



Australian Housing Data Analytics Platform



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The Vision

A Platform which connects academia, government, industry and communities to the best available data, analytics and insights to assist in solving the challenges facing Australia's housing future.

The Challenge

Australian housing datasets are disparate, making it a challenge for housing researchers and policy makers to search, process and implement data into evidenced based housing research and analytical models.

The Australian Housing Data Analytics Platform (AHDAP) seeks to address this challenge by bringing together nationally significant and harmonised housing-related datasets with a view to improving overall housing outcomes. The platform will significantly improve Australia's current housing evidence base, providing research and policy makers with a prioritised set of nationally harmonised housing data delivered through a digital platform comprising a housing data portal and online workbench of housing decision support tools.

Partnership

This project comprises a consortium of partners from across government, industry and academia. The project is led by the City Futures Research Centre, University of New South Wales with project management from FrontierSI.

The platform brings together, for the first time, the key Federal agencies responsible for researching and monitoring national housing and planning policy – National Housing Finance Investment Corporation (NHFIC), Australian Institute of Health and Welfare (AIHW) the Australian Bureau of Statistics (ABS), the Australian Urban Research Infrastructure Network (AURIN) – together with eight Universities (UNSW, University of Melbourne, University of South Australia, University of Canberra, University of Tasmania, University of Queensland, Swinburne University and Curtin University). The project also has strong support and participation from industry, including peak industry bodies such as the Housing Industry Association.

Other partners include the Commonwealth Bank of Australia, The NSW Government (Spatial Services) Omnilink and AWS. The project is funded under the Australian Research Data Commons (ARDC) Platforms program with funding contributions from Project Partners.



Together, this collaboration will deliver a sustainable national governance model for Australia's digital housing assets, built on a combination of the Findable, Accessible, Interoperable, and Reusable Data principles (FAIR principles).

The Solution

AHDAP will provide a platform for the ingestion and management of digital data on housing and the built environment together with a suite of tools that will allow rapid multi-scale complex modelling and simulation to address the pressing questions regarding housing provision and sustainability across Australia. It will provide housing researchers, urban planners and government agencies with a transformative capability to objectively design and evaluate new policy and practice with regards to the future development of Australia's urban conurbations, assisting in the driving of economic recovery, social inclusion and resilience across Australia's \$7 trillion housing market.

Impact

The AHDAP project will elevate Australia's ability to undertake housing research and support policy decisions that are fair, data-driven, and accurate through a digital platform comprising a data portal and a suite of housing decision support systems. This will result in significantly reduced time and resource costs in accessing data and analytics tools across government, academia and industry. The AHDAP will facilitate research into areas such as housing supply, demand, affordability and diversity through making available nationally standardised and trusted datasets at the parcel/lot level, thereby giving researchers the ability to choose the most appropriate spatial resolution to undertake analyses.

AHDAP Priority Datasets

The following datasets have been identified for priority inclusion into the AHDAP:

1. Private rental data series (rental bond data)
2. A range of housing supply datasets, including:
 - a. ABS: Demolitions at SA2
 - b. ABS: Completions at SA2
 - c. LAND: new lots sold
 - d. LAND: Land prices
 - e. UTILITIES: number of serviced vacant lots and number of new lot connections

These datasets have been selected based on their national significance in helping improve the housing research evidence base and having maximum policy impact. Collectively in the single AHDAP platform, they will improve the understanding housing demand, supply and affordability at the sub-jurisdictional level.

Private rental data series (rental bond data)

There is no nationally consistent routine statistical series on private market rents at the national, state and territory level or more localised level. Currently, most analysis of rents occurs by using the proxy ABS CPI series (ABS Cat 6416), but because this is an amalgam of both private and social rents, it doesn't properly capture the former.

Accessible private rent data at a detailed spatial level will help inform new and emerging housing delivery models, such as Build to Rent, while also allowing a more detailed (distributional) assessment of housing



affordability for the nation's lower income renters. Further, stock flows can be measured over time to gain a better understanding of the fluidity of the rental market and the impact on the broader housing system.

In addition, rental subsidies are often provided to low-income persons and a consistent measurement and assessment of rental subsidy impacts would be valuable.

Churn in the rental markets is significant in terms of dwellings coming in and out of the market. There is currently only the Census to rely on in terms of location specific issues. A consistent data set will enable real time significant movements in rentals to be observed and to be addressed by strong policies.

ABS – Dwelling demolitions and completions

As part of its Building Activity series, the ABS currently reports dwelling completions, but only at a State or Greater Capital City Statistical Area level, while it does not publish demolitions data. The ABS is currently developing a method to produce quarterly small area estimates of dwelling stock, including both demolitions and completions. Preliminary small area estimates of completions and demolitions will be made available in October 2021 for peer review (2016 – 2021 data). Complete estimates of stocks and flows (for the period Sep 2016 – June 2021) will be published in late 2022 following the release of ABS Census information relating to dwellings. The newly developed dwelling stock product is currently not funded beyond its 2022 scheduled release.

Having detailed knowledge of demolitions and completions at an SA2 level would allow policy makers to have a better understanding of the net growth in new housing supply, including advanced information predicting which small areas are most successfully increasing in density (demolition of detached housing and replacement with higher density dwellings). Demolitions and completions are important for understanding the type of new residential housing being delivered and how it compares with population growth and new household formation.

Detailed demolitions and completion data are essential for planning for every planning agency in Australia. There is currently very limited data available outside of New South Wales that addresses for example surges in demand. In addition, monitoring infrastructure requirements (particularly in a continuing COVID environment) is important because residential densities might reduce thus the weighting of infrastructure investments might change.

Land datasets – new lots sold and land prices

Land is now the most expensive component of overall housing costs, yet there is limited publicly available data on land supply which impedes policy evaluation.

Having a better understanding of the amount of land available for residential development, how much land is being sold and at what cost would help give researchers and policy makers better understand how the land market affects new housing supply, both in terms of costs and “time to market”.

Land data sets are not available at a national level and hard to obtain at a local level. Land is a highly regulated commodity with significant taxation implications. The issue of land supply is becoming critical in Sydney, Brisbane and Melbourne and prices are likely to increase sharply as a result of demand. In Melbourne in particular prices are likely to increase substantially due to the Urban Growth Boundary. This is not well understood by the marketplace. Land supply and prices are location specific issues but



can condition entire markets, which means land prices on the urban fringe can influence the middle ring land prices.

Utilities

Utilities data holds unique timely insights into housing. Connections are considered to be a proxy for new residential housing coming online, especially for new development areas, such as through the identification of new water or electricity connections to new lots. Connections elsewhere throughout cities have the potential to provide new insights into changes in occupants that may not be captured elsewhere. Having detailed and timely utilities data would help provide richer and more spatially detailed insights to when new housing supply is coming online and where it's being built as well as household transitions in established areas.

Utilities data is important because it is timely. For example, valuation data is often available six to nine months after a transaction. This period could see a major surge in land prices. Utilities data is crucial to better coordination amongst relevant agencies and in particular to the delivery of social infrastructure such as schools and childcare.

Contact

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Visit the AHDAP website: <https://www.ahdap.org/>



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