

This paper discusses several factors that would likely have an influence on State services. These include inter-generational trauma from family separation, prevalence of certain illnesses, English proficiency, and the concentration of Indigenous people in towns and communities. There may be more.

The CGC should review their use of IRSEO as a measure of Indigenous disadvantage and seek alternative available indices, or investigate whether an alternative to IRSEO could be developed by external bodies in collaboration with the CGC.

A single index that attempts to capture all facets of disadvantage may be too broad to apply to all assessments, as some factors that influence the use of State services may not influence the use of other State services. Separate indices were generated when the ABS was commissioned by the CGC to explore Indigenous disadvantage in 2000, and these indices used census data supplemented by other data produced by government bodies.[27]

We acknowledge that many of the issues we have raised in this paper are due to the limitations of available data, and the data is collected by external bodies such as the ABS and CAEPR. However, the IRSEO index appears to have numerous issues that would make it inadequate to accurately determine the level of disadvantage for Indigenous people, as it relates to the use of State services.

[27] Australian Bureau of Statistics (2000) *Report on Experimental Indigenous Socioeconomic Disadvantage Indexes* ABS, Canberra, available online: https://aiatsis.gov.au/sites/default/files/e_access/book/a329445/a329445_v3/a329445_v3_abs_index_a.pdf