

**16<sup>th</sup> Pacific Rim Real Estate Society Conference  
Wellington, New Zealand  
January 2010**

**Locating community housing across a metropolitan area**

Valerie Kupke\*, Tony Lockwood & Peter Rossini  
Centre for Regulation and Market analysis  
University of South Australia

In February 2009 the Australian Government responded to the global recession by introducing a \$41 billion Nation Building and Jobs Plan as a means of stimulating the economy and supporting employment through to 2010. The plan includes investment in schools, community infrastructure and housing with a strong focus on growing the social housing sector within Australia. The initiative provides funding of \$6 billion for the construction of new social housing which it is hoped will boost the supply of affordable public and community housing as well as stimulate the building and construction industry. The funding is provided to states and territories on the condition that suitable proposals for funding are identified quickly and that 75 percent of the homes are completed by December 2010. To this end there is the opportunity within the state of South Australia for some 1250 new homes to be built within the public and community housing sector. The state government is looking to acquire land for this development which meets particular criteria in terms of size, price and access. There are also underlying social imperatives in terms of housing development which need to be maintained.

This paper considers how spatial analysis and mapping can facilitate this land acquisition and help to target particular locations in a timely fashion across a metropolitan area. It also discusses the growth of the community housing sector in Australia and the broader implications of this particular economic stimulus package for this housing sector in general.

**Key words:** community housing, spatial analysis, mapping

Contact person

[valerie.kupke@unisa.edu.au](mailto:valerie.kupke@unisa.edu.au)

+61 8 83020440

## Introduction

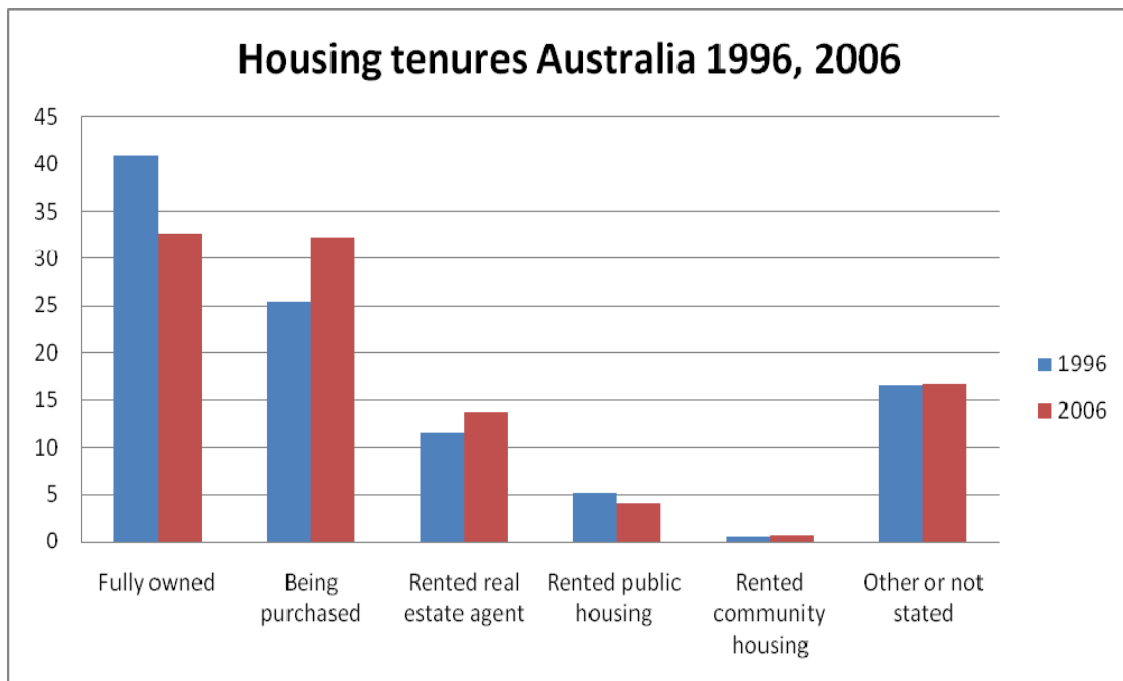
For over fifty years Australia's welfare system has been premised on the notion that most people will enter old age owning their own home (National Shelter, 2000) and Australian housing policies have been predicated on the perceived merits of home ownership. Welfare benefits both during employment and on retirement have been based on household investment being extended over time through home ownership. Home ownership was further promoted in the 1980s when there was an important shift in housing policy within Australia. Housing provision was no longer viewed by government as form of investment; more as an avenue for consumption. As such there was a move away from supply measures to an emphasis on demand side subsidies (Dalton, 2000; Yates, 1997) especially within the rental market.

This change represented a fundamental move towards a market philosophy in terms of housing outcomes in Australia and reflected the view that income support should be less of an entitlement and more of a social contract between government and the individual (National Shelter 2000). With this shift there was an overall reduction in the provision of social housing by government with housing support focused more on direct rental assistance (Wulff et al., 2001; Yates, 1999). Between 1997 and 2007 Federal government funding for social housing in Australia fell by some 24 percent.

## Background to housing sector

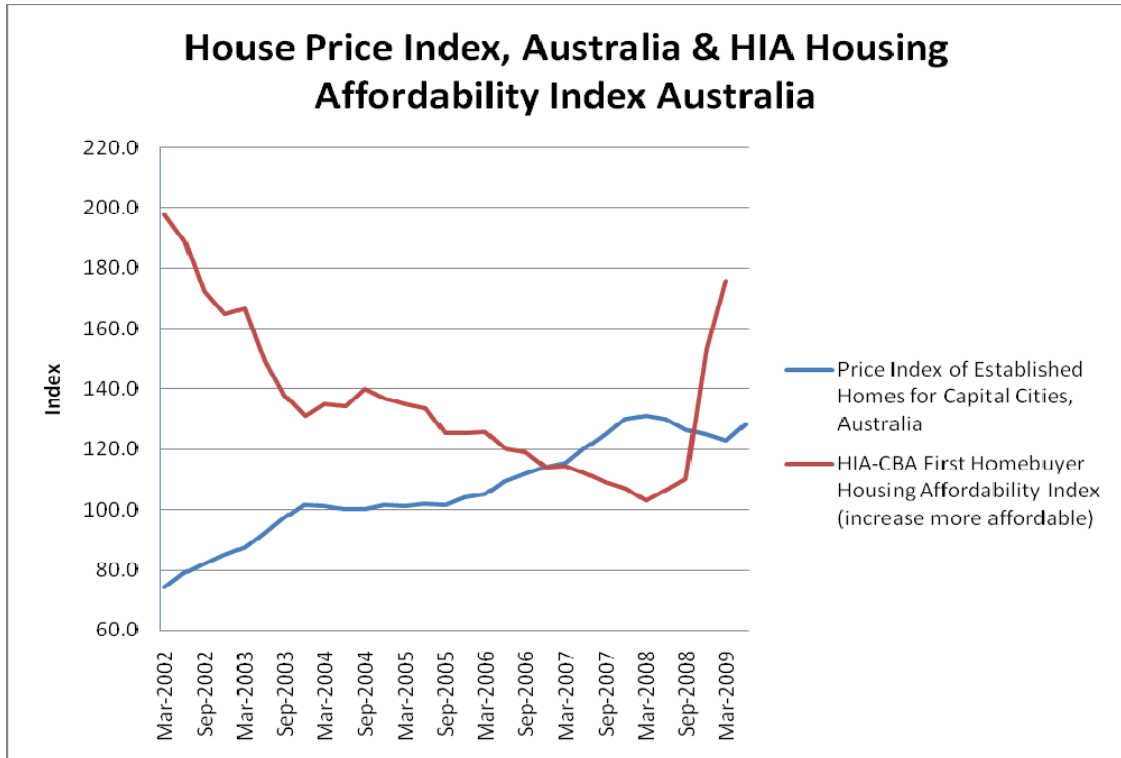
In Australia social housing typically includes public rental (four percent of all dwellings), community rental (one percent of all dwellings), indigenous housing (.3 percent) and emergency shelter (.2 percent). Owner occupied housing can be broken down into fully owned housing (33 percent) and being purchased (33 percent) while the private rental market represents about 14 percent of the housing stock (Figure 1).

**Figure 1 Housing tenure Australia**



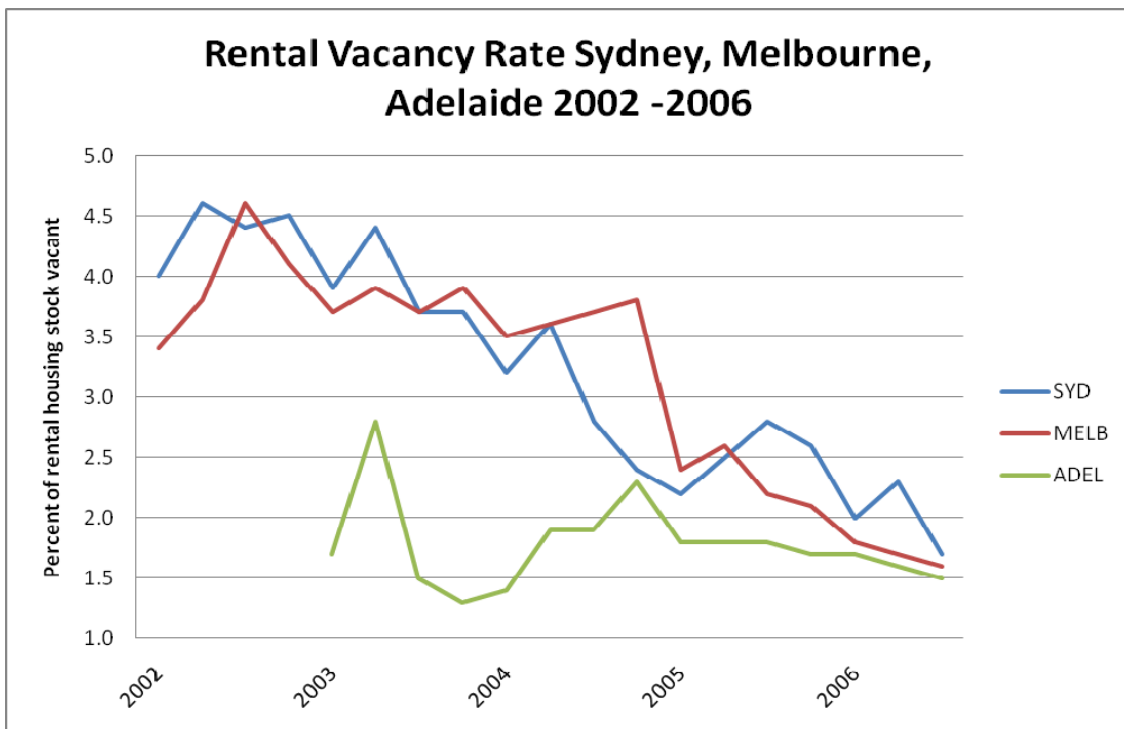
In the last decade however home ownership has become more difficult with affordability a significant deterrent for new purchasers (Figure 2). Single income households have found it increasingly difficult to purchase as house prices and borrowing arrangements throughout Australia have reflected the purchasing power of the dual income household.

**Figure 2 Housing affordability Australia**



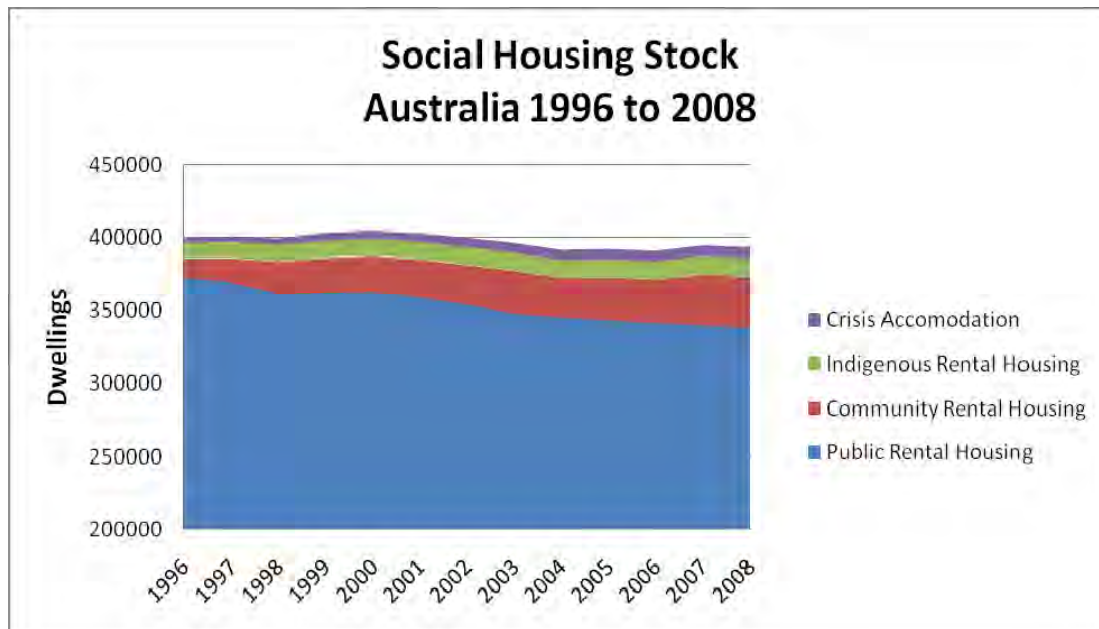
As home ownership has become less affordable demand on the private rental sector has increased which in turn has triggered a rise in rental housing costs and a lowering of vacancy levels in the private rental market (Figure 3).

**Figure 3 Rental vacancy rate Sydney, Melbourne, Adelaide**



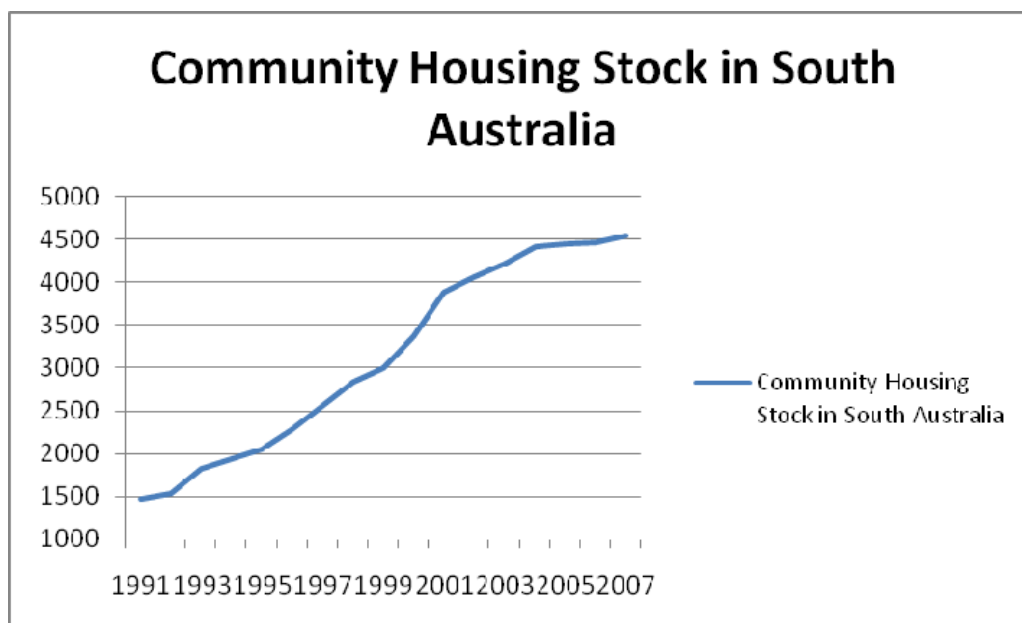
This in turn has displaced those at the lower cost end of the rental market, with increased pressure on all forms of social housing including public and community housing (National Shelter 2000). However as the demand for social housing has increased the supply of this form of housing has fallen with government looking to the private rental sector to fill the gap (Figure 4).

**Figure 4 Social housing stock Australia**



In the state of South Australia there was a net loss of 10,259 dwellings in social housing stock between 1992 and 2003 with a decline in the provision of public rental housing shrinking at a rate of some 1,341 dwellings per year. At the same time there has been growth in the not for profit community rental sector (Figure 5) but not at a pace sufficient to meet the build up in demand (Figure 4). As well much of the existing public housing stock has been concentrated in large estates often in remote locations poorly served by transport, employment or health services.

**Figure 5 Community housing stock South Australia**



In cities such as Adelaide, Melbourne and Newcastle up to one third or more of dwellings in some local council jurisdictions have been public rental housing with recognised dislocation from jobs, services and transport. Such large concentrations of particular tenures have become widely regarded as unsustainable in terms of community and social utility. Threshold levels of 25 percent have been proposed for social housing. Galster (2007) suggests there is little evidence that aggregate social utility is improved if a 20 percent threshold of 'disadvantaged' families within a neighbourhood is exceeded. Atkinson (2008) notes there is international evidence to support the use of mixed tenure, mixed dwellings in attempts to de stigmatize and rebalance the social profile of an area. Atkinson and Kintrea (2002) also stress the importance of offering access to public transport and labour opportunities in social housing areas.

## **Global financial crisis and housing policy**

In 2009 the global financial crisis encouraged another major shift in Australian housing policy with the introduction of a \$41 billion Nation Building and Jobs Plan. This plan included \$6 billion for the construction of new social housing which it is hoped will boost the supply of affordable public and community housing as well as stimulate the building and construction industry. The plan includes investment in schools, community infrastructure and housing with a strong focus on growing the social housing sector within Australia. The funding is provided to states and territories within Australia on the condition that suitable proposals for funding are identified quickly and that 75 percent of the homes are completed by December 2010. As a result in the state of South Australia there is the potential for some 1250 new homes to be built within the social housing sector, including community housing, if suitable sites can be found quickly. The state government is looking to acquire land which meets particular criteria in terms of size, price and access.

This response meets the housing targets recognised by the Australian National Housing Supply Council Report (2008) which suggested that as of 2008 Australia's housing supply was short by some 300,000 properties and that in terms of public housing there was a shortfall of some 90,000 dwellings. This social housing package will be an important boost for the public housing sector which is typically owned and managed by state government authorities but is also aimed at supporting the community housing sector which is administered and/ or owned by not for profit community organisations. In Australia public housing is provided by state government for rent, is means tested, and given the high demand mainly houses those on particularly low incomes with subsidized rentals. As such public housing in Australia has essentially become a housing tenure of last resort. The second form of social housing is that provided by not for profit community organisations such as churches, community groups or housing associations. Again such housing is provided as rental housing; is means tested and provides accommodation for low income households who are homeless or struggling in the private rental market.

As well the Federal Government is seeking to facilitate the growth of the community housing sector which it recognises as more flexible in terms of management and approach than the public housing sector, more community orientated and with better outcomes for tenancy relations. Within South Australia the government housing authority has been seeking housing development proposals that can commence quickly, increase the supply of social housing in a jurisdiction and in particular enhance the capacity and growth of the community housing sector. The new housing is to be located close to transport, service and employment opportunities. They want to reduce large concentrations of public rental housing in an effort to improve social inclusion and are also looking for improved use of government owned land.

To this end the South Australian housing authority issued a public request for registrations of interest for vacant residential land or land with dwellings suitable for demolition with particular size, price and location criteria attached. It sought to purchase residential allotments of about 750 square meters or larger land parcels suitable for subdivision into single allotments of that size. The authority was looking for allotments of land valued no higher than \$150,000 which also had proximity to services such as shops and public transport. As well in terms of location there was an underlying social imperative to encourage mixed communities and avoid further concentration of socially disadvantaged households.

## Objectives of research

This paper seeks to achieve the following research objectives:

1. Demonstrate how property, valuation, population and social data bases can be used to facilitate housing policy and as such be effective in improving housing outcomes,
2. Illustrate the advantages of coordinating property, valuation and social data bases within an integrated land management system,
3. Demonstrate how the efficient selection of appropriate development sites can be a means of growing the community housing sector in a cost effective and socially appropriate manner.

## Method

The metropolitan area represented in this paper is Adelaide, the state capital of South Australia which has a population of 1 million and extends for some 100 kilometres north to south. The study area is the central portion of this area which spans 14 local government areas and includes a heterogeneous mix of some 260,000 properties defined by the Valuer General in South Australia for property taxation purposes as being broadly zoned 'residential'. Figure 6 provides a socio economic profile of the Adelaide metropolitan area as a whole. Figure 7 shows the study region which in the main constitutes the inner and middle suburbs within 10 kms of the Adelaide CBD. It also identifies areas within the study region which contain a substantial stock of low rental public housing and as such may not be appropriate locations for more social housing.

## Site Selection

Based on government requirements the following criteria for the selection of land parcels were identified (CRITERIA 1)

- Vacant land zoned residential
- Size is suitable for a single dwelling (about 750 square metres) or a land parcel suitable for subdivision into single allotments of 750 square metres where
- Land value is no higher than \$150,000 for a single allotment of approximately 750 square metres
- Location is accessible to shops and public transport
- Within a statistical area (census collection district) where existing public rental housing does not exceed 15 per cent of housing stock

Or alternatively (CRITERIA 2)

- Improved site (land plus dwelling) which is zoned residential
- Size is suitable for a single dwelling (about 750 square metres) or a land parcel suitable for subdivision into single allotments of 750sqm where
- Ratio between capital value (CV)(i.e. value of dwelling + land as determined by the Valuer General SA ) and site value (SV) (i.e. value of land only as determined by the Valuer General SA) approaches 1 and thus indicates a site suitable for demolition and redevelopment
- Capital value is no higher than \$150,000
- Location is accessible to shops and public transport
- Within a statistical area (census collection district) where existing public rental housing does not exceed 15 per cent of housing stock

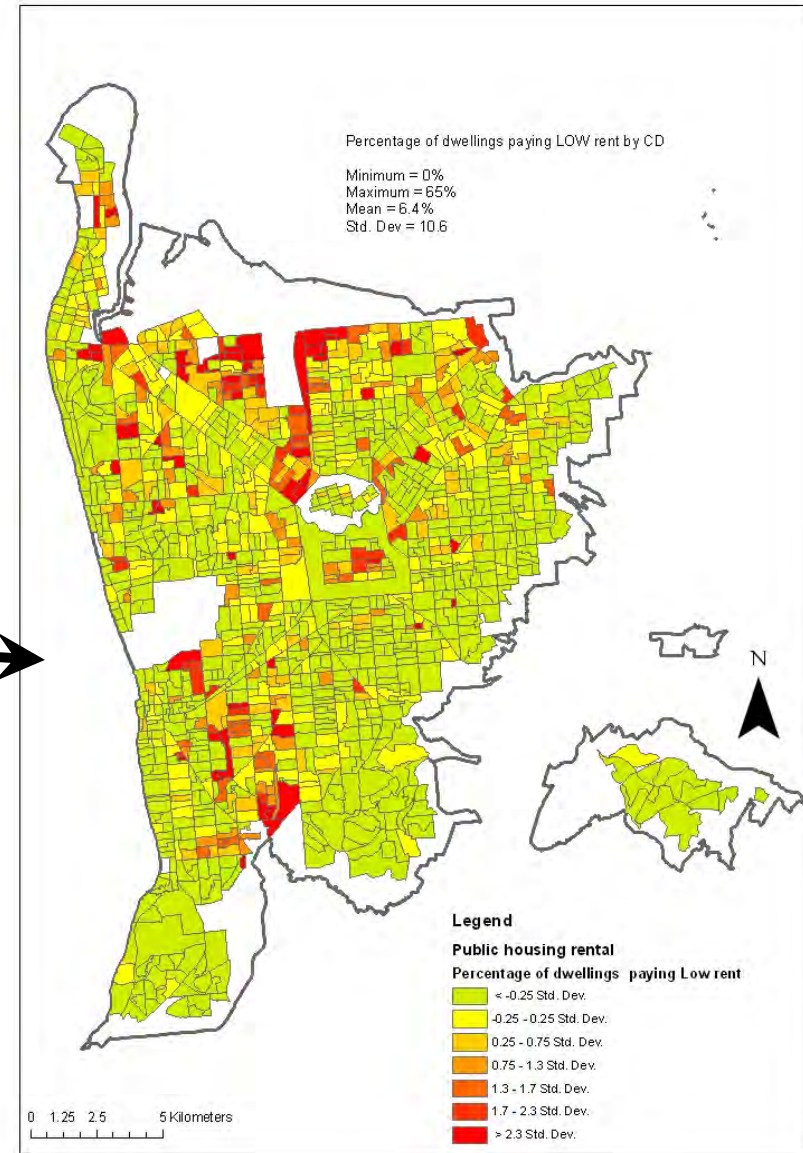
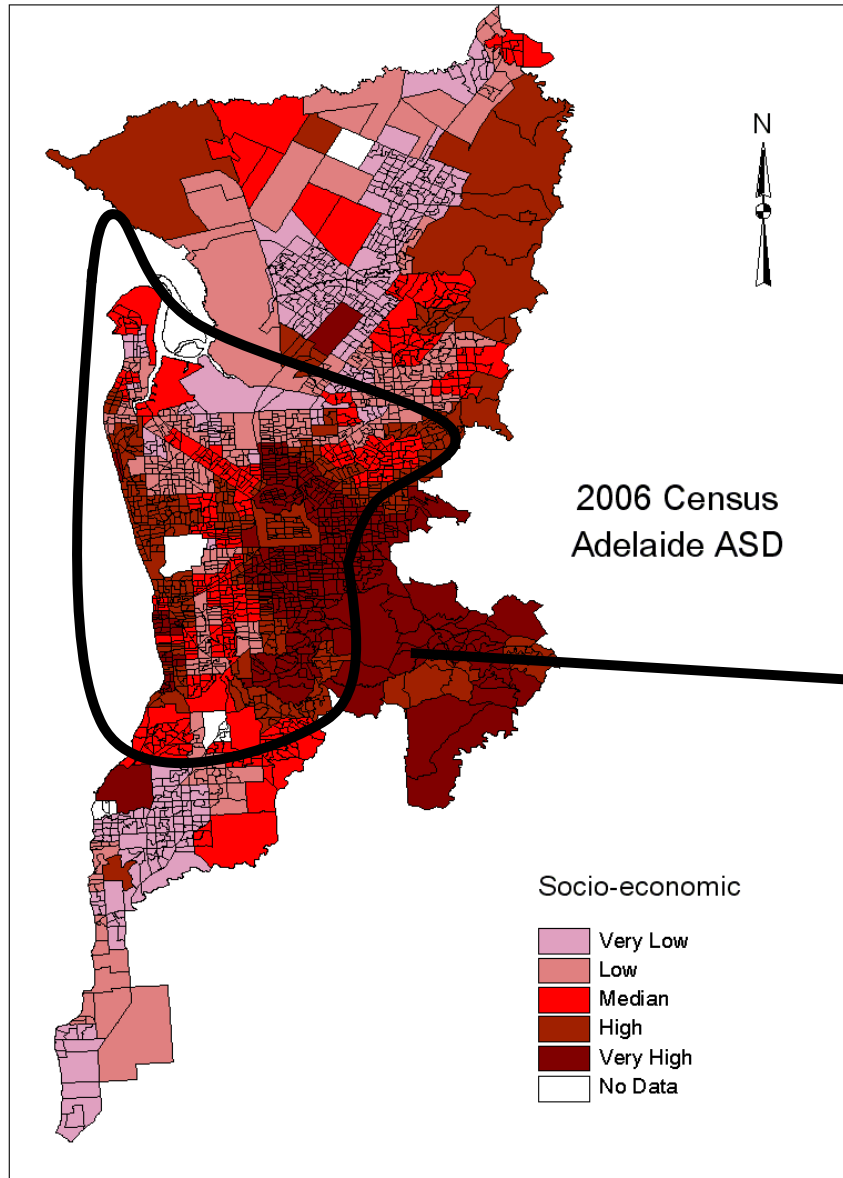


Figure 6 Socio economic status Adelaide Metro

Figure 7 Low rental study area

## Data

Three secondary data sources were used and are acknowledged in this paper. They include a property valuation data base, the Australian census of population and housing and an accessibility index with respect to services such as public transport, shops and medical services.

The first secondary data source is an integrated data set which contains the 2008 Valuation List from the Office of the Valuer General, Land Services Group (LSG), Department of Transport Energy and Infrastructure, South Australian Government which is contained within the spatial reference of the Valuation Cadastre. This cadastre displays the spatial property boundaries as determined by the Valuer General of South Australia for property taxation purposes. The data items used from this source were the Capital Value, Site Value, and the Land Use Code which are recorded against each property assessment made for these taxation purposes. In addition the area of the property was taken from the Valuation Cadastre polygons. In particular the ratio of the Capital value (CV) to the Site Value (SV) was used as a surrogate indicator of the development potential of various properties. Because the SV and CV are market based opinions of value the difference between the two is taken as indicating a guide as to the added value of any structures to the site. A ratio of less than or equal to 1.2 was arbitrarily chosen as representing development potential.

Secondly, the 2006 five yearly population census as carried out by the Australian Bureau of Statistics (ABS) was used to determine a threshold level of 15 percent of public rented housing stock by Census Collection District. Again this was somewhat arbitrary level though broadly in line with thresholds suggested by Galster (2002; 2007). It was taken from the ABS B32 Tenure Type and Landlord Type by Dwelling Structure table. It was calculated as the sum of Rented: State or territory housing authority and the Rented: Housing co-operative/community/church group as a percentage of the Total dwelling stock.

Thirdly, the accessibility index used in this paper was determined as being the road distance from each property to a variety of basic services. These services are categorised into the broad themes of 'health', 'shopping', 'education', 'public transport', and 'financial and postal' and include distances to hospitals, General Practitioner clinics, shopping centres, CBD, primary and secondary schools, universities, public transport stops, banks and postal services. These themes may be then weighted and used to give an overall relative distance score for each property. The index was created by The University of Adelaide and as the weights used were determined through a survey of public housing tenants it is an ideal indicator for this study (GISCA 2002, *An index of metropolitan accessibility for Adelaide*, South Australia, The University of Adelaide).

## Mapping

All these data bases were integrated and managed within a GIS environment (ESRI ArcMap 9.3). The initial step was to establish an ArcMap shape file containing all the 260,000 properties from the Valuer General.

Method for CRITERIA 1(vacant land approach):

- 1.1 Selected vacant land records by the Valuer General's 4 digit land use code. A strength of this methodology is the ability to specify land uses that are to be excluded from the study. In this case, although classified as 'vacant' those vacant land uses describing 'heritage areas', 'wooded or water' areas, and 'reserves' were excluded.
- 1.2 Selected records where site value was less than \$150,000
- 1.3 Selected records that were greater than 200 and less than 750 sq. m. in area.
- 1.4 Converted this polygon shape file into a point file (centroids of the polygons)
- 1.5 Created a shape file of all CD polygons within the study area containing the percentage of public rental housing attribute obtained from the census data calculated as described above.
- 1.6 Selected those CD polygons that had less than 15% of public rental housing
- 1.7 Selected those records derived in step 1.4 above that were contained in those polygons derived in step 1.6 above.



This resulted in 422 potential vacant sites that were displayed as the red 'dots' in Figure 8.

Method for CRITERIA 2 (improved property approach):

2.1 Selected those records where capital value was less than or equal to \$150,000 and the capital to site value ratio was less than or equal to 1.20.

2.2 Excluded various land uses that were deemed undesirable for this study.

Land used for production of chemicals & other toxic products (could have been an existing use now in a residential area)

Same vacant land codes as excluded in Criteria 1.

Solid waste disposal sites

Railway lines

2.3 Selected records that were greater than 200 and less than 750 sq. M

This resulted in 530 potential properties that are represented as yellow 'dots' in Figure 9.

A third map (Figure 10) combines the results of these two approaches with the yellow 'dots' being deliberately exaggerated to show those potential sites that have been identified by both approaches (red on yellow).

## Results

The maps show definite spatial clusters of potential sites that are common across both CRITERIA 1 and CRITERIA 2 and these have been identified on Figures 8, 9 and 10. These sites lie a top an accessibility surface which identify the location advantages of these sites in terms of the criteria set out by the state government. They are also contained within suburbs where accepted levels of social housing and low rental housing will not be exceeded. These include suburbs which lie within the CBD as well as areas within both an inner and a middle ring in terms of distance from the city. The maps provide a comprehensive way of illustrating the accessibility and pricing advantage of these sites to local councils, would be housing providers and to prospective tenants. They also demonstrate the ease with which such tools can be produced when data bases are made accessible and are constructed to allow for ease of integration. As such this integration is likely to facilitate housing policy in that it is a proactive and timely way of identifying potential development sites and as such is an efficient means of ensuring the success of the stimulus package in growing the community housing sector in a cost effective and socially appropriate manner.

## Conclusion

In terms of these preliminary results the normal caveats apply as to the accuracy and application of the data. The maps are to be taken as indicative only with the main objective being to demonstrate how property, valuation, population and social data bases can be used to facilitate housing policy and as such be effective in improving housing outcomes. This paper is attempting to illustrate the advantages of coordinating property, valuation and social data bases within an integrated land management system. These results should only be considered as broad indicators. Further research should continue to use this methodology and the overall results to identify the local council areas in which the clusters off potential sites exist. This would allow local council data to be used to enhance the accuracy of the results as well as ground truthing the existence of potential development sites. This methodology could also make a significant contribution to the land capability studies identified by the SA Government in 2008 as a major instrument in their objective to have some 70 percent of all new housing developments up to 2038 occurring within the existing Adelaide metropolitan boundary.

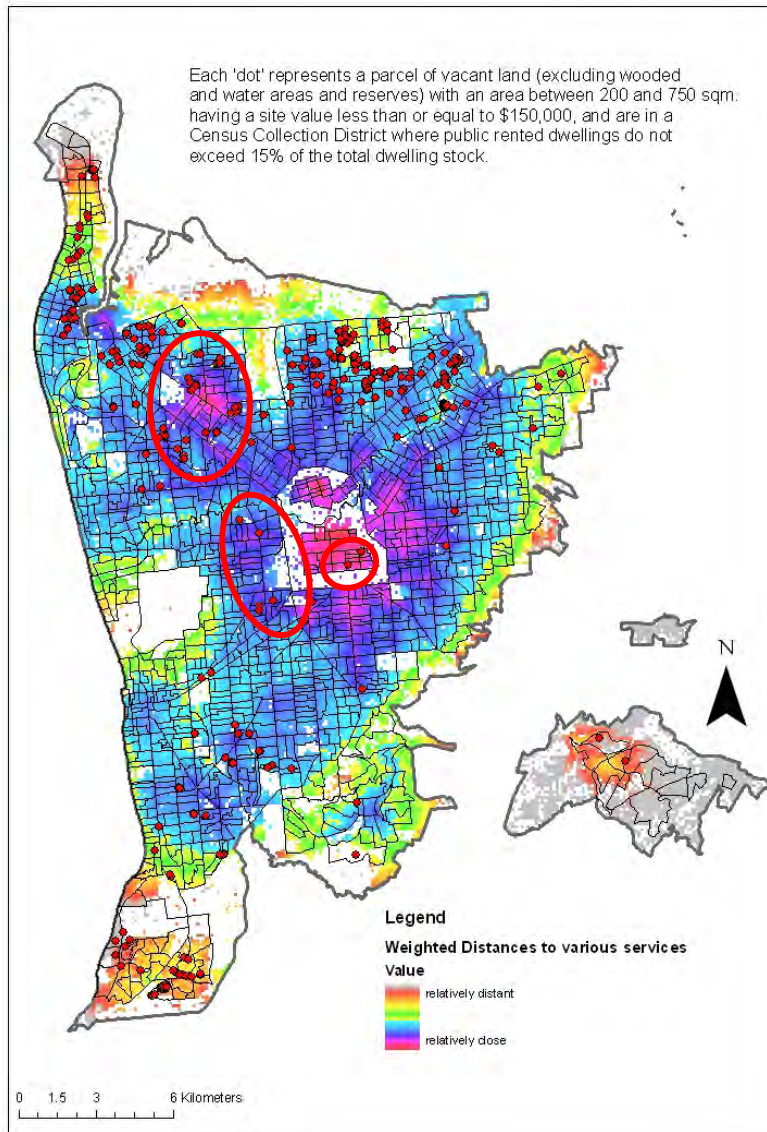


Figure 8 Potential sites for community housing development - vacant sites

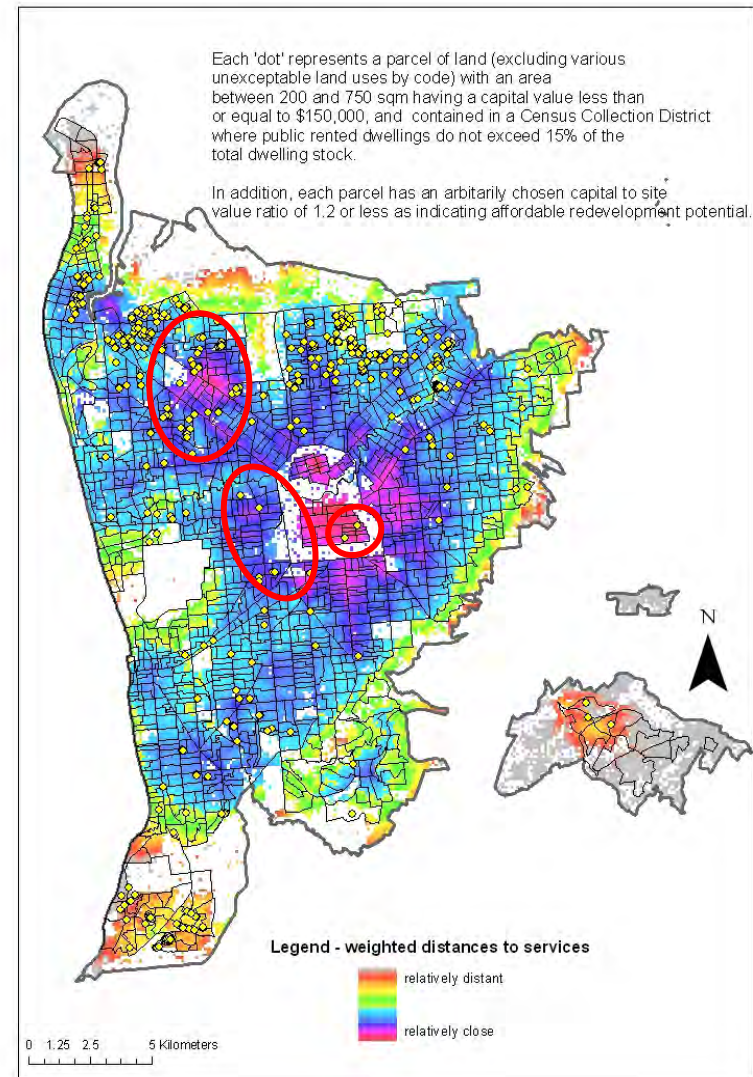
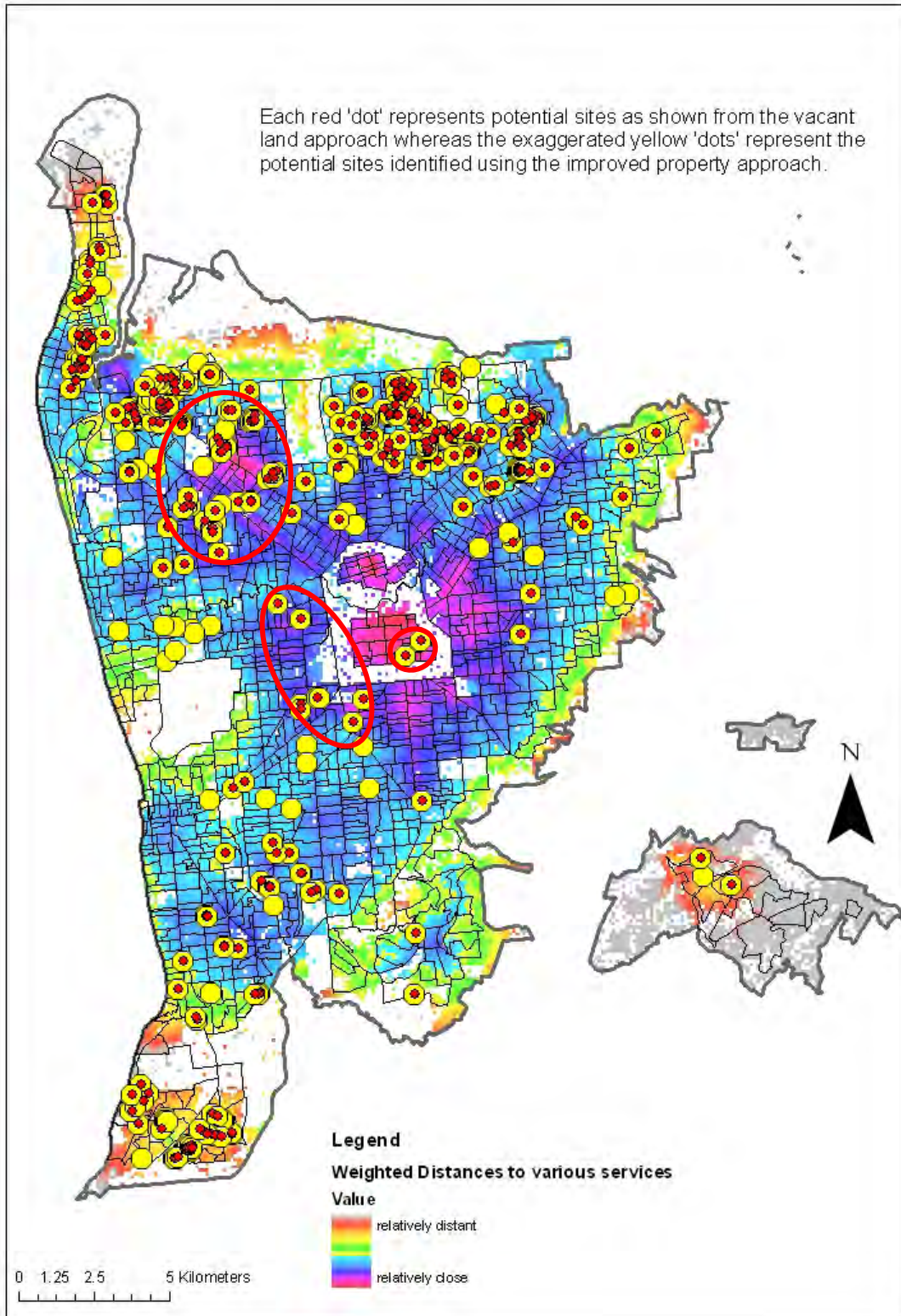


Figure 9 Potential sites for community housing development - improved sites



**Figure 10 Potential sites for community housing development**

## References)

- Atkinson, R. (2008) *Housing Policies, Social Mix and Community Outcomes* AHURI Final Report No 122 Melbourne
- Atkinson, R. & Kintrea, K. (2002) Area Effects: What do they mean for British Housing and Regeneration Policy? *European Journal of Housing Policy*, 2, pp.147-166.
- Dalton, T. (2000) Housing Markets and Policy Agendas, *Which Way Housing Policy?* . Royal Melbourne Institute of Technology: School of Social Science, RMIT
- Galster, G. (2002) An economic efficiency analysis of deconcentrating poverty populations, *Journal of Housing Economics*, 11, pp. 303-329.
- Galster, G. (2007) Should policy makers strive for neighbourhood social mix? An analysis of the Western European evidence base, *Housing Studies*, 22, pp. 523-545.
- National Housing Supply Council (2009) State of Supply Report AGPS Canberra
- National Shelter (2000) The Links between Housing, Employment and Income Support: Implications for Housing Policy *Shelter SA Seminar*. Adelaide: Shelter SA
- Wulff, M., Yates, J., & Burke, T. (2001) *Low Cost Renting in Australia 1986 to 1996: How Has it Changed, Who Does it Work For and Who Does It Fail?* Australian Housing Research Fund Project No 213. Canberra: Department of Family and Community Services
- Yates, J. (1997) Changing Directions in Australian Housing Policies: The End of Muddling Through? *Housing Studies*, 12, pp. 265-278.
- Yates, J. (1999) Decomposing Australian Home Ownership Trends 1975-1994, *Australian Housing Choices: Stability or Change?* Canberra: Department of Family & Community Services