

Housing affordability for key workers employed in the City of Melbourne

Gareth Williams¹ and Bethanie Finney²
¹SGS Economics & Planning

Abstract:

The paper discusses the extent of a key worker housing affordability issue for key workers in the City of Melbourne. The issue is addressed as a result of concerns raised over the cost of accommodation within the local or within a reasonable distance. The paper aims to determine whether the key worker housing affordability issue is a valid concern for key worker employers in the City of Melbourne.

A definition of key workers used by the BankWest Key Worker Housing Affordability report (2011), comprising emergency services, teachers, and nurses was adopted, with the retail and hospitality services sector included.

The paper looks at the effective cost of accommodation using a calculation of travel time and rental costs to determine the outer limit of housing stock reasonably available. The analysis assumes workers travelling in excess of a median travel time will regard additional time as an identifiable expense to add to direct housing costs.

The housing affordable to each of the key worker categories within a reasonable commuting time was estimated. Dwellings of different types were compared - including one bedroom, two bedroom and all dwelling types.

The research found that there was little evidence of an immediate housing affordability issue with the not unexpected result of higher income groups having fewer affordability issues than lower income groups. The proportion of housing available to key workers varies according to key worker group. Nurses have the greatest number of dwellings affordable to them, while retail and hospitality workers have the lowest number of dwellings affordable, with 18 per cent of all dwellings in the catchment. However, nearly 40 per cent of one bedroom dwellings were affordable to this sector's employees.

Housing affordability and the housing requirements of key workers

Concern over the affordability of housing is not new, and the affordability of housing in Australian cities is a frequently cited concern. Australia, together with New Zealand and the United Kingdom was noted in 2011 as "continuing to experience pervasive unaffordability"¹ (Cox and Pavletich, 2011, pp. 34). While Sydney was ranked as the third least affordable market in the world in the Demographia survey, Melbourne was also counted as severely unaffordable. The price of property has been rising at a faster rate than incomes. Yates (2008) notes that between 1960 and 2006 real house prices increased at an average of 2.7 per cent per annum, ahead of a 1.9 per cent per annum growth in per household real incomes. A structural shift in the affordability problem has been identified as taking place 30 to 40 years ago - when focus switched from providing shelter security to providing wealth security"². The problem of affordability arises when the function of housing as providing income security for the wealthy occurs at the expense of providing accommodation security for those unable to invest in housing as an asset.

The topic of housing affordability can be viewed from the perspective of a purchaser or the perspective of a renter. Discussions on housing affordability, or the lack of affordable housing tend to focus on the growth in house prices, and house price to household income ratios. Yates J (2008) believe this is misplaced given that purchasers tend to have high incomes, and renters in the private rental sector are far more likely to experience housing stress. With this in mind, it is perhaps more appropriate to address housing affordability issues from a private rental perspective than from an owner occupier/ purchaser perspective.

¹ Cox W and Pavletich H, 8th International Demographia Housing Affordability Survey" 2011,

² Yates J, Housing affordability: a 21st century problem NRV3 Final Report, Australian Housing and Urban Research Institute, National Housing Conference 2008,

Discussion on the provision of affordable housing frequently refers to the issue of 'key worker housing'. Key workers play an important role in providing community services, and therefore livability, to the local region. Therefore it is important to consider their housing needs, particularly in terms of affordability. Affordable housing for key workers needs to be provided in close proximity to major centres and major community services. It also helps to attract and retain key workers in the area by making access to work more convenient, particularly during shift work. Housing located in close proximity to key services can also provide a high level of retail and personal services that can further encourage key workers to reside in the area. In addition to this, an appropriate level of amenity needs to be provided, particularly for shift workers.

There is a concern – when housing and accommodation costs are seen to be growing at a faster rate than are the incomes of key workers – that industries dependent on key worker employees will be unable to meet their labour requirements. The wages provided in the industry of employment may not be high enough for employees in that industry to afford housing within a reasonable distance of their place of employment. Put another way, the higher travel costs incurred by employees - who live in a location where their income allows them to meet the cost of housing - would not be compensated by the wages received. Travel costs may be actual financial costs or they may be costs in terms of time taken to commute. Government policy overseas has previously focused on the provision of affordable housing. The 2003 Sustainable Communities (ODPM, 2003) recognised there were concerns over the sustainability of employment serving essential public services due to the pressure on housing markets, particularly in the South East of England. Bramley (2005) also recognised that issues of housing affordability impacted on the government's ability to deliver key essential public services via the creation of key worker shortages.

Without a supply of labour that can afford to either live in the area or live within a distance from which they can commute without incurring excessive financial or time costs, the industry will face additional costs in remunerating employees (to the extent that they can afford to incur additional costs). Or, as is the case in a number of public sector industries where salary arrangements are determined at a state level, an institution operating in that sector may face staff shortages and a resulting reduced capacity to provide services to the local population.

A further qualification is that the employees in the key worker sector are not usually so poorly remunerated that they are entitled to low income housing assistance. In summary, the concern is that key workers cannot afford to live in or near their place of employment; they face additional costs to commute to their place of work and, as such, are likely to seek either employment in a different location closer to where they can afford to live or seek employment in a different sector. Both of these have the same consequence for the key worker sector in that location.

An added complication in quantifying the key worker housing requirement in Melbourne are the 'non-standard' hours (i.e. non 9-5 shifts) that may be worked by key workers in the municipality. While 'non-standard hours' worked are likely to vary according to the category of key workers – nurses are more likely to work non-standard hours than teachers for example - the 'non-standard' hours are likely to be a key feature of many key worker occupations as they are defined in the section that follows. 'Non-standard' hours may make public transport as a mode of commuter travel less practicable, while private motor vehicle usage is likely to increase the potential area from which the City of Melbourne's key workers may be drawn owing to the reduced travel times of private motor vehicle commuters travelling equivalent distances.

Therefore, typically key workers are faced with a number of options: they can rent in the private sector, they can share accommodation, or face long commutes to work.

Key worker definitions

This issue is still further complicated by the lack of a universally accepted definition of what constitutes a 'key worker'. Definitions range from the very broad to the very specific as is shown in the examples here.

A Queensland Department of Housing report cited by AHURI (Yates J, Randolph B, Holloway D, and Murray D. 2005) provides the following text to describe key workers: "The term broadly implies occupations necessary to the efficient functioning of a community particularly service industries"³.

The case study of the City of Perth (below) also takes a broad approach to defining key workers. In this instance, the criteria are that incomes are within specified limits, and the place of employment is within a defined geographic location i.e. the City of Perth.

In a housing development at Riverbank, Caboolture (Qld), key worker housing discounts are offered to owner developers to purchase lots within a master planned development. The definition of key workers in this context is, again, rather broad; encompassing "...anyone working in essential services that help support our economic growth and quality of life (that includes employees in health, education, social and emergency services, as well as other occupations that deliver key services to the public)..."⁴ Developers in Victoria offer similar key worker discounts: in 2010 the Point Cook Alamanda development offered discounts to purchasers who worked within an 8km radius of the development.

In the UK, key worker housing schemes are available to the following groups of workers⁵:

- NHS staff (excluding doctors, dentists and administrative staff)
- Teachers with Qualified Teacher Status or Further Education Teachers' Qualifications
- Police officers and some civilian staff in certain police forces
- Prison service and probation service staff;
- Ministry of Defence staff
- Local Authority workers such as social workers, educational psychologists, planners (in London), occupational therapists, and others
- Members of the fire and rescue service.

A more specific (restrictive?) definition is provided in the 2011 Bankwest Key Worker Housing Affordability report. This report looks at the affordability of housing across Australia at local Government area level. Key workers in the Bankwest report are defined as: nurses, police officers, ambulance workers, fire fighters and teachers. Across Australia these occupations account for 480,000 people⁶. The Bankwest report appears particularly restrictive in its classification; other work on the links between labour and housing markets has suggested that retail and hospitality workers be included in the key worker classification. This discussion paper does not purport to provide a comprehensive discussion of the key worker question and, therefore, the definition adopted by Bankwest with the addition of retail and hospitality workers is adopted for the purpose of analysis. Key workers are as follows:

- Emergency services (police, fire fighters, ambulance workers)
- Teachers
- Nurses
- Retail and hospitality workers

Solutions to key worker housing affordability

There are a number of ways in which the lot of the key worker – and consequently the lot of the sector in which the key worker operates – could be improved. These are:

- Reduced cost of housing
- Reduced cost of transportation / commuting
- Increased incomes in key worker sectors / capital city salary loading.

Reducing the cost of housing is the traditional approach to maintaining residential affordability for key workers. Key worker housing schemes have been implemented in Australia - see the example below from the City of Perth - and internationally. Shared equity schemes, where a purchaser buys part of a property and pays rent on the remainder, gradually increasing their ownership stake, intermediate renting (or

³ Yates J, Randolph B, Holloway D, and Murray D. (2005) *Housing Affordability, occupation and location in Australian cities and regions*. AHURI Positioning Paper No 84, AHURI

⁴ <http://www.riverbankliving.com.au/Riverbank/Riverbank%20HAF.aspx>

⁵ First Steps Options – Key Worker Housing Eligibility Criteria, <http://www.firststepslondon.org/eligibility.asp>

⁶ Bankwest '3rd Key Worker Housing Affordability Report' Bankwest Financial Indicator Series, March 2011

affordable rental where rents charged are 80 per cent of market rents) are frequently adopted means of reducing accommodation costs for key workers.

Affordable housing in the City of Perth

The City of Perth has initiated a Key City Worker Development. This is expected to provide people on low to moderate incomes who work in the city with affordable rental accommodation near the heart of the city. The project consists of 48 apartments in a three storey “walk up” development. Twenty-six of the apartments are two-bedroom units; while the rest are one-bedroom units.

Construction commenced in October 2011 and is expected to be completed by April 2013. The construction site is 2 kilometres from the CBD.

The vision of the City of Perth is to be a vibrant cosmopolitan community with a diverse residential population. In line with this objective the City of Perth is striving to have housing affordable and available to a range of people with varying income levels, recognising housing costs in the City have grown faster than incomes in industries important to the ‘liveability of the City – such as hospitality, retailing, cleaning and community services. There are claims made by the City of Perth as to the savings made in carbon emissions through the reduced requirement of workers to buy motor vehicles to commute. Skills shortages encountered by city based employers will also be addressed by increasing the attractiveness (or reducing the disincentives /costs) of inner city living.

Eligibility requirements for tenancy in the development are based around income, cash asset limits and existing property ownership limits. Tenancy is also restricted to those who work within the City of Perth. Income limits on tenants are equivalent to those defined in by the Commonwealth Government National Rental Affordability Scheme (NRAS). Duration of tenancy is to be restricted to three years and tenancies will be ended at any point in the three year period should upper income limits be exceeded.

The following section provides an analysis of the extent of the key worker issue in the City of Melbourne.

Quantifying the key worker housing issue in the City of Melbourne

Using a variety of data sources and evidence based assumptions a method has been developed to quantify the extent of the key worker housing issue in the City of Melbourne. This method and the findings are outlined below.

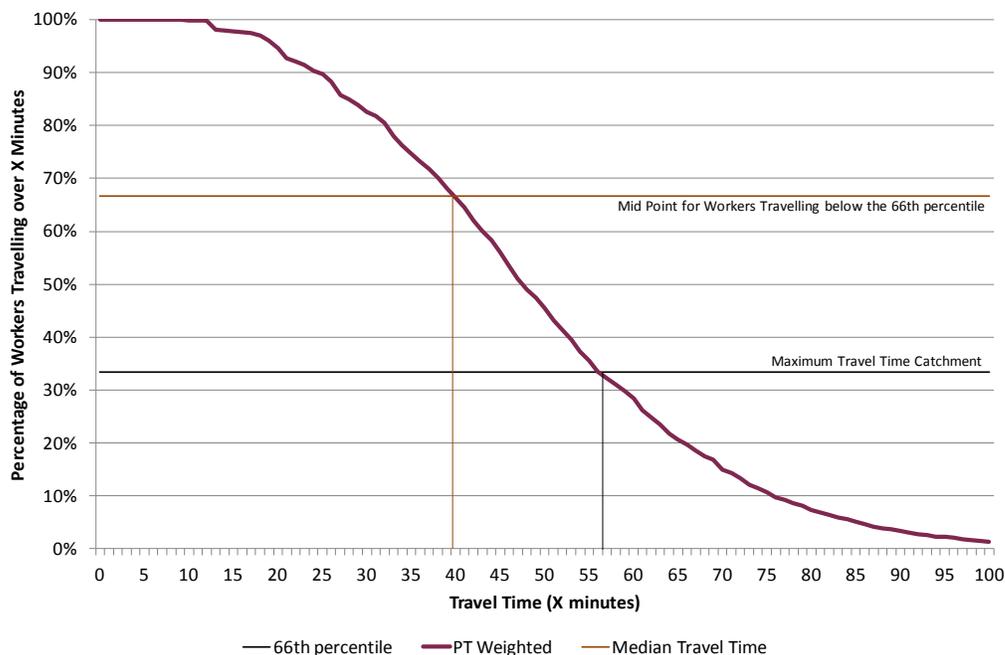
Figure 1 shows the proportion of people who travel at varying times in the AM peak using public transport across metropolitan Melbourne. For example, 95 per cent of workers travel in excess of 20 minutes to get from their residential location to their place of work; 50 per cent of workers travel less than 48 minutes; and very few (approximately 7 per cent) travel more than 80 minutes. This travel time represents the full journey from door to door for a person travelling by public transport. That is, it includes walk times to and from public transport stops. The travel time incurred by a person resident at the centroid of each suburb is taken to represent the travel times incurred by all residents of the suburbs in question.

For the purpose of the analysis in this report, it has been assumed that the maximum time travelled by two thirds (66th percentile) of the metropolitan population represents a ‘reasonable’ catchment for key workers. That is, a key worker who is expected to travel more than 56 minutes via public transport to their place of work could be considered to be carrying an undue burden in terms of the cost and time of their journey. It is assumed that they would avoid making such a journey unless fairly extreme circumstances apply. By this logic, the outer limit of the housing stock reasonably available to key workers is given by the 56 minute travel contour.

The mid-point travel time for those workers travelling less than the 66th percentile of the population is 38 minutes. The analysis set out below assumes that key workers travelling in excess of this median time up to the ‘outer limit’ of 56 minutes will regard this additional time and cost as an identifiable and compensatable expense. This cost may be in terms of extra time spent travelling or may be the out of

pocket costs involved. In other words, a key worker travelling more than 38 minutes might see the cost of this additional travel (in time and out of pocket expenses) as a direct loading on their rent.

Figure 1. Travel time demand curve



Source: SGS Economics & Planning, 2013

Using these two assumptions an effective cost of housing (ECH) has been estimated for four key worker groups. This ECH equates to the cash rental plus the cost of additional time spent travelling to work above the median time plus the out of pocket cost of this additional time, if any. The median rent per week by suburb taken from the 2011 ABS Census has been used as the cash rental amount. For Melbourne CBD this was \$415 per week, compared to \$243 per week in Dandenong (in 2011 dollars).

The cost of the additional time spent travelling to work above the median time has been estimated using the key worker's average wage. The out of pocket cost has been assumed to be negligible in this analysis given the flat rate fee structure of public transport within Zone 1 in Melbourne.

The key worker groups used in this analysis align with the definition provided above, and include an emergency worker, a barista or bar manager, a registered nurse and a school teacher. The average hourly and weekly incomes for these occupations have been sourced from the ABS publication Employee Earnings and Hours, which provides an estimate for all of Victoria. The 30 per cent (of gross earnings) rule has been applied to determine the income that is available to each key worker to spend on housing. These estimates are presented in

Table 1, showing the Nurse category earns the highest wage of the four, and the Barista the lowest. Variations in the hours worked and overtime mean that key worker occupations with comparable hourly earnings have different gross weekly incomes.

Table 1. Key worker gross income (2011 dollars)

	Emergency Worker	Barista	Nurse	Teacher
Hourly Income	\$38	\$22	\$38	\$36
Total gross weekly income	\$1,438	\$849	\$1,511	\$1,355
30% to spend on housing	\$431	\$255	\$453	\$406
Remaining income	\$1,006	\$595	\$1,058	\$948

Source: ABS Employee Earnings and Hours cat. no. 6306.0, May 2010

To determine whether there is a key worker housing issue in the City of Melbourne the amount of housing which is affordable to each of the four categories of key workers has been estimated using their ECH instead of the pure rental amount. Data from the 2011 ABS Census on the number of dwellings in each rental bracket for different housing types has been used. Table 2 presents the results of this analysis.

Using the 56 minute travel time to the City of Melbourne as the maximum travel time catchment, in 2011 there were 186,050 dwellings across all types (bedroom numbers) within this area. Of these dwellings there were only 35,000 one bedroom dwellings and 144,920 with two or more bedrooms. The maps presented in Figure 2 through to Figure 6 show the spatial distribution of these dwellings across metropolitan Melbourne at the suburb level (defined as the ABS geography Statistical Area 2). This highlights the dominance of one bedroom dwellings in the City of Melbourne and inner region, compared to the concentration of larger dwellings in more outer areas.

Table 2. Key worker housing analysis

	All Dwellings	1 Bedroom Dwellings	2+ Bedroom Dwellings	Workers employed in the City of Melbourne
Total Dwellings within Catchment	186,050	35,000	144,920	
Emergency Worker	133,060	32,450	95,970	420
Share of total	72%	93%	66%	23%
Barista	33,290	13,490	16,800	2,390
Share of total	18%	39%	12%	29%
Nurse	145,370	33,550	107,130	6,130
Share of total	78%	96%	74%	17%
Teacher	122,760	31,680	86,490	300
Share of total	66%	91%	60%	1%

Source: SGS Economics & Planning, 2013

Looking first at the emergency workers in Table 2, given their estimated ECH there were approximately 133,060 dwellings affordable to them within the maximum travel time catchment. This represented 72 per cent of all dwellings in the catchment. A greater share of one bedroom dwellings were affordable to them (93 per cent) given they are comparatively lower in rent and more are located in the catchment area. Some 66 per cent of two or more bedroom dwellings were affordable to this key worker category. The maps shown in **Error! Reference source not found.**, 8 and 9 illustrate the distribution of the dwellings affordable to emergency workers; they show the share of dwellings in each suburb that are affordable to these workers.

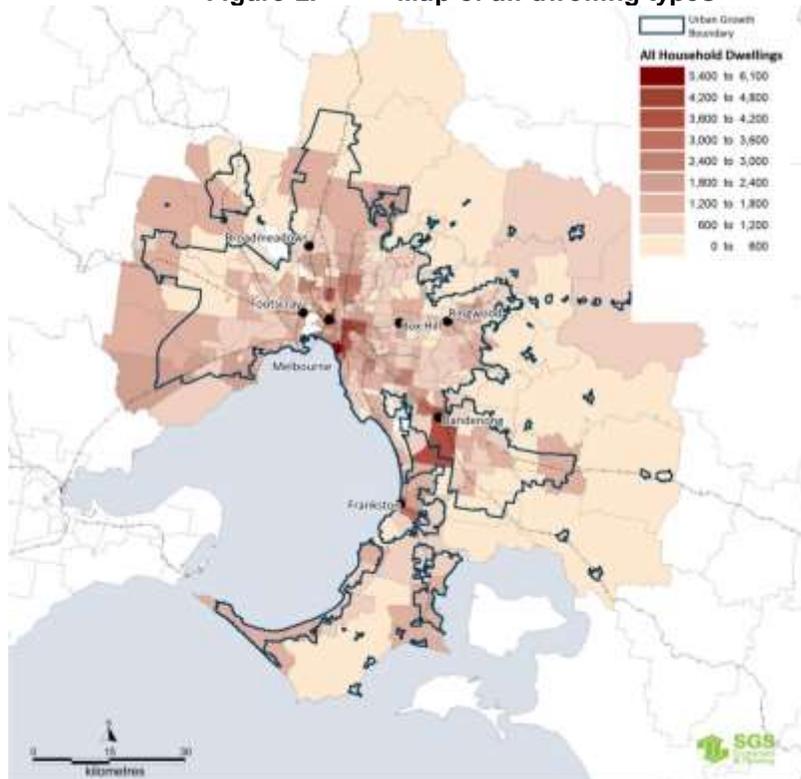
Baristas and bar managers who have a significantly lower average income consequently have a smaller amount of dwellings affordable to them that are within the maximum travel time catchment. For all household types this was only 33,290 dwellings, which represented 18 per cent of all dwellings in the catchment (see Table 2). However, a comparatively larger share of one bedroom dwellings was affordable to them (39 per cent) in inner city locations. The maps shown in Figure 10, **Error! Reference source not found.** and Figure 12 illustrate the distribution of the dwellings affordable to baristas and bar managers.

Registered nurses, who have the largest income of the four key worker categories, have the largest amount of dwellings affordable to them that are within the maximum travel time catchment. For all household types this equated to 145,370 dwellings, which represented 78 per cent of all dwellings in the catchment. Of the two or more bedroom dwellings, 74 per cent of those within the catchment were affordable to nurses. The maps shown in **Error! Reference source not found.**, Figure 14 and **Error! Reference source not found.** illustrate the distribution of the dwellings affordable to nurses.

Finally teachers are able to afford 66 per cent (122,760 dwellings) of total dwellings that are within the maximum travel time catchment. For one bedroom household types this equated to 31,680 dwellings, which represented 91 per cent of all dwellings in the catchment. Of the two or more bedroom dwellings, over half of those within the catchment were affordable to teachers. The maps shown in Figure 16, **Error! Reference source not found.** and Figure 18 illustrate the distribution of the dwellings affordable to teachers.

Also shown in Table 2 is the number of workers employed in the City of Melbourne in each of the four key worker occupations in 2011. There were very approximately 420 emergency workers employed in the City of Melbourne, equivalent to 23 per cent of total emergency workers across metropolitan Melbourne. There were large numbers of baristas (29 per cent of metropolitan Melbourne total) and Nurses (17 per cent of metropolitan Melbourne total) and very few teachers (1 per cent of metropolitan Melbourne total). Given these estimates, and the amount of housing that is available and affordable to key workers within the travel time catchment it can be determined that there is currently no *immediate* key worker housing issue for the City of Melbourne.

Figure 2. Map of all dwelling types



Source: ABS 2011 Census and SGS Economics & Planning, 2013

Figure 3. Map of 1 bedroom dwellings

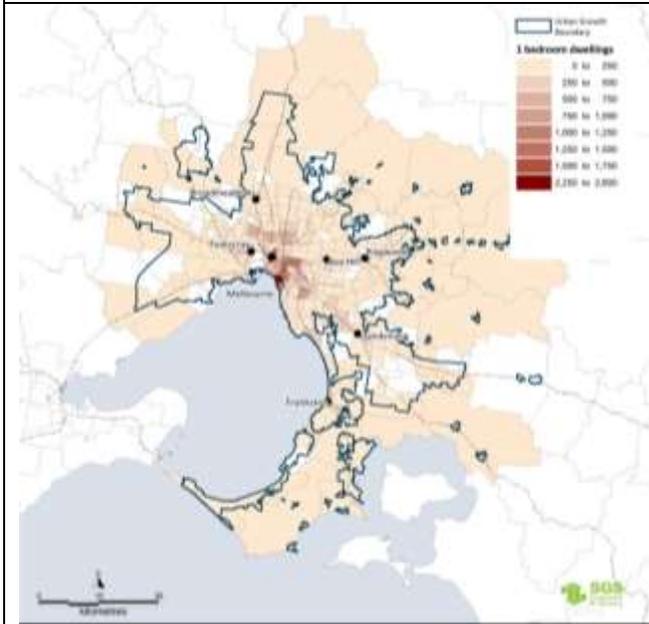


Figure 4. Zoomed map of 1 bedroom dwellings

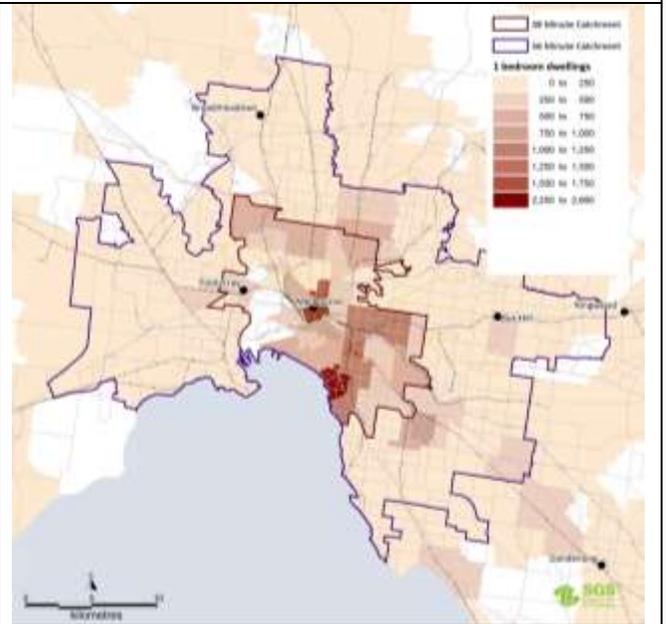


Figure 5. Map of 2+ bedroom dwellings

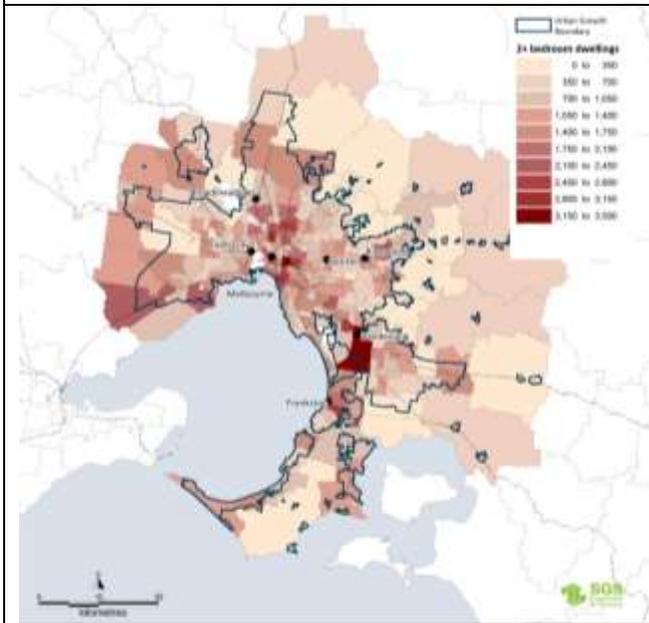


Figure 6. Zoomed map of 2+ bedroom dwellings

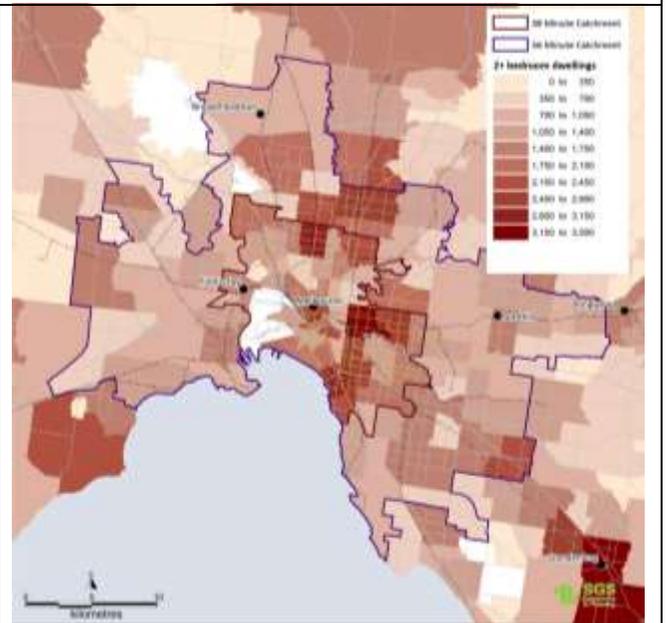


Figure 7. Affordability distribution for emergency workers

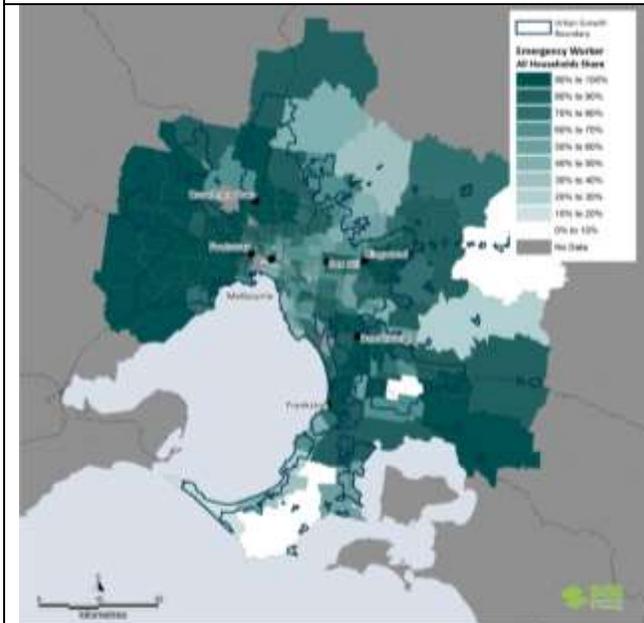


Figure 8. Affordability distribution for emergency workers, 1 bedroom

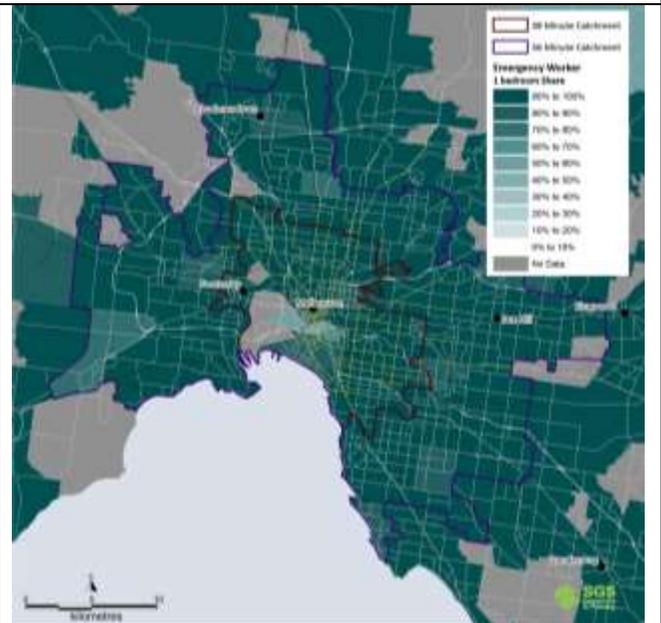


Figure 9. Affordability distribution for emergency workers, 2+ bedrooms

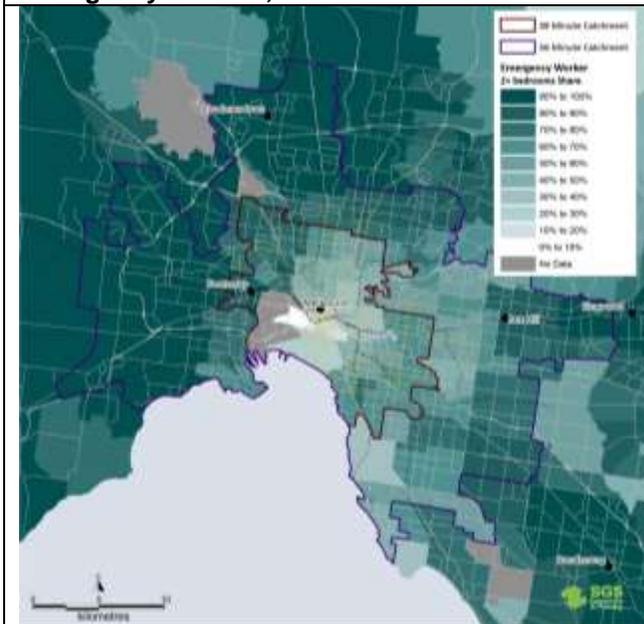


Figure 10. Affordability distribution for baristas

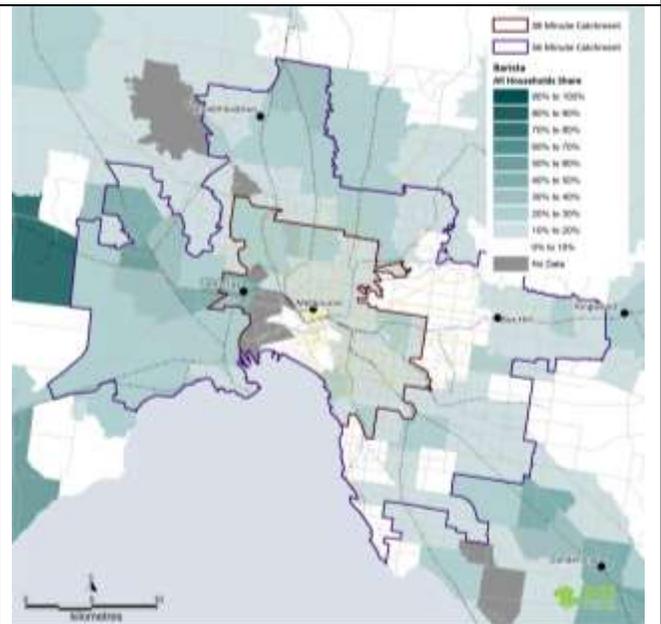


Figure 11. Affordability distribution for baristas, 1 bedroom

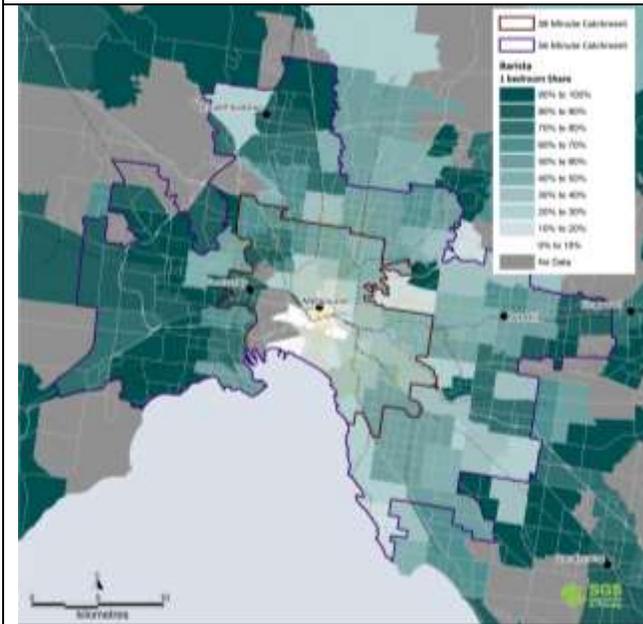


Figure 12. Affordability distribution for baristas, 2+ bedrooms

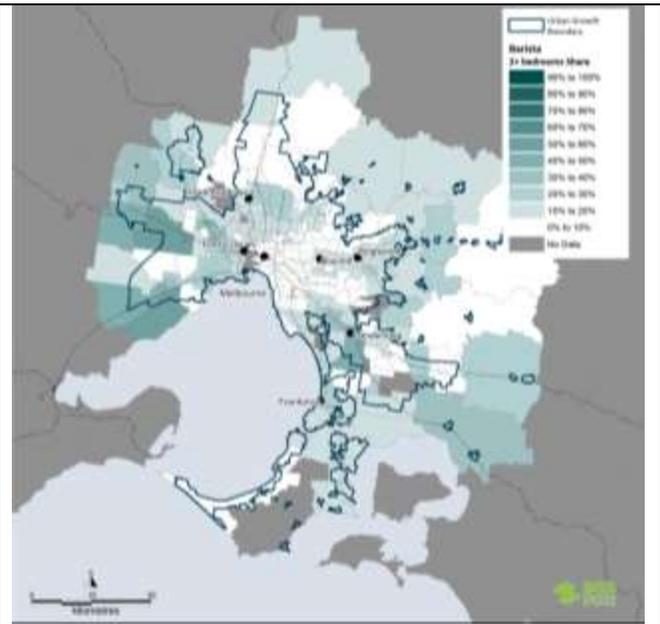


Figure 13. Affordability distribution for nurses

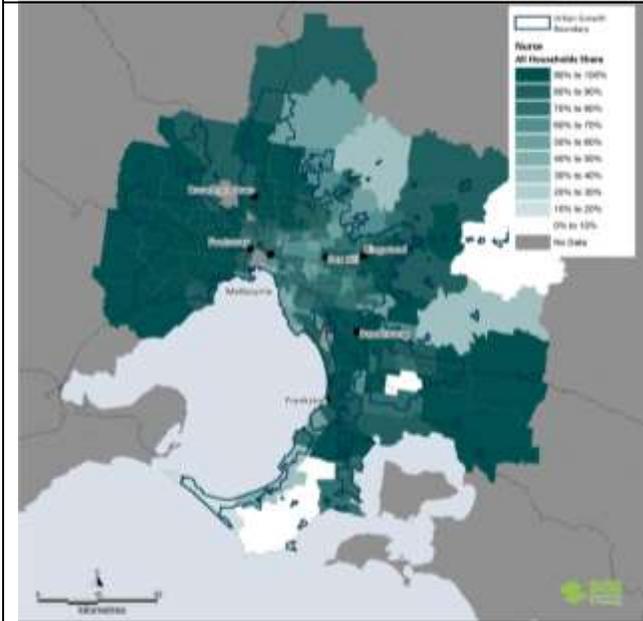
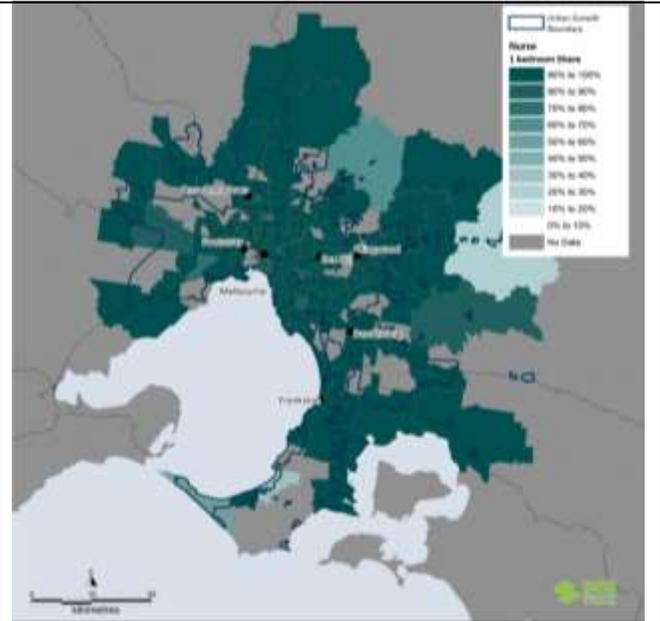
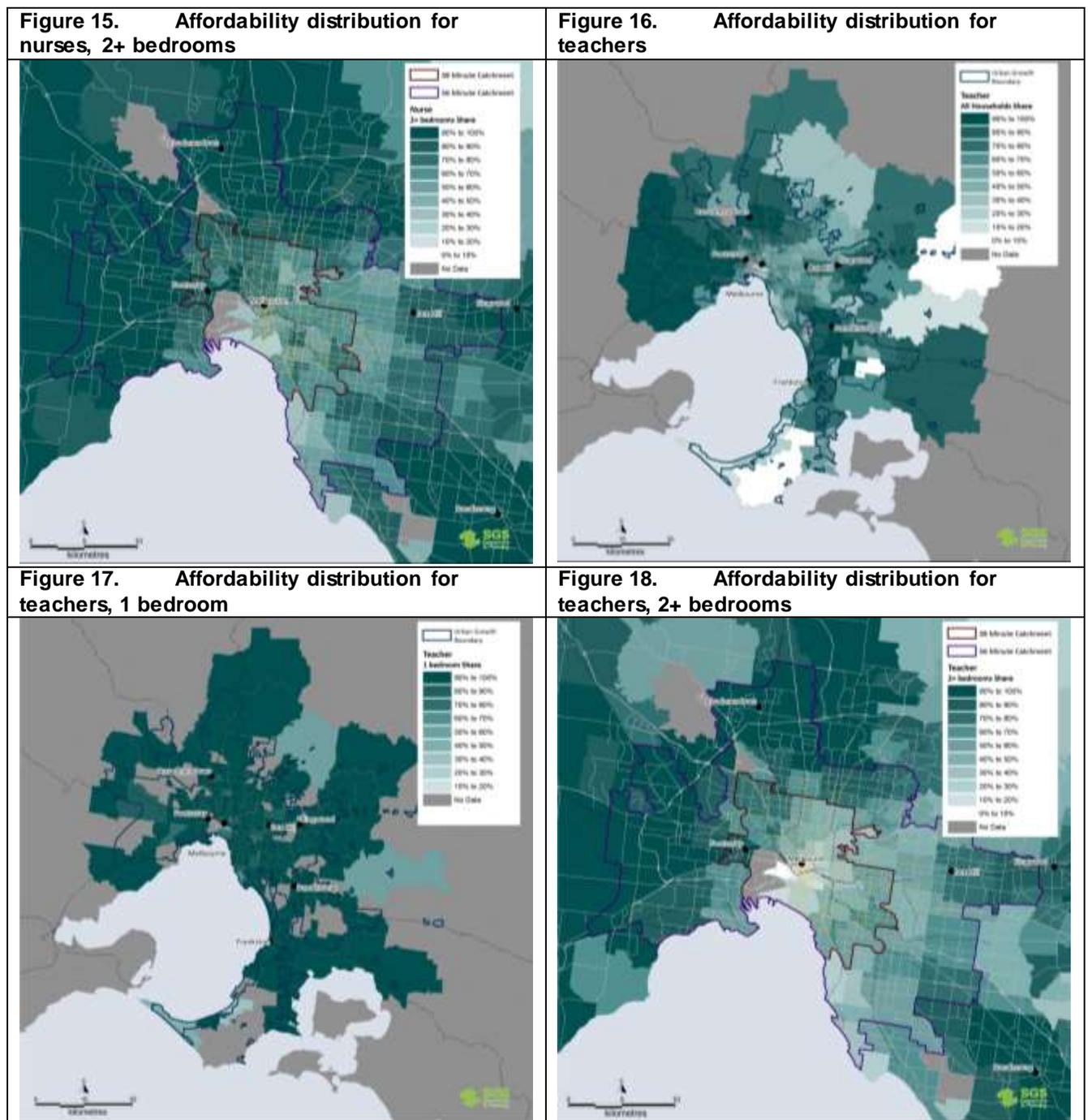


Figure 14. Affordability distribution for nurses, 1 bedroom





Source: ABS 2011 Census and SGS Economics & Planning, 2013

Summary:

The issue of affordable housing is important for the City of Melbourne. As well as attracting knowledge workers to the municipality, affordable housing is also required to accommodate 'key workers'. This paper provided a summary of key worker housing affordability issues and the approaches adopted in different locations to address the issue. The authors took the approach that workers would seek to find housing within an acceptable travel time from their place of work. Any commuting time in excess of the median of

the 'acceptable' Melbourne commute by public transport was deemed to be a cost to the key worker, and added to their accommodation cost. The analysis found little evidence of a *major* key worker housing affordability problem for workers in the City of Melbourne, at least at this time. While not all areas of metropolitan Melbourne are affordable to key workers, there were shown to be significant accommodation options and affordable housing opportunities within acceptable commuting distance of the City of Melbourne that could be afforded by key worker groups. These key worker groups included baristas, nurses, teachers and emergency workers. This varies according to the type of accommodation that is required. Unsurprisingly, accommodation with two bedrooms is less affordable to key workers than smaller dwellings. This has implications for the longer term employment retention of key workers. If key workers are unable to afford accommodation that is suitable for a family, they are likely to seek employment elsewhere – either in another location outside of the metropolitan area to a location where accommodation costs are lower, or in another industry sector where incomes are sufficiently high enough to enable them to afford the metropolitan housing cost of family housing. An alternative option for key workers on lower incomes is to postpone increasing family size or to avoid having a family altogether owing to the lack of suitable affordable housing available to them.

What is also clear from the analysis is that there are the beginnings of an emergence of a spatial divide in the distribution of housing affordable to employees in the key worker sector. A potential scenario identified by Burke and Zakharov (2005, pp.15) assessing future outcomes for Australian housing markets identified a worst case scenario whereby spatial polarisation processes evident from the 1990s are likely to become stronger with lower income and less wealthy households being forced to outer suburbs and "inner urban areas are enclaves of wealthy owner occupiers and young, relatively affluent renters". Also of concern to Burke and Zakharov is the quality of housing affordable to lower income groups, with poor quality detached housing in the private rented sector. The potential for outer urban areas, while providing affordable accommodation options, to become urban ghettos with intergenerational disadvantage, endemic social exclusion and high crime rates. A further possible consequence of the shifting of lower income workers to outer suburbs identified was the very long journeys to work faced, with long distance commuters being "forced to bear very high travel costs" leading to limits of commuters disposable income and shortages of lower income workers in key sectors in inner city areas as commuters are unable and unwilling to bear the financial and social cost of long distance commuting.

It is also clear, that those sectors that are most traditionally identified as key worker sectors – namely the emergency services and teaching professions – are less at risk of housing affordability issues than those working in hospitality sectors. While not conventionally viewed as key workers, these lower income occupations are essential to the efficient functioning and high amenity environment in the inner urban area that attracts businesses and subsequently employees, and enables the inner urban area to sustain higher value added business activity.

References:

Bankwest '3rd Key Worker Housing Affordability Report' Bankwest Financial Indicator Series, March 2011

Bramley, G (2005). The Sudden Rediscovery of Housing Supply as a Key Policy Challenge. Housing Studies Volume 22, Iss 2, 2007,

Burke T and Zakharov R. (2005), Long-term housing futures for Australia: using 'foresight' to explore alternative visions and choices, Australian Housing and Urban Research Institute Swinburne-Monash Research Centre, AHURI Final Report No. 77

First Steps Options – 'Key Worker Housing Eligibility Criteria', available at www.firststepslondon.org/eligibility.asp (accessed November 2012)

ODPM UK (Office of the Deputy Prime Minister). (2003). 'Sustainable Communities'

Riverbank Living 'Keyworker factsheet' available at
www.riverbankliving.com.au/Riverbank/Riverbank%20HAF.aspx (accessed November 2012)

Yates J, Randolph B, Holloway D, and Murray D. (2005) Housing Affordability, occupation and location in Australian cities and regions. AHURI Positioning Paper No 84, AHURI

Yates, J. (2008), Australia's Housing Affordability Crisis. *Australian Economic Review*, 41: 200–214.
doi: 10.1111/j.1467-8462.2008.00502.x