Immigration and the Housing Affordability Crisis in Sydney and Melbourne

Bob Birrell
Ernest Healy
Report authors

Bob Birrell (mobile 0413 021 126) is the Head of the Australian Population Research Institute (TAPRI), an independent, non-profit research organisation. Ernest Healy is a research associate with TAPRI.

The authors thank Virginia Rapson for layout of the final report and data analysis. They also thank Don Edgar, Katharine Betts and David Graham for their editorial suggestions.

Articles published by the Australian Population Research Institute may be republished provided the institute and its writers are appropriately credited, and a link is made to our website <tapri.org.au>.

Any articles reproduced cannot be edited or any material sold separately.
Immigration and the Housing Affordability Crisis in Sydney and Melbourne

Bob Birrell and Ernest Healy

Executive summary

Introduction

A catalogue of causes

The supply-side response in a nutshell

Will the supply-side response work?

What’s at stake?

Homeownership: a receding dream

The fringe disaster

Migrants head for the fringe

State encouragement of fringe competition

Household growth and dwelling needs

TAPRI’s household projections for Sydney and Melbourne

The resident projection (without migration) and the role of ageing

The migrant contribution to the demand side

The high-rise solution

The high-rise solution put to the test

The high-rise solution has not worked

Migrants are the main occupants of high-rise apartments

Medium density or the ‘missing middle’ to the rescue

The answer – abolish zoning constraints

Will the ‘missing middle’ solution work?

Is the zoning solution politically feasible?
Conclusion ......................................................................................................................... 18

What to do? .......................................................................................................................... 18

The big picture .................................................................................................................... 19

The immigration factor ....................................................................................................... 20

Appendix I ............................................................................................................................ 21

References ........................................................................................................................... 22
Immigration and the Housing Affordability Crisis in Sydney and Melbourne

Bob Birrell and Ernest Healy

Executive Summary

The housing affordability crisis in Sydney and Melbourne is close to the worst in the developed world. As of 2017, the ratio of median house prices to median household income in Sydney was 12.9 and in Melbourne 9.9. Only Vancouver and Hong Kong were as bad or worse on this metric.

The result is an intergenerational divide in which the younger generation have diminishing prospects of attaining the housing their parents’ generation enjoy. Property owners are feasting on extraordinary capital gains at the expense of young people who, in Sydney and Melbourne, will never experience any similar benefits because they cannot get onto even the lowest rung of the property ladder.

Why is the crisis so severe? The answer is no secret. First, successive Australian governments have kept in place significant tax incentives for owner-occupiers to upgrade and investors to purchase existing residential property. Second, the Coalition government has maintained very high migration levels, with around two-thirds of the net intake currently locating in Sydney and Melbourne. Migrants are the main contributors to the growth in both cities’ populations of over 100,000 each year.

The consequences are disturbing. Most young households in Sydney and Melbourne cannot afford to buy a house in established suburban areas. The proportion renting is rising sharply. In Sydney, as homeownership rates fell, the share of households headed by 30-34 year olds who were renting jumped from 48 per cent in 2011 to 53 per cent in 2016 (Table 1). In Melbourne the increase in this share over the same years was from 43 per cent to 48 per cent.

Many young households have been prompted to move to cheaper housing on the remote frontiers of both cities. There, they have to pay high prices for houses on tiny lots (averaging 400 square metres or less).

Both state governments are encouraging this outward movement by providing financial subsidies in the form of cash payments and stamp duty concessions to first home buyers. These incentives are also available to all migrants holding permanent visas, regardless of the migrant’s property ownership record prior to arriving in Australia.

What to do?

In Sydney, the Greater Sydney Commission (GSC) is setting the pace. It is requiring all municipal councils to prepare plans for additional medium-density dwellings. Meanwhile the NSW State government has implemented a new medium-density planning code which will allow developers to put more than two dwellings on each detached housing site that they can procure.

This initiative has received the backing of the Grattan Institute and the Reserve Bank. Both want to see it implemented in Melbourne as well. They recommend that zoning constraints on medium density housing in Sydney and Melbourne be reduced in order to stimulate increased medium density dwelling construction.
None of these advocates indicates how large the population factor is in the demand side of the equation. Nor do they explore whether their proposals can work given the scale of demand for dwellings in both cities. They have nothing to say about the immigration component of this demand.

The population factor is a black box. We open this box.

In Sydney, the GSC estimates that an additional 35,000 dwellings are needed each year to cope with projected population growth. In Melbourne the planning authorities are assuming a similar number of dwellings is required. The Australian Population Research Institute’s (TAPRI) projections are a little less for Sydney (around 31,000 extra dwellings needed each year) but the same as those of the planning authorities for Melbourne. TAPRI’s projections also indicate that around 19,000 to 20,000 of this need in both cities will be attributable to net overseas migration. As a result, around 64 per cent of Sydney’s need for addition dwellings each year is due to additional overseas migrants and around 54 per cent of Melbourne’s.

Our projections also reveal that, in each city, around 15,000 more dwellings each year will be occupied by the increasing numbers of older resident households. This is because of the ageing factor as the large baby boomer generation replaces the much smaller cohort born before 1950. By 2016 (Table 5) households with a household head aged 50 or older occupied 56 per cent of the detached housing stock in Sydney and 53 per cent in Melbourne. This share will increase.

It is a major contributor – rarely acknowledged – to the housing affordability crisis in Sydney and Melbourne. It in effect amplifies the demand side of the problem. This is because not only must both cities provide an additional 19,000-20,000 dwellings to meet the needs of the growing migrant population, they must do so in a context where the number of existing detached houses available is shrinking because of the ageing factor.

Will the zoning initiative work?

We do not think it will. It has already failed twice. On the first occasion, in both cities, large tracts of land in the inner city and around activity centres were rezoned for high-rise apartment blocks. Huge numbers have been constructed, yet prices for detached housing continue to rise in both cities. The reason is that most new households (including migrants) want family friendly housing. Apartments are unsuitable. Our analysis of occupants of high-rise apartments (Table 6) shows that barely four per cent of these apartments in inner Sydney and Melbourne are occupied by couples or singles with children.

The second failure concerned zoning changes introduced by the 1990s in both cities. These allowed two dwellings to be built, as of right, on most suburban housing sites. Our analysis shows that despite this zoning initiative, relatively few such dwellings have been constructed.

Why? The answer is site costs – that is the escalating price of detached houses in both cities. Developers cannot put two dwellings on most inner and middle suburban house sites for less than $1 million per dwelling.

The proposals to abolish remaining zoning constraints represent the last throw of dice for supply-side advocates. We argue that they will only have a limited impact, for much the same reason that the first zoning initiative has largely failed. The new initiative will add further pressure to site costs because developers will now have to pay even higher prices for detached houses. This is because of the extra value of the site now that more than two dwellings can be constructed on it.
To the extent that the initiative does work, it will do so by providing even less dwelling and protected external space than dual occupancy units provide. In the process, it will detract even further from the suburban ambience that most detached home owners value.

There are doubts that the state governments will be able to enforce the latest zoning initiatives once existing home owners become aware of the implications. The recent backlash in Sydney supports this expectation.

There is no easy solution to Sydney and Melbourne’s housing affordability crisis. Some relaxation of zoning restraints may help. But only if there is parallel action to remove the tax incentives referred to earlier and to reduce the competition for housing flowing from net overseas migration to both cities.
Immigration and the Housing Affordability Crisis in Sydney and Melbourne

Introduction

By international standards, Sydney and Melbourne’s housing affordability crisis is acute. As of 2017 the ratio of median house prices to median household income in Sydney was 12.9 and in Melbourne 9.9. They vied with Vancouver, another affluent high immigration candidate on this metric. Only Hong Kong was worse. The situation is even worse than in San Francisco, one of the most expensive cities in the United States, where the housing affordability index is 9.1.

Few young households can now afford to purchase a detached house in Sydney and Melbourne. The result is that an increasing proportion, even amongst those in their late thirties and early forties, are renting in both cities (Table 1).

Voters are looking for someone to blame. Both the NSW and Victorian governments have become targets, whether justified or not.

This has prompted an urgent search for explanations and a politically acceptable solution.

A catalogue of causes

The recent startling increase in both cities’ populations has prompted speculation that migration is a significant factor. Both cities are growing by 100,000 or more a year, with most of this growth attributable to overseas migrants. Currently, around two-thirds of Australia’s net overseas migration (NOM) intake of around 240,000 a year is locating in Sydney and Melbourne.

With both cities featuring huge suburban spreads, rapid population growth adds significantly to competition for housing sites relatively close to the inner city. This is because access to good jobs and city amenities attract a premium.

Another obvious factor is the huge surge in dwelling purchases by owner occupiers who are upgrading and by investors over the past few years. The total mortgage debt owed for such purchases in Australia has been increasing at $100 billion a year, most of it being for established houses in Sydney and Melbourne. This is equivalent to around six per cent of GDP.

Until very recently, about half of this increased mortgage debt has been incurred by investors and the rest by owner-occupiers. As to the former, they benefit from the discount available for capital gains on their investment property and the negative gearing tax concessions where their property delivers an income loss. As to the owner-occupiers, only a small proportion is first-home buyers. Many of these owner-occupiers are upgrading their housing with an eye to benefiting from the capital gains that Sydney and Melbourne’s housing markets are delivering. They know that the capital gains that result are immune from taxation as long as they occupy their upgraded home.

With this massive injection of funds, and the surge in population numbers, there was only one way housing prices in Sydney and Melbourne could go, and that was up.

However, rather than address these factors, the political and planning authorities have focussed on another cause. This is that there are blockages to the supply of dwellings stopping developers from providing the extra dwellings needed, especially in established suburban areas. Remove these blockages they assert and the extra supply resulting will deflate the housing price spiral.

It’s simple, just build more dwellings.
This response presses all the right buttons. For state governments a boost to the construction industry will generate a surge in economic activity and jobs. Most planners and commentators favour higher density development of existing suburbia, a position we describe as *urbanist*. They argue that a vigorous supply-side response focussing on more intensive housing in established suburban areas will not only supply more housing, it will also result in better use of existing infrastructure and allow more residents to enjoy the pleasures of a more cosmopolitan inner city life.

For the federal and NSW state Coalition governments this response leaves room for them to argue against Labor’s proposals to diminish the tax incentives available to investors, including negative gearing. They claim that such a move would be counterproductive since it would limit investor involvement in the housing market thus diminishing the funds needed to finance the required supply.

Supply-side advocates promise, sometimes explicitly, sometimes by implication, that there is no need to worry about rapid population growth, and particularly no need to worry about the role of immigration in adding to the competition for scarce housing.

*The supply-side response in a nutshell*

Sydney is leading the way. In March 2018 the recently created Greater Sydney Commission (GSC) released its plan for Sydney, *A Metropolis of Three Cities*. The continuation of the current surge in Sydney’s population, including the contribution from net overseas migration (NOM), is assumed to continue for decades to come.

All these extra people will be accommodated by removing what the Commission believes to be the main cause of inadequate dwelling supply; that is zoning constraints.

The Commission intends to set dwelling completion targets for each council within its jurisdiction. Councils will also be *required* to develop physical and social infrastructure strategies to provide for the additional medium-density dwellings and their occupants. At the same time, the relevant state authorities will be directed to provide the infrastructure needed to meet these dwelling targets.

Consistent with this objective, the NSW State Government has implemented a new medium-density planning code which (as we detail later) requires councils to allow more intensive medium-density housing in most suburban areas.

Victoria has lagged in implementing similar measures. Nonetheless, the Victorian Labor Government is under intense pressure from supply side advocates to follow the NSW Government’s lead.

The most prominent (and widely publicised) example of supply-side advocacy has been the Grattan Institute’s proposals. These are contained in its March 2018 report, entitled *Housing Affordability, Re-imagining the Australian Dream*. This proposes the reduction of zoning constraints on medium-density housing in Sydney and Melbourne.

Another report, this time by researchers at the Reserve Bank of Australia (RBA), entitled *The Effect of Zoning on Housing Prices* (hereafter the RBA Report), makes a similar recommendation.

For the time being, supply-side advocacy prevails. It is doing so at the expense of dealing with the two major factors causing the crisis, the financial incentives available to investors and owner occupiers and the population surge in Sydney and Melbourne.
Will the supply-side response work?

This question is the focus of this report. As we detail, supply-side advocates conveniently ignore the fact that their strategy has been tried before and that it has failed to dent the surge in housing prices. It was tried with the rezoning of extensive sites for high-rise apartments in both cities. This generated a surge in the supply of apartments, but the dwellings produced did not meet the needs of most young households, which are for family friendly housing. This is housing with at least two to three bedrooms and external protected space – whether in the form of detached housing or medium-density dwellings.

The supply-side approach has also been tried with the granting of additional rights for dual occupancy on detached housing sites, rights which have been in place since the 1990s across most suburban areas in Sydney and Melbourne. As we document, this experiment failed because the price of detached housing sites has increased to such an extent that developers have not been able to produce affordable medium-density family friendly housing.

The more radical abolition of zoning constraints proposed by the GSC and other supply-side advocates will run into similar barriers.

Remember, the intention is to implement these proposals while the tax incentives to owner occupiers and to investors to invest in residential housing remain in place - and while present immigration intake policies are left intact.

There has been remarkably little public information on the scale and impact of the migrant intake. None of the planning agencies or anti-zoning advocates has anything to say on the issue. All, like the Greater Sydney Commission, just assume continued high population growth. None makes any attempt to identify the contribution to household growth and thus to dwelling demand deriving from both cities’ influx of overseas migrants. Likewise, you will look in vain within the published output of both state governments’ demography units for any such information.

It is like a black box, hidden from all but a few experts. We reveal the contents later in this report.

What’s at stake?

Home ownership: a receding dream

The Grattan Report cites statistical data that confirm that the housing price boom has largely disenfranchised most of the younger generation from home ownership. In turn, this has had multiple implications including delay in family formation, increased indebtedness, and the creation of a new social divide in Australia between the housing rich (older home owners) and the housing poor (mostly younger people).

The RBA report does not address these issues, but at various times RBA executives have made similar points. Lucy Ellis, now an Assistant Governor of the Bank, put it incisively in 2015:

Outright home ownership is widely regarded as key to avoiding poverty in old age. Before that life stage, home ownership is also regarded as a way to obtain the securing of tenure that is so important to the wellbeing of many households, especially families with dependent children.
The Grattan Report does not provide housing tenure statistics for Sydney and Melbourne. This is where one would expect the impact on the younger generation of households would be greatest. Our analysis of the 2016 Census confirms this expectation.

Table I shows how much home ownership rates have declined amongst the younger age cohorts. This was to be expected because most (including recently arrived migrants) would have only recently established a household and thus would have had to confront the super-heated Sydney and Melbourne housing markets.

<table>
<thead>
<tr>
<th>Tenure</th>
<th>25-29 years</th>
<th>30-34 years</th>
<th>35-39 years</th>
<th>40-44 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owned*</td>
<td>37</td>
<td>39</td>
<td>45</td>
<td>49</td>
</tr>
<tr>
<td>Rented</td>
<td>60</td>
<td>58</td>
<td>51</td>
<td>48</td>
</tr>
<tr>
<td>Other**</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>No.</td>
<td>110,840</td>
<td>110,251</td>
<td>34,207</td>
<td>147,161</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2016 Census</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Owned*</td>
<td>30</td>
<td>35</td>
<td>41</td>
<td>43</td>
<td>49</td>
<td>54</td>
<td>53</td>
<td>60</td>
</tr>
<tr>
<td>Rented</td>
<td>65</td>
<td>61</td>
<td>55</td>
<td>53</td>
<td>48</td>
<td>43</td>
<td>43</td>
<td>37</td>
</tr>
<tr>
<td>Other**</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>No.</td>
<td>110,875</td>
<td>118,367</td>
<td>32,337</td>
<td>161,826</td>
<td>161,493</td>
<td>41,917</td>
<td>166,895</td>
<td>159,247</td>
</tr>
</tbody>
</table>

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011 Census</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

^ See endnote 8 for a definition of a reference person
* Owned outright or with mortgage
** Other including not stated
Source: Australian Bureau of Statistics, 2011 and 2016 Censuses, TableBuilder Pro, Place of Enumeration dataset

The result is that by 2011 some 48 per cent of Sydney households headed by a person aged 30-34 were renting. Five years later by 2016 this proportion had jumped to 53 per cent. In Melbourne the rental share amongst these 30-34 year olds increased from 43 per cent in 2011 to 48 per cent in 2016. There is a similar sharp increase in the proportion of householders renting in both cities for those aged 35-39.

We have added Adelaide to the table for comparison purposes. Though household income levels are lower in Adelaide than in Sydney and Melbourne, by 2016, the proportion of persons renting amongst householders aged 30-34 who were living in Adelaide was 43 per cent – far lower than in Sydney and Melbourne.

How ironic. Adelaide the great laggard amongst Australia’s metropolises in the economic growth stakes is producing a much better housing outcome for its young people than are the supposed success stories of Sydney and Melbourne.
The fringe disaster

The provision of an escape route or safety valve for households wanting family friendly housing but unable to afford what is available in established suburbia does not figure prominently in supply-side policy initiatives. Nevertheless, there is a history of extensive zoning of fringe land in Melbourne, which has been encouraged by successive Victorian state governments. Developers have rushed to turn this zoning legacy into housing sites as the demand for them has escalated. The output of blocks has soared to 23,750 in 2017, twice the level of a few years ago.9

There is no such legacy in Sydney, though the GSC has designated huge areas on the fringe for future urban expansion. This will not be available for years. In Sydney, those looking for the cheapest family friendly housing will not find it in the limited offerings on new fringe estates, but in some of the outer suburban locations. These, for various reasons, are low on the pecking list of favoured parts of Sydney.

This safety valve is offering a solution of sorts for households wanting family friendly housing. However, it is a solution with high potential costs.

Most planning professionals and commentators favour higher density development of existing suburbia. These urbanists typically dislike the extension of low density suburbia on the city fringes, which is often thought to have allowed the spread of energy-hungry and ugly McMansions. They see this as problematic because of its environmental impact, the long term costs to government of providing schools, hospitals, transport and other infrastructure, and the alleged social costs to the residents. These social costs include their location remote from jobs and from services, as well as the growing concentrations of young families with precarious finances.

Some of these concerns are justified. But the stereotype of low density McMansions is wrong. The reality is that such is the competition for housing in outer suburban Sydney and on the fringe in Melbourne that those who do make the move are paying a far greater price than just a few years ago. This is mainly a consequence of a surge in the price of new lots. The median price for a block in Sydney in 2017 was $476,000 and $281,000 in Melbourne. Households have to pay at least $400,000 for a new house and land in Melbourne and over $600,000 in Sydney.

They are also getting much less for their investment than just a few years ago. The median size of lots sold in 2017 in Sydney was just 396 square metres, down from 456 square metres in 201410, and in Melbourne, 405 square metres (down from 445 square metres in 2014).11 These lots are tiny, just enough to provide room for a swing or clothes line in the backyard and a pocket handkerchief front yard.

So much for any notion (still promoted by the Victorian State Labor Government) that the movement of young families to the fringe is part of the solution to the housing affordability crisis. Their parents’ generation had it far better. When their parents settled on the fringe they had much more space, far lower future financial obligations and much less distance from employment and the public transport network. The new suburbanites are a precarious generation, highly vulnerable to job loss and to reductions to family income when the female partner has a child.

This outcome can’t be attributed to competition from upgrading owner occupiers or investors. The latter do not play an important role in fringe land markets. Rather, these price increases occurred because of the growth in the number of resident and recently arrived immigrant households, people unable to afford established houses who have had to look to the fringe to find a cheaper alternative.
Migrants head for the fringe

We know from previous work that recently arrived migrant families typically take several years before they purchase a house, especially in Sydney. A high proportion has to rent at first. But when they do enter the housing market, they, like young resident households often have to look to the outer suburbs and the fringe to find an affordable property.

At this point they are direct competitors with resident households engaged in the same search. As Table 2 indicates, recently arrived migrants are making their presence felt in outer suburban locations (shown as SA2s). They also tend to concentrate in particular locations, mainly in lower priced western Sydney and in western Melbourne municipalities.

Table 2: Proportion of resident population of selected Melbourne and Sydney SA2 areas which comprised of persons who arrived from 2006 to 2010 and from 2011 to August 2016

<table>
<thead>
<tr>
<th>SA2 name</th>
<th>SA3 name</th>
<th>Arrived 2006-2010</th>
<th>Arrived 2011-2016</th>
<th>Total who arrived 2006-2016</th>
<th>Total resident population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Melbourne</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bundoora - North</td>
<td>Whittlesea - Wallan</td>
<td>6</td>
<td>14</td>
<td>20</td>
<td>7,447</td>
</tr>
<tr>
<td>Bundoora - West</td>
<td>Whittlesea - Wallan</td>
<td>6</td>
<td>12</td>
<td>18</td>
<td>6,191</td>
</tr>
<tr>
<td>Epping - South</td>
<td>Whittlesea - Wallan</td>
<td>7</td>
<td>9</td>
<td>17</td>
<td>8,335</td>
</tr>
<tr>
<td>Epping - West</td>
<td>Whittlesea - Wallan</td>
<td>14</td>
<td>9</td>
<td>23</td>
<td>10,889</td>
</tr>
<tr>
<td>Wollert</td>
<td>Whittlesea - Wallan</td>
<td>16</td>
<td>12</td>
<td>28</td>
<td>9,060</td>
</tr>
<tr>
<td>Craigieburn - North</td>
<td>Tullamarine - Broadmeadows</td>
<td>11</td>
<td>9</td>
<td>20</td>
<td>11,514</td>
</tr>
<tr>
<td>Craigieburn - South</td>
<td>Tullamarine - Broadmeadows</td>
<td>11</td>
<td>11</td>
<td>21</td>
<td>16,282</td>
</tr>
<tr>
<td>Craigieburn - West</td>
<td>Tullamarine - Broadmeadows</td>
<td>17</td>
<td>16</td>
<td>33</td>
<td>14,153</td>
</tr>
<tr>
<td>Cranbourne East</td>
<td>Casey - South</td>
<td>14</td>
<td>10</td>
<td>24</td>
<td>25,685</td>
</tr>
<tr>
<td>Laverton</td>
<td>Wyndham</td>
<td>15</td>
<td>19</td>
<td>34</td>
<td>8,900</td>
</tr>
<tr>
<td>Tarneit</td>
<td>Wyndham</td>
<td>17</td>
<td>13</td>
<td>30</td>
<td>34,784</td>
</tr>
<tr>
<td>Truganina</td>
<td>Wyndham</td>
<td>19</td>
<td>16</td>
<td>35</td>
<td>23,403</td>
</tr>
<tr>
<td>Point Cook - East</td>
<td>Wyndham</td>
<td>12</td>
<td>15</td>
<td>27</td>
<td>12,193</td>
</tr>
<tr>
<td>Point Cook - North</td>
<td>Wyndham</td>
<td>10</td>
<td>10</td>
<td>21</td>
<td>23,177</td>
</tr>
<tr>
<td>Point Cook - South</td>
<td>Wyndham</td>
<td>17</td>
<td>17</td>
<td>34</td>
<td>14,418</td>
</tr>
<tr>
<td>Greater Melbourne</td>
<td></td>
<td>6</td>
<td>8</td>
<td>14</td>
<td>4,484,020</td>
</tr>
<tr>
<td><strong>Sydney</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blacktown (East) - Kings Park</td>
<td>Blacktown</td>
<td>12</td>
<td>15</td>
<td>28</td>
<td>16,920</td>
</tr>
<tr>
<td>Blacktown (West)</td>
<td>Blacktown</td>
<td>9</td>
<td>9</td>
<td>19</td>
<td>16,154</td>
</tr>
<tr>
<td>Seven Hills - Toongabbie</td>
<td>Blacktown</td>
<td>9</td>
<td>8</td>
<td>17</td>
<td>23,920</td>
</tr>
<tr>
<td>Mount Druitt - Whalan</td>
<td>Mount Druitt</td>
<td>9</td>
<td>11</td>
<td>20</td>
<td>22,701</td>
</tr>
<tr>
<td>Pendle Hill - Girraween</td>
<td>Parramatta</td>
<td>15</td>
<td>13</td>
<td>28</td>
<td>12,842</td>
</tr>
<tr>
<td>Wentworthville - Westmead</td>
<td>Parramatta</td>
<td>14</td>
<td>20</td>
<td>34</td>
<td>15,599</td>
</tr>
<tr>
<td>Ryde</td>
<td>Ryde - Hunters Hill</td>
<td>8</td>
<td>11</td>
<td>19</td>
<td>27,174</td>
</tr>
<tr>
<td>Greater Sydney</td>
<td></td>
<td>5</td>
<td>8</td>
<td>13</td>
<td>4,823,993</td>
</tr>
</tbody>
</table>

Source: Australian Bureau of Statistics, 2016 Census, TableBuilder, usual resident data set.
The concentrations in the outer western suburbs of Wyndham (Laverton, Tarneit and others) in Melbourne are remarkable. Over thirty per cent of the residents in Wyndham’s suburbs by August 2016 were migrants who had arrived in Australia since the beginning of 2006. Yet, as Table 2 shows, migrants arriving over this period made up 14 per cent of Melbourne’s population as of 2016.

These concentrations are less notable in Sydney because new housing on the fringe is, as explained earlier, so expensive. Nevertheless, as Table 2 shows, there is a similar movement to outer suburbia in some of Sydney’s western suburbs.

State encouragement of fringe competition

The NSW and Victorian governments provide financial support to households, including recently arrived migrants, who wish to take advantage of relatively cheap outer suburban or new fringe housing.

In 2017, both governments announced new incentives to help first home buyers purchase dwellings. In Victoria, the first home buyer grant was doubled for new homes from $10,000 to $20,000. Also, the state government announced that stamp duty for first home buyers of new or established dwellings would, from mid-2017, be abolished for homes costing less than $600,000 and lowered for those costing up to $750,000.

The NSW incentives for first home buyers were similar, with exemptions from transfer duty on new or existing homes up to $650,000 and some concessions for homes costing up to $800,000. From mid-2017 the state government will also provide a grant of $10,000 to those who purchase a new home (capped at $600,000) or who build a new home up to $750,000.

All migrants are eligible for both states’ incentives, as long as they are permanent residents and they are purchasing their first property in Australia. In general, this is appropriate.

However, no questions are asked about the migrant applicants’ property owning status in their home country. For most, this probably does not deliver much of an advantage. However, if, for example, the newly arrived migrant sold a dwelling in Beijing, Shanghai or Shenzhen before coming to Australia, he or she would have an enormous advantage over their resident counterparts in the land and housing markets of Sydney and Melbourne.

Household growth and dwelling needs

As noted, in order to understand the demand side of the issue we need household projections. This is because it is households that occupy dwellings. We also need to know what sort of households they will be (that is, whether they are likely to be families with or without children or singles). Their housing preferences will be largely determined by their family type. Couples and singles without children may well accept apartment living, but not — at least in recent Australian experience — those who are couples or singles with children.

Then there is the question: how much of this projected household growth is likely to derive from resident compared to migration sources in both cities?

The Australian Population Research Institute (TAPRI) has prepared projections which answer these questions. They were first published in October 2015.\textsuperscript{14} The projections were for the period 2012 to 2022. They are still relevant because the demographic assumptions used approximate the actual contribution of natural increase and immigration to the two cities’ populations over recent years.
As can be seen in the Table 3 below, the projections indicate a need for some 30,840 extra dwellings each year in Sydney and 35,510 in Melbourne.

These projections are similar to those used by the by planners in Sydney and Melbourne. The Greater Sydney Commission is projecting a need for some 36,250 additional dwellings each year over the period 2016-2036.\textsuperscript{15} In the case of Melbourne, the projected need is 38,500 a year for the period 2011-2021,\textsuperscript{16} close to our 35,510 a year.

The projections available to the planners in Sydney and Melbourne, however, did not include estimates for household growth by age group and household type. Nor were any breakdowns provided for the contributions of residents and newly arrived migrants to the total need for housing in each city.

\textit{TAPRI's household projections for Sydney and Melbourne}

Household numbers and household types were calculated in the following way. We began by establishing the propensity of households in Sydney and Melbourne by household type (couples and singles with children and singles) and by age of household head to occupy separate houses, semi-detached row and town houses or flats units or apartments at the time of the 2011 Census. On the assumption that the populations of the two cities would show the same propensities to form households by household type by age group and to occupy the same type of dwelling as was the case in 2011, we were able to estimate the number of households and the dwelling needs for both cities across the decade 2012 to 2022.

The projections did not purport to predict dwelling arrangements over the decade to 2022. In reality, the housing affordability crisis in Sydney and Melbourne means that many households will not replicate the situation as of 2011.

Two sets of projections were prepared for both Sydney and Melbourne. One assumed that there would be no further net growth in overseas migration and the other that net overseas migration to Australia would continue at 240,000 a year and that Sydney and Melbourne’s share would remain as it was in the years just prior to 2011. The latter projection may underestimate the migrant contribution to household growth because, over the last few years, the share of Australia’s net migrant intake locating in Sydney and Melbourne has increased from around half to two thirds of the total.

The results of the projections are shown in Table 3. As noted above, they indicate that on these assumptions the total number of households in Sydney will increase by 30,840 a year over the decade and in Melbourne by 35,510 a year (Panel C).

\textit{The resident projection (without migration) and the role of ageing}

It may surprise that the projections show that, even without further net overseas migration, the number of resident households in Sydney and Melbourne will increase significantly over the decade. As Panel A in Table 3 indicates, there will be an additional 109,570 resident households in Sydney and 161,990 households in Melbourne over the decade 2012-2022.

All of this growth (and some – explained below) is a consequence of a sharp increase in the number of older households aged 55 and over in both cities over the decade. This is because of the population ageing phenomenon in which a very large baby-boomer cohort (born between 1950 and 1965) is replacing the far smaller cohort born before 1950.
Table 3: Estimate of additional dwelling needs by resident and migration component: NIL NOM, 240,000 NOM and total, 2012-2022, Greater Sydney and Greater Melbourne

<table>
<thead>
<tr>
<th>Age band (years)</th>
<th>Decade 2012-2022</th>
<th>Derived annual average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sydney</td>
<td>Melbourne</td>
</tr>
</tbody>
</table>

A) Additional dwellings projected under NIL NOM – resident component

<table>
<thead>
<tr>
<th></th>
<th>Sydney</th>
<th>Melbourne</th>
<th>Sydney</th>
<th>Melbourne</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>-9600</td>
<td>-11,150</td>
<td>-960</td>
<td>-1,120</td>
</tr>
<tr>
<td>25-34</td>
<td>-41,100</td>
<td>-20,350</td>
<td>-4,110</td>
<td>-2,040</td>
</tr>
<tr>
<td>35-44</td>
<td>-80</td>
<td>17,250</td>
<td>-10</td>
<td>1,730</td>
</tr>
<tr>
<td>45-54</td>
<td>12,220</td>
<td>24,690</td>
<td>1,220</td>
<td>2,470</td>
</tr>
<tr>
<td>55-64</td>
<td>34,690</td>
<td>41,810</td>
<td>3,470</td>
<td>4,180</td>
</tr>
<tr>
<td>65-74</td>
<td>58,980</td>
<td>55,860</td>
<td>5,900</td>
<td>5,590</td>
</tr>
<tr>
<td>75+</td>
<td>54,460</td>
<td>53,880</td>
<td>5,460</td>
<td>5,390</td>
</tr>
<tr>
<td>Total</td>
<td>109,570</td>
<td>161,990</td>
<td>10,960</td>
<td>16,200</td>
</tr>
</tbody>
</table>

B) Additional dwellings projected due to increasing the NOM to 240,000 – migration component

<table>
<thead>
<tr>
<th></th>
<th>Sydney</th>
<th>Melbourne</th>
<th>Sydney</th>
<th>Melbourne</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>13,820</td>
<td>15,160</td>
<td>1,380</td>
<td>1,520</td>
</tr>
<tr>
<td>25-34</td>
<td>86,970</td>
<td>75,600</td>
<td>8,700</td>
<td>7,560</td>
</tr>
<tr>
<td>35-44</td>
<td>55,730</td>
<td>55,870</td>
<td>5,570</td>
<td>5,590</td>
</tr>
<tr>
<td>45-54</td>
<td>24,400</td>
<td>26,400</td>
<td>2,440</td>
<td>2,640</td>
</tr>
<tr>
<td>55-64</td>
<td>11,250</td>
<td>12,100</td>
<td>1,130</td>
<td>1,210</td>
</tr>
<tr>
<td>65-74</td>
<td>5,360</td>
<td>5,950</td>
<td>540</td>
<td>600</td>
</tr>
<tr>
<td>75+</td>
<td>1,280</td>
<td>2,060</td>
<td>130</td>
<td>210</td>
</tr>
<tr>
<td>Total</td>
<td>198,810</td>
<td>193,140</td>
<td>19,880</td>
<td>19,310</td>
</tr>
</tbody>
</table>

C) Total additional dwellings

<table>
<thead>
<tr>
<th></th>
<th>Sydney</th>
<th>Melbourne</th>
<th>Sydney</th>
<th>Melbourne</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>4,210</td>
<td>4,000</td>
<td>420</td>
<td>400</td>
</tr>
<tr>
<td>25-34</td>
<td>45,860</td>
<td>55,240</td>
<td>4,590</td>
<td>5,520</td>
</tr>
<tr>
<td>35-44</td>
<td>55,650</td>
<td>73,110</td>
<td>5,570</td>
<td>7,310</td>
</tr>
<tr>
<td>45-54</td>
<td>36,620</td>
<td>51,080</td>
<td>3,660</td>
<td>5,110</td>
</tr>
<tr>
<td>55-64</td>
<td>45,950</td>
<td>53,910</td>
<td>4,60</td>
<td>5,390</td>
</tr>
<tr>
<td>65-74</td>
<td>64,340</td>
<td>61,810</td>
<td>6,430</td>
<td>6,180</td>
</tr>
<tr>
<td>75+</td>
<td>55,730</td>
<td>55,940</td>
<td>5,570</td>
<td>5,590</td>
</tr>
<tr>
<td>Total</td>
<td>308,360</td>
<td>355,090</td>
<td>30,840</td>
<td>35,510</td>
</tr>
</tbody>
</table>

Notes: The totals from the original table in the source TAPRI report by age group in each panel have been rounded, as have the derived annual averages. The age group for each household is that of the reference person in each household. The propensities used to calculate the data in the table were drawn from the 2011 Census. The migrant status was determined by the birthplace and year of arrival information for Persons 1 and 2 in each household and weighted to take account of mixed households where a recent migrant lived with a pre-2001 migrant or Australia-born person.

Source: Bob Birrell and David McCloskey, *The Housing Affordability Crisis in Sydney and Melbourne; Report One: the Demographic Foundations*, The Australian Population Research Institute (TAPRI), Table 7, included in Appendix I of this paper.

Without migration (that is under Nil NOM) there will be 151,500 extra households aged 55 plus in Melbourne by 2022 compared with 2012 and an extra 148,100 in Sydney (see Table 4 below). That means an extra 15,000 or so dwellings each year in both cities will be occupied by the growing number of older households.

By contrast, without migration the number of younger resident households in the 18-34 age groups will decline a little over the decade to 2022. As the table indicates, there will be fewer dwellings required for these age groups, 31,500 and 50,700 fewer in Melbourne and Sydney respectively by the end of the decade (equivalent to 3,150 and 5,070 on average each year).

Nevertheless, as Table 4 indicates, there will still be a large number of young households (aged 18-34) entering the housing market over the decade in both Sydney and Melbourne under the nil NOM scenario. They number around 300,000 in both cities. Overwhelmingly, they will be new households
formed in each city by existing residents entering the age cohort and thus the housing market in their own right.

Table 4: Effect of migration on household growth: comparison of projected household numbers using 240,000 NOM and Nil NOM,* by selected age group, Greater Melbourne and Greater Sydney, 2012 to 2022

<table>
<thead>
<tr>
<th>Age group</th>
<th>18-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55 plus</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Melbourne</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-12</td>
<td>338,500</td>
<td>320,900</td>
<td>301,400</td>
<td>561,500</td>
<td>1,522,400</td>
</tr>
<tr>
<td>2021-22 - under Nil NOM scenario</td>
<td>307,000</td>
<td>338,100</td>
<td>326,100</td>
<td>713,100</td>
<td>1,684,300</td>
</tr>
<tr>
<td>2021-22 - under 240,000 NOM scenario</td>
<td>397,800</td>
<td>394,000</td>
<td>352,500</td>
<td>733,200</td>
<td>1,877,500</td>
</tr>
<tr>
<td>Estimated growth/decline 2011-12 to 2021-22 under:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nil NOM</td>
<td>-31,500</td>
<td>17,200</td>
<td>24,700</td>
<td>151,500</td>
<td>162,000</td>
</tr>
<tr>
<td>240,000 NOM</td>
<td>59,200</td>
<td>73,100</td>
<td>51,100</td>
<td>171,700</td>
<td>355,100</td>
</tr>
<tr>
<td>Household growth due to migration</td>
<td>90,800</td>
<td>55,900</td>
<td>26,400</td>
<td>20,100</td>
<td>193,200</td>
</tr>
</tbody>
</table>

| **Sydney** |       |       |       |         |       |
| 2011-12   | 341,000 | 342,400 | 328,900 | 610,600 | 1,622,900 |
| 2021-22 - under Nil NOM scenario | 290,300 | 342,400 | 341,100 | 758,700 | 1,732,500 |
| 2021-22 - under 240,000 NOM scenario | 391,100 | 398,100 | 365,500 | 776,600 | 1,931,300 |
| Estimated growth/decline 2011-12 to 2021-22 under: |       |       |       |         |       |
| Nil NOM   | -50,700 | -100   | 12,200  | 148,100 | 109,600 |
| 240,000 NOM | 50,100  | 55,600  | 36,600  | 166,000 | 308,400 |
| Household growth due to migration | 100,800 | 55,700 | 24,400 | 17,900 | 198,800 |

* Other factors held constant: Medium Fertility (1.8), Medium Life Expectancy at birth, Medium flows net interstate migration

Source: Calculated from Bob Birrell and David McCloskey, The Housing Affordability Crisis in Sydney and Melbourne; Report One: The Demographic Foundations, The Australian Population Research Institute (TAPRI), Table 3, numbers from the original table have been rounded and this explains any minor discrepancies in the calculations shown in the this table and in comparison with Table 2 above.

These younger households are confronting a super-heated market for detached housing at a time when the number of available dwellings of this type is diminishing. This is because of the extra 15,000 or so older households each year occupying dwellings. These older households are not new households. They were already in Sydney and Melbourne as of 2012. Moreover, most were occupying detached housing and will still be occupying such housing in 2022, because of the low propensity of older households to downsize. These figures are not in doubt. The cohort replacing those born before 1950, being baby boomers, will for the most part still be alive and kicking by 2022, because most will only just be reaching the frail ages of 75+ by this time.

The implications for the availability of detached housing in Sydney and Melbourne are dramatic. The impact of this older population was already evident by 2011. The 2011 Census showed that households aged 50 plus occupied around 50 per cent of the existing separate detached housing in Sydney and Melbourne at the time (see Table 5). As would be expected from the above analysis, this share increased to 56 per cent in Sydney by 2016 and to 53 per cent in Melbourne.

On past evidence, few of these older households will downsize. As a result, older people will be occupying an even larger share of the detached housing stock in inner and middle suburbs by 2022 than was the case in 2016.
This is a serious issue for young people entering the 25-34 and 35-44 age groups during the decade to 2022. If they repeat past patterns, most will begin the process of forming family households and having children and the great majority of these households in both cities will aspire to move into detached housing (see Appendix I).

Table 5: Percentage of separate houses occupied by households with reference persons* aged 50 or older, Sydney and Melbourne, 2011 and 2016

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sydney</td>
<td>53%</td>
<td>56%</td>
</tr>
<tr>
<td>Melbourne</td>
<td>50%</td>
<td>53%</td>
</tr>
</tbody>
</table>

* Reference person in primary family and non-family household
Source: Australian Bureau of Statistics, 2011 and 2016 Censuses, TableBuilder Pro, usual residence dataset

In reality, they will not repeat past patterns. A much smaller share of these younger households will be able to find affordable detached housing than was the case in the past and, to the extent that they do, it will be more likely be as renters than owners. In other words, the increasing propensity to rent shown in Table 1 is likely to continue.

To make matters worse these younger resident families have to compete for the available housing with the additional immigrant households being added to the populations of Sydney and Melbourne. We now turn to estimate the scale of this competition.

The migrant contribution to the demand side

Table 3 (Panel B) shows that, over the decade 2012-2022, some 199,000 additional dwellings will be required to house the additional migrant households locating in Sydney and some 193,000 in Melbourne. According to our projections, these numbers represent 64 per cent of all Sydney’s growth in households (that is the total growth when resident and migrant sources are combined) and 54 per cent of Melbourne’s total household growth.

The table indicates that most of these additional migrant households will be aged 25-34 and 35-44 years. This should not surprise since it is well known that migrants, on arrival, are concentrated in these younger age groups. Many arrive as young families. Most single migrants are young and thus are likely to partner and begin raising a family not long after arrival. They will be competing for housing suitable for families at a time when there is already a serious shortage of such housing in established suburbia.

As Appendix I, which includes details on dwelling structure, shows, on the basis of their past dwelling choices, nearly a third of all migrants locating in Sydney will be seeking a detached house, as will over a half of those locating in Melbourne.

The outlook for these young resident and migrant households is grim. They will be competing for a diminishing number of established detached houses in both cities along with upgrading owner-occupiers and investors.
The high-rise solution

Until recently, most supply-side advocates have hoped that the construction of more high-rise apartments would provide a solution. To this end, both cities have rezoned huge areas within their respective inner cities and around suburban transport and activity hubs for high-rise development.

The hope was that this policy would obviate the need to create more opportunities for medium density housing in established suburbs. Politicians, in particular, were aware that further moves in this direction would generate a political backlash from suburban residents.

Planners and urban commentators have been assuming that most new households would be happy to accept apartment living. This belief has been, in part, based on the expectation that the main source of growth in households will be small households. They know that the average household size in Sydney and Melbourne is small, around 2.5, and that most new households will be singles and couples without children. You can see this thinking spelled out in the Grattan Institute’s estimates of the type and number of dwellings required in Sydney and Melbourne.

However, as our household projections indicate, the assumptions underlying this expectation are flawed. They do not take account of the huge growth in small, older households and that most of these households, though empty nesters, continue to occupy detached housing.

High-rise advocates also tend to hold unrealistic expectations about the willingness of families, including those with children, to embrace high-rise living. For example, John Daley, the lead author of the Grattan Report, asserted on the ABC program Q&A that such families are embracing the high-rise option. In Sydney, McCrindle Research recently stated in a report for the Urban Taskforce (which represents developer interests) that ‘the number of urban families living in apartments has grown rapidly’. This urban family category includes traditional couple families with children and singles with children. They are dubbed ‘Vertical Families’.

The high-rise solution put to the test

There has been a massive supply response from high-rise developers. The building approval numbers tell the story. In Sydney, total dwelling approvals increased from 29,789 in 2012-13 to 57,419 in 2016-17 and in Melbourne over the same years from 38,578 to 55,243.

The Australian Bureau of Statistics (ABS) distinguishes between two types of apartments, those included in buildings with four or more storey (high-rise apartments) and those in buildings of three storeys or less, which include apartments, units and semi-detached dwellings. We refer to the latter as medium-density dwellings. Most of the increase in approvals in Sydney and Melbourne has been for high-rise apartments.

The most recent data for Melbourne from the Victorian Government’s Urban Development Program highlights the point. It shows that, as of mid-2017, there was a huge 243,500 pipeline of dwellings in projects involving 10 or more dwellings which were under construction or in process of moving to the construction phase. The vast majority of these projects were for apartment blocks of four storeys or more. This was true even for projects located in the middle ring of suburbs, where 74 per cent of the dwellings were in four storey or more apartment projects.

This is a change much favoured by supply-side advocates. For the Reserve Bank’s housing analysts, this is an overdue development. They think that: ‘The shift towards higher density housing is bringing Australia more into line with international norms because Australia’s existing housing stock is heavily concentrated in detached houses.’
The high-rise solution has not worked

It is obvious that it has not worked. At the same time as the supply of apartments has surged since 2012, the price of houses in Sydney and Melbourne has near doubled. By the December Quarter 2017, the median price of a detached house in Sydney had reached $1,133,852 and in Melbourne, $903,859.

In our view, the main reason for this outcome is that high-rise apartments do not meet the needs of the main source of growth in demand for dwellings, which is coming from families with children. High-rise apartments are simply unsuited to their requirements.

Few families in Australia’s urban history have regarded apartments as the proper place to raise children. But, even for those who do, or who might be prepared to do so because of the cost of medium-density or detached housing, the fact is that almost all of the apartments being built are far too small for family living. This is mainly because it costs developers $800,000 to $1 million to put relatively spacious two to three bedroom apartments of 80 to 100 square metres on to the market. This is far beyond the budgets of most young families. As a result such apartments are rarely being built.

The 2016 Census allows us to put this proposition to the test. Table 6 shows the number and share of couples and singles with children who were occupying apartments in buildings of four storeys or more in the inner areas of Melbourne and Sydney at the time of the census. We have focussed on inner areas because that is where most of recently constructed apartment blocks have been located.

As Table 6 shows, by 2016 there were 19,138 high-rise apartments in the CBD area of Melbourne alone, and many more in the Docklands and Southbank areas adjacent to the CBD. Of the 19,138 in the CBD, only 804, or four per cent, were occupied by families with children.

The story is similar in inner Sydney.

Table 6: Number of apartments four storeys or higher, number and share occupied by families with children, Inner Melbourne and Inner Sydney, 2016

<table>
<thead>
<tr>
<th>Inner Melbourne</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Docklands</td>
<td>Melbourne</td>
<td>Southbank</td>
</tr>
<tr>
<td>Total four storey or higher apartments</td>
<td>5,616</td>
<td>19,138</td>
<td>9,629</td>
</tr>
<tr>
<td>No. occupied by families with children</td>
<td>535</td>
<td>804</td>
<td>586</td>
</tr>
<tr>
<td>Families share (%)</td>
<td>10</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inner Sydney</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Darlinghurst</td>
<td>Potts Point Woolloomooloo</td>
<td>Redfern</td>
<td>Sydney Haymarket, The Rocks</td>
<td>Waterloo Beaconsfield</td>
</tr>
<tr>
<td>Total four storey or higher apartments</td>
<td>3,320</td>
<td>8,306</td>
<td>6,478</td>
<td>12,003</td>
<td>12,571</td>
</tr>
<tr>
<td>No. occupied by families with children</td>
<td>126</td>
<td>341</td>
<td>236</td>
<td>734</td>
<td>1,174</td>
</tr>
<tr>
<td>Families share (%)</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>9</td>
</tr>
</tbody>
</table>

Source: Australian Bureau of Statistics, 2016 Census, TableBuilder
Migrants are the main occupants of high-rise apartments

The census indicates that most of those occupying high-rise apartments are migrants. Unfortunately the census does not provide data on the visa status of overseas born residents. However, anecdotal reports, as well as casual observation, indicate that many of these migrants hold temporary visas, particularly as overseas students.

The ABS has recently provided new estimates of the contribution of natural increase, internal migration and net overseas migration to SA2 areas. They confirm the impression that there has been a surge in the populations of the City of Sydney and City of Melbourne municipalities, and that most of this growth is attributable to overseas migrants.

The City of Melbourne grew by 11,953 between mid-2016 and mid-2017 and the City of Sydney by 9,006 over the same period. In the case of Melbourne, the ABS estimates that 75 per cent of this growth was from NOM and in Sydney’s case, 94 per cent.

The high-rise boom appears to be providing for the two cities growing temporary migrant population.

It is largely irrelevant to solving the housing crisis in the two cities, which is about providing affordable housing for those seeking family friendly dwellings.

Medium density or the ‘missing middle’ to the rescue.

For supply-side advocates, there is a growing consensus that the answer is more medium-density housing in the established suburbs of Sydney and Melbourne. As noted, this is a response that most urbanists have long favoured, including the Grattan Institute.

It is also a perspective that permeates the GSC’s recommendations. For its part, the Grattan Institute spells out its case for the medium-density solution in some detail. It argues that medium-density units and apartments can provide households with children with a functional alternative to detached houses where the dwellings provide two to three bedrooms with some protected exterior space for children to play in.

Furthermore, it asserts that this is the preference of most of the aspiring households who, because of budget constraints, cannot afford a detached house in established suburbia. It claims that:

Grattan Institute research shows that after accounting for trade-offs in price, location and size, rather than a house on the city fringe, many would prefer a townhouse, semi-detached dwelling or apartment in a middle or outer suburb.

We note in passing that it is a highly constrained choice since it excludes the detached house option that most families would actually prefer.

Yet, as the Institute acknowledges, despite this ‘preference’, in Sydney and Melbourne, there has been ‘relatively little medium density development in their extensive middle rings’.

The answer – abolish zoning constraints

The Grattan Report claims that the solution is the abolition of zoning constraints. Its key recommendation is that ‘State governments should fix planning rules to allow more homes to be built in inner and middle-ring suburbs of our largest cities’. According to the authors, the shortage of medium-density housing in part reflects the restrictions local governments put on medium-
density developments in order ‘to appease local residents’ concerns about road congestion, parking problems and damage to neighbourhood character’. 30

Calling for a radical removal of zoning restrictions, the Grattan Institute proposes a scorched earth solution:

State governments should fix planning rules to allow more homes to be built in inner and middle-ring suburbs of our largest cities. More small-scale urban infill projects should be allowed without council planning approval. State governments should also allow denser development ‘as of right’ along key transport corridors. 31

The RBA report offers some support for the Institute’s assumptions. Its report documents the large size of the gap between the current price of houses in Sydney and Melbourne and the cost of building a house and the use value to home owners of the land surrounding the house. So defined, the gap represents a rent attributable to the scarcity value of the land in question. Its size, of course, is much larger in inner suburbs where competition for houses is strongest. The RBA’s maps of this gap indicate that it is at least $500,000 for houses located in most of inner Sydney and $400,000 in inner Melbourne. 32

The RBA argues that this gap is attributable to zoning constraints. If they were removed, the RBA appears to assume, this would lower the site costs for medium-density housing and thus facilitate the production of more affordable dwellings.

The RBA is even more extreme than the Grattan Institute. It calls for the end to all zoning constraints. 33

The GSC, as flagged earlier has decreed that councils must prepare plans that will deliver new construction targets for medium-density dwellings. While the GSC doesn’t proclaim that this means the abolition of existing zoning constraints, its decree amounts to the same thing.

The NSW Government has already amended its Environmental Planning Assessment Act, so as to give effect to the GSC strategy. Councils are required to prepare ‘local planning strategies’ by mid-2019 that will deliver the dwelling targets to be specified by the GSC. 34

The NSW Government has also announced (in late April 2018) new planning rules which constitute the first tranche of the removal of zoning constraints needed if these medium-density dwelling targets are to be achieved.

This announcement includes a new medium-density code. It extends the rights of developers to build duplexes, terraces and manor houses (buildings containing several separate occupiers) across most of suburban Sydney. 35 The dwellings in question can be much smaller and take up much more of a suburban block than was previously the case.

As the UDIA (Urban Development Institute of Australia) puts it, the result of the GSC targets and these new rules is to ‘depoliticise’ the planning system. 36 This means taking the councils and, by implication the residents who elected them, out of the planning equation so as to ‘unlock development’. 37

Will the ‘missing middle’ solution work?

This strategy has not worked in the past. Nicole Gurran, Professor of Urban and Regional Planning at the University of Sydney, together with four other urban planning specialists note that state governments have already imposed infill targets on suburban councils and have enforced new rules
allowing some redevelopment of suburban detached houses. Yet, as these planning specialists highlight, this has not solved the affordability crisis.\(^{38}\)

In both cities, developers can put at least two dwelling units on a detached housing site ‘as of right’. Councils cannot stop this, except where heritage overlays exist. In Melbourne, Michael Buxton and his colleagues have shown through careful mapping of the opportunities for medium-density housing in Melbourne that, ‘there is no lack of land in suburban areas for redevelopment’.\(^ {39}\)

Despite these earlier zoning reforms, there has been relatively little new medium density housing completed, by comparison with the flood of new high-rise apartments. This is especially the case in Sydney where the need is greatest given the extreme escalation of detached housing prices. According to one estimate, the number of medium-density dwellings completed increased from just 6,154 in 2011-12 to 11,005 in 2016-17. By comparison, the number completed in Melbourne grew from 8,331 in 2011-12 to 11,005 in 2016-17.\(^ {40}\)

Why so few medium density completions? The main reason, as the RBA Report has documented, is the rise in site costs flowing from the rapid rise in detached housing prices in both cities.

With the median price of detached houses in inner and middle suburbia costing $1 million or more in Sydney and nearly $1 million in Melbourne, it is not possible for developers to build town houses or units on suburban blocks for much less than $1 million per dwelling. This is way beyond the budget of most of the young couples or families with children who would like to purchase such housing.

As a result, where such dwellings are constructed, the developers tend to build grandiose structures. These are directed at wealthy overseas buyers or local owner occupiers who can trade up by selling their existing detached house. In the case of the overseas buyers, they can legally invest in new units as long as two or more have been constructed on a site previously occupied by one detached house.

Will anything change with further reduction in zoning constraints, such as those recently introduced in Sydney? Not really. If developers are permitted to put more dwellings on existing detached home sites, this will enhance the value of these sites. The first public response to the new rules confirms this expectation. Real estate agents are telling home owners that the value of the properties affected will increase by 20 to 30 per cent.\(^ {41}\)

For new home buyers, this means that they will have even less chance of buying an established detached house than is presently the case.

It cannot be assumed (as do the Grattan Institute and the RBA) that this premium will be offset by a flood of sellers wanting to take advantage of the new zoning rules. Remember that in both Sydney and Melbourne over half of the detached housing stock is owned by households aged 50 plus. Why would they want to move as they approach retirement? A house and garden in a quiet suburban street near their established connections is especially appreciated by older residents with time to enjoy their garden and outdoor space.

Developers who do get hold of medium density sites will be able to erect many more dwellings on the site than is presently the case. However, these will be smaller in order to cover the increased site costs. This will mean less protected garden space, little or no separation from neighbours and, often, a location right on the front boundary of the property, adjoining the street or road servicing the property.

Being so much smaller, these dwellings are likely to sell for less than the town houses currently being constructed for the top end of the market.
In this sense, the medium-density ‘solution’, will add to housing choice. But it does not include the detached house and land option available to the previous generation. Those who decide that they have to take up the medium density product likely to be offered will be making do with a far inferior option. It is not just that there will be less house and less protected exterior space. The zoning reforms being put in place will also undermine the suburban ambience of residential neighbourhoods.

Is the zoning solution politically feasible?

Our analysis of the 2016 Census indicates that a majority (though shrinking) of persons living in Sydney and Melbourne resides in detached housing.\textsuperscript{42} Most of this majority will be affected by the abolition of zoning constraints. In Sydney, the new zoning code could result in intensive medium-density developments in most streets, as detached housing sites incrementally come on to the market.

Few suburban home owners will be unaware of the long term fate of their suburban environment. It includes the loss of their suburban streetscape as two to three storey blocks of apartments and townhouses rear up, canopy trees and shrubs are cleared, and streets become clogged by on-street parking and local traffic congestion.

They will also learn that they have no say in the matter. Their elected councillors are required by the GSC and the planning agencies of the NSW Government to act as implementing agencies for the new medium density regime. For residents, this means the end of local democracy as they have experienced it in the past.

The Grattan Institute has nothing to say on this issue. The RBA dismisses the costs of its zoning proposals in one line.\textsuperscript{43} As for the GSC, the Chief Commissioner, Lucy Turnbull thinks the people of Sydney are right behind the Commission’s plan. She says:

\begin{quote}
    The people of Greater Sydney told us their views on how our city is growing, what sort of future city they want and how the challenges we face daily might be better met.\textsuperscript{44}
\end{quote}

When Gladys Berejiklian became NSW Premier in January 2017, she nominated the housing affordability crisis as the biggest issue facing Sydney and declared that increasing housing supply was ‘the best way to address housing affordability.’\textsuperscript{45}

Politicians and planners appear to be assuming that the majority of residents in Sydney and Melbourne will look on passively as these amenity destroying medium-density policies are implemented.

Perhaps they think that suburban residents, the majority of whom own or are purchasing their dwelling, will be supporters because they are the main beneficiaries of the housing price escalation.

However, most of these home owners purchased their home for life style reasons, chiefly in order to raise a family in the manner expected in Australia, but also, especially as they age, because they value the ambience of detached suburbia. They are a potent political constituency if aroused by threats to this lifestyle.

Vocal opposition to the Sydney medium density initiatives has already erupted in some Sydney municipalities. They include Ryde, where the Mayor and the Liberal local MP, Victor Dominello, have led the charge. Shortly afterwards, the NSW government Planning Minister, Anthony Roberts announced that the new planning code, described above, would be suspended in Ryde. The Minister
admitted that infrastructure was lagging behind development in the municipality.\textsuperscript{46} It will not surprise that leaders in other municipalities are seeking a similar outcome.

Premier Berejiklian is learning that she has exchanged one political problem (the housing affordability crisis) for another.

\textbf{Conclusion}

House and land prices are expensive and becoming more so in all large cities in developed countries. There is a common explanation. This is that job growth in such countries is strongest amongst managers and professionals, many of whom are employed in industries that are concentrating in inner city areas. Competition for a limited stock of nearby housing increases and, inevitably, so does its price.\textsuperscript{47}

But why is this phenomenon so severe in Sydney and Melbourne, which currently feature the most expensive detached homes relative to household income in the developed world, with the exception of Vancouver and Hong Kong?

Successive Australian governments have invited this outcome because of the huge tax incentives given to owner occupiers and to investors who purchase residential housing. These purchasers know that their capital gains are largely protected by these concessions and that, in the case of investors, they can defray some of the costs by negative gearing. For its part, the RBA has stoked the process by reducing interest rates. It has done this deliberately, in the expectation that this would fuel the housing and city building industries. This, the RBA believes, is necessary if Australian is to cope with the drastic decline in resource development investment since 2012.

Owner occupiers and investors have responded with a vengeance to these incentives. As for investors, there are now over two million taxpayers who own one or more investment properties, most of which are located in Sydney and Melbourne.

However, rather than invest in new dwellings, as the Coalition Government likes to claim, the great majority of investors have purchased established houses.

They are being joined in the competition for these homes by large numbers of young residents and recently arrived overseas migrant households. The latter are adding an additional 19,000 to 20,000 new households each year in both cities. These migrant households are contributing around 64 per cent of Sydney’s household growth each year and about 54 per cent of Melbourne’s household growth. Like the new resident households, most of the migrants are young and also entering the family formation age or arrive with children.

The resident and migrant households are entering a detached housing market in which households aged 50 plus are occupying an increasing share (over 50 per cent by 2011) of the established housing stock. This is a crucial factor in the scarcity of detached housing in Sydney and Melbourne. Because of the ageing of Sydney and Melbourne’s populations, the number of households in this 50 plus age category is increasing by around 15,000 a year in both cities.

No wonder Sydney and Melbourne are record breakers in the housing unaffordability stakes.

\textbf{What to do?}

The political response has been to leave the tax and interest rate incentives alone and to ignore the migrant contribution to dwelling demand.
An initial move by both the NSW and Victorian governments was to grant developers the right to put two units on a detached housing site. This, as we have seen, did not work.

Next, large swathes of both Sydney and Melbourne were rezoned for high rise apartment developments. The hope was that this would provide a supply-side solution that would not require a more radical deregulation of suburban zoning rules and thus would not upset suburban communities.

The high-rise strategy has not worked either. It is has resulted in record numbers of high-rise apartment completions in both cities. However, these apartments are for the most part unsuitable for either the younger resident or migrant family households.

The response from politicians and planners has been to promote new, supply-side policies, focussed on more medium-density housing. This strategy requires the abolition of zoning constraints in suburban locations.

We have argued that this supply-side strategy is not likely to work. This is largely because of the rise in site costs for medium-density housing. This is especially likely if:

- a) the tax incentives prompting upgrading owner occupiers and investors to compete for detached houses are left intact, as the GSC assumes; and
- b) the influx of migrants to both cities continues unabated (again, as the GSC assumes).

All this competition, as well as from developers seeking sites on which they can put medium-density units will add to these price pressures.

*The big picture*

Since the end of the resources investment boom in 2012, Australia’s political and economic elites (including, as noted, the Reserve Bank) have fastened on to a transitional strategy to sustain Australia’s economic growth. It is to drive economic activity by promoting city building and housing construction. This would be accomplished (they expected) by reducing interest rates, keeping incentives for investors intact and by a commitment to keep the immigration intake at high levels, thus reassuring investors that they would receive strong capital gains from their housing purchases. This was a strategy entirely focussed on supply. It was expected that it would simultaneously boost the economy and provide the additional dwellings needed for the growing population. For its part, the building industry welcomed the challenge and asserted that migration would actually help by providing a stream of building tradespersons.

It is all gone horribly wrong. Instead of the construction of family friendly dwellings, we have seen a wall of money invested in established detached houses. This occurred in a context where the number of available detached houses in each city is actually contracting each year because of the ageing affect and when, every year, an additional 19,000 to 20,000 migrant households are looking for accommodation in each city. This huge number is partly a consequence of an (unanticipated) concentration of Australia’s incoming migrants in Sydney and Melbourne.

The boost to supply that elites thought would occur has not eventuated. As we have seen, it mainly came in the form of high-rise apartments which are largely irrelevant to the housing needs of most new resident and migrant households.

The result is an intergenerational divide in which the younger generation have little hope of attaining the housing their parents’ generation enjoy. Property owners are feasting on extraordinary
capital gains at the expense of young people who, in Sydney and Melbourne, will never experience any similar benefits because they cannot get onto even the lowest rung of the property ladder.

As the seriousness of the affordability crisis has deepened, it has prompted more extreme proposals, notably the abolition of zoning constraints. Yet, these cannot work while intense competition for medium density sites continues.

The planning elites seem to be tacitly accepting this judgement. They are proposing massive expansion of the urban frontier. Even the resolutely urbanist GSC is proposing that the city be extended to new growth areas around Penrith to the north west and Campbelltown to the west, both of which are some 51 kilometres from the Sydney CBD.

There are other proposals, with more merit, including supply initiatives that would increase the availability of affordable rental dwellings and see the construction of more public housing addressed to the needs of the housing poor. This is a solution favoured by many urbanists, including the planning academics cited above. Some advocates also think older homeowners should be encouraged to downsize thus leaving more space for younger families.

The problem with the social housing initiative is that it is unlikely to generate more than a fraction of the annual number of new dwellings needed each year to cope with projected housing needs (of around 35,000 in both cities).

As to the ageing downsizing proposals, most older households, with good reason, are reluctant to move. In any case, why should they have to cop the required reduction in their amenity when there are other policies which could achieve a much better outcome?

*The immigration factor*

A reduction in the demand side of the equation offers the best solution. This can only come from a fall in the net overseas migration intake. This would prompt a reduction in the competition for available housing and thus would take some of the heat out of the housing market. In so doing it would make zoning and social housing initiatives more feasible because it would reduce site costs.

A reduced immigration flow is not going to cause a collapse in housing prices because there is so much unfulfilled need for family friendly housing and large numbers of younger resident households are poised to enter the housing markets of Sydney and Melbourne.

This is not to claim that a smaller migrant intake will by itself fix the housing affordability crisis in Sydney and Melbourne. Nevertheless, it must be part of the solution. There is plenty of room for action on the immigration front. As documented in recent reports, the skilled migration program could be slashed. It is delivering very few of the scarce skills advocates claim. Employers would hardly notice the difference if the program was abandoned. This generalisation also applies to claims by the building industry that migration is delivering lots of construction trade persons. In fact, the number of such trade persons being visaed in the skill program is tiny.

The family reunion program is also ripe for reform. For example, permanent residents as young as 18 can sponsor a spouse without any financial requirement. They do not even need to hold a job.

If the NSW and Victorian governments did push for a reduction in the migration intake this could well tip the scales in favour of such action at the federal level. If this happened, it would probably be welcomed by most voters in NSW and Victoria.
### Appendix I: Estimate of additional dwelling needs under NIL NOM, 240,000 NOM and total, 2012-2022, Greater Sydney and Greater Melbourne

#### Sydney

<table>
<thead>
<tr>
<th>Age band (years)</th>
<th>Semi-detached, row or terrace house, town house</th>
<th>Semi-detached, row or terrace house, town house</th>
<th>Flat, unit or apartment</th>
<th>Total</th>
<th>Semi-detached, row or terrace house, town house</th>
<th>Semi-detached, row or terrace house, town house</th>
<th>Flat, unit or apartment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>-4,120</td>
<td>-1,320</td>
<td>-4,160</td>
<td>-9,600</td>
<td>-6,350</td>
<td>-1,240</td>
<td>-3,430</td>
<td>-11,150</td>
</tr>
<tr>
<td>25 - 44</td>
<td>-19,270</td>
<td>-6,000</td>
<td>-15,570</td>
<td>-41,100</td>
<td>-12,420</td>
<td>-2,900</td>
<td>-4,920</td>
<td>-20,350</td>
</tr>
<tr>
<td>45 - 54</td>
<td>8,780</td>
<td>1,340</td>
<td>2,020</td>
<td>12,220</td>
<td>13,490</td>
<td>1,750</td>
<td>1,930</td>
<td>17,250</td>
</tr>
<tr>
<td>55 – 64</td>
<td>24,080</td>
<td>6,160</td>
<td>34,690</td>
<td>49,150</td>
<td>33,770</td>
<td>4,020</td>
<td>3,800</td>
<td>41,180</td>
</tr>
<tr>
<td>65 – 74</td>
<td>40,940</td>
<td>6,110</td>
<td>58,980</td>
<td>77,030</td>
<td>43,090</td>
<td>6,110</td>
<td>6,440</td>
<td>55,860</td>
</tr>
<tr>
<td>75+</td>
<td>35,170</td>
<td>7,170</td>
<td>11,800</td>
<td>54,640</td>
<td>37,710</td>
<td>6,860</td>
<td>9,120</td>
<td>53,880</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>85,430</strong></td>
<td><strong>11,880</strong></td>
<td><strong>11,460</strong></td>
<td><strong>109,570</strong></td>
<td><strong>129,380</strong></td>
<td><strong>16,890</strong></td>
<td><strong>15,140</strong></td>
<td><strong>161,990</strong></td>
</tr>
</tbody>
</table>

#### Melbourne

<table>
<thead>
<tr>
<th>Age band (years)</th>
<th>Semi-detached, row or terrace house, town house</th>
<th>Semi-detached, row or terrace house, town house</th>
<th>Flat, unit or apartment</th>
<th>Total</th>
<th>Semi-detached, row or terrace house, town house</th>
<th>Semi-detached, row or terrace house, town house</th>
<th>Flat, unit or apartment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>-2,670</td>
<td>-1,320</td>
<td>-9,770</td>
<td>13,820</td>
<td>4,320</td>
<td>2,250</td>
<td>8,130</td>
<td>15,160</td>
</tr>
<tr>
<td>25 - 44</td>
<td>15,380</td>
<td>10,330</td>
<td>24,400</td>
<td>38,700</td>
<td>33,720</td>
<td>9,940</td>
<td>31,500</td>
<td>75,600</td>
</tr>
<tr>
<td>45 - 54</td>
<td>11,650</td>
<td>3,360</td>
<td>9,390</td>
<td>24,400</td>
<td>32,360</td>
<td>9,230</td>
<td>14,090</td>
<td>55,870</td>
</tr>
<tr>
<td>55 – 64</td>
<td>5,020</td>
<td>1,680</td>
<td>4,550</td>
<td>11,250</td>
<td>18,170</td>
<td>3,580</td>
<td>4,450</td>
<td>26,400</td>
</tr>
<tr>
<td>65 – 74</td>
<td>1,830</td>
<td>1,450</td>
<td>2,080</td>
<td>5,360</td>
<td>3,180</td>
<td>990</td>
<td>1,780</td>
<td>5,950</td>
</tr>
<tr>
<td>75+</td>
<td>410</td>
<td>170</td>
<td>700</td>
<td>1,280</td>
<td>1,330</td>
<td>220</td>
<td>510</td>
<td>2,060</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>56,640</strong></td>
<td><strong>28,240</strong></td>
<td><strong>112,370</strong></td>
<td><strong>198,810</strong></td>
<td><strong>101,970</strong></td>
<td><strong>26,840</strong></td>
<td><strong>63,040</strong></td>
<td><strong>193,140</strong></td>
</tr>
</tbody>
</table>

#### Additional dwellings 2012-2022 projected due to increasing the NOM to 240,000 –migration component

<table>
<thead>
<tr>
<th>Age band (years)</th>
<th>Semi-detached, row or terrace house, town house</th>
<th>Semi-detached, row or terrace house, town house</th>
<th>Flat, unit or apartment</th>
<th>Total</th>
<th>Semi-detached, row or terrace house, town house</th>
<th>Semi-detached, row or terrace house, town house</th>
<th>Flat, unit or apartment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>-1,450</td>
<td>-10</td>
<td>5,610</td>
<td>4,210</td>
<td>-2,030</td>
<td>1,010</td>
<td>4,690</td>
<td>4,000</td>
</tr>
<tr>
<td>25 - 44</td>
<td>-3,900</td>
<td>4,330</td>
<td>44,700</td>
<td>45,860</td>
<td>21,300</td>
<td>7,030</td>
<td>26,580</td>
<td>55,240</td>
</tr>
<tr>
<td>45 - 54</td>
<td>20,430</td>
<td>4,700</td>
<td>11,410</td>
<td>36,620</td>
<td>38,260</td>
<td>5,860</td>
<td>6,650</td>
<td>51,080</td>
</tr>
<tr>
<td>55 – 64</td>
<td>29,100</td>
<td>5,880</td>
<td>10,710</td>
<td>45,950</td>
<td>42,660</td>
<td>4,650</td>
<td>6,380</td>
<td>53,910</td>
</tr>
<tr>
<td>65 – 74</td>
<td>42,670</td>
<td>7,960</td>
<td>13,310</td>
<td>64,340</td>
<td>46,270</td>
<td>7,100</td>
<td>8,220</td>
<td>61,810</td>
</tr>
<tr>
<td>75+</td>
<td>35,580</td>
<td>7,340</td>
<td>12,490</td>
<td>55,730</td>
<td>39,040</td>
<td>7,080</td>
<td>9,630</td>
<td>55,940</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>142,060</strong></td>
<td><strong>40,120</strong></td>
<td><strong>123,820</strong></td>
<td><strong>308,360</strong></td>
<td><strong>231,340</strong></td>
<td><strong>43,710</strong></td>
<td><strong>78,170</strong></td>
<td><strong>355,090</strong></td>
</tr>
</tbody>
</table>

Notes: The totals by age group in each panel have been rounded. Totals include a small number of other and not stated dwelling types not shown separately. The age group for each household is that of the reference person in each household. The propensities used to calculate the data in the table were drawn from the 2011 Census. The migrant status was determined by the birthplace and year of arrival information for Persons 1 and 2 in each household and weighted to take account of mixed households where a recent migrant lived with a pre-2001 migrant or Australia-born person.

Source: Bob Birrell and David McCloskey, The Housing Affordability Crisis in Sydney and Melbourne; Report One: the Demographic Foundations, Table 7, The Australian Population Research Institute (TAPRI)
References


2. Greater Sydney Region Plan, A Metropolis of Three Cities, March 2018

3. The Grattan Institute, Housing Affordability, Re-imagining the Australian Dream, The Grattan Institute, 4 March 2018

4. Ross Kendall and Peter Tulip, The Effect of Zoning on Housing Prices, Reserve Bank, Research Discussion Paper, 2018

5. The Grattan Institute, op cit., p. 83

6. Ibid., p. 87

7. Luci Ellis, Reserve Bank, Opening Statement to House of Representatives Standing Committee on Economics Inquiry into Home Ownership, 6 August 2015

8. Household head refers to the reference person in each household. That person is the household member used in Census coding as the basis for identifying the relationships between usual residents of a household. It is overwhelmingly Person 1 on the Census Household Form. In a small minority of cases, the Australian Bureau of Statistics chooses a more appropriate person on the form during clerical coding. For example, an adult is chosen rather than a child. In the event of multiple family households additional reference persons are chosen which is why Table 1 only includes the reference person from the primary family to ensure the counts represent the number of households not the number of families.

9. UDIA (Urban Development Institute of Australia), State of the Land, 2018, p. 43

10. Ibid., p. 32

11. Ibid., p. 43


13. An SA2 area is ‘medium-sized general purpose areas built up from whole Statistical Areas Level 1 [the smallest geographic area analysed by the ABS]. Their purpose is to represent a community that interacts together socially and economically.’ <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1270.0.55.001~July%202016~Main%20Features~Statistical%20Area%20Level%202%20(SA2)~10014>

14. Ibid.

15. Greater Sydney Region Plan, op cit., p. 58


17. Birrell and McCloskey, op cit., p. 17

18. Ibid., p. 10

19. The Grattan Institute, 2018, op cit., pp. 45-54

20. McCrindle, Sydney Lifestyle Study, Redefining Sydney’s urban lifestyles, Urban Taskforce Australia, December 2017, pp. 8-9

21. Australian Bureau of Statistics (ABS), Building Approvals, 8731.0 Jan 2018

22. The Grattan Institute, 2018, op. cit., pp. 50-51


For example, see the Grattan Institute publication City Limits, by Jane-Francis Kelly and Paul Donegan, Melbourne University Press, 2015

The Grattan Institute, 2018, op. cit., P. 54

Ibid., p. 56

Ibid., p. 3

Ibid.

Ibid, p. 3

Kendall and Tulip, op. cit., pp. 17-18

UDIA, The State of the Land, 2018, p. 39

Daniel Butkovich, ‘Thousands of owners on narrow blocks set to benefit under NSW government changes to housing code’, Domain, March 2018, p. 2


Ibid.

Nicole Gurran, et al., ‘Affordable housing policy failure still being fuelled by flawed analysis’, The Conversation, March 15

Michael Buxton, Robin Goodwin and Susie Moloney, Planning Melbourne, Lessons for a Sustainable City, CSIRO Publishing, 2016, P. 76


Daniel Butkovich, op. cit., p. 5

2016 Census, T15, Dwelling Structure by Number Of Persons Usually Resident

RBA, op. cit., p. 22 [Bob not sure what this refers to. Is it Luci Ellis? I can’t find a reference to the RBA report you cite in the text.]

https://www.greater.sydney/sydney-ready-meet-growth-challenges

Jacob Saulwick, ‘Time to take a breath: government hits the brake on Sydney housing hotspot’, SMH 15 May, 2018

Ibid.

Aiden Turner, Between Debt and the Devil, Princeton University Press, 2016, Chapter 4

Nicole Gurran, et al., op cit

Bob Birrell, Australia’s skilled migration program: scarce skills not required, The Australian Population Research Institute, March 2018

Ibid, pp. 7-8


Katharine Betts and Bob Birrell, Australian voters’ views on immigration policy, The Australian Population Research Institute, October 2017