Separating Prospects from Propaganda in Urban Consolidation

Dr Raymond Bunker
Darren Holloway
Professor Bill Randolph
UNSW/UWS AHURI Research Centre

INTRODUCTION

Urban consolidation has become the main instrument of urban development in Australia’s major metropolitan centres over the past years. It has been espoused longest and strongest in Sydney as the largest Australian city and one increasingly limited by severe topographical and environmental constraints. This paper examines three related key issues in which urban consolidation plays a prominent role in policy and advocacy. They are:

- the part urban consolidation plays in current metropolitan strategies as an instrument in attempts to reconfigure and restructure metropolitan areas;
- the ways in which urban consolidation may have helped to satisfy an increasing variety of housing needs by improving the range of dwelling choice in terms of cost, tenure, location and type of dwelling;
- the ways in which urban consolidation may help to reduce car-dependence in Australian cities.

The paper examines findings on these matters insofar as they can be supported by empirical data and research analysis, and then reviews and comments on the results. Because this is a report of research in progress, the results are somewhat uneven in terms of the firmness of the conclusions that can be drawn from them. For space reasons it concentrates on Sydney, Melbourne and Brisbane.

HOW IS URBAN CONSOLIDATION USED AS AN INSTRUMENT IN THE SPATIAL ORGANIZATION OF AUSTRALIAN CITIES IN CURRENT METROPOLITAN STRATEGIES?

Melbourne

*Melbourne 2030: Planning for Sustainable Growth* (Department of Infrastructure 2002) is the first of the three metropolitan strategies considered here to be finalised, and one which is well supported by linked documents, data and information. Because of this a substantial critique has been mounted about its plans for future dwelling provision, their

It is estimated that 620,000 new dwellings will be needed to accommodate Melbourne’s population growth by 2030. The plan seeks a more compact city by imposing an urban growth boundary, and concentrating 70 per cent of this growth in the existing metropolitan area over the time period 2001-2030. Most of these new dwellings in the present urban fabric would be in the form of medium- and high-density housing concentrated in and around activity centres (including ‘strategic development sites’) rising to 53.5 per cent of the total approvals in 2026-30 compared with 24 per cent in the 1997-2001 period. The proportion in dispersed development (including a small non-urban component) in existing suburbia outside activity centres would drop correspondingly from 38 per cent to 26.1 per cent. Activity centres are concentrations of employment and mixed use with good public transport connections generally. They are a long-established theme in Melbourne metropolitan planning and arranged in a hierarchy with Melbourne Central Business District as the Central Activities District and more than 100 principal, major and specialized activity centres across metropolitan Melbourne. The association of medium- and high-density housing with activity centres is meant to reduce car-dependence, bring more local jobs within reach of residents, and help the provision of community services of all kinds.

This momentum and scale of redevelopment raises a number of questions, not only including the capacity of activity centres to accommodate such increases with good living conditions and amenity. In older centres the necessary reconfiguration of land division patterns, land and property ownerships and building forms will be formidable tasks, and land use planning measures on their own are likely to be inadequate mechanisms in bringing this about in an efficient, coordinated and seemly manner (Goodman & Moloney 2004).

**Sydney**

Sydney’s metropolitan strategy is still being formulated, but some of its essential themes, components and targets have been released. It adopts a similar methodology to that of Melbourne 2030 with some variations and far less information and data about its arithmetic. Papers released in early December 2004 estimated that about another 640,000 new dwellings would be needed to house the increase in Sydney’s population over the next twenty five or thirty years (DIPNR 2004a). Like Melbourne, around 60 to 70 per cent were to be built in existing suburbs, together with some 220,000 new dwellings on greenfields sites in large corridors to the north-west and south-west. Like Melbourne, centres around which residential and business development will be concentrated have been nominated in some sort of hierarchy.

Four major regional centres have been defined at the Central City of Sydney, Parramatta, Newcastle and Wollongong. Nominated ‘growth centres’ are to focus new greenfields development but certain existing centres will act in a similar way to those in Melbourne as expanded concentrations of living and business. There is some confusion about the definition, status and role of the centres at the time of writing, with seven nominated in
Sydney’s west (including Parramatta again) and ‘four corridors for renewal’ along congested main roads. But the estimated 418,000 new dwellings to be built in the existing urban fabric have been allocated to broad regions, as shown in Figure 1.

Figure 1: Allocation of future dwelling growth in the next 25-30 years to the sub-regions of Sydney

While a small proportion of these will be in the form of separate houses, the majority will be in the form of attached dwellings, exclusively so in the case for the two central regions where 53 per cent of the increase is allocated, meaning massive redevelopment of existing areas, many of them already of medium density. Again the same questions apply to those raised in Melbourne about the capability of these areas to absorb such increases in an efficient and satisfactory manner.

**Brisbane and South East Queensland**
The *South East Queensland Regional Plan 2005-2026* (DLGPSR 2005) was released on 30th June 2005. It was the culmination of several years of work involving close cooperation and interaction between the state government and the local governments of south east Queensland. The region contains many urban settlements of varying size, of which Brisbane City is the largest and Gold Coast City about half that size. It is estimated that 575,000 new dwellings will be required to house the anticipated population increase from 2004 to 2026. Like Melbourne and Sydney the plan seeks to promote a more compact form of settlement. It sets ‘anticipated total requirements for dwellings’ – not targets - by local government area. In the course of this it increases the percentage of new dwellings provided through infill and redevelopment. This is done to achieve an aggregate target of 40 per cent of all dwellings constructed in the region between 2004 and 2016, rising to 50 per cent in the period 2016-2026. This also requires a range and mix of dwelling types, and presumably most of those built as infill will be of medium- and high-density. Higher density residential development is to be focused around regional activity centres, public transport nodes and corridors.

Brisbane Central Business District is the Primary Activity Centre. Fifteen principal activity centres of sub-regional significance and containing important concentrations of business are defined. Residential development densities of between 40 and 120 dwellings per hectare (net) or greater are envisaged around them. The next rung of the hierarchy consists of twenty two major activity centres, around which future residential development is seen as reaching dwelling densities of between 30 to 80 per hectare (net). There are several specialist activity centres: precincts of regional economic significance such as the universities, Royal Brisbane Hospital and Brisbane Airport.

**Summary**

The themes of much more medium- and high-density housing clustered round areas of mixed use containing concentrations of employment, linked one with another and the central business district by rail and bus are common to all three plans examined here. The degree of emphasis and dominance of each of these themes, and the ways they are related vary. As commentators note, the crucial question is whether and how these policies can be implemented. Challenges include the continued spread of “urban dispersal through low outer urban greenfield densities” (Buxton & Tieman, 2005:155), extensive building of medium-density housing in existing urban areas outside activity centres (Birrell *et al.*, 2005) and the continued building and use of major roads and freeways (Mees, 2003).

**WHAT ARE THE CHARACTERISTICS OF THE DIFFERENT KINDS OF DWELLINGS MAKING UP URBAN CONSOLIDATION AND THE PEOPLE LIVING IN THEM?**

This section reviews the recent growth of medium- and high-density housing in Sydney, Melbourne and Brisbane and analyses its characteristics. It then discusses the kind of people and households living in the different types of attached dwellings in various parts of Sydney and then constructs a social profile of the households living in such dwellings.
in the seven growth centres nominated in western Sydney in the emerging metropolitan strategy.

The data to do this comes from customised data obtained from the Australian Bureau of Statistics on attached housing. These comprise three types: semi-detached, row and villa homes joined horizontally; flats, apartments and units in buildings of three storeys or less; and such dwellings in structures of four or more storeys. Such data does not include dual occupancy dwellings where they are separate houses, but it does if they are joined in any way. In some areas this can represent a substantial undercount (Buxton & Tieman, 2005, Birrell et al, 2005). But this kind of development is at the lowest end of urban consolidation, and the separation of detached from attached housing is a significant one in terms of building form and sometimes of household character. The number of dwellings involved does not invalidate the broad conclusions drawn from the data relating to attached housing, which excludes such detached dwellings on dual occupancies.

Growth in Attached Dwellings and Distribution

Recent trends in the building of attached housing in Sydney, Melbourne and Brisbane are shown in Table 1. They amounted to 910,000 in 2001. This represented a 64% increase in the numbers of such dwellings since 1981, or an additional 356,209. At the same time the number of separate houses increased by 37%. So there has been a significant relative shift towards medium- and higher-density housing over the two decades. The largest absolute increase was recorded in Sydney, while the largest percentage increase occurred in Brisbane. And the rate of increase is speeding up. In Sydney, two thirds of the increase in attached dwellings came in the 1991-2001 period.

Table 1: The growth of attached housing in Sydney, Melbourne and Brisbane, 1981-2001

<table>
<thead>
<tr>
<th>2001</th>
<th>Separate Houses</th>
<th>Attached Dwellings</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sydney</td>
<td>907,195</td>
<td>500,089</td>
<td>1,438,394</td>
</tr>
<tr>
<td>Melbourne</td>
<td>919,704</td>
<td>302,897</td>
<td>1,243,373</td>
</tr>
<tr>
<td>Brisbane</td>
<td>481,333</td>
<td>107,986</td>
<td>601,146</td>
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<tr>
<th>% of Total Dwellings</th>
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<tr>
<td>Sydney 63%</td>
</tr>
<tr>
<td>Melbourne 74%</td>
</tr>
<tr>
<td>Brisbane 80%</td>
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</tbody>
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<tr>
<th>Change 1981-2001</th>
<th>Separate Houses</th>
<th>Attached Dwellings</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sydney</td>
<td>+185,353</td>
<td>+187,602</td>
<td>+373,304</td>
</tr>
<tr>
<td>Melbourne</td>
<td>+238,976</td>
<td>+104,507</td>
<td>+342,885</td>
</tr>
<tr>
<td>Brisbane</td>
<td>+193,472</td>
<td>+64,100</td>
<td>+263,339</td>
</tr>
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| Total                | +617,801       | +356,209           | +979,528 |

<table>
<thead>
<tr>
<th>% Change 1981-</th>
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<tr>
<td>Sydney</td>
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<td>Melbourne</td>
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<tr>
<td>Brisbane</td>
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Separating Prospects from Propaganda

Infrastructure 15-5
In all three cities reviewed here, medium- and higher-density housing is associated with higher value inner city locations, where redevelopment of older housing has been proceeding for many years in some cases. More recent redevelopment of older redundant industrial and waterfront sites have added to this older stock. There are also distinctive clusters and concentrations along suburban rail and transport routes and town centres. The size and suburban expansion of this sector is much more advanced in Sydney than the other two cities as Figures 2, 3 and 4 show.

However, under the new metropolitan planning imperatives, new higher-density housing stock is set to expand in suburban locations, as well as concentrating further in existing core areas. In Sydney, there is already growing pressure on town centres in outer locations such as Penrith and Campbelltown to accommodate a significant increase in higher-density housing. This will radically change the housing markets in these hitherto firmly low density areas in the not too distant future. It will also mark a further stage in the shift to higher-density living in Australian cities. New plans for the new release areas around Sydney and other cities foreshadow higher densities in strata title dwelling form which will mark again a new phase in suburbanization with higher density residential clusters in new town and neighbourhood centres built into new development. As a result Australian suburbs are set to change for ever.
Much of the push for increased medium- and higher-density housing is based on the projection that there will be a larger proportion of smaller households in the future, with larger numbers of older people, and an increasingly mobile population. The logic is that there is less need for larger dwellings, especially those with three or more bedrooms, to meet the projected demand from older and smaller households. Strata title flats and semi-detached housing may be more appropriate for these groups. Whether this is the case will be critical to the success of the compact city policies over the next few years.
Characteristics of Attached Dwellings

Regardless of its future role, the current medium- and high-density market is a distinctive one. Figure 5 shows the accommodation in the different types of attached dwelling in the three cities is predominantly one or two bedroomed. However this is less so with semi-detached and similar dwellings, and the recent expansion in this sector in Sydney has raised the proportion of those with three bedrooms or more (Bunker, Holloway & Randolph 2005a). Doubts have also been placed on whether the demographic shift to smaller households means smaller dwellings will suffice (Wulff, Healey & Reynolds 2004).

The attached housing market is also predominantly for rental. Figure 6 shows that in the three cities, for those dwellings privately owned (i.e. excluding public rental), 55% of flats are rented from a private landlord, compared to 14% of separate houses. Only 20% are owned outright and just 11% are being purchased. The comparable figures for separate houses are 48% and 33% respectively. Semi-detached dwellings occupy an intermediate position with almost two in five rented from private landlords. The role of the medium- and higher-density sector as an investment market is clear from these figures.
Both these features – the high proportion of rental and small size of dwelling - have substantial implications for the acceptance of attached housing as a mainstream housing option, a point to which we will return later.

A Social Profile of Residents Living in Attached Housing

Partly because of its size and tenure characteristics, the attached housing sector in the three cities is home to a specific demographic. Figures 7 to 11 illustrate this range of social characteristics. In terms of household type, as Figure 7 shows, 46% of households in flats were single persons (15% in houses). With the exception of group households (at 9%), all other household types were under-represented compared to houses. In particular, there are relatively few families with children in flats, where the proportion of households with them was just 12% compared with 45% in houses.

The under-representation of children in attached housing is clearly shown in Figure 8. Only 12% of the flat population is aged under 15 years, compared to 23% of those in houses. On the other hand, flats house almost double the proportion of people aged 25 to 34 compared to houses (26% and 14% respectively). As for the empty-nester market, the proportion of people aged over 65 in flats is only marginally higher than that in houses (13% compared with 11%). So far, then, flats do not seem to have made disproportionate inroads into the empty nester market.
Figure 7: Dwelling type by household type, Sydney, Melbourne and Brisbane, 2001.

Figure 8: Dwelling type by age of person, Sydney, Melbourne and Brisbane, 2001.
With higher proportions of single person households, it is not surprising that average household incomes in flats are lower than that of households in houses. Overall, 43% of households living in flats had incomes under $600 a week, compared to 29% for those in houses as Figure 9 shows. Almost half, or 47%, of those living in low-rise flats had incomes of under $600 a week. In contrast 29% of households living in houses have incomes above $1,500 compared with 19% for flats. However, the data also suggests that households in high rise flats are relatively better off compared to those in low rise flats. This is consistent with the known age and distribution of the former, as they are often newer and concentrated in higher value central cities or regional centres. The household income profile will have a significant impact on the future of attached housing, effectively restricting the amount low income households can afford to pay for flats, whether for rent or, less likely for purchase. First time single buyers on moderate incomes are likely to find even this market problematic to buy into.

![Figure 9: Dwelling type by household income, Sydney, Melbourne and Brisbane, 2001.](image)

A critical characteristic of the flat market is the high level of turnover. Well over half (56%) of those living in houses said they were at that present address five years earlier, compared to only 26% of flat dwellers as Figure 10 shows. Moreover as many as 15% of households in flats said they were living overseas five years previously, compared to just 3% of house residents (the figure was almost one in five for those living in low rise flats). The turnover rates of the attached housing market are closely related to the high proportion of rental. If these levels of turnover remain a persistent feature of the attached housing market, then this will have significant implications for the social outcomes from a much enlarged flat market in urban areas.
Figure 10: Dwelling type by whether the household moved to their current address in the five years preceding 2001, Sydney, Melbourne and Brisbane.

Figure 11: Dwelling type by country of origin of person, Sydney, Melbourne and Brisbane, 2001.
Finally, less than half (46%) of those living in flats were Australian born, compared to 68% of persons living in separate houses. The high level of overseas born is a reflection of both the rental nature of the attached housing stock and the nature of the accommodation. It is likely that many households from overseas, particularly from Asia, are more used to living at higher densities, at least in the earlier stages of their residence in Australia. Of course, income restraints and the ready availability for such dwellings are also contributing factors.

**Submarkets in Attached Housing in Sydney**

These generalised characteristics of attached housing and those living in them in Sydney, Melbourne and Brisbane are useful as a starting point, but need to be pursued to see how they are combined in different ways and varying emphases to form unique local submarkets in attached housing. This has been done for Sydney as fully reported elsewhere (Bunker, Holloway & Randolph 2005a, 2005b, 2005c) showing that the total attached housing market in Sydney is segmented and fragmented so that defined submarkets appear in several locations.

![Figure 12: Location of CDs with high scores on Factor 1](image-url)
Factor analysis using a range of housing related census variables was undertaken focusing on Census collector districts (CDs) with a high percentage of attached housing. This identified six groupings of characteristics explaining in all about 70% of the variance within the data set. These were then detailed further by analysis of the 33 CDs scoring most closely against each factor, using special cross-tabulations of the characteristics of households actually living in the three types of attached dwellings in those areas. The two most significant factors represented, on the one hand a suburban low-income submarket strongly associated with a migrant population renting flats in older low-rise blocks, and the other a higher income mature professional worker and retiree submarket with higher levels of ownership in central city and waterfront locations. Figures 12 and 13 show the distribution of these two important submarkets across Sydney.

A Social Profile of Seven Nominated Growth Centres in Sydney

Against this background we construct a social profile of existing populations living in the seven growth centres in western Sydney nominated as places for accelerated future business and residential development (DIPNR 2004b). Some of these have low concentrations of attached housing at present and selected CDs with over 80% of the dwellings in the form of low-rise or high-rise flats were chosen (except for Campbelltown). The Census data set was supplemented by the ABS Index of Socio-Economic Disadvantage (ABS 2003) calculated at the suburb level. The lower the Index the more disadvantaged the population.
Parramatta
The six CDs selected here are around the historic settlement and major regional centre, with 63% of its dwellings in the form of high-rise flats. From Figure 12 it can be seen that it was one of the principal locations of the low income migrant suburban rental submarket. 45% of the population was born in Asia, 4% in the Middle East and only 21% in Australia, with a high ‘not stated’ category of 18%. The area was below the average score on the Index of Socio-Economic Disadvantage; household incomes were low, unemployment rates high and skill levels low. There were few children and relatively high proportions of group, single-person and ‘other’ households. Only 23% of the population had been living at the same address as five years previously and 57% rented from private landlords, again with a high ‘not stated’ category for tenure.

Bankstown
This area north of Bankstown railway again shows a focus of the migrant housing submarket illustrated in Figure 12. Nearly three-quarters of dwellings were in the form of low-rise flats. Only 34% of the population was born in Australia, with 25% from Asia, 14% from the Middle East, and 6% from Europe.

Fairfield
Again, Figure 12 shows these CDs northwest of Fairfield railway station as concentrations of the low income migrant rental submarket. 61% and 28% of dwellings were in the form of low-rise and high-rise flats respectively.

The CDs had distinctive characteristics, with 77% of the population born overseas, mainly in the Middle East, 28% lacking fluency in English and a very low score of 711 on the Index of Socio-Economic Disadvantage compared with a Sydney average of 1017. Unemployment ran at 27% and two thirds of the workforce were unskilled or had only minimal skills. 49% of the population was not in the labour force compared with a Sydney average of 33%.

The general picture is of a low-income migrant community with some continuity, low communication and employment skills. 22% of the population was children in the 0-14 age group and 15% of households consisted of single-parent families.

Liverpool
This area around Liverpool railway station is again strongly represented in Figure 12. 54% of dwellings were high-rise flats and 43% low-rise. 70% of people were born overseas, but this time they came mainly from Europe, other than the U.K. and Ireland, with 14% from Asia and only 8% from the Middle East. 35% of households were
couples with children and 27% single parent families so that 21% of the population was children. This was a deprived and disadvantaged population similar to that of Fairfield, with a similar score of 741 on the Index of Socio-Economic Disadvantage, but different in its ethnic makeup.

**Blacktown**
Although outside the geographical ambit of Figure 12, this area north and east of the railway stations, is again a concentration of the low income, migrant, renting sub-market. 89% of housing was in the form of low-rise flats. The population had a pronounced multi-cultural character, with 26% of the population born in Australia, 26% in Asia, 18% in Europe and 10% from the Middle East and Africa.

62% of households rented from private landlords, and 10% from the public housing authority. Unemployment was high at 13% and the Index of Socio-Economic Disadvantage was 902.

**Campbelltown**
This municipality has little attached housing and only one CD could be used - with 46% of dwellings in the form of low-rise flats. This population was relatively stable with 42% of households living at the same address as five years earlier, and 17% of the population being over 65. 57% of people were born in Australia, 12% in Asia, and there were minor proportions born in the U.K. and Ireland, Europe, Oceania, Africa and the Middle East. 40% of households were lone person and 16% single parent. Incomes were low, unemployment stood at 19% and the Index of Socio-Economic Disadvantage at 828 was the second lowest of the growth centres.

**Penrith**
This again was a community in stress, scoring 897 on the Index of Socio-Economic Disadvantage, and 10% of the workforce unemployed. But this time the population was predominantly Anglo-Celtic with 65% born in Australia and 5% in the U.K. and Ireland. 52% of households consisted of one person only, nearly two and a half times the average for the Sydney Statistical Division, predominantly of young and middle-aged adults. Remarkably the proportion of adults who were separated or divorced was 20.3% or twice the Sydney average. There was also a significant elderly population.

In summary, all the growth centres nominated in western Sydney in the Sydney metropolitan strategy have scores well below the average on the Index of Socio-Economic Disadvantage. Five of them are locations of the strongest housing submarket defined in the analysis of the Sydney market in attached housing - that of migrant low-income communities renting largely from the private sector. A detailed profile of these shows the proportion coming from different countries varies, but there are common features of high unemployment, low skills, and lack of fluency in English. Four of these five also have more children than the average for the Sydney Statistical Division.

Penrith and Campbelltown are more Anglo-Celtic in character. They also have substantial elderly populations, more pronounced in the case of Campbelltown. Penrith
has some unique characteristics: a very high proportion of lone person households, and of adults separated and divorced.

**WHAT IS THE LIKELY CONTRIBUTION OF URBAN CONSOLIDATION TO CAR-DEPENDENCE?**

One of the perceived benefits of urban consolidation is that increasing residential densities around public transport nodes and routes will encourage more people to use this mode of travel. The flow-on benefits of such a strategy are a consequential decline in car and energy use and greenhouse gas emissions.

This argument has been advanced in recent years by Newman and Kenworthy (1989, 1999). Their work in 32 cities (1989) and 46 cities (1999) across the globe posited that 60% of energy consumption in the transport system could be attributed to the level of density. That is, to reduce vehicle and energy use in cities with predominantly low densities, we should be planning for future growth at higher densities.

However, there have been a number of criticisms directed at both Newman and Kenworthy’s methodology (Brindle 1994, Mindali et al 2004) and the use of this concept as a basis for urban consolidation policy (Stretton 1994, Breheny 1995, Yencken 1996, Mees 2000). In particular it has been pointed out that there are a number of factors that influence whether individuals use public transport. These include the nature of the transport network itself, transport policies, incentives or disincentives to use a car, and the frequency, reliability and safety of public transport systems.

Newman has gone on to suggest that a minimum development density of 35 people and jobs per hectare is needed before car dependence can be adequately addressed. He argues that this means in urban design and metropolitan planning terms, centres should be planned around this density of development. Local centres could then achieve a level of 10,000 people and jobs within 1 kilometre of a transport node such as a railway station. A major regional centre would need about 100,000 people and jobs within a 3 kilometre radius “for it to be a viable centre” (Newman 2005:129). There is an obvious link here with the role of activity centres used in the metropolitan strategies.

**COMMENT, CRITIQUE AND CONCLUSION**

A number of important points follow from this analysis of the three interrelated issues of the role of urban consolidation in metropolitan planning, the households living in it and what form of transport they use.

**The Methodology of Metropolitan Planning**

Within reviews of the kind of political economy informing planning (Gleeson & Low, 2000); the apparent reorientation of urban growth management around principles of sustainability and democracy (Gleeson et al, 2005); the importance of discourse analysis in understanding the assumptions and principles informing metropolitan strategies (Searle, 2005); it is also important to appraise the kind of methodology used to construct
metropolitan strategies. The conclusion from our analysis is that while projection of population and housing demand and its distribution in the long term to serve strategic objectives is a necessary exercise, it is not sufficient in itself.

First such long term projections are only indicative. The population forecasts in the Sydney metropolitan strategy have already been challenged as exaggerated (Parr & Culpin, 2005). It is strange to put such weight behind long-term regional targets of the kind shown in Figure 1 so that while the Minister can admit to some possible modification of them by councils in some suburbs this is only “where it can be demonstrated that the regional share of growth is being met, and where housing for older people is being provided for” (Craig Knowles releasing Keeping Communities in a Growing City, 2004a). It is more important to place emphasis on the shorter-term estimates of growth provided through the Metropolitan Development Program, which has built up data, networks and infrastructure of its own over the years.

Second, the possibility of achieving the large concentrations of medium- and high-density housing envisaged around activity centres remains problematic. There may appear to be sufficient space in a metropolitan overview to renew and expand existing activity centres to achieve higher densities. While this tends to happen through the operation of the property market, its outcome depends critically on local circumstances; patterns of land ownership, values and use; capacity constraints of one kind or another; and traffic associations. Neither are land use structure plans and regulations sufficient to ensure the satisfactory implementation of such planning proposals, unless they are accompanied by other policy and organizational initiatives and incentives.

A third and related point is that urban consolidation in existing urban areas involves different degrees and types of urban renewal. Intensification by the demolition of separate houses for medium- or high-density development is a different kind of process from the renewal of older medium-density housing which is more complex and costly and often achieves only modest increases in population and dwellings.

Fourth, while taking account of changing household structures to justify increased building of medium- and high-density dwellings, the assumptions and analyses about the carrying out of urban consolidation in the metropolitan strategies are preliminary and need to be enriched and modified by much more attention to local circumstances, suburban social and community objectives, and desired housing and residential environment outcomes.

Finally, all these points emphasise the importance of local inputs into the process of constructing a metropolitan strategy. While recognizing that a mosaic of local plans does not add up to an effective metropolitan strategy (Spiller 2005), local government has an important role in both shaping and implementing the directions and policies set in the metropolitan plans. Both in the Melbourne (Goodman & Moloney 2004), but particularly in the Sydney documents, it is apparent that local governments and community interests needed to be enlisted much earlier in the process of formulating the strategy so that it appreciates and commands the richness of local environments and experience, has a
better possibility of implementation, and takes more account of housing needs and social outcomes. We are reminded of the important distinction in Captain Cook’s encounters with a number of strange indigenous populations between ‘observation’ and ‘communication’ (sic) (Thomas, 2003).

**Housing and Social Policies and Strategies**

Urban consolidation as an instrument for achieving a more compact city has a history of some twenty-five years in the case of Sydney. With its dominant role in metropolitan planning, this gives both the opportunity and necessity to revisit some of its initial broad assumptions, and seek better articulation and employment of appropriate policies. For example the research reported in this paper indicates that attached housing does appear to be to be providing a wider range of choice in housing which has been particularly utilised by the many types of household that have become of increasing importance in the last twenty or thirty years.

This, however, begs the question as to whether attached housing has become a residual option, or more painfully a refuge of last resort for those who cannot afford to buy a separate house or indeed any kind of dwelling. In her analysis of housing choices in Sydney and Melbourne in terms of location, dwelling type and tenure, Judith Yates concluded that it “provided some evidence for the claim that acceptance of higher density dwelling is driven primarily by affordability considerations rather than preferences” (Yates, 2001:517).

The housing submarket analysis and social profiles of nominated growth centres in Sydney offer some pointers to the future while recognizing the dynamic nature of these conditions with the high rates of turnover of residents and the ageing of the population. These conclusions are best exemplified by the submarkets defined by the two most important groupings in the factor analysis reported previously.

Wealthy residents, of the kind constituting submarket 2, will be able to afford dwellings in high-value high-amenity locations. They will require spacious homes with good security, an interesting and pleasant local environment and garaging for their cars. They are more likely to be stable populations in the sense of having higher levels of home-ownership and length of stay that is generally the case with those living in attached dwellings. Households with low incomes will be forced into attached housing more by necessity than choice with the possibility of increasingly large concentrations of households of this kind, many with children. Social, living and environmental conditions would not be good, and turnover high given the dynamics of stress.

There are similar issues on the supply side. Briefly, these involve standards, finance and management. Urban renewal is a costly and complex process and cutting the standards of development is a temptation in reducing these difficulties. The head of Meriton has already stated that local councils are too tough on building standards, especially in western Sydney and there should be a very simple uniform standard for units (Allen 2005). On finance, most attached housing up to now has been built for rental by investors. Whether investors and developers will be able and willing to build the
substantially increased numbers required is an issue, particularly given the alternatives available in switching savings from one form of investment to another and the speed with which this can occur. Doubts of this kind have been raised in a survey of development potential around one of the activity centres in Melbourne (SGS Economics & Planning 2005). Management of large areas of attached housing built for rental, with a high turnover of residents, and representing different and dynamic submarkets presents another challenge. The governance and financing of corporate bodies requires review and perhaps new legislation to govern emerging practices, such as the contracting out of maintenance and management (Randolph 2005).

Urban Consolidation and Car-Dependence?
In the early years urban consolidation was often seen as a panacea for many urban problems. While this belief has largely disappeared, there still remains a substantial body of opinion that the compact city and medium- and high-density living is the solution for car-dependence. This ignores the fact that there are several reasons for owning and using a car, of which income, location and size and type of household would be the most important. However, accessibility to public transport is still seen as the dominant influence in determining travel behaviour, and zoning and planning practices for urban consolidation follow this precept without considering other factors involved in choosing where and in what type of dwelling to live.

It is remarkable that there has been little empirical testing in Australia of the perceived association between residential densities and household travel characteristics and behaviour and the reasons for them. Until effective household interviews are carried out to establish the travel patterns of residents living at different densities and locations, and informed by the socio-demographic characteristics of those surveyed, it will be difficult to construct the range of policy measures aimed at reducing car-dependence.

CONCLUSION
As stated at the beginning of the paper, this review of the three interrelated roles of urban consolidation in restructuring metropolitan areas for a more sustainable future; in satisfying housing needs; and in reducing car-dependence is uneven. The results recognize the important roles of the metropolitan strategies in scoping long-term scenarios of population distribution and increased urban renewal, together with the promotion of activity centres as an instrument of restructuring metropolitan growth and function. But it also shows the need to modify them and shape them in terms of shorter-term processes, local conditions, social opportunities and pitfalls, and transport policies and facilities.

A review of recent research on those living in attached dwellings is helpful in this regard. But such research has used Census and similar macro-data. It needs to be carried forward through household interviews in order to more fully establish the housing and social implications of urban consolidation in terms of the behaviour, experiences and perceptions of residents. We need to know the expectations, outcomes, advantages and
difficulties of those living in the dwellings built under the rubric of urban consolidation, and their decision-making processes.

A similar initiative would also be appropriate in finding out how and why people living in medium- and high density housing use public and private transport.

**REFERENCES**


Department of Infrastructure, Planning and Natural Resources, New South Wales (2004a), *Keeping communities in a growing city*, DIPNR 13 December, Sydney

Infrastructure 15


