



THE UNIVERSITY OF
SYDNEY

**The Henry
Halloran Trust**

Finding the Right Mix in Public Housing Redevelopment: Review of Literature and Research Findings

Michael Darcy and Dallas Rogers

October 2019

Finding the Right Mix in Public Housing Redevelopment: Review of Literature and Research Findings

Summary

In several Australian states a target of 70:30 private to public dwellings has become an accepted standard for tenure mix in public housing renewal projects, however the origin of this formula related to project exigencies rather than research evidence. Empirical research and evidence on mixed-tenure renewal neighbourhoods is reviewed in the following sections of this paper. This illustrates the limitations of a simple mathematical 'one size fits all' target for tenure mix and supports the need for a more nuanced and context sensitive approach.

Limitations of the fixed ratio approach relate to:

1. Scale and boundaries of the area to which the target is applied;
2. Urban context of the renewal project including the likely tenure and social profile of private residents and the response of the local market;
3. Composition of the post-renewal social housing population.

Research has consistently shown that the role modelling and networking potential predicted to be associated with social mixing has not occurred, and critical appraisal reveals that observed improvements in employment or educational achievement are mostly accounted for by demographic change. Nonetheless returning tenants consistently report increased satisfaction with housing quality, physical amenities and infrastructure.

While the evidence demonstrates that tenure mixing should not be seen as a strategy for addressing poverty, private investment and sales are required to secure the benefits of housing renewal. Attention then turns to the most appropriate ways to deliver mixed-tenure neighbourhoods and how to determine the most effective balance between public and private dwellings in specific urban contexts.

Recently published research from the UK, USA and Australia suggests that there is no 'correct' mix and that attention needs to be paid to concentration, composition and scale. This means that proposed tenure mix should take into consideration the likely composition of both public and private components of the community, both inside and beyond the boundary of the redevelopment site.

In dense inner city locations such as Waterloo research shows that investment and sales remain strong even when the social housing element is far higher than 30% across the neighbourhood, while the private component of mixed income developments can be expected to include high levels of rented dwellings. In Australia, many of the poorest renters live in private rental and not social housing. In this context achievement of 70:30 mix within an existing estate area could result in a less diverse social and tenure profile when measured at the neighbourhood scale.

Recent US research suggests that a mix of ages, incomes and family types amongst social housing tenants and the delivery of other community programs is more important than tenure mix in securing positive outcomes for poor households.

Evaluation of recent Australian projects shows that allocating 70% of dwellings to private investors while limiting social housing produced through renewal to 30% by simply replacing (or reducing) the existing number of units represents undervaluing of a significant public asset and a lost opportunity to address the chronic undersupply of social housing in well serviced urban areas.

Supporting evidence

Why do public housing redevelopment projects pursue social or tenure mix?

Social mix is frequently proposed as an antidote to the negative consequences of geographically concentrated poverty, in particular in large public housing estates. Such negative consequences are usually understood to arise from cultural reproduction of negative values and behaviours amongst poor residents (for example attitudes and choices relating to work or education), and from stigmatisation of poor neighbourhoods by the wider community. Together these factors are thought to compound the disadvantage of poor households and restrict their opportunities and social mobility. The theory underpinning poverty de-concentration and social mix policies is known as 'neighbourhood effects' (van Ham *et al.* 2012). Despite its apparent adoption as orthodoxy amongst urban managers and policy makers, and particularly state and city housing authorities in Western industrialised countries, social mix as an objective for reconfiguring public housing assets remains contentious. A large body of research has set out firstly to demonstrate and measure neighbourhood effects, and secondly to document and analyse the impacts of socially mixed neighbourhoods under a variety of scenarios.

What is the research evidence regarding concentrated poverty?

A large body of research has attempted to develop methods to demonstrate and measure neighbourhood effects in poor neighbourhoods (see for example van Ham *et al.* 2012; Galster 2007; Musterd *et al.* 2003). While some theoretical advances have been achieved it has proved persistently difficult to separate the effects of living in a particular neighbourhood from the impact of individual household histories and characteristics and the influence of changes in wider social and economic conditions, so as to show significant cause-effect relationships. Shaw and Hagemans (2015:325) highlight the problem when they argue that *"the supposed improvement in education and job prospects for the poor is especially controversial (see Manley *et al.*, 2012), as is the question of 'upward social mobility' and what this actually means."* For example Musterd, Ostendorf and de Vos (2003) conducted an extensive comparative longitudinal study which sought to discover the effect of living in a poor neighbourhood on social mobility only to find;

".. that the chance of a household living purely on welfare benefits at the beginning of the study period to escape the 'welfare trap' was barely dependent on the number of similarly challenged households in the immediate vicinity". (p.877)

George Galster, perhaps the most prolific and highly cited contributor to this field of research, has applied econometric methods to theoretically model *"the alternative mechanisms for how neighbourhood effects might occur, showing that different mechanisms lead to radically different conclusions regarding desired neighbourhood household mix"* finally concluding that *"the common policy thrust toward neighbourhood social mixing must be seen as based more on faith than fact."* (2007:35). Galster (2013:308) has continued to resist engaging in debates concerning specific mix policies and targets and more recently described social mix as *"an intrinsically vague, slippery term"*.

How is social mix defined and operationalised?

The many possible dimensions of social mix, including age, culture, education and income (to name just a few) contribute to this conceptual and methodological difficulty. Groenhart for example warns against using tenure as a proxy for complex forms of disadvantage finding that

“the modelling suggests that tenure seems to be a comparatively weak measure of social mix, compared to education, income and employment. Therefore, policy makers should be cautious when equating tenure mix with social mix in Australia and other jurisdictions, even though residualisation of the [social housing] sector would suggest social tenure housing should be analogous with socio-economic disadvantage”. (2013:112)

Nonetheless in Australian policy discourse social mix has been largely reduced to a question of the relative proportion of public rental dwellings amongst all other tenures in a given area mainly because of its simplicity and amenability to policy intervention. As Arthurson explains,

“Social mix is a somewhat vague concept that is often better explained in more precise terms as income mix or housing tenure mix, which are in fact two measurable indicators...” (Arthurson et al. 2015:491-2)

What is the research evidence about the benefits of mix?

Attempts to use social mix to address problems of urban poverty have sparked considerable research and academic debate in the U.K. (Atkinson & Kintrea 2001), Europe (Blanc 2010) the U.S. (Imbroscio 2008, Chaskin & Joseph 2011; Fraser et al. 2013) and Australia (Arthurson, 2002, 2008; Darcy, 2010; Ware, Gronda & Vitis, 2010). Researchers have employed a wide variety of methods and approaches to the question of whether dispersal of poor households, usually public housing tenants, amongst more affluent neighbours who access housing through the private market leads to improvements in their opportunities and living conditions and/or to wider community benefits, and if so what an appropriate or effective mix or balance might look like in practice.

Many empirical studies have been conducted in income and/or tenure mixed neighbourhoods which have been developed under policies aimed at poverty deconcentration. Perhaps the most comprehensive single program was conducted in Chicago over more than ten years by Robert Chaskin and Mark Joseph and is outlined in their landmark book *Integrating the Inner City: The Promise and Perils of Mixed-income Public Housing Transformation* (Chaskin & Joseph 2015). On the question of tenure mix and social mixing Chaskin and Joseph describe their key finding as follows:

Policy assumptions that spatial integration will lead to social interaction and increased social capital for public housing residents are not coming to fruition . . . there is little interaction across incomes and housing tenures . . . Although dyadic relations are usually described as trouble free, significant tensions has arisen across sites ranging from a low key but pervasive ‘us and them’ attitude between higher and lower income residents to more significant conflicts . . . many residents have withdrawn into relative isolation or homophilous relationships, particularly organised around home ownership on the one hand, and public housing status on the other. For community problem solving and social control they also increasingly rely on formal mechanisms that further isolate and exclude families relocated from public housing and other low income residents. (Chaskin and Joseph 2015: 156)

This finding is echoed in varying degrees in virtually all post-redevelopment empirical studies (see for example Graves 2010, Shaw and Hagemans 2015). Kelly and Porter recently reviewed the international literature to find;

“There were no empirical research findings within the approximately 750 scanned, and 70 reviewed articles in this section, which support the implementation of social mix policies.” (Kelly & Porter 2019:45)

There is broad agreement in the research community that 'role modelling' and 'bridging social capital' or 'networking' benefits of mixed tenure developments are illusory and that observed improvements in employment or educational outcomes are frequently a result of changed demography of a neighbourhood rather than changes in circumstances of poor tenants.

In fact, Patulny and Morris (2012:3365) analysed data from the 2006 Australian General Social Survey, and found that social housing residents are likely to have more diverse social networks than private residents by all measures. Arthurson suggests that *"this finding raises concerns around the effectiveness of the social mix policy as a tool to change already heterogeneous networks"* (Arthurson et al. 2015)

Nonetheless there are undoubted benefits to be gained from mixed tenure redevelopment and the research literature reveals some consensus around improvement in housing quality through renewal, reduction in crime and antisocial behaviour (although improvements in the latter over and above demographic change are found to depend on other related interventions including tenant selection, place making and urban design strategies). The literature also provides conditional support for possible reductions in neighbourhood stigma although recent Australian research suggest that this may not be the case at the very local level:

"Our findings indicate that being a private resident is associated with higher stigma levels towards social housing tenants" (Raynor et al. 2020:6)

"An unexpected finding in one study was that although the broader neighbourhood reputations appeared to have improved after regeneration, internally residents associated private rental tenure with neighbourhood stigma" (Arthurson et al. 2015:492)

An early 2004 AHURI study found high levels of satisfaction with neighbourhood improvements amongst remaining tenants in tenure mixed estate redevelopments in four Australian states:

"It was clear that renewal has reduced the outstanding repairs and maintenance backlog for those properties renovated or replaced which will have medium term positive housing management outcomes.

The long term lack of maintenance has been the major driver for stigmatisation of estates in the eyes of tenants." (Randolph et al. 2004:57)

Despite their reservations outlined above, Chaskin and Joseph (2015) report,

"The benefits of living in these new mixed-income communities were generally seen as stemming from improvements in safety and the built environment rather than from the behavioural cues they might take from their higher-income neighbors . . . one should not underestimate the benefits of structural changes that provide for safer and higher-quality neighborhoods . . ." (p.227)

In the Australian context, Shaw and Hagemans (2015) note mixed tenure redevelopment also leads to greater investment in the physical landscape:

"There is little doubt that the middle classes, by virtue of their higher economic, social and cultural capital, support higher-quality shops and services in their neighbourhood, successfully lobby for landscape and infrastructure upgrades and attract public investment to the area (Schoon, 2001; Wood, 2003; Freeman, 2008). The improvements they bring to the physical environment through increased rate revenues alone are well established (Shaw, 2005)". (p.325)

What is the basis of the 70:30 split used in many Australian redevelopment projects?

In a number of Australian states authorities have adopted a target ratio of 30% social to 70% private housing in renewal projects. Historically the preferred 70:30 formula is traced to NSW government redevelopment projects implemented in outer suburban Sydney in the early 2000s. The rationale provided at the time was based on the exigencies of the project at hand rather than on any evidence concerning potential social mixing outcomes. It relied on estimations of achievable density and the possibility of tenants returning to the estate should they wish. The following quote sets out the thinking behind the proposed tenure mix in Bonnyrigg as it was outlined to possible private development partners:

“While the final proportion of private housing is not fixed, as a guide to Proponents, the Department’s indicative view is that 70% private households is a reasonable target .. Given the current and likely future profile of tenants in the Estate area, and the desirability of achieving a seamless integration of Social Housing into a private housing matrix, the Department does not believe that less than 50% private households is desirable.

If a development solution were to be endorsed allowing approximately 2000 cottages, townhouses and units and 70% of these properties were to be private housing, then there could be approximately 600 Social Housing properties in the Estate area. In this scenario, given the requirement that there be no net reduction in the overall stock of Social Housing in Western Sydney as a result of the Project, some 245 Social Housing properties would need to be acquired or developed outside the Estate area and 245 Social Housing tenants and their families would need to be relocated. Early indications are that there are about 200 or more tenants who would prefer to be rehoused in other areas.” (Coates & Shepherd 2005:10)

This formula has been extrapolated to other Australian public housing renewal projects with little or no adjustment to specific urban context or considerations of the scale of measurement – although notably in the case of Bonnyrigg the successful ‘proponent’ later sought to increase the number of social housing units on-site when it became clear that the cost of acquiring dwellings to re-house displaced tenants off-site was much higher than projected.

What is the recent evidence in Australia and elsewhere about 70:30?

Detailed empirical research concerning the implementation and outcomes of the 70:30 approach in two Victorian mixed income renewal projects has recently been published. This includes evaluation of the Kensington renewal project (Shaw *et al.* 2013), research on Carlton (Ziersch *et al.* 2018) and RMIT’s report on the outcomes of the Victorian Public Housing Renewal Program (Kelly & Porter 2019).

Shaw’s team conducted a comprehensive evaluation of the Kensington renewal project covering the financial model and outcomes, housing mix, social mix and place making. Social mix findings and tenant satisfaction with the physical redevelopment closely reflect the conclusions of previous studies outlined above. The project aimed for a mix of 30% social and 70% private housing *in the new build component* based on the perceived higher risk of selling properties in a public housing redevelopment and the need to maintain profitability for the developer. Nonetheless, including more than 220 units which were refurbished rather than rebuilt, after redevelopment social housing dwellings constitute 47% of the estate. Yet because of the particular urban context of the project, the market risk proved to be lower and developer profits were higher than estimated. There was also a strong investor presence in the private apartments with fewer owner occupiers than anticipated.

Shaw *et al.* (2013) demonstrates that government also incurred higher costs than necessary to provide additional housing off-site which could have been done by requiring a higher on-site ratio while

maintaining developer profitability and with no less achievement of the social objectives. The evaluation report recommended an increase on the 30% social housing target within the new-build element:

“Knowing what we know now – that inner-city public housing estate redevelopments are not as high-risk as anticipated – it is reasonable to suggest that future developments at least maintain public housing numbers, and increase the new-build public housing component above 30 percent. The impact of the 30:70 public-private mix on cash flows to both the private and public stakeholders was not quantitatively examined by DHS.

The rationale for this particular ratio appears to be based on unsupported qualitative estimates. The effect of the 30:70 mix minimises the headline cost of the redevelopment to the public sector and maximises the profit to private sector. This may have been valid at Kensington due to the fact that it was the first project of its kind, but the approach should not be taken again.” (Shaw et al. 2013:65)

Carlton in Victoria provides a further example of the numerical target being deployed in a narrow way without attention to scale or context, but which draws attention to issues of design. The PHRP project in Carlton focussed on redevelopment of one part of the subject site occupied by just under 200 units. Redevelopment saw this increased to more than 900 units, 27% of which were retained as social housing in line with the 70:30 target designed to achieve social outcomes and maintain developer profitability. However all these ratios ignore the presence of over 800 high rise public dwellings at the same location which were retained and upgraded. Redrawing the site boundary just slightly thus means tenure mix on the site is now about 40:60 with the larger component being public housing. Despite this, researchers found strong support for tenure mix policies including from amongst home owners

“This finding may reflect the particular context of the Carlton Housing Estate redevelopment, where private owners and renters have moved into a social housing estate in an area that is itself gentrifying .. It is also possible that people living in Carlton are more likely to be more ‘liberal’ in their thinking about public housing through choosing to live in the area, known to have a number of public housing estates” (Ziersch et al. 2018:70)

Nonetheless, fear about the marketability of dwellings in the mixed-tenure part of the development led to controversial changes in building configuration designed deliberately to restrict mixing between public and private residents with social housing tenants using a separate entrance and being denied access to a private outdoor area of the development. Arthurson *et al.* (2015) state,

“as a result of the global financial crisis and the developers exerting pressure on government there was a gradual move away from perceiving social mix as a policy tool for encouraging social inclusion at Carlton, between public housing tenants and private residents, towards a different form of social mix and inclusion. Contrary to intentions, the revised form of social mix at Carlton was perceived as a means to harness market capital and attract higher income residents to the inner city.” (p.491)

Proponents of mixed-tenure developments in other countries have adopted a variety of models for achieving tenure and social mix objectives. The Federal HOPE VI program in the US has provided 260 ‘Revitalisation’ grants to local housing authorities since 1993 with very similar aims to those outlined for Australian public housing renewal projects. The program has produced approximately 100,000 new dwellings. While it is often thought that HOPE VI tenure mix target could be summarised as equal thirds of public housing, affordable rental and market rate housing – and thus similar in some respects to the Australian 70:30 model, a comprehensive data analysis conducted by the National Initiative on Mixed Income Communities shows that 57% of units produced were for public housing, 30% were

affordable units and 13% were market-rate units. 85% of the units produced are rental units, and almost half of all sites (47%) have not built any market-rate units. The National Initiative on Mixed Income Communities concluded;

“to the extent that the success of the mixed-income strategy is considered to depend on a broader mix of incomes and a critical mass of higher-income residents, including homeowners, then this was not widely achieved” (Gress, Cho & Joseph 2016: 58)

This is accounted for by changing local and national market conditions and also the limited resources available for meeting social housing demand outside of this program. However it does not mean that HOPE VI has not achieved its key objective of revitalising degraded inner city areas, reducing stigma and reducing the social exclusion of public housing residents. Shamsuddin and Vale (2017) conducted one of the few longitudinal studies of a HOPE VI renewal project in Orchard Park (Boston). They contend that by focussing on the perceived benefits of living near better-off neighbours, existing theory and research has focussed on atypical cases that attempt a broad income mix, and by ignoring alternative mixed-income approaches it has left untested the premise that large numbers of poor families are a problem for housing projects. In Orchard Park, following a model developed with participation of existing residents, the renewal project retained 85% of dwellings produced for low-income households but focussed on achieving social mix within the public housing tenure. Prior to renewal Orchard Park was one of the most distressed neighbourhoods in the US, but the project was a remarkable success winning several national best practice and design awards. The conclusions of Shamsuddin’s longitudinal study focusses on the composition of the returning public housing population which was deliberately mixed by income and age and also excluded certain former residents;

The HOPE VI program clearly denied re-entry to many households, leading to their displacement, but many respondents perceived those households to be the source of social problems. These low-income residents credited improved social conditions to the removal of disruptive tenants rather than to the import of higher income residents paying market rates and acting as role models. (Shamsuddin & Vale 2017:15)

What are the important issues in deciding the best mix?

In the context of a highly residualised social housing sector few would argue that new public housing should be developed in large concentrated estates separated from the wider community. Both research and experience suggest that private investment and dwelling sales are required to deliver neighbourhood renewal and improvements at scale. The key question then is not whether to develop mixed tenure neighbourhoods but, given what we now know about the impacts on poor households, firstly how can this be done to maximise benefits and minimise costs especially to the most disadvantaged, and secondly what is the optimum balance between social housing and other tenures that would achieve this. Based on a review of evidence from mixed-income communities in the U.K Tunstall and Fenton (2006) identify three dimensions of mix that must be understood and accounted for in planning. These are *composition, concentration and scale*.

Composition includes the composition of the subsidised housing tenants (age, cultural diversity, income etc) but also of the market housing component, and this in turn requires consideration of the urban context in which the redevelopment is located.

In the conventional 70:30 tenure mix formula ‘private’ or ‘market’ housing remains undifferentiated possibly on the presumption that the benefits of mix accrue simply from incoming residents not being social housing tenants. Some studies go so far as to equate ‘private’ housing with owner occupation.

The tenure status of incoming residents in mixed tenure renewal cannot be guaranteed but may be inferred from the specific urban context and the type and design of housing produced.

Pinnegar *et al.* (2013) show private investors buy properties in public housing estate redevelopments and place this stock on the private rental market. This increases the overall rented component on the site. Pinnegar *et al.* (2013) found this additional rental stock may not affect private housing sales;

“exploring experiences of tenure mix further, having moved in, incoming residents found it made little difference to their lives or perspectives of the community, and certainly in the case of the private renters, had not affected their interest in perhaps purchasing a home in one of the later stages.” (p.64)

Kelly & Porter (2019) conclude,

“It is clear in hindsight that apartments on well-located public housing estates do sell in the private market, and that the risk [that they will not sell due to their proximity to social housing] is not as great as thought. This is likely to be more the case on inner-urban than outer suburban estates.” (p.32)

Higher density inner city areas have a higher proportion of private renters and, therefore, an increased proportion of private housing is most likely to result in an increase in the overall proportion of renters in the area. The ultimate effect of this may be to reduce tenure diversity in the area, and the specific implication of this are discussed in a later section.

Groenhart (2013:102) suggested the *“spatial scale, both the scale at which tenure mix policy is implemented and the scale at which it is analysed”* was a key analytical question that might change the reported neighbourhood effect. Arthurson (2010:52) showed tenure mix implementation could be analysed at the *“neighbourhood, block or street level”*. More recently, Kelly and Porter (2019:46) argued the *“scale of mix is perhaps the most ‘slippery’ in conceptualising social mix, in part due to the ambiguity around sites and methods of evaluating where mix is achieved”*.

Kelly and Porter (2019:55) argue, *“neighbourhood is often conflated with the territorial concentration of a dominating social group”*, e.g., social housing tenants, *“which is a perspective refuted by urban studies scholars”*. The boundaries of a redevelopment site, such as a social housing estate, are often taken as the spatial context or scale for measuring social mixing and neighbourhood effects. However, a large body of work from the US (Fraser *et al.* 2013), Europe (Blanc 2010) and Australia (Darcy 2010) finds that the redevelopment site boundary is not the most appropriate spatial scale for measuring social mix for the following reasons.

First, the boundaries of a redevelopment site do not usually map onto social networks of the people who live inside these boundaries especially where sites are integrated or contiguous with developed urban areas (Darcy 2010:13). In other words, the social networks of the residents of a neighbourhood or social housing estate often extend far beyond the estate.

Second, the choice of a narrower or wider boundary changes the outcome so that concentrations of a particular group appear high or lower as you push the spatial boundary out or pull it in. *“The choice of a wider boundary and thus a larger unit of analysis can see concentrations disappear as they are diluted by non-public tenant households around them”* (Darcy 2010:13).

Third, the boundaries of large-scale social housing estate redevelopments are usually geographically defined by government owned land, because government agencies can only determine tenure mix within these sites. One of the stated objectives of social housing renewal is to integrate social housing into the wider community and to make these boundaries permeable, therefore it makes little sense

to measure mix at the estate level. As Kelly and Porter (2019:55) note, this “*type of mix takes place at the micro-scale of neighbourhood characteristics, with an intensive method of social and spatial re-composition, and does not [or may not] achieve social mix at other scales of analysis*”.

Blanc (2010 quoted in Groenhart 2013:102) uses the example of tenure mix in France to argue that at a street level mixed areas may appear homogenous, while aggregating to a larger spatial scale can make spatially segregated areas appear mixed. He concludes that “*what is visible at a given scale is unseen at another*’ (Blanc 2010:267).”

Definitive policy guidance for Australian projects is provided by the Australian Housing and Urban Research Institute’s Policy Brief on Public Housing Renewal and Social Mix which states

“The spatial scale for any consideration of social mix is the neighbourhood (4000-8000 people) not small scale public housing developments or individual apartment blocks. This means the allocation of social affordable and private housing should be considered at the neighbourhood scale, not the project or redevelopment site scale”. (AHURI 2017)

What might all this mean for an inner city project like Waterloo?

Regardless of the design of developments and whether or not tenure mix leads to social mixing and its presumed benefits for disadvantaged households, tenant satisfaction surveys and other data seems to confirm the view of Galster and Friedrichs (2015) that it is better to be poor in an affluent area than poor in a poor area. However, this statement begs the question of what is meant by ‘living in an area’, again forcing consideration of composition, urban context and scale. In their extensive review of the Victorian PHRP projects Kelly & Porter (2019) point out;

“estates within the current tranche of redevelopments in Melbourne are well-resourced by social services and infrastructure and constitute small islands of low-income residents among increasingly affluent private areas. Melbourne’s inner- and middle-suburban estates are small and surrounded by private housing. Public housing blocks already have private households in the immediate neighbourhood surrounds. They all have excellent infrastructure and local services” (p.57)

This is highly analogous to the proposed Waterloo renewal project in Sydney, but also raises the question of the expected composition or tenure mix within the private component of housing in the renewed neighbourhood. Table 1 illustrates the large variation in tenure mix in five Sydney suburbs and for the Greater Sydney area. Taking into account the research findings and policy guidance outlined above, tenure-mix proportions are shown at the ABS scale of ‘State suburb’ (which most closely equates to the neighbourhood as defined by AHURI) in order to illustrate how different urban contexts might produce a wide variation in tenure mix outcomes following redevelopment .

While privately rented dwellings constituted 44% of all dwelling stock in Waterloo, which was considerably higher than the metropolitan average, they comprised 63% of private dwellings which is double the Greater Sydney proportion. Waterloo is presently dominated by investor owned rental housing and future occupation is likely to follow this pattern.

The Waterloo renewal site currently contains approximately 1900 public housing units, while the current renewal plan proposes retaining this number in the context of a threefold increase in dwellings with a 70:30 private-public tenure mix, generating a total of approximately 6500 dwellings. However, as Table 1 shows at the suburb or neighbourhood level in 2016 Waterloo encompassed 6151 dwellings almost exactly 30% of which were under social housing tenure.

Table 1: Tenure Mix in selected suburbs 2016

	Alexandria		Redfern		Waterloo		Campbelltown		North Ryde		Greater Sydney	
Owned outright	461	13.16%	778	14.18%	395	6.42%	1081	25.08%	1338	39.49%	475996	30.54%
Owned with a mortgage	1233	35.21%	1179	21.48%	1201	19.53%	1138	26.40%	1227	36.22%	542276	34.79%
Private rental	1739	49.66%	2419	44.08%	2723	44.28%	1719	39.87%	588	17.36%	461561	29.61%
Social Rental	66	1.88%	1108	20.19%	1832	29.79%	376	8.72%	235	6.94%	78749	5.05%
Total	3499	100%	5484	100%	6151	100%	4314	100%	3388	100%	1558582	100%
% renters excl Social Housing	50.66%		55.28%		63.05%		43.65%		18.65%		31.19%	

Source: ABS Census 2016

Addition of 4600 new private households while maintaining current social housing numbers will see the proportion of social housing in Waterloo fall to approximately 17% while projecting the current rate of renters in private dwellings onto the proposed 70:30 renewal mix would be expected to result in 63% of new private dwelling being privately rented. At the suburb level Waterloo would then comprise 52% private renters, while less than one third of residents would be owner occupiers. That is to say, applying the 70:30 target to the redevelopment of the existing public housing estate would actually result in reduced tenure diversity for Waterloo when measured at the neighbourhood scale as recommended by AHURI.

Table 2: Waterloo Suburb Projected Household Tenure Mix

Tenure	2016 Census		After public Housing Redevelopment (70:30 tenure mix)	
Owner Occupier	1596	25.95%	3261	30.61%
Private Rental	2723	44.28%	5556	52.16%
Social Rental	1832	29.79%	1832	17.20%
TOTAL Households	6151	100%	10651	100%

Source: ABS Census 2016

In the only full length book on social mix in Australia, titled *Social mix and the city: Challenging the mixed communities consensus in housing and urban planning policies*, Arthurson (2012) highlights;

".. despite this focus of debates about social mix on areas of concentrated social housing, concentration of disadvantaged households also exist in private rental housing, which do not receive the same attention. The omission of private rental from the social mix literature is problematic, as in Australia and elsewhere most poor renters are in private rental and not in public housing" (p.1-2).

Generation rent is likely to become a key factor in the reproduction of socio-economic inequality in Australia and Sydney (Atkins *et al.* 2019). In Sydney, Melbourne and Brisbane between 2006 and 2016,

the number of privately rented households grew by more than twice the rate of total household growth (ABS 2016), while house prices grew by 94%, 95%, and 51% respectively (ABS 2019) and so the projections above can be seen as conservative while the demand for social and affordable housing alternatives is also projected to grow sharply.

The need for more social and affordable housing in well serviced inner urban areas is well recognised. The NSW governments Future Directions for Social Housing policy and the Communities Plus program recognise that the redevelopment of existing high value sites represents a unique opportunity to release capital which can be directed to increased social housing supply. However, new supply provided in relatively poorly connected or underserviced areas will ultimately be more costly and less efficient than maximising provision in inner city areas and thus optimising the utility of existing services and infrastructure including health, transport and education facilities required by disadvantaged social housing tenants. Taking seriously the research evidence regarding tenure mix and in particular the lessons of the Kensington renewal evaluation, it would appear that applying a simple 70:30 tenure mix target to the narrowly defined redevelopment area runs a serious risk of undervaluing the public asset in Waterloo and allowing private investors and absentee landlords to reap the benefit.

References

- ABS. (2016/2019) Australian Bureau of Statistics. Available at: <https://www.abs.gov.au/>
- Adkins, L., Cooper, M., & Konings, M. (2019 early view). *Class in the 21st century: Asset inflation and the new logic of inequality*. *Environment and Planning A: Economy and Space*.
- Arthurson, K. (2002). *Creating inclusive communities through balancing social mix: A critical relationship or tenuous link?*. *Urban Policy and Research*, 20(3), 245-261.
- Arthurson, K. (2008). *Australian public housing and the diverse histories of social mix*. *Journal of Urban History*, 34(3), 484-501.
- Arthurson, K. (2010). *Operationalising Social Mix: Spatial Scale, Lifestyle and Stigma as Mediating Points in Resident Interaction*. *Urban Policy and Research*, 28(1), 49-63
- Arthurson, K. (2012). *Social mix and the city: Challenging the mixed communities consensus in housing and urban planning policies*. Clayton: CSIRO
- Arthurson, K., Levin, I., & Ziersch, A. (2015). *What is the Meaning of 'Social Mix'? Shifting perspectives in planning and implementing public housing estate redevelopment*. *Australian Geographer*, 46(4), 491-505.
- Atkinson, R., & Kintrea, K. (2001). *Disentangling Area Effects: Evidence from Deprived and Non-deprived Neighbourhoods*. *Urban Studies*, 38(12), 2277–2298.
- Blanc, M. (2010). *The Impact of Social Mix Policies in France*. *Housing Studies*, 25(2), 257-272.
- Chaskin, R., & Joseph, M. (2011). *Social Interaction in mixed-income developments: Relational expectations and emerging reality*. *Journal of Urban Affairs*, 33(2), 209-237.
- Chaskin, R., Joseph, M. (2015). *Integrating the Inner City: The Promise and Perils of Mixed-income Public Housing Transformation*. Chicago: University of Chicago Press
- Coates, B., & Shepherd, M. (2005). *Bonnyrigg Living Communities Project: a case study in social housing PPPs*. Paper presented at the National Housing Conference, Western Australia.
- Darcy, M. (2010). *De-concentration of disadvantage and mixed income housing: A critical discourse approach*. *Housing, Theory and Society*, 27(1), 1–22
- Fraser, J., Burns, B., Bazuin, T., & Oakley, Á. (2013). *HOPE VI, Colonization, and the Production of Difference*. *Urban Affairs Review*, 49(4), 525–556.
- Galster, G. (2007). *Neighbourhood Social Mix as a Goal of Housing Policy: A Theoretical Analysis*. *European Journal of Housing Policy*, 7(1), 19-43.
- Galster, G. (2013). *Neighborhood Social Mix: Theory, Evidence, and Implications for Policy and Planning*. In N. Carmon & S. Fainstein (Eds.), *Policy, Planning, and People: Promoting Justice in Urban Development* (pp. 307–336). Philadelphia: University of Pennsylvania Press.
- Galster, G., & Friedrichs, J. (2015). *The Dialectic of Neighborhood Social Mix: Editors' Introduction to the Special Issue*. *Housing Studies*, 30(2), 175-191.
- Graves, E. (2010). *The Structuring of Urban Life in a Mixed-Income Housing "Community"*. *City & Community*, 9(1), 109-131.

-
- Gress, T., Cho, S., & Joseph, M (2016). *Hope VI Data Compilation and Analysis (September 2016). National Initiative on Mixed-Income Communities*. The National Initiative on Mixed Income Communities; available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3055254
- Groenhart, I. (2013). *Evaluating Tenure Mix Interventions: A Case Study from Sydney, Australia*. *Housing Studies*, 28(1), 95-115.
- Gurran, N., & Bramley, N. (2017) *Urban Planning and the Housing Market*. Melbourne: Palgrave MacMillan.
- Hoolachan, J., McKee, K., Moore, T., & Mihaela Soaita, M. (2017) 'Generation rent' and the ability to 'settle down': economic and geographical variation in young people's housing transitions. *Journal of Youth Studies*, 20(1), 63-78.
- Imbroscio, D. (2008). "[U]nited and actuated by some common sense of passion": challenging the dispersal consensus in American housing policy research. *Journal of Urban Affairs*, 30(2), 111-130.
- Kelly, D., and Porter, L. (2019). *Understanding the assumptions and impacts of the Victorian Public Housing Renewal Program: Final report of a research project*. Melbourne: RMIT Centre for Urban Research.
- Manley, D., van Ham, M., & Doherty, J. (2012). *Social mixing as a cure for negative neighbourhood effects evidence-based policy or urban myth?* In G. Bridge, T. Butler, & L. Lees (Eds.), *Mixed communities* (1 ed., pp. 151-168): Bristol University Press.
- Musterd, S., Ostendorf, W., & de Vos, S. (2003). *Neighbourhood Effects and Social Mobility: A Longitudinal Analysis*. *Housing Studies*, 18(6), 877-892.
- Patulny, R., & Morris, A. (2012). *Questioning the Need for Social Mix: The Implications of Friendship Diversity amongst Australian Social Housing Tenants*. *Urban Studies*, 49(15), 3365-3384.
- Pinnegar, S., Liu, E., Randolph, B. (2013). *Bonnyrigg Longitudinal Panel Study First Wave: 2012*. City Futures Research Centre, UNSW, Sydney, Research Report.
- Randolph, B., Wood, M., Holloway, D. & Buck, B. (2004). *The Benefits of Tenure Diversification*. Sydney: Australian Housing and Urban Research Institute, UNSW/UWS Research Centre.
- Raynor, K., Panza, L., Ordóñez, C., Adamovic, M., & Wheeler, M. (2020 early view). *Does social mix reduce stigma in public housing? A comparative analysis of two housing estates in Melbourne*. *Cities*. <https://doi.org/10.1016/j.cities.2019.102458>
- Shamsuddin, S., & Vale, L. (2017). *Hoping for more: redeveloping U.S. public housing without marginalizing low-income residents?*. *Housing Studies* 32(2): 225-244.
- Shaw, K., & Hagemans, I. (2015). 'Gentrification Without Displacement' and the Consequent Loss of Place: The Effects of Class Transition on Low-income Residents of Secure Housing in Gentrifying Areas. *International Journal of Urban and Regional Research*, 39(2), 323-341.
- Shaw, K., Raisbeck, P., Chaplin, C., & Hulse, K. (2013). *Evaluation of the Kensington redevelopment and place management models: Final Report* (amended version). Melbourne: University of Melbourne.
- Tunstall, R., & Fenton, A. (2006). *In the mix: A review of mixed income, mixed tenure and mixed communities*. York: Joseph Rowntree, English Partnerships, and Housing Corporation.

-
- van Ham, M., Manley, D., Bailey, N., Simpson, L., & Maclennan, D. (Eds.) (2012) *Neighbourhood Effects Research: New Perspectives*. Netherlands: Springer
- Ware, V., Gronda, H., & Vitis, L. (2010). *Addressing locational disadvantage effectively*. AUHRI report, Melbourne.
- Ziersch, A., Arthurson, K., & Levin, I. (2018). *Support for tenure mix by residents local to the Carlton Housing Estate, Melbourne, Australia*. *Housing Studies*, 33(1), 58-76.