1 Introduction

1.1 Overview

In 2006, the Centre for Social Justice, as part of UnitingCare Queensland, commissioned a report about spatial disadvantage in Queensland. The report identified concentrations of poverty and disadvantage in particular places and advocated further research and analysis to understand 'the causes and persistence of disadvantage in particular areas' and to identify 'policy development, planning and service delivery' issues and opportunities (Upham and Cowling, 2006:81).

On this foundation, the present report has been commissioned to update the Scan of Disadvantage based on the 2006 Census of Population and Housing (Australian Bureau of Statistics) and other available, relevant data sources. This report also analyses examples of policies, programs and services aiming to address poverty and disadvantage as a basis for identifying possible responses in the Queensland context. While this report is intended to raise the profile of these issues and potential solutions more broadly, it will also help to inform service delivery planning across the various agencies that are part of UnitingCare Queensland.

1.2 The Scope of this Report

This report will:

- Review literature relevant to spatial disadvantage in Queensland and about policy and program solutions aimed at reducing disadvantage.
- Analyse SEIFA Index of Relative Socio Economic Disadvantage (IRSD) data for Queensland overall and at a small area level.
- Examine particular variables that may contribute to disadvantage including:
  - Income
    - Median household income
    - Aged Pensions
    - Disability Support Pensions
    - Sole Parent Pensions
    - Unemployment Benefits
  - Unemployment
  - Education
  - Household type
  - Families
  - Older people
  - People from non-English speaking background
  - People with a disability
  - Housing
  - Private dwellings without a motor vehicle
  - Health including premature mortality by cause.
- Develop a framework and recommendations for responding to spatial disadvantage in Queensland.

These indicators have been chosen based on considerable research in Australia and elsewhere identifying that particular groups are at greater risk of being disadvantaged or in poverty (Saunders et al., 2007:52). The Australian Social Inclusion Board has also documented various measures of disadvantage and demonstrated that certain groups were more vulnerable to persistent relative poverty. These groups were identified by the board as 'the elderly, people with disabilities, single mothers, non-aged singles and people of non-English speaking backgrounds' (Social Inclusion

Board Indicators Working Group, 2009:12). Aboriginal and Torres Strait Islander Queenslanders for example, are some of this State's most disadvantaged residents. SEIFA includes data about Aboriginal and Torres Strait Islander status and summary tables of the most disadvantaged areas include a very high proportion of areas that are Indigenous communities.

Understanding the specific indicators that drive disadvantage in a particular area helps to define appropriate responses. While two areas might show very similar scores for example, the drivers and issues might be very different within and between two such areas (Randolph, 1999:5).

It should be noted that the onset of the global financial crisis in 2008 has caused an economic slowdown both in Australia and overseas, leading to production cutbacks, shutdowns and job losses in a number of sectors (Mangan, 2009). The data presented in this report is largely derived from the 2006 Census. Where possible, the literature review incorporates analysis about the implications of this crisis in relation to poverty and disadvantage including some attention to possible responses.

1.3 Methodology

This report presents analysis of the ABS 2006 Census of Population and Housing, through the Socioeconomic Indexes for Areas (SEIFA), to compare the relative disadvantage experienced by people living in different areas in Queensland.

> *'SEIFA is a suite of four summary measures that have been created from 2006 Census information. The indexes can be used to explore different aspects of socio-economic conditions by geographic areas. For each index, every geographic area in Australia is given a SEIFA number which shows how disadvantaged that area is compared with other areas in Australia.*
>
> *Each index summarises a different aspect of the socio-economic conditions of people living in an area. They each summarise a different set of social and economic information. The indexes provide more general measures of socio-economic status than is given by measuring income or unemployment alone, for example.'*

The SEIFA *Index of Relative Socioeconomic Disadvantage* (IRSD) scores for the Queensland geographic areas are used in this report as a proxy for relative socioeconomic disadvantage and socioeconomic status at a small area level. The IRSD measures relative disadvantage using a set of 17 variables including low income earners, relatively lower educational attainment and high unemployment at the small area level (or Collection Districts) derived from the 2006 ABS Census. It then uses these to rank Census Collection Districts (CDs) from lowest score (relatively most disadvantaged) to the highest (relatively least disadvantaged). The variables and weights for 2006 SEIFA IRSD are provided in Appendix 1.

The following table outlines the hierarchy of areas within Queensland used in this report:

Table 4. Hierarchy of Areas within Queensland

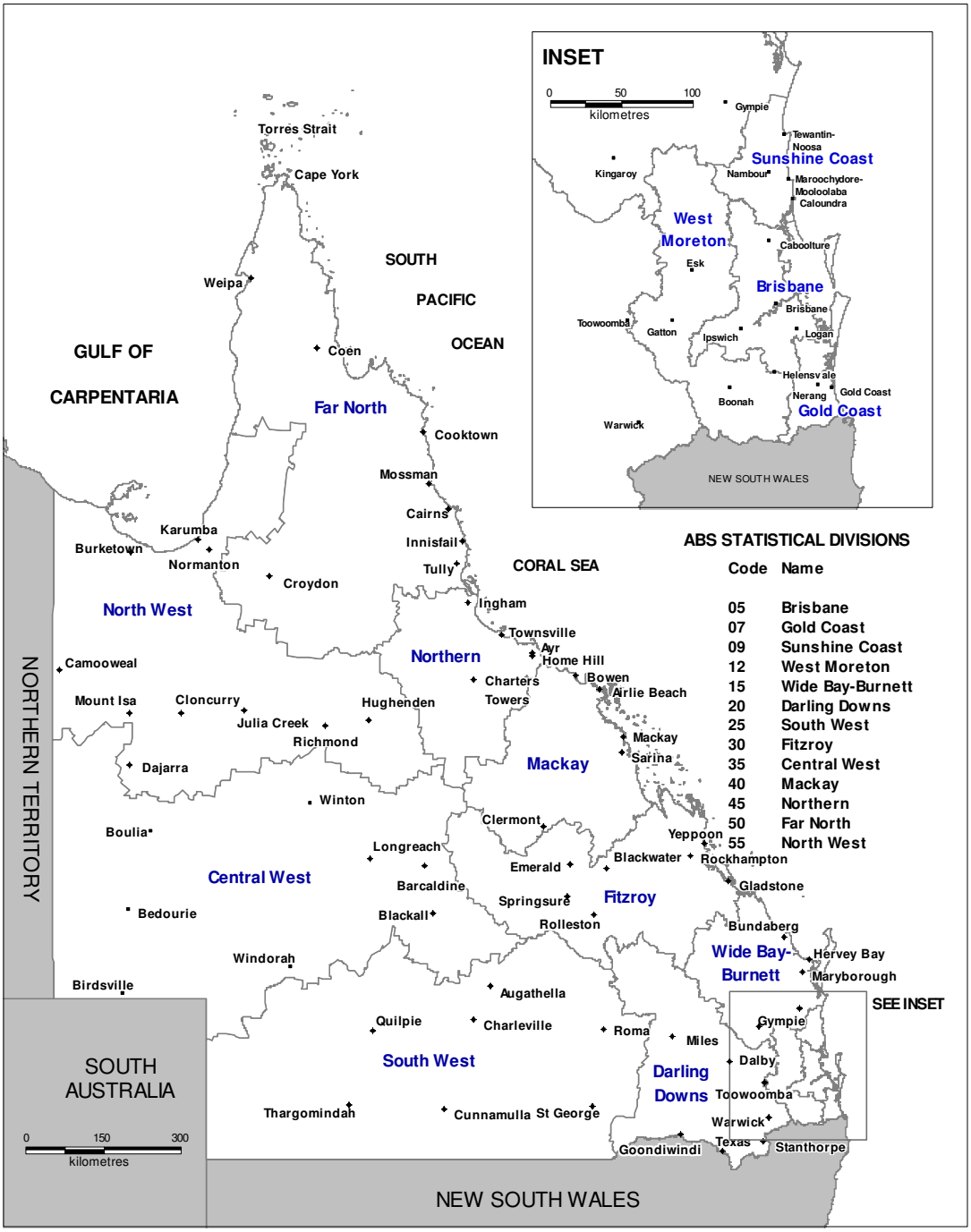
Area Level	Number of areas	Minimum	Maximum	Average Population
Queensland	1	-	-	3,891,727
Statistical Divisions[6]	14	10,851	1,763,131	277,981
Local Government Areas[7]	159	76	956,131	24,403
Statistical Local Areas	479	76	72,845	8,173
Queensland State Suburbs	1,965	17	25,203	2,049
Census Collection Districts[8]	7673	16	2,372	519

[6] This report includes detailed analysis of 13 of the 14 SDs excluding 'Off Shore and Migratory SD'.

[7] In 2007, the Queensland Government implemented a major reform of the State's Local Government system. As of 15 March 2008, there are 74 LGAs in Queensland. Subsequently the reformed LGA regions were incorporated in the 2008 ASGC.

[8] At the 2006 Census, there were 7,673 Queensland Collection Districts with a usual resident population of 3.89 million. CDs are generally made up of 225 households although there may be more households in some urban areas and fewer in remote areas. CDs are the basic geographical unit used for the Census and they fit within the boundaries of Statistical Local Areas (SLAs) (ABS, 2001).

Figure 4. Australian Bureau of Statistics Statistical Divisions



Note: Boundaries are based on ASGC 2006
Prepared by the Office of Economic and Statistical Research

Data

Data analysed in this report is primarily taken from the ABS 2006 Census of Population and Housing and the SEIFA IRSD. The 2006 Census and SEIFA IRSD data packages were sourced directly from the ABS website. ABS Census and SEIFA data and other available data for additional socioeconomic variables were also sourced from the Queensland Government's Office of Economic and Statistical Research (OESR)[9], the Queensland Government Department of Communities and the Public Health Information Development Unit (PHIDU) (gathered for *A Social Health Atlas of Australia* project)[10]. Additional information on the data used is provided in the data notes provided as an attachment to this report.

Key features of disadvantage at the Statistical Division (SD) and Statistical Local Area (SLA) levels are also considered against a set of additional indicators as outlined in Section 1.1. The data for each indicator was overlayed with SEIFA Scores for corresponding geographic areas to provide an indication of the area's overall disadvantage against the IRSD.

SEIFA IRSD

In 2006, the average IRSD Score for Queensland was 1,000, whilst the weighted population average was 1,005[11]. A low SEIFA IRSD score indicates a high proportion of relatively disadvantaged people in an area. A disadvantaged area is characterised by a high proportion of low income families, people with little training and working in unskilled occupations and thus, may be considered as disadvantaged relative to other Collection Districts. A high score implies that the area has a lower proportion of households with low incomes, people with little or no training, and people working in unskilled occupations. Because the variables included in the IRSD focus primarily on disadvantage, the index cannot show areas with high scores as having high relative advantage; these areas with high index scores may be considered less disadvantaged relative to other Collection Districts.

SEIFA IRSD Geographic Areas

The ABS released 2006 SEIFA for the following geographic levels:

- Census Collection District (CD)
- Postal Area (POA)
- Statistical Local Area (SLA)
- Local Government Area (LGA).

[9] Information Products and Services, OESR, Queensland Treasury.

[10] PHIDU was established by the Australian Government Department of Health and Ageing in 1999 to assist in the development of public health data, data systems and indicators and is located at The University of Adelaide. The data A Social Health Atlas of Australia (Third Edition), 2008 [online] was sourced online via the PHIDU website <http://www.publichealth.gov.au>.

[11] To analyse the socioeconomic differences between large areas, index scores for Queensland Statistical Divisions were created using the population weighted averages of the constituent CDs. The result was verified with SEIFA IRSD scores for SDs provided by OESR. The SD level scores were not standardised and so does not have a mean of 1,000 or standard deviation of 100. Also see Geographic Areas section below for the method of calculating the weighted average score.

ABS did not produce indexes for SDs. Index scores for Queensland SDs were created using the following formula for population weighted averages of the constituent CDs:

$$INDEX_{AREA} = \frac{\sum_{i=1}^{n} (INDEX_{CDi} \times POP_{CDi})}{POP_{AREA}}$$

where[12]

INDEX = index score for each CD
POP = population for each CD (population with SEIFA scores only)
n = total number of CDs (with SEIFA scores) in the higher level area.

The result was verified with SEIFA IRSD scores for SDs provided by OESR. Queensland SDs were then ranked from 1 to 13 based on their scores. The SD level scores were not standardised and so do not have a mean of 1,000 or standard deviation of 100.

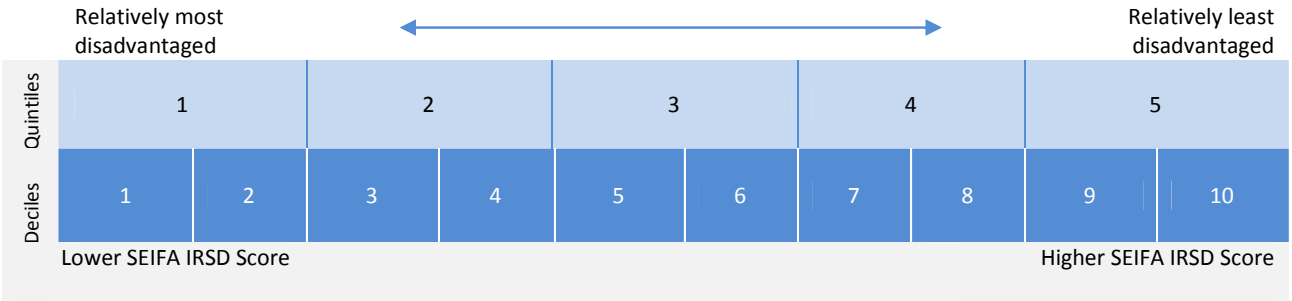
Ecological Fallacy

There is a significant risk of 'ecological fallacy' when comparing geographic areas using a proxy data set such as the SEIFA IRSD (Kennedy and Firman 2004, and Baker & Adhikari 2007). This is primarily because the SEIFA IRSD index summarises socioeconomic variables for each CD, resulting in an area level measure of relative disadvantage rather than to individuals living in those areas. It is important to note that there will be some people living in relatively more disadvantaged areas who will be less disadvantaged than others. Conversely, some residents of relatively less disadvantaged areas may be highly disadvantaged. When area level indexes are used as proxy measures of individual level socioeconomic status, groups of people living within smaller areas within these larger areas may be misclassified.

SEIFA IRSD Quintiles and Distribution of Queensland CDs

The ABS provides individual rankings for each Queensland CD against all CDs in the State based on the area's SEIFA IRSD Scores. CDs are also grouped by Deciles. In this report, all Queensland CDs were divided into five equal groups or quintiles[13] ranging from lowest to the highest IRSD score. These quintiles have formed the basis for analysis by larger geographical areas in this report using population weighted averaging. As illustrated in the table below, Quintile 1 comprises areas with the lowest IRSD scores, representing areas that are relatively most disadvantaged or lowest socioeconomic status. On the opposite end of the spectrum, Quintile 5 comprises areas with the highest IRSD scores which are relatively less disadvantaged.

Table 5. SEIFA IRSD Quintiles and Distribution of Queensland CDs



[12] The score of each Queensland CD was multiplied by the total number of usual resident population within that CD; this was then divided by the total usual resident population within the larger Queensland SD; which was then added together to equal the score of that SD.

[13] The weighted method divides the data into 5 even groups, where each group has the same population. All quintiles have been calculated based on rankings within Queensland only.

It is important to note that the SEIFA indexes are ordinal (i.e. areas can be ranked) however the specific differences between areas cannot be measured. Therefore, whilst an area with an index value of 500 is relatively more socio-economically disadvantaged than an area with a score of 1,000, it is misleading to infer it is twice as disadvantaged as the area with an index value of 1,000 (ABS, 2006f:3).

Figure 5 below shows the frequency distribution for the IRSD scores for Queensland CDs with each vertical bar representing the number of CDs within a range of five index points. The distribution is left-skewed primarily because the underlying variables measured indicate relative disadvantage at CD level. As a result, using this index allows more scope in distinguishing between disadvantaged areas. The scores at the lower end of distribution show that there were fewer relatively disadvantaged areas. The Quintile markings at the top of the graph show that there is a larger distribution between the scores in the 1st Quintile compared with those in the middle quintiles.

Figure 5. Frequency Distribution Queensland Collection Districts across IRSD CD scores

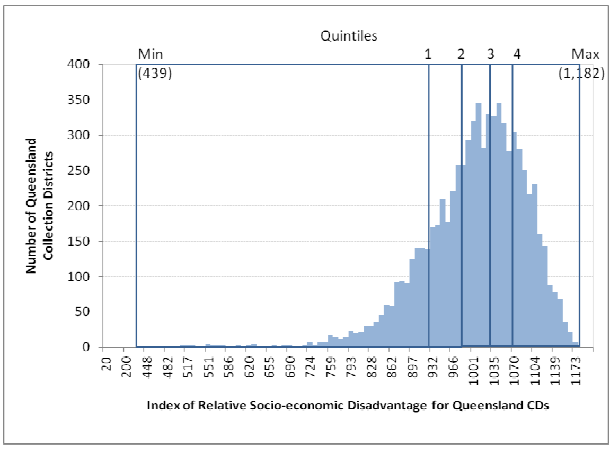
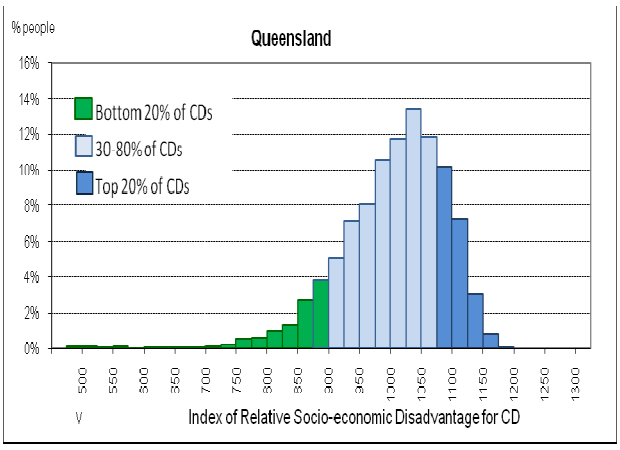


Figure 6. Distribution of Queensland Population across IRSD CD scores



Queensland SEIFA IRSD Maps

Maps of Queensland geographic areas are provided based on the 2006 ABS Census of Population and Housing and the SEIFA IRSD to supplement the analyses. Maps were produced by the Office of Economic and Statistical Research within the Queensland Government.

1.4 How to Use this Report

The primary focus of this report is to provide an analysis of the SEIFA IRSD data available at the level of a Statistical Division (SD). Each SD is ranked overall in relation to this index and then detailed information about specific locations within that SD is also provided.

As such, this report can be used as a reference document about specific locations as a starting point for assessing needs and service planning. Readers are encouraged to locate their service delivery areas first in relation to a Statistical Division using the map included as **Figure 1** (Page VI). Chapter 4 then provides more detail about each SD including the most disadvantaged SLAs, LGAs and CDs.

Chapter 5 also ranks each SD in relation to a number of specific indicators of disadvantage. This may assist services to highlight, at the SD level, which larger areas are impacted by specific indicators of disadvantage as a further basis for identifying which issues may need to be considered in service planning and delivery.

A table is also available[14] rating the 60 most disadvantaged SLAs for each indicator used in chapter 5 which will provide readers with an opportunity to locate smaller areas of concern to them. A complete list of SLAs for Queensland is also provided as a basis for using a search function to locate SLAs of interest in the table provided.

The other major component of this report is the review of literature which is provided as a basis for considering a range of policy and program responses to locational disadvantage. The recommendations then seek to address the extent and persistence of locational disadvantage in Queensland and outline possible policy responses that emerge from the literature review.

The data in this report should be seen as a starting point for understanding disadvantage and should be complemented by additional local and regional assessment of needs, opportunities, assets and strengths. The report does not have the capacity to assess the strengths, opportunities, assets, existing services and infrastructure in particular places as a basis for responding to disadvantage. Furthermore, there is an inherent risk in naming particular places as relatively disadvantaged without a thorough consideration of the resilience and hard work undertaken by local communities in trying to address these issues. The report contents must be complemented by developing an intimate understanding of each targeted locality.

[14] See the Centre for Social Justice website at <http://www.ucareqld.com.au/SocialJustice>