# Appendix

State of the Nation's Housing 2021–22

# Appendix

## Household formation

### Table #: Number of effective households by type

| TOTAL: Family and household groups | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | Change (2022 – 2032) | % of total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Couple family with children** | 3,043,000 | 3,042,000 | 3,075,000 | 3,111,000 | 3,152,000 | 3,189,000 | 3,225,000 | 3,261,000 | 3,297,000 | 3,335,000 | 3,370,000 | 3,404,000 | 361,000 | 21% |
| **Couple family without children** | 2,702,000 | 2,726,000 | 2,771,000 | 2,816,000 | 2,863,000 | 2,911,000 | 2,957,000 | 3,004,000 | 3,050,000 | 3,096,000 | 3,143,000 | 3,190,000 | 488,000 | 29% |
| **Lone parent family** | 1,107,000 | 1,110,000 | 1,125,000 | 1,141,000 | 1,159,000 | 1,176,000 | 1,194,000 | 1,211,000 | 1,229,000 | 1,246,000 | 1,263,000 | 1,280,000 | 173,000 | 10% |
| **Other family household** | 121,000 | 121,000 | 122,000 | 124,000 | 126,000 | 128,000 | 131,000 | 133,000 | 136,000 | 138,000 | 140,000 | 142,000 | 21,000 | 1% |
| **Group household** | 443,000 | 438,000 | 441,000 | 446,000 | 452,000 | 459,000 | 467,000 | 475,000 | 484,000 | 492,000 | 499,000 | 507,000 | 64,000 | 4% |
| **Lone household** | 2,603,000 | 2,638,000 | 2,690,000 | 2,743,000 | 2,798,000 | 2,854,000 | 2,912,000 | 2,968,000 | 3,025,000 | 3,082,000 | 3,140,000 | 3,198,000 | 595,000 | 35% |
| **Total households** | **10,020,000** | **10,075,000** | **10,224,000** | **10,381,000** | **10,551,000** | **10,718,000** | **10,885,000** | **11,053,000** | **11,220,000** | **11,387,000** | **11,555,000** | **11,722,000** | **1,702,000** | |

Note: Total households excludes vacant properties such as household second properties

# Supply

We follow the model developed by Tulip and Saunders[72] to estimate building approvals, commencements and completions. Building approvals, commencements, work done, investment and completions have a reasonably stable long-term relationship. As a building approval is required before construction can commence on a new dwelling, we start with estimates of approvals, then map these through to other construction variables.

Building approvals feed into 2 separate chains of variables.

1. Chain volume measures of approvals are used to estimate dwelling investment and the real value of the housing stock.
2. The number of new building approvals is used to estimate completions and the number of dwellings, which in turn, feed into estimates of the rental vacancy rate.

## Estimate the equation for chain volume building approvals for each dwelling type

Using a state space model, we worked out an equation for chain volume building approvals for detached housing and higher density dwellings. Inputs include the real mortgage rate, real dwelling price, real HDI, GST indicator and lagged chain volume building approvals.

## Convert the chain volume estimate of building approvals into a number of building approvals by estimating dwelling quality

The chain volume building approvals relates to number of approvals by the average quality of new dwellings. We estimate separate equations for the constant price measures and average quality of approvals, then back out the number of approvals using the following identity:

$$APPNO_t = \frac{APP_t}{QUALITY_t}$$

Where *APPNO* is the number of approvals, *APP* is the chain volume measure of approvals and *QUALITY* is the quality, or average volume, of approvals. A key advantage of this approach (relative to directly estimating the number of approvals) is that the quality of approvals is much less volatile than the number of approvals, so it is easier to estimate. Relatedly, the number of approvals drives the cyclical variation in the constant price measures of approvals. Having separate equations for both the number and constant price measure of approvals could result in inconsistent estimates of the housing construction cycle.

### Quality of approvals

We assume that the quality (or average volume) of approvals increases in line with real income per capita in the long run.

$$\Delta(quality_t) = -\lambda(quality_{t-1} - hddy\_capita_{t-1} - \theta_t) + \Delta hddy\_capita^*$$

Where quality is the average volume of dwelling approvals, hddy_capita is real household disposable income per adult (15+ years) and Δhddy_capita* is steady-state growth of real income per adult. All variables are in natural logs.

Other ways this equation is presented include:

$$\Delta\, ln(bahouseavol_t) = \lambda_{house} \times \left(\log\left(\frac{bahouseavol_{t-1}}{\left(\frac{rinc_{t-1}}{wap_{t-1}}\right)}\right) - \frac{1}{8}\sum_{i=1}^{8}\log\left(\frac{bahouseavol_{t-1}}{\left(\frac{rinc_{t-1}}{wap_{t-1}}\right)}\right)\right) + ir\_inc\_per\_wap$$

$$\Delta\, ln(bahouseavol_t) = \lambda_{other} \times \left(\log\left(\frac{bahouseavol_{t-1}}{\left(\frac{rinc_{t-1}}{wap_{t-1}}\right)}\right) - \frac{1}{8}\sum_{i=1}^{8}\log\left(\frac{bahouseavol_{t-1}}{\left(\frac{rinc_{t-1}}{wap_{t-1}}\right)}\right)\right) + ir\_inc\_per\_wap$$

Where bahouseavol and baotheravol refers to average quality of building approvals $\left(\frac{\text{chain volume building approvals}}{\text{number of building approvals}}\right)$, for detached and higher density respectively; rinc refers to real household disposable income, wap refers to the population of adults over 15 years of age.

We have used simple assumptions for the 2 parameters l and q.

1. The speed of adjustment coefficient, l, is set equal to the speed of adjustment for the chain volume measure of approvals.
2. q is the steady-state ratio of the average quality of approvals and real income per capita (in logs). We assume q is equal to the average value of this log-ratio in the final 2 years of our sample. We calculate this average over a 2-year period (as opposed to a longer horizon), so that q is fairly responsive to recent data: while real income per adult and the average volume of approvals have grown at a similar rate in the long run, it is not clear that the ratio of these variables should be stationary.

## Estimate the equation for dwelling commencements for each dwelling type

We use an error correction model to estimate equation for dwelling commencements for detached housing and higher density dwellings. Inputs include lagged dwelling commencements, building approvals and GST indicator.

## Estimate the equation for dwelling completions for each dwelling type

We use an error correction model to estimate equation for dwelling completions for detached housing and higher density dwellings. Inputs include lagged dwelling completions, dwelling commencements and GST indicator.

72 https://www.rba.gov.au/publications/rdp/2019/2019-01/full.html

## Income projection methodology

When available, nominal income estimates compiled using microdata from the Survey of Income and Housing (SIH) are used (2017–18 being the latest reference year). These estimates are then projected forward at the national level using per household income indicators by income quintile compiled from ABS national accounts, income and population data.

Nationally, the per household income indicator is sourced from the ABS' gross disposable income growth by income quintile between 2017–18 and 2019–20 financial year (Australian National Accounts: Distribution of Household Income, Consumption and Wealth, 2019–20 financial year). However, where the data set is unavailable, the average per household income indicator is compiled by dividing the household gross disposable income (Australian National Accounts: National Income, Expenditure and Product, June 2021) by its projected number of households under the Series II scenario (Household and Family Projections, Australia, 2016–2041). The disaggregation by income quintile is calculated by carrying forward the variation between income quintiles and the average income growth between 2017–18 and 2019–20, as per the above calculation. A key assumption in this methodology is that income has increased consistently across the income quintiles.

The method for projecting the income estimates has been updated since the previous publication of this report. A linear trend technique was employed in last year's report but has now been replaced with a method that should more accurately capture the effects of the unusually weak economic conditions and sluggishness in population growth since early 2020. Both methods were tested for accuracy, by analysing how well they would have anticipated previous SIH figures, with the new method generally proving more accurate.

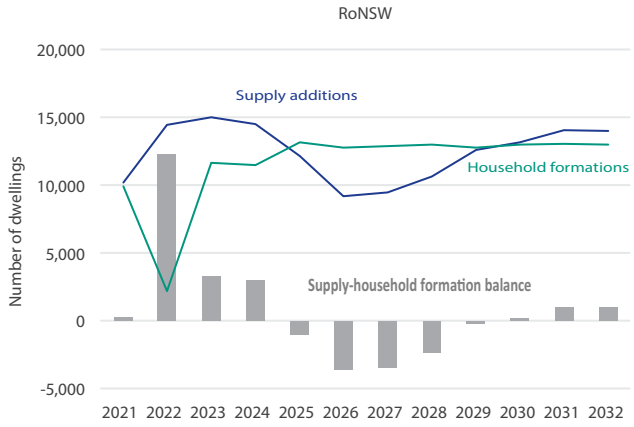
The change in income projection methodology resulted in minor adjustments to some of the 2020 Lorenz curves compared to the 2020 Lorenz curves published in the previous report, for both renters and prospective first home buyers.

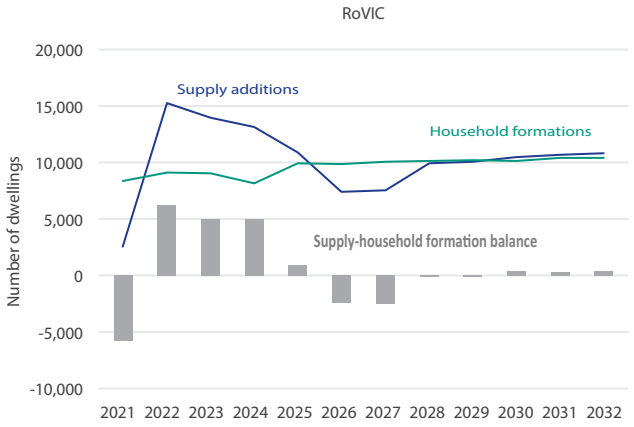
Perth's rental affordability curves showed a noticeable difference. We had indicated renters across all income quintiles could afford proportionately much more stock than their corresponding income quintile (indicated by the curve being above the line of perfect equality). The downwards revision in incomes means that is no longer the case, with renters in the lowest and second lowest income quintiles being able to afford just up to a quarter of rental stock. Adelaide's rental affordability distribution also changed. The proportion of stock that renters earning up to median income could afford used to be under the line of perfect equality, now the proportion of stock that renters earning up to the second highest income quintile are under this line.

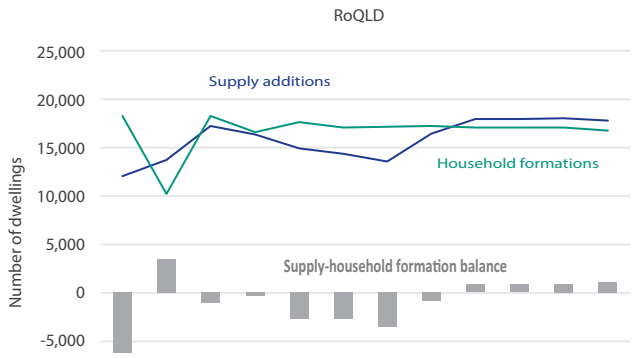
With regards to prospective first home buyer curves, the most evident change was for Brisbane's affordability distribution. Previously, we showed the curve for households earning up to the middle-income quintile was above the line of perfect equality, but they were revised to be under this line, resulting in a 20% reduction in affordability on average.

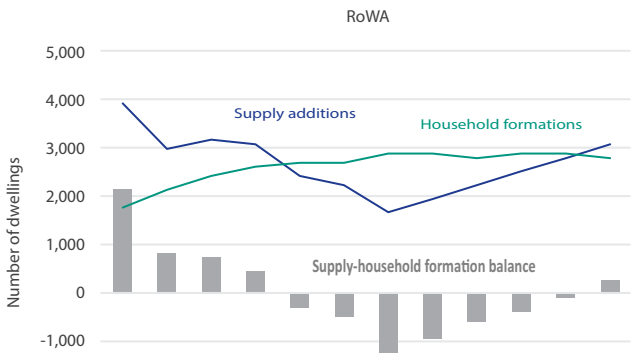
# Supply-household formation balances

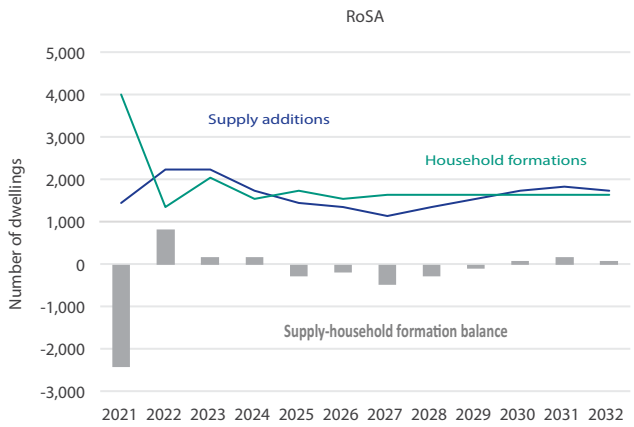
## Annual change in household formation and supply and supply-household formation balances by regional area

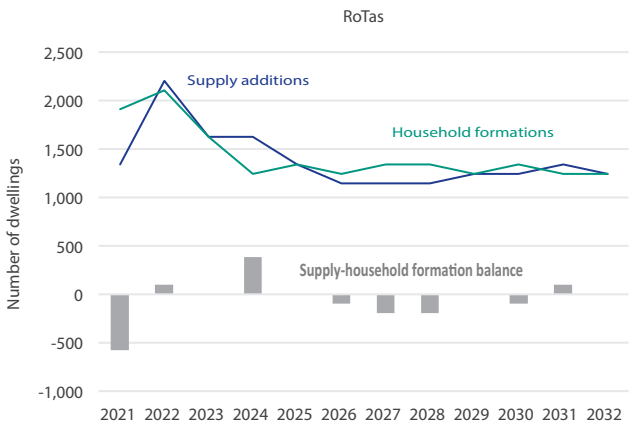


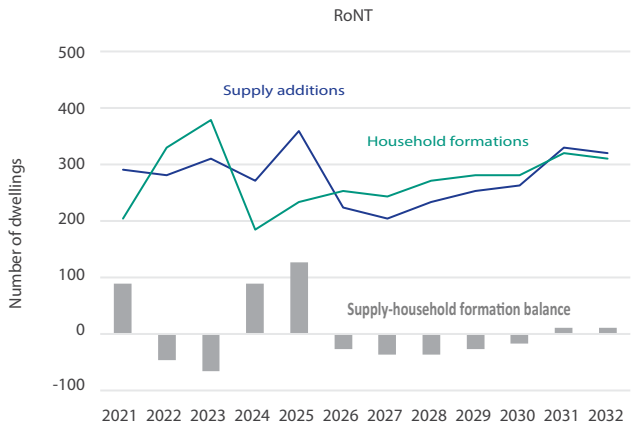



## Annual change in household formation and supply and supply-household formation balance by regional area

| | RoNSW | | |
|---|---|---|---|
| Year | New net annual dwelling supply | New net annual household formation | Supply-household formation balance |
| **2021** | 11,100 | 10,800 | 300 |
| **2022** | 15,700 | 2,400 | 13,300 |
| **2023** | 16,300 | 12,700 | 3,600 |
| **2024** | 15,800 | 12,500 | 3,300 |
| **2025** | 13,200 | 14,300 | -1,100 |
| **2026** | 10,000 | 13,900 | -3,900 |
| **2027** | 10,300 | 14,000 | -3,700 |
| **2028** | 11,600 | 14,100 | -2,500 |
| **2029** | 13,700 | 13,900 | -200 |
| **2030** | 14,300 | 14,100 | 200 |
| **2031** | 15,300 | 14,200 | 1,100 |
| **2032** | 15,200 | 14,100 | 1,100 |

| | RoVIC | | |
|---|---|---|---|
| Year | New net annual dwelling supply | New net annual household formation | Supply-household formation balance |
| **2021** | 2,700 | 8,900 | -6,200 |
| **2022** | 16,300 | 9,700 | 6,600 |
| **2023** | 14,900 | 9,600 | 5,300 |
| **2024** | 14,000 | 8,700 | 5,300 |
| **2025** | 11,600 | 10,600 | 1,000 |
| **2026** | 7,900 | 10,500 | -2,600 |
| **2027** | 8,000 | 10,700 | -2,700 |
| **2028** | 10,600 | 10,800 | -200 |
| **2029** | 10,700 | 10,900 | -200 |
| **2030** | 11,200 | 10,800 | 400 |
| **2031** | 11,400 | 11,100 | 300 |
| **2032** | 11,500 | 11,100 | 400 |

| | RoQLD | | |
|---|---|---|---|
| Year | New net annual dwelling supply | New net annual household formation | Supply-household formation balance |
| **2021** | 12,800 | 19,500 | -6,700 |
| **2022** | 14,600 | 10,900 | 3,700 |
| **2023** | 18,400 | 19,500 | -1,100 |
| **2024** | 17,400 | 17,700 | -300 |
| **2025** | 15,900 | 18,800 | -2,900 |
| **2026** | 15,300 | 18,200 | -2,900 |
| **2027** | 14,500 | 18,300 | -3,800 |
| **2028** | 17,500 | 18,400 | -900 |
| **2029** | 19,100 | 18,200 | 900 |
| **2030** | 19,100 | 18,200 | 900 |
| **2031** | 19,200 | 18,200 | 1,000 |
| **2032** | 19,000 | 17,900 | 1,100 |

| | RoWA | | |
|---|---|---|---|
| Year | New net annual dwelling supply | New net annual household formation | Supply-household formation balance |
| **2021** | 4,200 | 1,900 | 2,300 |
| **2022** | 3,200 | 2,300 | 900 |
| **2023** | 3,400 | 2,600 | 800 |
| **2024** | 3,300 | 2,800 | 500 |
| **2025** | 2,600 | 2,900 | -300 |
| **2026** | 2,400 | 2,900 | -500 |
| **2027** | 1,800 | 3,100 | -1,300 |
| **2028** | 2,100 | 3,100 | -1,000 |
| **2029** | 2,400 | 3,000 | -600 |
| **2030** | 2,700 | 3,100 | -400 |
| **2031** | 3,000 | 3,100 | -100 |
| **2032** | 3,300 | 3,000 | 300 |

Source: Macroplan, NHFIC

| | RoSA | | |
|---|---|---|---|
| Year | New net annual dwelling supply | New net annual household formation | Supply-household formation balance |
| **2021** | 1,500 | 4,100 | -2,600 |
| **2022** | 2,300 | 1,400 | 900 |
| **2023** | 2,300 | 2,100 | 200 |
| **2024** | 1,800 | 1,600 | 200 |
| **2025** | 1,500 | 1,800 | -300 |
| **2026** | 1,400 | 1,600 | -200 |
| **2027** | 1,200 | 1,700 | -500 |
| **2028** | 1,400 | 1,700 | -300 |
| **2029** | 1,600 | 1,700 | -100 |
| **2030** | 1,800 | 1,700 | 100 |
| **2031** | 1,900 | 1,700 | 200 |
| **2032** | 1,800 | 1,700 | 100 |

| | RoTas | | |
|---|---|---|---|
| Year | New net annual dwelling supply | New net annual household formation | Supply-household formation balance |
| **2021** | 1,400 | 2,000 | -600 |
| **2022** | 2,300 | 2,200 | 100 |
| **2023** | 1,700 | 1,700 | 0 |
| **2024** | 1,700 | 1,300 | 400 |
| **2025** | 1,400 | 1,400 | 0 |
| **2026** | 1,200 | 1,300 | -100 |
| **2027** | 1,200 | 1,400 | -200 |
| **2028** | 1,200 | 1,400 | -200 |
| **2029** | 1,300 | 1,300 | 0 |
| **2030** | 1,300 | 1,400 | -100 |
| **2031** | 1,400 | 1,300 | 100 |
| **2032** | 1,300 | 1,300 | 0 |

| | RoNT | | |
|---|---|---|---|
| Year | New net annual dwelling supply | New net annual household formation | Supply-household formation balance |
| **2021** | 300 | 210 | 90 |
| **2022** | 290 | 340 | -50 |
| **2023** | 320 | 390 | -70 |
| **2024** | 280 | 190 | 90 |
| **2025** | 370 | 240 | 130 |
| **2026** | 230 | 260 | -30 |
| **2027** | 210 | 250 | -40 |
| **2028** | 240 | 280 | -40 |
| **2029** | 260 | 290 | -30 |
| **2030** | 270 | 290 | -20 |
| **2031** | 340 | 330 | 10 |
| **2032** | 330 | 320 | 10 |

## Estimating the need for social housing

| Metric | Description | Findings | Limitations |
|---|---|---|---|
| Statistical data | Includes survey and census statistics on supply (e.g. number of social housing dwellings), demand (e.g. wait lists, household affordability stress, homelessness), and efficiency (e.g. time taken to receive public housing). | The Australian Institute of Health and Welfare (AIHW) compiles a data repository on public and community housing.[73] As of June 2020, Australia had 436,000 social housing dwellings.<br><br>The total number of households on waiting lists has increased recently to over 175,000 households as at June 2020, up from 155,000 in 2019.[74]<br><br>Among newly allocated households, three-quarters received public housing within a year of being on the waiting list, 42% spent less than 3 months waiting.[75]<br><br>ABS data[76] shows the annual number of dwelling unit completions by the non-private sector peaked in 2011 at almost 12,000 completions but plateaued after the GFC social housing stimulus program ended and then steadily declined to be around 3,000 completions a year. But these numbers do not account for demolitions. | State and territory governments lack consistency in reporting number of social housing units by provider type (e.g. public, community housing).[77] In some states, affordable housing is included. Community housing is also defined differently and the AIHW totals are sometimes inconsistent with numbers managed by registered Community Housing Providers.<br><br>Australia has no separate source of community housing data. Even within the national regulatory system, each state and territory can specify which organisations are required to register. No official source enables the CHP-managed portfolio to be split by provider-owned vs. CHP-managed. The extent to which head-leased properties included in published stock totals is also unclear.<br><br>No state or territory government routinely publishes statistics on the construction of new social and affordable housing, nor on public housing sales or demolitions. It is unclear if CHP construction is captured under the ABS housing construction statistics. Often when state governments pledge new social and affordable housing investment programs, they are often in little detail and do not account for sales and demolitions of existing homes.<br><br>Statistics reflect a point in time analysis, are updated infrequently, and cannot accurately distinguish between chronic homelessness and those whose lack of accommodation is more temporary.<br><br>Changes in the waiting list numbers are not necessarily reflective of changes in underlying demand for social housing. Policy changes and eligibility criteria can affect the waiting list length. Some may not apply due to long waiting times. |

73 https://www.aihw.gov.au/reports/housing-assistance/housing-assistance-in-australia/contents/summary
74 AIHW Data Tables: Social housing households 2019–20
75 https://www.aihw.gov.au/reports/housing-assistance/housing-assistance-in-australia/contents/entries-exits-transfers-and-wait-times
76 ABS Cat 8752.0 Table 37, Number of dwelling unit completions by sector, Australia.
77 CHIA 2020 – Social and affordable housing provision data – state of play

| Metric | Description | Findings | Limitations |
|---|---|---|---|
| Availability of affordable private rentals to low-income households | Low-income households are classified as those with a gross household income within the first or second quintile, according to the national Census. Affordable housing is defined as housing costs being no more than 30% of gross household income.<br><br>The metric derives the shortfall in the number of private rentals available and affordable to low-income renters.<br><br>This follows a methodology developed by the US Housing and Urban Development Department in the 1990s, and later used by the National Housing Supply Council. | The national shortfall was estimated to be 150,000 in 1996 and nearly doubled to 270,000 in 2011.[78]<br><br>National social housing as a proportion of total housing stock would need to be expanded from 5% to 8.4% to accommodate low-income renters eligible for social housing whose rental payments were currently deemed unaffordable.[79] | The metric relies on census data and is therefore an infrequent point in time analysis. Given this metric is focusing on historical data, it is not able to accurately project the changing scale of the future shortfall.<br><br>It also does not factor in the appropriateness of the low-cost dwelling stock, such as building quality or overcrowding. |
| Growth required to maintain current share of social housing | This is a state-based approach and involves taking the current social housing stock as a proportion of total stock as a starting point, and then estimating the additional number of social housing dwellings required to maintain the current share. The metric will account for projected household growth. | For NSW and using 2016 as a starting point, 2,000 rentals would need to be added each year over a 20–year projection period.[80]<br><br>Accounting for the additional social housing supply required to rehome tenants with unaffordable rental payments resulted in 4,900 rentals required each year, totalling around 100,000 between 2016 and 2036.<br><br>To return the national social housing stock to a 6% benchmark, which was the level when Australia stopped its routine public housing construction program in 1996, 330,000 additional social housing dwellings are required over the 20-year period.[81]<br><br>Factoring in affordable housing resulted in an estimated dwelling deficit of 580,000. | The approach assumes the share of social housing in the base year is adequate.<br><br>Also assumes no further change in incidence of housing stress (paying more than 30% of income on rent) over the projection period |

78 Hulse, K., Reynolds, M., Stone, W. and Yates, J. 2015, Supply shortages and affordability outcomes in the private rental sector: short- and longer-term trends, AHURI Final Report No. 241, Australian Housing and Urban Research Institute, Melbourne, https://www.ahuri.edu.au/research/final-reports/241.

79 Groenhart, L. and Burke, T. 2014, Thirty years of public housing supply and consumption: 1981–2011, AHURI Final Report No. 231, Australian Housing and Urban Research Institute, Melbourne, https://www.ahuri.edu.au/research/final-reports/231.

80 Yates, J. 2016, Addressing the housing affordability crisis: Basis for an estimated need of 100,000 dwellings in NSW over the next two decades, NSW Federation of Housing Associations, Sydney, http://www.communityhousing.org.au/index_attachments/NSWFHA%20Need%20for%2010 0,000%20dwellings.pdf

81 Yates, J. 2018, Social and Affordable Housing Projections for Australia 2016–2026/36, Paper commissioned by Everybody's Home – The National Housing Campaign, http://everybodyshome.com.au/wp-content/uploads/2018/04/EH_researchreport_190418- 1.pdf.

| Metric | Description | Findings | Limitations |
|---|---|---|---|
| Simulation model | AHURI[82] developed a simulation model to measure the housing supply required to meet affordable housing demand during the period 2017–2025. The simulation factors in housing market conditions, labour market, labour market earnings, household formation, and tenure choice to generate estimates of newly arising need.[83] The user can estimate housing need under a range of economic and housing supply scenarios. Housing need is defined as the number of households unable to access housing at market prices or require some form of assistance in the private rental market to avoid rental stress. | Using 2017 as the base year, the model projects 527,000 potential households unable to meet housing need via market options. In addition, the model estimates 806,000 private tenants required financial assistance to avoid rental stress.<br><br>Over the period 2017–2025, the model forecasts the number of households in housing need would increase from 1.3 million in 2017 to 1.7 million in 2025 (from 14 to 16% of households, respectively). This scenario assumes population will rise at a steady rate.<br><br>The incidence of housing need varies across states. It falls in Qld and WA, while the percentage rate of need remains steady in SA, Tas, ACT and NT. In Vic and NSW, large increases of households in need are projected. | Interactions between labour and housing systems should not be used at a state level, because datasets like HILDA are designed to be representative at a national level. There is no readily available data that could be used to model demographic or labour market conditions at a local government level. |

82 Rowley, S., Leishman, C., Baker, E., Bentley, R. and Lester, L. 2017, Modelling housing need in Australia to 2025, AHURI Final Report No. 287, Australian Housing and Urban Research Institute Limited, Melbourne, https://www.ahuri.edu.au/research/final-reports/287

83 Using Household, Income and Labour Dynamics in Australia (HILDA) dataset, ABS population and household formation projections (state and LGA), ABS labour market data, ABS time series modellers' database, SIRCA-CoreLogic RPData on LGA monthly median house prices and rents.

| Metric | Description | Findings | Limitations |
|---|---|---|---|
| Current and projected housing need | An AHURI report[84] incorporated current and projected housing need from 2016–2036 to estimate the number of dwellings required from 3 segments of the population amongst households in income quintile 1.<br>**Currently met need**<br>a. Existing social housing tenants, projected forward as a share of households[85]<br>**Manifest need[86]**<br>a. Homeless persons, and projected forward based on household growth formation<br>**Evident need[87]**<br>a. Low-income households paying more than 30% of income on rent but are not existing social housing tenants nor homeless, also projected forward based on expected household growth formation. | In total, those that fall under the 3 segments accounted for around 9.4% of Australian households in 2016. AHURI calculated that some 727,300 additional social dwellings would be required over a 20-year period, implying an annual average growth of 5.5% over the existing stock. This would mean a more than tenfold increase on recent social housing construction activity. Relative to current supply, Melbourne, Perth and regional Qld would need particularly large additions of stock. Conversely, additional supply needed in Canberra, Darwin and regional SA would be relatively modest.<br>Using this method, the expansion of social housing needed is around twice what Yates (2018) estimated to reach the 6% social housing benchmark.<br>To simply prevent further deterioration in the current shortfall of social housing, 290,000 homes were required over the projection period (manifest need plus evident need), or 15,000 annually.<br>This research was extended to households in income quintile 2 in another report.[88] It identified total housing required by 2036 as being just above one million homes by 2036. This translates to around 8–9% of Australia's dwellings being social or affordable housing. | In terms of newly arising need over the period to 2036, the analysis uses pre-pandemic population growth projections which are now out-dated.<br>**Currently met need:**<br>The approach does not account for the potential to better utilise existing social housing stock, such as empty or under-occupied homes. This risks potentially overestimating the need for new dwellings.<br>There is no allowance for necessary demolition and replacement of existing social housing stock at the start of the projection period.<br>**Manifest need:**<br>Homelessness relates to severely crowded dwellings in 2016 estimates. This approach assumes all occupants require new dwellings, however, only some occupants would need to be rehoused to resolve overcrowding.<br>There is also potential for manifest and evident need households to be double-counted, as the counts are taken from different sources.<br>**Evident need:**<br>It may not be appropriate to assume current levels of rental stress applies over a 20–year horizon. For instance, if affordability improves, then there is an overestimate of need, and vice versa if affordability deteriorates. |

84 Lawson, J., Pawson, H., Troy, L., van den Nouwelant, R. and Hamilton, C. 2018, Social housing as infrastructure: an investment pathway, AHURI Final Report No. 306, Australian Housing and Urban Research Institute Limited, Melbourne, https://www.ahuri.edu.au/research/final-reports/306

85 Projected need to maintain the social rent share = Share of households with currently met need in social housing (census data) x 20-year growth rate in households (estimates provided in ABS 3236.0 Household and Family projections), Average annual construction = Projected need to maintain the social rent share ÷ 20 years

86 Current manifest need = Number of homeless persons (ABS 2049.0 Census of Population and Housing) ÷ average household size of 2.5 persons. Average annual construction = (Current manifest need + (Current manifest need x 20-year growth rate in households)) ÷ 20 years

87 Derive number of low-income households who are in approx. the bottom quintile for single, adult group, family households (census data).
Derive number of households in rental stress based on combination of reported household income bracket and rental payment bracket
Rental stress rate = Number of low-income households in rent stress ÷ Number of households in private rental with known income and rent (census data)
Current evident need = (Total no. of households x No. of households in private rental x Rental stress rate) ÷ No. of households with known tenure (census data)
Average annual construction = (Current evident need + (Current evident need x 20-year growth rate in households)) ÷ 20 years

88 Troy, L., van den Nouwelant, R., Randolph, B. 2019, Estimating need and costs of social and affordable housing delivery, City Futures Research Centre, Sydney, https://cityfutures.be.unsw.edu.au/documents/522/Modelling_costs_of_housing_provision_FINAL.pdf