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# EXECUTIVE SUMMARY

# Modelling housing need in Australia to 2025

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# **Executive summary**

- This research delivers, for the first time in Australia, a consistent and replicable methodology for housing need assessment that can be used to inform resource allocation and simulate the impact of policy decisions on housing outcomes.
- Housing need is defined as: the aggregate of households unable to access market provided housing or requiring some form of housing assistance in the private rental market to avoid a position of rental stress.
- The housing need simulation delivers state and territory estimates of housing need through the combination of a number of interacting models. The simulation can determine housing needs, household formation and labour market outcomes under user-defined economic and housing supply scenarios.
- The outputs produced by the simulation model should be regarded as reflecting indicative trends in housing market conditions and housing need rather than precise annual forecasts.
- The simulation estimates current housing need in Australia to be 1.3 million households (just under 14 % of households), and this is estimated to rise to 1.7 million households by 2025 under our baseline scenario.
- Almost 373,000 households are currently estimated to be in housing need in New South Wales, either unable to form or requiring some form of assistance to avoid a position of rental stress, rising to 678,000 in 2025. In Victoria, housing need is estimated to rise from 291,000 to 462,000 over the eight year period.
- The results reveal the extent of the shortfall in affordable housing, now and moving forward, and the additional pressure placed on the housing assistance budget due to the growth in households requiring support in the private rental market.
- Further development of the econometric aspects of the simulation model combined with new census data could deliver estimates of housing need at the local government area level.

# Key findings

- This research develops a housing need simulation to quantify housing need. Housing need estimates have a number of uses for policy-makers including resource allocation, market monitoring, setting affordable housing targets, housing assistance budgeting and evidence for affordable housing contributions via planning policy. The simulation identifies the supply required to meet broad affordable housing demand rather than individualised forms of housing assistance required to meet need.
- For the purposes of this report we adopt the following definition of housing need: *The* aggregate of households unable to access market provided housing or requiring some form of housing assistance in the private rental market to avoid a position of rental stress. This

definition is easy to understand and covers households requiring public and community housing, subsidised affordable rental housing and the majority of those requiring Commonwealth Rent Assistance (CRA) in the private rental market.

- The simulation estimates housing need as: 1) the number of households predicted to form, but unable to access market housing, and 2) the number of households predicted to form, but who will expend such a significant proportion of household income that they require some form of assistance to avoid a position of rental stress. The simulation indicates the affordable housing supply necessary to meet the broad housing needs (not individual) of those households unable to access market housing (ownership or rental) and also quantifies those able to access the private rental market but placed under financial stress in order to do so. Many of these will be low-income households and therefore eligible for CRA.
- Previous housing need/demand work in Australia has generally delivered supply-based estimates of need. Various studies have adopted different approaches with different aims and objectives. This report details a consistent methodology to estimate housing need at the state level which could be further developed to deliver localised estimates of housing need.
- Housing need arises from the interaction of demographic effects (population projections combined with propensities of different groups of people to form new households) with the labour market and housing system. The housing need simulation consists of five interrelated models of the housing market, labour market, labour market earnings, household formation and tenure choice with the simulation model described in the diagram below.

#### Figure 1: Simulation structure



- The Housing Market Model identifies the main housing demand drivers as growth in the mean wage rate and mortgage interest rates. The model coefficients suggest a strong link between state level growth in earnings and house price growth, but a weak link between interest rates and price growth. Higher levels of housing supply reduce price growth, but the effect is very small and suggests that new supply is a limited policy lever to reduce general price levels. Local government area (LGA) house prices do not appear to be directly related to the odds of home ownership, as households in the highest cost LGAs are only slightly less likely to be home owners than in less expensive local areas.
- The simulation model estimates that there are around 140,000 households unable to access market housing in New South Wales and a further 233,000 households requiring rent assistance to alleviate a position of rental stress. Equivalent figures are 110,000 and 181,000 in Victoria, 150,000 and 232,000 in Queensland, 59,000 and 73,000 in Western Australia with 14,000 and 17,000 in Tasmania.
- Under the definition adopted in this study, there are currently over 373,000 households estimated to be in housing need in New South Wales, rising to 678,000 in 2025. For Victoria the equivalent figures are 291,000 and 462,000. In Queensland the number of household in housing need is predicted to fall from 381,000 to 331,000 by 2025.
- Housing need in Australia is estimated at 1.3 million households, or around 14 per cent of the total number of households predicted in the simulation, rising to 1.7 million, or around 16 per cent, in 2025.

- The outputs produced by the simulation model should be regarded as reflecting indicative trends in housing market conditions and housing need, rather than providing precise annual forecasts.
- The number of households in need is greatly dependent on assumptions around national and regional economic conditions. This calls for flexibility in any policy response at a national level. In particular, the number of affordable dwellings required at state level will need to be continuously recalculated, perhaps every 2–3 years, rather than enshrined in rigid targets over an extended forward simulation period.
- The results show the scale of affordable housing necessary to meet need, and the challenge faced by state and local government to deliver such housing.
- The simulation model is a major step forward in the development of a robust and consistent methodology for affordable housing assessment, allowing the user to estimate housing need under a variety of economic and housing supply scenarios, delivering significant potential to simulate policy outcomes. Additional development would see the model extended to deliver estimates at the local government level.

# Policy development options

The simulation model allows comparisons of housing need figures across states which will help state governments and the Australian Government plan affordable housing supply. The methodology involves harnessing a number of models (both aggregate and micro-econometric) of demographic, labour market and housing system processes, and allows the coefficients from several models to interact with exogenous and endogenous variables, producing state level estimates of housing need. Households unable to access market housing, and those who could access the private rental sector but have insufficient income to avoid a position of rental stress, are identified. Some of these households would be eligible for CRA, but not all. Various economic scenarios can be specified and the simulation produces a series of outputs based on these economic assumptions.

The housing need simulation performs well at the state level and further development will improve performance for smaller scale geographies including territories, and enable local governments across Australia to utilise the model to deliver local estimates of housing need under a consistent methodology. Such a methodology will identify areas most in need of affordable housing, track housing need changes over time, avoid the costly commissioning of individual studies, and simulate the impact of various policies on housing need. A further developed model using updated data from the Australian Bureau of Statistics (ABS) 2016 census is required.

States can use the estimates for affordable housing need as evidence in setting statewide supply targets and to negotiate funding for affordable housing. The community housing sector could also use the figures in developing their state-wide strategies.

The results show the extent of housing need in Australia, with 1.3 million households in housing need in 2017—either unable to access market housing (around 525,000) or able to access the private rental market, but requiring support to avoid rental stress (800,000). The greatest need is in New South Wales, Victoria and Queensland and the results reveal the extent of the affordable housing shortfall, providing evidence to support an increase in resources for the delivery of affordable housing, be it direct through government, in partnership with the private sector, via planning requirements, or by the community housing sector.

While there is still work to do on the simulation, this research presents a major step forward in the assessment of housing need in Australia by achieving:

- A consistent and repeatable methodology.
- A broad assessment of affordable housing supply necessary to meet household need at the national and state level.
- Delivery of housing need outcomes under a variety of user-defined economic conditions.
- Delivery of household formation and labour market outcomes under a variety of userdefined economic conditions.
- Identification of the impact of a variable speed economy housing need, household formation and labour market outcomes.
- A robust base for future model development.

We have based this work on research by key UK researchers such as Glen Bramley and Geoff Meen and applied the principles to an Australian context. Continued development incorporating new ABS Census data will enable development at a finer spatial scale.

# The study

The study developed a simulation model consisting of five interrelated models (*housing market, labour market, labour market earnings, household formation* and *tenure choice*) to estimate housing need in Australia to 2025. It delivers housing need estimates at the national and state level and addresses the following research questions:

- 1 Using Australian and international studies, how can housing need be conceptualised to deliver an approach that can accurately measure housing assistance to 2025?
- 2 How can we use available Australian data to develop a robust and accurate methodology for assessing housing need?
- 3 What is the annual level of housing need in Australia to 2025 and how does it vary spatially?

We define housing need as the aggregate of households unable to access market-provided housing or requiring some form of housing assistance in the private rental market to avoid rental stress. The simulation delivers housing need figures for both categories. Affordable housing is defined as housing provided subject to access and affordability requirements set by government and includes rental housing priced at below market rents and earmarked for eligible low- to moderate-income households and owner-occupied housing for eligible households provided under a subsidised loan or shared equity arrangement and/or is legally encumbered with covenants that impose an affordability requirement. Such subsidised housing is necessary to meet the needs of those households unable to access market housing and those struggling to meet housing costs in the private rental market.

The simulation delivers a complex methodology for the calculation of need and delivers consistent estimates across states, providing a way of comparing need at a broad spatial scale and over time. The five interacting models use data from Household Income and Labour Dynamics in Australia (HILDA), demographic and labour market data from ABS and housing market data from CoreLogic RPdata within a series of econometric equations to provide the coefficients for the simulation. Additional detail will be provided in a technical report following further model development.

As well as delivering base housing need estimates the model is able to simulate, using different economic and housing supply scenarios, the impact of different policy measures on housing market outcomes, and thus has considerable potential to support housing research.

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