

# ***Abra-cadastre—Now You See Them—Now You Don't: Improving Statistical Data and Geography in the Northern Territory of Australia***

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## **Abstract**

The paper describes how some of the existing statistical classifications and definitions used by the Australian Bureau of Statistics (ABS) hide or minimise the extent of disadvantage experienced in remote and sparsely populated areas of Australia. The ASGC Remoteness Classification, SEIFA Indices and definition of Unemployed persons are key examples. It is argued that these classifications and definitions need to be reviewed as soon as practicable to correct these problems as they cause the disadvantages of remote and Indigenous populations to be significantly understated when allocating Education and Health funding by the Commonwealth, State and Territory Governments.

The problems with the classifications have several causes, some of which are due to deliberate policy decisions whilst others are caused by insufficient Census information being available to ABS for some remote areas. Ways to improve Census collections in remote areas are discussed.

The steps that were undertaken to improve statistical geography in the Northern Territory through a five-stage project, in consultation and collaboration with ABS, starting in 2003 are described. The first stage was the development and endorsement by Government of uniform spatially referenced statistical geography throughout the Northern Territory. The second stage was the alignment of that statistical geography with the ABS' Australian Standard Geographical Classification (ASGC). The third stage was the redesign of NT Mesh Blocks in order to improve future statistical collections and analysis. The fourth stage was the development of social and economic indicators to populate the statistical geography and facilitate the development of small area statistical profiles. The fifth and final stage is the implementation of rural and remote addressing to facilitate the collection and analysis of detailed spatially referenced data.

The completion of the project will result in much more accurate and meaningful data being available for Governments and researchers for evidenced-based policy making and statistical analysis across the Northern Territory.

## **Introduction**

There is an ever-increasing demand for accurate information to support policy development and implementation in rural and regional Australia. The new Rudd Labor Government has developed the "Better Regions Program" to improve

"liveability" and create jobs. The Program aims to support "economic sustainability, clean, safe and attractive environments, the provision of economic and social services and community infrastructure" in rural and regional Australia. Recently, the Prime Minister announced at a Progressive Government Conference in

London that each year the Australian Parliament will mark the first working day with a Prime Ministerial report on progress on “Closing the Gap” on life expectancy, infant mortality and on literacy and numeracy outcomes between Indigenous and non-Indigenous Australians. This will be done to ensure that the Government and the people of Australia know what progress has been made in closing this gap.

Likewise, the Northern Territory’s Chief Minister has committed the Northern Territory Government to an inter-generational plan of action aimed at “Closing the Gap of Indigenous Disadvantage” to improve the future socio-economic well being of Indigenous Territorians. This plan of action includes a requirement to monitor, evaluate and report on the progress of a performance framework to improve the health, education and housing of Indigenous Territorians and creating employment opportunities in safe, viable communities. The Commonwealth Government Intervention brings the Commonwealth and the Northern Territory together to achieve these goals.

To be able to quantify the extent of existing disadvantage and to allow information based policy-making for rural and remote Australia, it is essential that accurate, objective information is gathered, presented to and considered by policy-makers. Likewise, to measure progress, accurate, objective information will be required. The Australian Bureau of Statistics, Commonwealth and NTG agencies will have to improve their current statistical collections, allocation models and classifications if accurate needs-based information is to be available to Governments for targeting need and assessing outcomes.

### ***The Problem***

It is well established that the demographic and service access profiles of the population centres situated in rural and remote areas of Australia are significantly different from those in urban areas. Whilst mining towns are often the exception to

the general rule, most other rural and remote communities experience lower levels of service provision and often have very limited employment opportunities. The socio-economic profiles of these rural and remote communities are lower and, in Indigenous communities much lower, than the Australian norm.

Many of the residents in these communities live in extreme poverty and have lower levels of access to health and education services and employment opportunities. The true extent of these differences is often difficult to ascertain as they are often not represented in the Australian Bureau of Statistics (ABS) publications and data sets. This is a major concern as many of the Commonwealth’s policy decisions and resource allocation models targeting disadvantage are based upon ABS data.

### ***How Does this Happen?***

There are several reasons for these population groups disappearing off the statistical radar.

They range from inadequate Census collection methods and procedures, data reflecting extreme disadvantage being subsumed into larger units of statistical geography or in units that are heterogeneous, to being excluded from the statistics altogether through the classifications or definitions used by ABS. Whatever the cause, this results in the disadvantage profiles of these communities being significantly understated or totally hidden within the statistics.

### **1. Data Collection Methods**

The current methods used to undertake the Census in remote locations are inadequate. This is partially due to the limited resources committed to the Census by the Commonwealth (through ABS) and the limited assistance rendered to ABS by State and Territory Governments. This failure to properly resource the Census in remote areas results in undercounts of population and incomplete or incorrect Census returns (especially amongst Indigenous populations). These

shortcomings result in the most disadvantaged portion of Australia's population not being properly represented in the Census data thereby distorting their real population profiles and minimising the extent of their disadvantages.

Geographical remoteness and the associated lack of service provision, low socio-economic status, lack of employment opportunities and income are all key factors in the poor education and health outcomes in these communities.

The significant budget cuts imposed upon ABS by the Rudd government will only exacerbate this situation and will, to some extent, undermine the policy objectives of "Closing the Gap" to improve the wellbeing and life opportunities of rural and remote Australians, especially in Indigenous communities. It is essential that accurate information underpin policy decisions and the development of strategies if meaningful policy outcomes are to be achieved in remote Indigenous communities by the Commonwealth, State and Territory Governments.

It is evident that a much greater commitment is required to coordinate effort for the 2011 Census by Commonwealth, State and Territory Governments. Whilst the Northern Territory committed some resources to ABS and encouraged improved participation by its Indigenous population for the 2006 Census, there were too few collectors, insufficient support within the communities and inadequate methods of collecting Census information in most remote locations. More financial resources are required to be committed in remote areas to ensure there are sufficient collectors for the task. There also needs to be more training for ABS collectors. The States and Northern Territory need to dedicate officers within each community to prepare the community for the 2011 Census and to assist ABS collectors on the ground and in follow-up procedures if the current situation is to be improved.

## **2. Statistical Geography**

Historically the ABS ASGC statistical geography in remote areas has been

crude and incapable of distinguishing the sometimes very different population profiles existing within CDs and SLAs. This has occurred, in the main, through the unavailability of information and lack of specific knowledge of the geographical areas, infrastructure, service delivery and patterns of association that define population profiles within ABS.

Whilst Northern Territory, State and Local Government bodies have often been quick to criticise ABS population figures, classifications and levels of reporting until recently they have done little to assist ABS to improve their statistical geography. Fortunately, this situation has changed dramatically in the Northern Territory. Since 2003 NTG agencies have closely collaborated with each other and the ABS to create statistical geography that is functional and efficacious based upon patterns of association and service delivery. This collaboration is ongoing in the development of the proposed Australian Standard Geography (ASG) and is discussed in more detail later in this paper.

## **3. ABS Classifications and Definitions**

The classifications and definitions created and used by ABS to identify and profile remote populations are sometimes crude, subjective, inadequate and restrictive, with the result that they significantly understate the disadvantage of remote Indigenous communities in some of their statistics and totally exclude them from others. The poor Census collection regime and the limited amount of data gathered at small area level causes the often chronic levels of disadvantage experienced by these populations to be hidden, especially when aggregated up to a higher level of collection and reporting. At these higher levels of collation, analysis and publication the characteristics of remote populations are subsumed into the mainstream population and effectively disappear. This is particularly apparent when one attempts comparison between the population characteristics of Northern and Central Australia with those much closer to urban and metropolitan areas, especially with

Indigenous statistics. Whilst it is acknowledged that ABS often aggregates data to achieve certainty, reliability and maintain confidentiality in its statistics one must question the value of this approach if sections of the population are misrepresented in, or omitted from, those statistics.

The aggregation of data may be justifiable in some cases. However, there can be no justification for creating and maintaining exclusion criteria within classifications that will obviously minimise or exclude the full extent of disadvantage existing in remote populations. Classifications that do this should be abolished or reformed to address these shortcomings.

Three ABS classifications are examined to demonstrate what is currently occurring.

## ***The Problems with the ABS Classifications***

### **ASGC Remoteness Classification**

The first example of a classification that understates disadvantage is the Australian Standard Geographical Classification (ASGC) Remoteness Classification which was included in the ASGC for the first time in 2001 when ABS adopted a slightly modified version of the Department of Health and Ageing's (DH&A) Access/Remoteness Index of Australia (ARIA +).

The use of this classification for research and comparative analysis by Commonwealth and State Governments and some Universities is now a major concern as it distorts the comparative service access and geographical disadvantage experienced by persons living in remote areas of Australia, especially those in remote Indigenous communities subject to the "Closing the Gap" initiatives.

ABS has acknowledged that the Remoteness classification is not particularly precise in its paper (ASGC Remoteness Classification: Purpose and Use (*Census Paper No. 03/01*), published in 2003, to caution against improper usage of the classification. ABS states that

the Remoteness Classification "if applied consistently across the whole country, does not need to be particularly precise to produce a useful classification."

Unfortunately, the paper is somewhat muddled and fails to fully explain the defects of ARIA + as a service access and geographical model, nor does the paper properly explain that the weightings and truncations of distance applied within the classification are purely subjective and as a result produce questionable remoteness scores.

The ARIA model adopted for the Remoteness Classification is only a slightly modified version of the Department of Health and Ageing's (DH&A) Access/Remoteness Index of Australia (ARIA). The ABS modification added an extra level of service access centre "to better reflect the impact of population between 1,000 and 5,000 on remoteness". Whilst this addition expanded the range of ARIA scores (from 12 to 15) these modifications are cosmetic and make no difference to the fundamental problems caused by the truncating of distances and the application of subjective weightings that reduce the extreme distance and access disadvantage existing in many Northern and Central Australian communities in the classification.

The "Census Paper No. 03/01 "ASGC Remoteness Classification: Purpose and Use (2003)" emphasised that ARIA + was not a service access classification and stated that ARIA + "is a geographical approach that classifies areas and by default people are then classified according to where they live". All reference to 'accessibility' was removed from the ASGC Remoteness classification. It is explained in the paper that:

The Remoteness classification is designed to provide for statistics that compare, on the one hand, the major cities to, at the other extreme, very remote areas. Such statistics allow decision makers to quantify the differences and similarities. It is data collected on the geographical

classification that should inform decision-making, not the classification itself.

Whilst it is self-evident that a national classification should be capable of providing statistics capable of distinguishing the characteristics of the populations of major cities on one hand and very remote areas at the other extreme, it is curious that ABS has adopted ARIA+, a classification that cannot objectively do this.

The paper explains that classes at the remote end of the spectrum were chosen largely based on “an attempt to minimise discontinuities in the boundaries of regions” and that there be “broad agreement with the Rural Remote and Metropolitan Areas (RRMA) classification”. Minimising discontinuities in the boundaries of regions, demonstrates ABS’ intent to make all areas fit within a pre-determined grouping of scores no matter how remote they may be. To do this it was necessary to truncate distances in remote areas and weight others.

The Department of Health and Ageing’s ARIA model was constructed to ensure that the allocation of health resources between and within jurisdictions, based on the RRMA, would not change significantly. It is this requirement to maintain concordance with the RRMA that necessitates the truncation of distances and application of restrictive weightings in the ARIA classification.

Whilst the maintenance of the existing allocation of health resources may be a desired political outcome or policy aim in the DH&A, there is no reason why ABS should have to concord with the RRMA especially when adherence to this requirement prevented the development of an objective, equitable and verifiable ASGC Remoteness classification.

ABS was advised of the weaknesses inherent in the ARIA classification during the consultation process prior to its adoption. Some of these weaknesses are acknowledged by ABS in its “ASGC

Remoteness Classification: Purpose and Use” paper when it is acknowledged that:

It [ARIA] understates the relative remoteness of parts of northern Australia because it truncates index values to a maximum of 15 (for ARIA Plus).

Also, that:

Truncation of sub-index values to a maximum of 3, and consequent truncation of the total index valuation to a maximum of 15, means that the index is non-linear.

The ABS paper is contradictory in that whilst it acknowledges the non-linearity of ARIA + it claims that it was developed as a geographical classification to provide a geographical definition of the urban/rural/remote continuum. How can ARIA+ be a geographical classification if it is non-linear and when differential weightings are used over the same distances in different parts of Australia? How can there be a geographical continuum of distance, or a relative geographical relationship established between locations, if some actual distances are accepted, some truncated and others increase by weighting? If the classification is non-linear it means that the population centres in the classification are not spatially relative to each other. Therefore, the classification cannot be claimed to be a geographical classification. If it is not an accessibility classification, and it is not a geographical classification, what kind of classification is it?

What is a major concern is that ABS is apparently prepared to use differential weightings of distance to generate supposedly comparative remoteness scores across Australia when this will obviously result in inaccurate and inequitable scores that disadvantage remote Northern Australian towns and Indigenous communities.

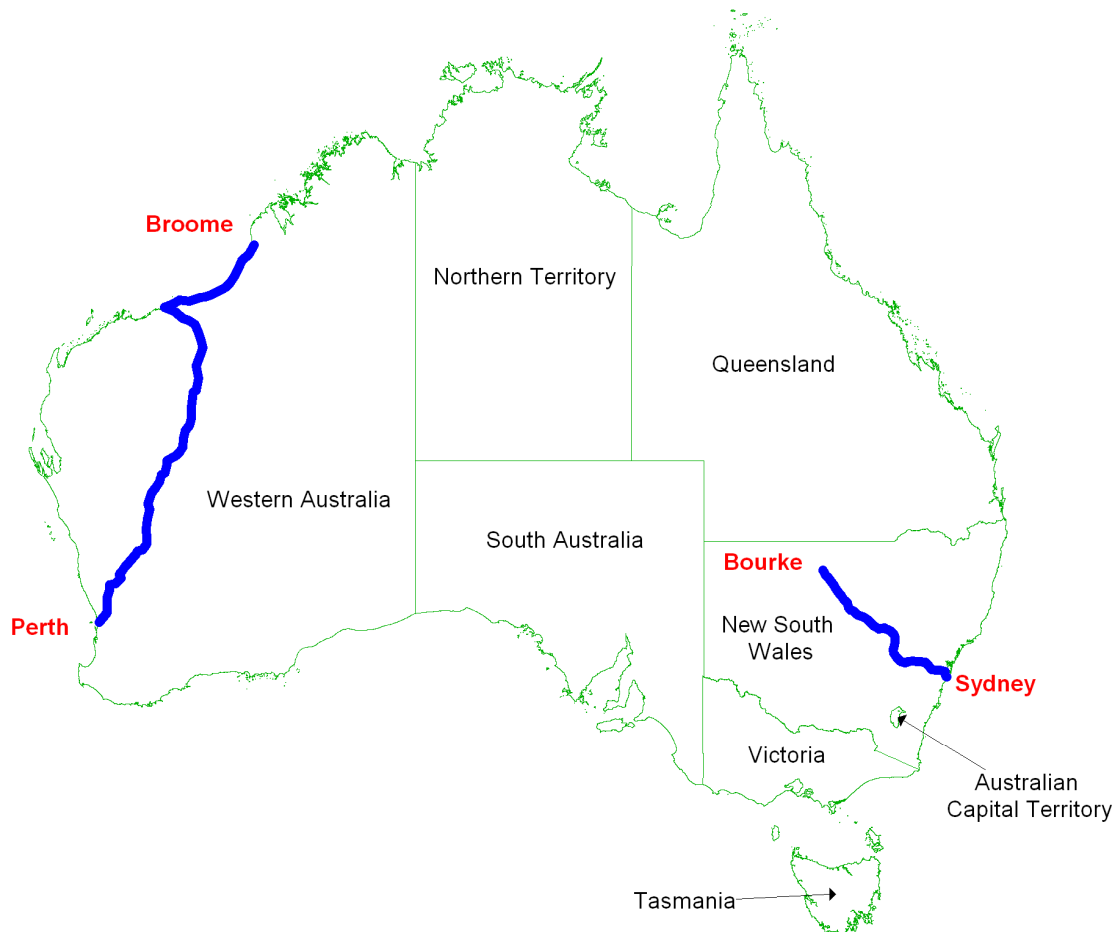
Let us examine the application of the Remoteness classification on just two locations as illustrated in Map 1.

For example, Bourke in New South Wales is a population centre that is 775 kms, or just under 9.38 hours travelling time, from Sydney – its nearest 250 000 population centre. Broome, in Western Australia, is 2177 kms (or 28 hours) from Perth – its nearest 250 000 population centre. Using ABS Remoteness classification, Bourke and Broome are both classified as Very Remote and generate almost exactly the same remoteness score. Bourke is classified as being slightly more remote

than Broome with Bourke scoring 12.822 and Broome 12.746.

How can the Remoteness classification have any validity when Broome is three times more distant and takes three times longer to access its nearest 250 000 service centre than Bourke? This false parity can only be achieved by the truncating of distance and the imposition of a maximum threshold score.

**Map 1. Comparative ABS Remoteness Classification Scores:  
Broome 12.745 - Bourke 12.822**



If Broome's remoteness score is so heavily understated using the ARIA+ classification it is evident that even more geographically remote Indigenous towns like Kulumburu, Numbulwar, Maningrida and Galiwinku will have their degree of remoteness even more massively understated. Yet ABS places Bourke and all these communities in the same Very Remote classification. How can it be claimed that ARIA + provides a geographical continuum or that ARIA + is a geographical classification when it so obviously and so massively distorts reality? The gap between places like Broome and Bourke is one gap that definitely needs to be closed!

Perhaps the greatest concern of all is that even before ARIA+ was adopted by ABS, it was apparent, or should have been apparent, that inaccurate comparative data would be produced using the classification and that such data could be used by Governments and researchers for policy development, allocating resources and for comparative statistical analysis.

Belatedly, ABS issued their caution against using the ARIA classification for making comparisons of population characteristics, allocating resources and quantifying needs.

However, ARIA and ARIA+ are now being used for precisely these purposes. Commonwealth Government Departments are allocating resources, grants and measuring outcomes based upon ARIA and the ASGC Remoteness classification.

Even the Commonwealth Grants Commission is using a further modification of ARIA, called SARIA, to distribute Commonwealth funding. Even worse, the ARIA classification is being used by University researchers, Government agencies such as the Bureau of Transport Economics and other organisations. The old adage, "Rubbish in, Rubbish out" must apply to this research and statistics derived from it. It is evident that the targeting and allocation of resources will be inequitable and that research findings will be flawed if ARIA or ASGC

Remoteness classification is used for quantifying disadvantage. It is worth noting that 54% of Australia's Indigenous population live in the Remote and Very Remote categories of the ABS Remoteness classification and it is these communities that are most disadvantaged by the use of ARIA and ASGC Remoteness classification

The shortcomings of ARIA and the ASGC Remoteness classification have been repeatedly raised with the ABS. However, all attempts to date to have the classification reviewed or replaced have been resisted. The Remoteness classification was even excluded from the current ASGC review. An ASGC geographical classification that is based upon actual distance or service accessibility is urgently required. The remoteness of locations has to be calculated either in distance units or through an objective and verifiable translation of these distance units into remoteness values if they are to reflect reality.

The problems in the ASGC Remoteness Classification cannot be fixed by tinkering with ARIA as ARIA is not fit for purpose. A full discussion of Service Access models and Geographic classifications is to be found in the paper "Chalk and Cheese: Distinguishing Between Access Disadvantage and Geographic Classifications in Australia" (Griffith - 2002).

### **Socio-Economic Classification**

Another ABS classification that excludes remote Indigenous disadvantaged communities is the Socio Economic Indicators for Areas (SEIFA) Indices. The four SEIFA Indices provide a range of variables to measure socio-economic disadvantage across Australia's population using ABS ASGC statistical geography.

The SEIFA Indices were developed from the work of Dr. Kenneth Ross (then of Deakin University, Geelong, Victoria). Dr. Ross developed the original socio-economic index of disadvantage in 1984

as the “Indicator of Disadvantage” to assist the Commonwealth Schools Commission allocate education specific purpose funding to the most “Disadvantaged Schools” across Australia. The Disadvantaged Schools Index used school catchments defined by ABS CDs to capture the socio-economic profiles of school communities using a range of a range of socio-economic Census variables associated with educational disadvantage. Ross developed the index utilising the research work previously undertaken by Linacre, Karmel, Mc Burney and McEwin published 1980 in the “Schools in Australia: Report of the Interim Committee for the Australian Schools Commission” more commonly known as the “Karmel Report”. ABS built upon Ross’ work to develop its Socio Economic Indicators for Areas (SEIFA) and published them for the first time after the 1986 Census.

The SEIFA Indices have undergone several changes since that time with variations to the number and type of Indices used and to the variables within them. There are now four SEIFA Indices, The Index of Relative Socio-Economic Disadvantage, the Index of Socio-Economic Advantage/Disadvantage, the Index of Economic Resources and the Index of Education and Occupation.

The SEIFA Indices are very useful and are widely used to measure socio-economic disadvantage across Australia. The concern with the SEIFA socio-economic classifications is not with their method of construction, nor the variables within the Indices, but rather the criteria ABS uses to exclude some CDs from the Indices. Unfortunately, these criteria seem to discriminate against CDs that are comprised of small Indigenous populations in remote communities. For the purposes of this paper the Index of Socio-Economic Disadvantage has been used to demonstrate the impact of these exclusions.

ABS standardises all CD index scores to calculate a national mean value of 1000 to classify scores below and above that national mean value as disadvantaged or advantaged. Any CDs not attributed a

score are excluded from the Indices and are also excluded from the calculation of the national mean value (whether the mean value, rather than a modal value, should be used to determine disadvantage and advantage will be left to another discussion).

In 2001 ABS advised that about 4.1% of Australian CDs were not attributed a SEIFA score due to their failure to meet four broad exclusion criteria. A major concern is that the exclusion criteria impact most severely on the poorest, remotest communities which are predominantly Indigenous.

The impact of excluding these CDs is severe in Northern Australia, particularly so in the Northern Territory where over 30.5% of all CDs were not attributed a SEIFA score. In 2001 there were 1514 CDs excluded from the Indices nationally. Of these, 152 were in the Northern Territory resulting in 11% of the Northern Territory’s population being excluded from the Indices and from the calculation of the national mean value. Of that excluded population 24% were Indigenous, with another 14% classified as Not Stated (a significant number of those listed as Not Stated will also have been Indigenous). In 2006 the total number of CDs excluded from SEIFA decreased nationally by 156 to 1256 yet the Northern Territory had an increase of a further 4 from 152 to 156.

This increase is a major concern as rural and remote Indigenous communities have by far the lowest socio-economic profiles in Australia yet it is mainly these people who are being excluded from the Indices. These concerns are exacerbated when one reads the recent ABS research paper “Socio-Economic Indexes for Areas: Introduction, Use and Future Directions” by Adhikari. In that paper 28.3% of Northern Territory CDs are shown to be in the first decile of the Index of Relative Socio Economic Disadvantage and it is acknowledged that the Northern Territory has a greater proportion of CDs with lower SEIFA values than other states. This finding is based upon the Northern Territory CDs that are included in the SEIFA Indices.



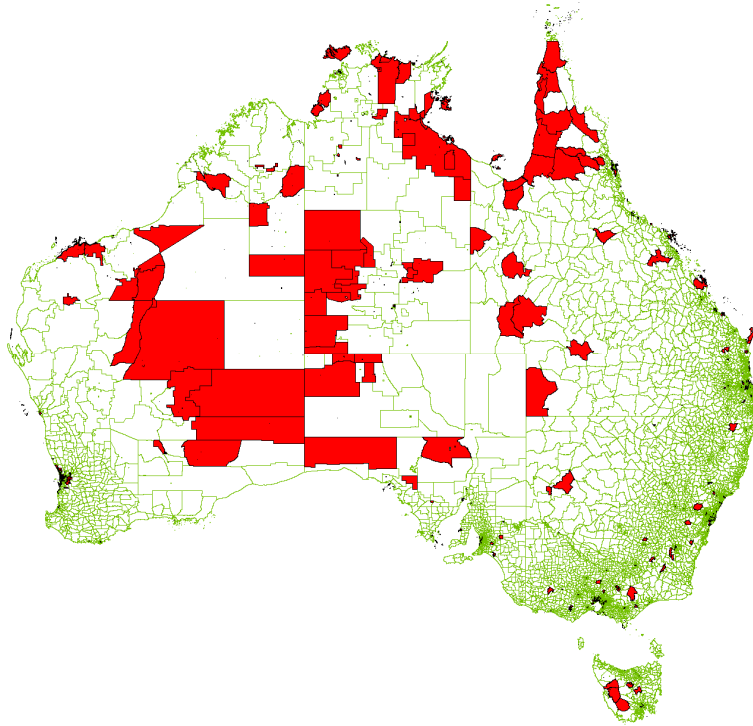
The proportion would be higher still if the excluded Territory CDs were included in the Indices as these CDs have populations that have similar or lower values than those included in the Indices. The exclusion of these CDs results in the true level of socio-economic disadvantage experienced in the Northern Territory being hidden.

The latter part of the ABS paper demonstrates “how SEIFA can be used to analyse the prevalence of health risk factors so that targeted policy intervention can be implemented”. Yet if SEIFA was used for this purpose, or to target need, or distribute resources for health or education policy initiatives it is evident that the Northern Territory’s socio-economic disadvantage would be significantly understated as many of the most needy in those target groups are excluded from the ABS Indices.

The exclusion of nearly 30% of all Northern Territory CDs is so disproportionate that just over ten Northern Territorians are excluded for every other Australian. This exclusion is of particular concern when the relationship between socio-economic status, health, educational outcomes and crime are so well-established and when more, rather than less, information is required on remote Indigenous populations to inform Commonwealth, State and Territory Governments in regard to current policy initiatives.

The change in No SEIFA Score CDs from 2001 to the 2006 Census is shown in maps two and three.

**Map 2. 2001 No SEIFA Score CDs**



**Map 3. 2006 No SEIFA Score CDs**

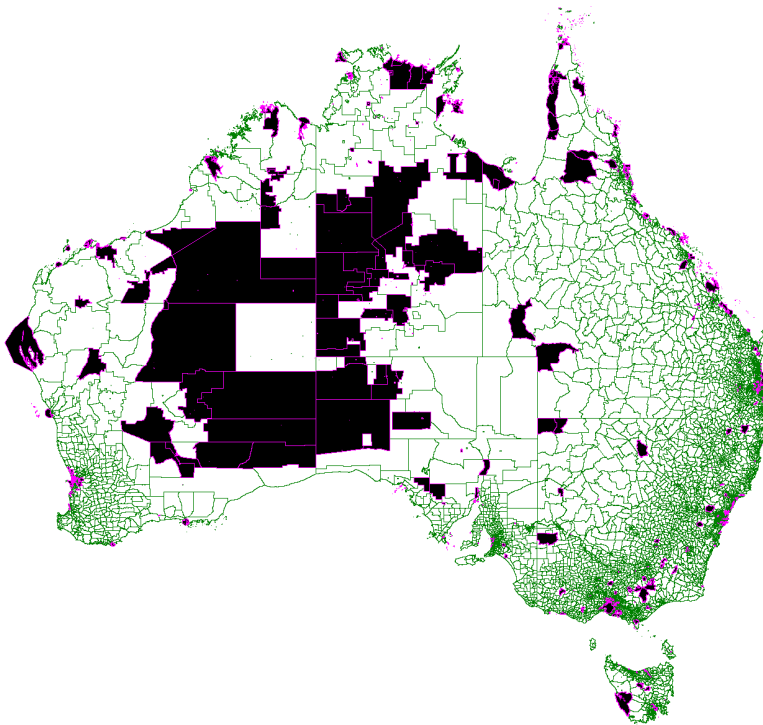


Table 1 shows the change in the number and the proportion of population living in No SEIFA score CDs from 2001 to 2006 at the national level.

**Table 1. National Changes in Number and Proportion of Population living in No SEIFA Score CDs**

National	Total Population in No SEIFA Score CDs	Total Indigenous Population in No SEIFA Score CDs	Proportion of Indigenous Population in No SEIFA Score CDs	Total non-Indigenous Population in No SEIFA Score CDs	Proportion of non-Indigenous Population in No SEIFA Score CDs	Total Not Stated Population in No SEIFA Score CDs	Proportion of Not Stated Population in No SEIFA Score CDs
2001	158386	24908	15.73%	98650	62.28%	34828	21.99%
2006	124184	21137	17.02%	80672	64.96%	18935	15.25%
	down 34202	down 3771	up 1.29%	down 17978	up 2.68%	down 15879	down 6.74%

Table 1 shows that the overall coverage of SEIFA is improving as there was a reduction of 156 CDs with No SEIFA Scores since 2001. There was also a reduction in all population categories with fewer Indigenous (3771), non-Indigenous (17978) and Not Stated (15879) being excluded. Whilst these reductions are obviously welcome, a closer analysis reveals that although there are fewer Indigenous persons living in CDs with No SEIFA Scores, the proportion of Indigenous people in CDs with No SEIFA Scores has increased nationally from 15.73% in 2001 to 17.02% in 2006.

**Table 2. Northern Territory Changes in Number and Proportion of Population living in No SEIFA Score CDs.**

Northern Territory	Total NT Population in No SEIFA Score CDs	Total NT Indigenous Population in No SEIFA Score CDs	Proportion of NT Indigenous Population in No SEIFA Score CDs	Total NT non-Indigenous Population in No SEIFA Score CDs	Proportion of NT non-Indigenous Population in No SEIFA Score CDs	Total NT Not Stated Population in No SEIFA Score CDs	Proportion of NT Not Stated Population in No SEIFA Score CDs
2001	17775	12065	67.88%	4108	23.11%	1602	9.01%
2006	11901	10057	84.50%	1575	13.23%	269	2.26%
	down 5874	down 2008	<b>up 16.63%</b>	down 2533	down 9.88%	down 1333	down 6.75%

Table 2 shows that the overall coverage of SEIFA is also improving in the Northern Territory with 5874 fewer persons living in CDs with No SEIFA Scores. These reductions are in all population categories, Indigenous (2008), non-Indigenous (2533) and Not Stated (269). However, the proportion of Indigenous people living in No SEIFA Score CDs rose significantly from 67.88% to 84.5%, some 16.63% whilst the non-Indigenous and the Not Stated populations decreased by 9.88% and 6.75% respectively.

It is the increasing concentration of Indigenous people in the No SEIFA Score CDs that is a concern as the population profiles of these excluded CDs indicate that they are the most socio-economically disadvantaged people in Australia. It is ironic that these people are excluded from the classification that was created to identify them.

The ABS excludes CDs that have small populations, have not responded or have provided insufficient information to some Census questions. The concern is that lack of information will skew or introduce instability in the Indices and that too few responses will raise confidentiality issues. CDs are excluded for one or more of the following reasons:

- population smaller than or equal to 10 people;
- 5 people or fewer unemployed;
- more than or equal to 70% of families not responding to the Census questions on family income;
- More than, or equal to, 70% of people not responding to any of the Census questions on occupation, labour force status, type of educational institution and qualifications;
- More than 20% of dwellings are non-private; and
- Off shore and migratory CDs.

**Table 3. National No SEIFA Score CD Exclusions by Type and by Polity 2001**

<b>POLITY</b>	2001 No SEIFA Score CDs	Five people or fewer employed	More than 20% Non-private dwellings	Too Few Population	Non-Response to Census Questions	Total Exclusions	Multiple Exclusion Criteria CDs	Single Exclusion Criterion CDs
<b>NSW</b>	196	70	16	68	111	265	68	128
<b>VIC</b>	163	106	8	101	53	268	108	55
<b>QLD</b>	235	107	36	97	98	338	98	137
<b>SA</b>	60	36	6	34	22	98	37	23
<b>WA</b>	659	533	19	515	61	1128	530	129
<b>TAS</b>	25	12	2	11	11	36	11	14
<b>NT</b>	152	100	5	68	71	244	84	68
<b>ACT</b>	23	20	2	17	1	40	17	6
<b>OT</b>	23	1	0	1	0	2	1	0
<b>AUST</b>	1514	985	94	912	428	2419	954	560

Table 3 provides an analysis of the number and type of the exclusion criteria using 2001 data (2006 not being available in time for this paper). The analysis reveals that these exclusions impact severely on remote Indigenous populations.

ABS, in their latest paper on the SEIFA Indices, "Information Paper: An Introduction to Socio-Economic Indexes for Areas (SEIFA), 2006", released in March 2008 (Catalogue No. 2039.0) states that:

It is not always meaningful to give a CD a score. For example, the CD may be an airport or a large office block, with no-one actually residing in the area. In addition, there may be very few people in the area, or only a few who responded to the Census questions. If there are only a few people or responses, then it becomes difficult to calculate a reliable score. Additionally, those who did respond may not be representative of the area as a whole. Confidentiality issues can also arise when there are only a few people in an area.

The paper goes on to say that:

...some data items, such as income, were considered crucial to the construction of SEIFA indexes. A SEIFA score was not created for a CD that had a significant proportion of missing data for these important variables.

Therefore, if a CD had a high level of non-response for an important variable, then that CD was excluded from the analysis and no SEIFA scores were created for that CD.

The rationale and processes by which ABS excludes CDs from the Indices, especially those CDs in remote areas with predominantly Indigenous populations, may well be pragmatic and logical as incomplete information from a CD may skew the CD profile and make the Indices overall a less reliable indicator of relative socio-economic status. However, the question is, does improved stability justify the exclusion of some of the most socio-economically disadvantaged Australians from the Indices?

In Table 3 it can be seen that 41% of the Northern Territory of total exclusions resulted from too few people being

employed, 29% for non-response to Census questions and a further 28% for having too few people living in the CD. It is hardly surprising that the application of the Index exclusion criteria impacts so heavily on remote Indigenous Australians when the lack of employment opportunities, inadequate Census collection processes and sparsely distributed population are taken into account.

The impact of these decisions in 2001 was severe in the Northern Territory which has a little over 1% of the national population but 10% of the nation's No SEIFA Score CDs and No SEIFA Score exclusions. These figures demonstrate the disproportionate impact that the ABS exclusion process and the underlying rationale have upon Indigenous populations in remote Australia. The application of these criteria makes some of the poorest and remotest Indigenous populations effectively disappear from the ABS SEIFA calculations and Indices. Surprisingly, ABS accepts the exclusion of these CDs and their populations without making any attempt to accommodate these atypical populations within the SEIFA Indices.

A solution to remedy these exclusions has to be found so that the most socio-economically disadvantaged CDs are not excluded from the Indices and subsequently excluded from National and Territory target groups or resource allocations because of their omission from the Indices. Whilst the perfect solution to the problem would be to improve the information-gathering from the communities in these excluded CDs in the 2011 Census, what is needed in the interim is the allocation of a surrogate SEIFA score for these CDs to enable their residents to be included in the Indices.

This could be achieved by generating a surrogate score for these CDs either by averaging the SEIFA scores of several CDs with similar population profiles from within the same polity or by attributing these CDs the average SLA SEIFA score. The former method would most likely

produce the most accurate surrogate figure.

### **Labour Force Classification**

The third classification covered in this paper is the method used to classify employed and unemployed persons within the labour force and the impact this has upon the unemployment rates reported for Indigenous communities.

The ABS conducts a monthly Labour Force Survey (LFS) to provide monthly labour force statistics. In the survey, ABS classifies persons as Employed, Unemployed and Not in the Labour Force. ABS uses clustering techniques which it readily admits may make the estimates less representative in remote areas than in others. ABS is trying to address this problem and, despite budget cuts and a resulting overall reduction in the sample size of 24% for the LFS nationally, the Northern Territory will have a larger sample size than previous years with analysis showing there will be an increase in reliability of the data for the Northern Territory. These steps to improve the LFS are acknowledged and the coverage of the survey is not the issue of concern covered in this paper. The issue of concern relates to the participants in the Community Employment and Development Program (CDEP) being classified as employed when those in 'Work for the Dole' programs "perform types of activities that do not differ greatly" are classified as unemployed. The classification of CDEP participants as employed masks unemployment in Indigenous communities as the CDEP is in practice, even if not by intent, a work for the dole program delivering inferior remuneration, employment conditions and status to the participants than those employed in real jobs. Though CDEP participants are not counted as unemployed by ABS, by any meaningful comparative analysis they are unemployed. The effect of ABS classifying CDEP participants as being employed reduces official recognition and hides the extent of the disadvantage experienced in remote Indigenous communities, which is

characterised by passive welfare income, limited choices and life opportunities.

ABS defines unemployed persons as being:

...aged 15 years and over who were not employed during the reference week (of the survey), and either had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week, or were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

'Actively looking for work' encompasses a range of formal and informal job search activities and includes: writing, telephoning or applying in person to an employer for work; answering an advertisement for a job; checking workplace notice boards or the touch screens at Centrelink offices; being registered as a job seeker with Centrelink; being registered with a Job Network agency or any other employment agency; advertising or tendering for work; and contacting friends or relatives. People actively looking for self-employment jobs (such as looking for a business or to purchase a lease) are also treated as looking for work.

Persons not in the labour force comprise those in the population who satisfy neither the employment nor unemployment criteria. They include persons who don't want to work for a variety of reasons, such as homemakers and retirees from the labour force, and those who cannot work as a result of a disability. It also includes people who are in hospital, prison, or other institutions.

Persons are classified as employed based on the actual activities of each person, and this categorisation does not depend on their participation in labour market programs. Persons who participate in labour market

programs are counted as employed, unemployed or not in the labour force according to how they respond to questions in the labour force survey about their actual activity in the week before the interview.

The profile of those classified as 'not in the labour force' in remote communities is obviously very different from the norm in that people in these communities have no opportunity to actively seek employment as there are no jobs in their locality. Another factor is that most residents in these communities lack the necessary schooling, fluency in English, training, skills or experience to apply and win the jobs that do exist such as teachers, nurses, police officers and administrators of various kinds which are filled mostly by non-Indigenous persons from outside the communities. This situation leaves only government initiated labour market programs to provide employment for unskilled local residents. ABS acknowledges that there are two important labour market programs - the 'Work for the Dole' scheme and the Community Development Employment Projects (CDEP) scheme.

ABS explains the differences between the two schemes as being:

Under the 'work for the dole' scheme, unemployed persons are required to work on not-for-profit community-based projects for a number of hours per week, which, at the relevant award rate of pay, equates to the unemployment benefit entitlement. The participants receive their unemployment benefit payments directly from the administering government agency and not from the organisations undertaking the community projects, and therefore the organisations do not have an employer/employee relationship with the scheme participants. Accordingly, persons participating in 'work for the dole' schemes are not regarded as being in paid employment but are considered to be undertaking unpaid work.

Depending on other activity they undertake in the survey reference period, they may be classed as unemployed or not in the labour force.

The CDEP scheme provides employment for Indigenous people living in remote, rural and urban areas. In a community with a CDEP scheme, the participants are paid a wage by the CDEP organisation to undertake work or training. While the types of activities undertaken might not differ greatly from those undertaken by 'work for the dole' participants, there is an employer/employee relationship between the participants and the CDEP organisation. CDEP participants are therefore treated as employed in the LFS. It is currently not possible to separately identify CDEP participants in the LFS.

Although employees under both schemes undertake training or work for not-for-profit organisations and have little or no choice for whom they work, they are classified differently. The difference between working for the dole and being unemployed and working in a CDEP scheme and being employed, according to ABS, is determined by their respective relationships with their paymaster. The rationale is that people working for the dole receive payment directly from a Government agency whilst CDEP recipients receive their Government payment through an agent. This difference in the method of payment between the two labour market programs apparently determines whether a person is classified as employed or unemployed.

How can a method of payment distinguish between persons who – as ABS admit – “perform types of activities that do not differ greatly”? People in “Working for the Dole” and in a CDEP scheme benefit from Government subsidised employment to perform work outside the private sector.

Treating CDEP participants as employed significantly distorts local labour market statistics by understating the level of unemployment especially in remote

Indigenous communities. The extent of the distortion is shown across the current ASGC Remote and Very Remote classification areas in Tables 4 and 5.

**Table 4. Northern Territory Labour Force Statistics 2006 for Remote and Very Remote using ASGC Remoteness Classification**

<b>NT Remote</b>								
<i>Employed (a)</i>	<i>Employed</i>	<i>CDEP</i>	<i>Unemployed</i>	<i>Unemployed (a)</i>	<i>Labour force</i>	<i>Not in labour force</i>	<i>Not stated</i>	<i>Total</i>
2,779	1,844	935	370	1,305	4,037	3,149	884	8,070
<b>NT Very Remote</b>								
<i>Employed (a)</i>	<i>Employed</i>	<i>CDEP</i>	<i>Unemployed</i>	<i>Unemployed (a)</i>	<i>Labour force</i>	<i>Not in labour force</i>	<i>Not stated</i>	<i>Total</i>
6,094	1,738	4356	1,154	5,510	10,585	7,248	2,371	20,204
<b>NT Remote and Very Remote</b>								
<i>Employed (a)</i>	<i>Employed</i>	<i>CDEP</i>	<i>Unemployed</i>	<i>Unemployed (a)</i>	<i>Labour force</i>	<i>Not in labour force</i>	<i>Not stated</i>	<i>Total</i>
8,873	3,582	5291	1,524	6,815	14,622	10,397	3,255	28,274
<i>(a) Includes CDEP participants</i>								

**Table 5. Percentage of Labour Force using ASGC Remote and Very Remote Classification in the Northern Territory**

<b>NT Remote</b>	
% Officially Classified Employed (a)	68.84%
% Employed if CDEP classified as Work for the Dole	45.68%
% Officially Classified Unemployed	9.17%
% Unemployed if CDEP classified as Work for the Dole (a)	32.33%
<b>NT Very Remote</b>	
% Officially Classified Employed (a)	57.57%
% Employed if CDEP classified as Work for the Dole	16.42%
% Officially Classified Unemployed	10.90%
% Unemployed if CDEP classified as Work for the Dole (a)	52.05%
<b>Combined Remote and Very Remote</b>	
% Officially Classified Employed (a)	63.21%
% Employed if CDEP classified as Work for the Dole	31.05%
% Officially Classified Unemployed	10.03%
% Unemployed if CDEP classified as Work for the Dole (a)	42.19%



The impact of classifying CDEP participants in remote Australia as employed massively understates the disadvantage experienced by Indigenous people of working age in remote Australia. The ABS rationale for distinguishing between “Work for the Dole” and CDEP is very difficult to justify and is patently inequitable. All labour market program participants should be treated equally and both be either classified as employed or as unemployed.

In all three ABS classifications, remoteness, socio-economic status and unemployment it is apparent that populations in remote areas, especially those in Indigenous remote communities, have the extent of their disadvantages either significantly understated or totally excluded from ABS collection, analysis and reporting. These classifications and definitions cause many remote Indigenous Australians and the extent of their disadvantages to disappear from ABS, or ABS derived, statistics.

### ***Why does this occur?***

It may be that because the populations in remote areas are so small they are considered relatively insignificant in Australia’s demographic and economic modelling profiles.

Or it may be that ABS has insufficient information available to best address these problems without some assistance from the States and Territories.

It may be that the population profiles and disadvantages in small, remote Indigenous communities are so extreme that it is politically expedient for Governments not to want to make comparisons with Australian mainstream population profiles.

Whatever the reason, these problems will have to be overcome if there is to be a genuine effort to address disadvantage with “Closing the Gap” policies and strategies.

It is acknowledged that it is difficult to accommodate these atypical populations within the existing modelling parameters and classifications adopted or preferred by

ABS and its major clients. However, with collaboration between the States, Territories and ABS most of these problems could be satisfactorily addressed.

A good example of what can be achieved has been the significant progress made in improving the statistical geography and data collection in the Northern Territory through the collaboration between ABS and the NT Government agencies.

### ***What has been done so far?***

It was recognised several years ago by some officers and researchers in the Northern Territory that the key to improving future data collection and accuracy was the establishment of common statistical geography across Northern Territory Government agencies. The Department of Planning and Infrastructure (DPI), in collaboration with the Department of the Chief Minister (DCM), worked with all other Northern Territory Government agencies to create common statistical geography comprising of common statistical Sub-Regions and Regions. Initial work started in 2003 with all NTG agencies reaching an agreement to adopt common statistical geography. NT statistical Regions and Sub-Regions were agreed by agencies and then endorsed and gazetted by Northern Territory Cabinet in May 2005.

Contemporaneously, in close collaboration with ABS officers, Northern Territory statistical geography was gradually aligned with the ABS Australian Standard Geographical Classification (ASGC). This was achieved in 2005 and, for the first time, the collection and detailed analysis of demographic data for any community, location, locality, region or sub-region in the Northern Territory was possible by combining ABS and NTG agency data and statistical geography.

The alignment of Northern Territory regional and sub-regional boundaries with the ABS ASGC Collector Districts (CDs) and Statistical Local Areas (SLAs) has been described in detail in a separate paper (Gerritsen and Griffith - 2005). The careful alignment of CDs with Northern

Territory cadastral boundaries, geographical features (rivers, escarpments) existing gazetted Local Government Authority and national park boundaries captured the distribution and areas of interaction of rural and remote populations, utilising language groupings and resource association service areas. With the agreed exception of the CDs that define Pine Creek there is perfect concordance between NT Statistical boundaries and the ASGC at the 2006 Census. It has already been agreed that the Pine Creek boundaries will be aligned in the new Australian Standard Geography (ASG) (replacing the ASGC) for the 2011 Census, thus providing perfect concordance.

Statistical geography is constantly changing and in an endeavour to produce better data ABS has created a new, smaller unit of statistical geography, the Mesh Block, to be adopted for the 2011 Census. Draft Mesh Blocks were produced by ABS prior to the 2006 Census. An examination of the first (draft) publication of the Australian Bureau of Statistics (ABS) Mesh Block revealed that the Mesh Blocks created for rural and remote areas of the Northern Territory were much larger and less detailed than anticipated. The draft Mesh Blocks were based upon the Geographically-referenced National Address File (G-NAF).

There are relatively few G-NAF reference points in the remoter areas of the Northern Territory and, as a result, the draft Mesh Blocks did not identify many Indigenous towns and communities. To rectify this situation for the 2011 Census it was agreed between the ABS and NT Government that DPI and DCM officers would redesign the Northern Territory Mesh Blocks in collaboration with ABS using digital imagery, a range of digital spatial data integrated with the imagery in the NT Visualiser application (similar to Google Earth) and geographic information system (GIS) technology. The redesign of Mesh Blocks presented the opportunity to alter the statistical geography of rural and remote communities to mirror those in larger population centres, thereby improving the quality of data collected and

providing comparability between major centres and small communities. The methods employed to redesign the Mesh Blocks are explained in detail in another paper (Griffith and Lee - 2006).

Following on from the development and adoption of common statistical geography, the DPI and the Department of Business, Economic and Regional Development (DBERD), undertook the task of developing appropriate social and economic indicators to populate the geography and facilitate information-based policy development. These indicators were grouped into profiles of Population, Education, Health, Household Income, Individual Income, Labour, Wellbeing, Environment, Economic, Crime and Justice, Industry, Housing and Productivity.

These profiles were constructed after researching the literature and regional profiles pertaining to Regional Development from all over the world and then choosing the variables that had relevance to the Northern Territory. To externally validate the process and the outcomes of the above exercise, external specialist consultants (AEC Pty. Ltd.) were hired to undertake independent research and develop a set of economic and social indicators.

The findings of the consultant company were then compared with the indicators in the profiles and a high level of concordance was evident. This exercise provided external validation of the in-house research.

The NT Place Names Committee has, over a period of six years, undertaken extensive consultations with NT communities, MLAs, NTG agencies and Local Government Authorities, together with industry, political and community groups and associations, to develop Locality Boundaries within the NT. This process involved newspaper and radio advertising, inviting proposals and comment on the internet. Submissions were invited from the public on proposed boundaries and names of localities and suburbs by completing an online submission form. To ensure that the NT's

Indigenous population were involved in the process, radio advertisements were translated and played in a number of Indigenous languages across the Northern Territory. Public forums were held in Katherine, Howard Springs, Alice Springs and Tennant Creek. MLAs and Libraries were provided with packages for display purposes. Copies of the proposals were displayed in the public areas of DPI's Alice Springs and Darwin offices. DPI, through the NT Place Names Committee, proposed some changes to the Locality boundaries to align them with the NT Statistical Regional Boundaries. The Place Names Committee submitted the recommendations for Locality Boundaries to the Minister for approval in December 2006 and these recommendations were approved in March 2007.

The approval of the NT Localities provided another level of concordance of statistical geography in the Northern Territory in that the Localities are made up of whole Mesh Blocks, the building block of the new ABS Australian Standard Geography (ASG). Localities, singly or collectively, will aggregate up to an SA 2 in the ASG. It is understood that Australia Post is committed to design its new Post Code Areas based on these official Localities.

The process of improving statistical geography is ongoing with street addressing now being undertaken in rural and remote towns and communities in the Northern Territory. When this is completed, each house and lot will have a dedicated street number within a Mesh Block. The Mesh Blocks will aggregate up through the SA1 and Localities to the SA 2 level (the SA1 and the SA 2 being the new units in the ASG that roughly equate to the existing CD and SLA). The SA2s will aggregate up through the ASG whilst at the same time aggregating singly or collectively up into the Sub-Regions and Regions of the NT Statistical geography. The design of the coordinated ABS and NT statistical geography allows Indigenous and non-Indigenous populations to be aggregated separately, if desired, to allow the different social profiles to be compiled and compared. Through this concordance, NTG agency

and ABS data can be combined to provide researchers and policy-makers much easier access to data for reporting, policy development and research.

It is expected the complex array of statistical geography that confronted service providers, policy-makers and researchers will be a thing of the past after the 2011 Census in the Northern Territory. Provided more resourcing is made available by ABS, the States and Territories when undertaking the Census, the problems of undercounting and incomplete data can also be vastly improved.

### ***A Way Forward?***

If there is to be a proper understanding of disadvantage in Australia, it is essential that like is measured with like and that policies are developed and resources targeted to those facing the greatest disadvantage. Accurate targeting of community disadvantage is a necessary step if meaningful policies are to be developed. This will enable equity-focused policies to target communities with multiple disadvantages arising from very low socio-economic status, geographic isolation, poor access to health, education and other services, together with very high levels of unemployment. To do this we need much better tools than we currently use. It is evident that the current state of affairs cannot be allowed to continue as it does not assist the Australian Government's commitment to address Indigenous disadvantage.

To meet this commitment, Government needs accurate information to form its policies and measure outcomes. It is in the interests of all Commonwealth, State and Territory Governments to provide greater assistance to ABS to gather and disseminate the information needed for this task. The announcement of budget cuts to ABS runs counter to the Government's need to have current, accurate information on remote and Indigenous populations. The most important first step to improve the current situation is to significantly improve the

collection of Census information in remote areas in the 2011 Census. Steps were taken in the Northern Territory in this regard for the 2006 Census by seconding some officers to work with ABS to improve the distribution, collection, accuracy and quality of Census returns.

Logistical support was also provided in some remote communities. It would appear that these steps assisted to some degree but failed to prevent a significant undercount of the remote Indigenous population.

One area in which there needs to be much more research undertaken is the recording and analysis of Indigenous community mobility patterns, especially the circular mobility patterns within language and service access areas. Detailed mapping is required of the kind undertaken by Young and Doohan of the Australian National University, North Australian Research Unit and described in their 1989 monograph *"Mobility for survival: A process analysis of Aboriginal population movement in Central Australia"*. The much improved statistical geography in the Northern Territory specifically identifying Indigenous language groups and service access patterns within its structure will assist in tracking Indigenous mobility - possibly incorporating and improving upon the techniques used and described by Taylor in his 1998 paper *"Measuring Short-term Mobility Among Indigenous Australians: options and implications."*

The contribution of know-how, resources and manpower would be a pro-active and positive step demonstrating a willingness by States and Territories to assist ABS to conduct a thorough and accurate Census count and improve Census data. This would be far more constructive than complaining of the inadequacy or inaccuracy of the data after a Census has been completed.

ABS, for its part, needs to urgently address the problem areas existing in its classifications and exclusion criteria. The problems in the ASGC Remoteness Classification cannot be fixed easily as ARIA is simply "not fit for purpose" as a remoteness classification. It is clearly not

a geographical classification as claimed nor is it a service access model. ARIA remains a hybrid construct developed from the RRMA designed to distribute Commonwealth Department of Health and Ageing funding along predetermined lines. A new remoteness classification is urgently required.

The SEIFA Indices are a valuable tool for quantifying socio-economic status for a wide range of purposes. However, a solution has to be found so that the most socio-economically disadvantaged populations in Australia are not excluded from the Indices. Improved Census collection data would reduce the number of No SEIFA Score CDs but what is needed, in the interim, is the allocation of surrogate scores to the No SEIFA Score CDs so that the disadvantage of the populations within them can be included in the Indices. A surrogate score can be derived from other CDs with similar population profiles within the same polity that have been allocated a SEIFA Score. Alternatively, the SEIFA score of the SA2 could be attributed to any SA1 within an SA2 in the Northern Territory. This would be a reasonable surrogate using the new remote area statistical geography which is based upon language groupings and patterns of association. This approach to statistical geography design makes populations within SA2s relatively homogeneous in the Northern Territory.

The Unemployment definition needs to be reviewed for participants in both the CDEP and 'Work for the Dole' schemes. The schemes are so similar that to classify participants differently is subjective and inequitable. Participants in both schemes should be classed the same, as either unemployed or employed. In remote communities in particular there is no alternative work to CDEP.

The only choice available is whether to become a participant or not. Participants can be involved, not be involved, drop out and re-enter as and when they wish. Do any other employees have, or would any other employer accept, this workplace arrangement?

All these issues need to be addressed if small, remote Indigenous populations are to be properly represented in ABS, or ABS derived, statistics. With teamwork and goodwill between ABS, State and Territory Governments all of the suggested improvements are achievable in a relatively short period of time. It can be done by 2011 if there is the will to do it. If it is done, there is no doubt that the 2011 Census will be a MAGICAL event for remote Australia.

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