Title of paper: Investigating the Robustness of Small Area Level

Measures of Risk of Social Exclusion for Australian Children

Authors: Anne Daly, Annie Abello, Honge (Cathy) Gong and Justine

McNamara

Organisation: University of Canberra, Canberra, Australia

Abstract:

In a series of the papers the authors and various colleagues

have developed a small area index of risk of social exclusion for

Australian children. The indices have been mainly based on 2001 and 2006

Population Census data. In the most recent version of the 2006 index,

four domains have been identified; Socio-economic, Engagement, Housing

and Health. This version of the index was constructed using Principle

Component Analysis (PCA) within each domain and then aggregating the

results using equal weights for each domain. Small areas were then

ranked according to their total score and the most disadvantaged and

advantaged deciles of population-weighted areas identified and compared.

The purpose of this paper is to undertake further analysis of the

robustness of this ranking. Results are compared for rankings of small

areas using different aggregation techniques including equal weighting,

Principal Components Analysis, Factor Analysis, a simple aggregation of

multiple sources of disadvantage or a combination of these techniques.

Results of a more detailed investigation of outcomes for selected small

areas in the state of Victoria will also be presented. The range of

variables in the index has been limited by the availability of data at

the small area for Australia as a whole. A rich data set including a

wider range of variables from a survey on child health and well-being

for small areas in Victoria will be used to construct an index of risk

of social exclusion for Victorian children living in these areas. The

ranking of small areas using this data will be compared with the results

for these areas from our national index to further validate the

robustness of our findings.