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Khanjanasthiti, Isara; Earl, George; Armitage, Lynne

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ECONOMIC AND TAXATION BENEFITS OF THE NATIONAL RENTAL AFFORDABILITY SCHEME

Author:

ISARA KHANJANASTHITI*
DR GEORGE EARL**
DR LYNNE ARMITAGE*

Institution:

***BOND UNIVERSITY**
****NATIONAL AFFORDABLE HOUSING CONSORTIUM**

INTRODUCTION

Australia is experiencing a housing affordability crisis, a problem primarily affecting families on low-to-moderate incomes. The median house price continues to increase and is currently more than five times the gross annual median household income.[1] To stimulate additional supply of affordable rental dwellings throughout Australia, the Australian Government, in partnership with state governments, implemented the National Rental Affordability Scheme (NRAS) in 2008. As at December 2015, 37,217 new rental dwellings had been approved under NRAS, of which 30,037 had been built and either tenanted or available for rent.

More than 622 million dollars of government funding was initially committed to the NRAS program[2]. In light of this spending, this paper conducts a 'value-for-money' assessment of the NRAS initiative. Therefore, the objective of this paper is to quantify the gross benefits of NRAS to the Australian economy, the Australian Government as well as state and local government agencies. To do so, it quantifies total government revenue, in dollar value as at the 2013-2014 financial year, direct and indirect employment and income generated from various economic activities driven by NRAS.

This paper is divided into four sections. Firstly, an overview of housing affordability in Australia and the NRAS program is presented. Secondly, the paper describes the methodology and assumptions undertaken in this research. Thirdly, the paper outlines and discusses the findings of government revenue and employment generated by NRAS. Lastly, the paper concludes with key findings as well as potential areas for further study on economic and taxation benefits of NRAS.

BACKGROUND INFORMATION

Australia's Housing Affordability

The demand for housing in Australia has grown rapidly in recent years. A decline in average household size from approximately 3.5 persons per household to 2.6 persons per household could be observed between the 1960s and the 2000s. Although the household size has remained relatively steady since then, the smaller household sizes have nonetheless contributed to increasing demand for housing. Furthermore, overall population growth in Australia has accelerated since the mid-2000s due to significantly higher net immigration from overseas and slightly higher natural population increases compared to the preceding years. As a result, annual demand for new housing has increased by forty per cent since the mid-2000s, leading to the current demand for around 175,000 new dwellings per annum.[3]

On the supply side, there are time lags for the supply of new housing to respond to increases in demand due to several factors associated with various stages of dwelling constructions. There is often

limited availability of appropriate sites in key locations. Once a site is secured for construction of dwellings, the length and complexity of the planning process required to obtain development approvals can be significant depending on local planning schemes. After a development approval is obtained, the process of preparing undeveloped land for construction frequently incurs substantial costs. The time taken to build new dwellings can also be extensive.[4]

Due to the supply and demand factors outlined above, housing prices in Australia have increased by 7.25 per cent annually on average over the past three decades.[5] It has been recently estimated that house prices in Australia are between 37 and 46 per cent overvalued.[6] In 2015, the price-to-income ratio, or the proportion of median housing prices to gross annual median household income, across Australia was 5.6 whereas the figure across major cities with at least one million population was 6.4. A housing market with a price-to-income ratio of at least 5.1 is considered "Severely Unaffordable."[7] Thus, these figures imply that the housing market across Australia, particularly in major cities, is currently experiencing a significant affordability crisis.

On the other hand, as at September 2015, the price-to-rent ratio, which compares median housing prices to median annual rent, was 28.87[8], implying that renting for approximately 29 years could completely pay off an average dwelling price. Although opinions differ as to where the exact threshold of price-to-rent ratio for determining whether it is more financially feasible to rent or to purchase a dwelling, the threshold generally ranges between 15 and 20 years.[9] The high price-to-rent ration figure therefore implies the significant importance of the country's rental market in terms of providing affordable housing to the public.

National Rental Affordability Scheme

To improve affordability in the rental market, the Australian Government initiated the National Rental Affordability Scheme (NRAS) in 2008 in conjunction with all state government authorities. The program aimed to stimulate large-scale investments in affordable rental housing with a ten-year tax incentive to all NRAS investors. NRAS dwellings are required to be rented to households on low to moderate incomes at a rate which is at least twenty per cent lower than the market value rent.

Under the original arrangement, the scheme aimed to provide a total of 50,000 dwellings across Australia by June 2016 by providing a tax incentive to the investor of each NRAS-approved dwelling. However, it was announced in the 2014 federal budget that Round 5 applications of NRAS would not proceed. Consequently, as at December 2015, a total of 37,217 NRAS incentives had been approved, of which 30,037 had been allocated to investors whose dwellings had been built and either tenanted or available for rent. Meanwhile, 7,180 incentives had been reserved for investors whose dwellings were on track for construction in the near future. While the majority of NRAS-approved dwellings (37.6 per cent) are apartments, the program has also delivered houses, studios, townhouses and boarding houses.[10]

Having provided an overview of Australia's housing affordability and the NRAS program, the paper next describes the research methodology and assumptions undertaken in this study.

RESEARCH METHODOLOGY

Data and Assumptions

This study is based on the data of NRAS incentives reserved and allocated as at September 2013, which are summarised in Table 1 below.

Table 1. NRAS Incentives and Bedrooms by States as at September 2013

	Total (National Percentage)	Total (National Percentage)
Queensland	10,896 (28%)	27,631 (36%)
New South Wales	6,512 (17%)	11,155 (15%)
Victoria	6,767 (18%)	10,833 (14%)
Western Australia	5,470 (14%)	9,530 (13%)

South Australia	3,741 (10%)	9,007 (12%)
Australian Capital Territory	2,550 (7%)	3,689 (5%)
Tasmania	1,463 (4%)	2,341 (3%)
Northern Territory	1,060 (3%)	1,740 (2%)
National	38,459	75,926

Based on the data in Table 1, the study incorporated assumptions outlined in Table 2 below.

Table 2. Assumptions Incorporated in this Study

Incentives	
Total number of incentives	A total of 50,000 NRAS dwellings will have been built by June 2016 as per the original NRAS arrangement.
Incentives as at June 2013	All 38,459 dwellings had been built as at June 2013.
Additional incentives per annum	The number of additional NRAS-approved dwellings built nationally between June 2013 and June 2016 are 3,847 per annum, an average of the additional 11,541 dwellings across the three-year period.
Proportion of dwelling sizes across all states	The proportion of dwelling sizes (number of bedrooms) across different states as at June 2013, which are displayed in Figure 1, will remain unchanged upon the completion of all 50,000 NRAS dwellings.
Proportion of incentives across all states	The proportion of NRAS incentives across all states shown previously in Table 1 will remain unchanged upon the completion of providing all 50,000 incentives.
Costs	
Land and construction costs	The land and construction costs of each sample NRAS dwelling are reflective of all NRAS dwellings in the state where the dwelling is located.
Property Transactions	
Sales and leases	All NRAS dwellings, upon the completion of their construction, are immediately sold to investors and immediately leased for ten years at below-market rates as required by the program;
Resales	After ten years of lease, each NRAS dwelling is immediately sold by its investor.
Additional dwellings	The additional 11,541 dwellings will have been built by 2016. Given the assumption of resales above, these dwellings will be sold in 2026. Therefore, the time period considered in this study is from 2013 to 2026.
Transaction by 2026	By 2026, all 50,000 NRAS dwellings will have been sold by their initial investors.
Regulations	
Tax and regulatory systems	The various tax and regulatory systems associated with income and property transactions at the federal, state and local government levels as at December 2013 will remain unchanged for the entire time period considered in this study (2013 to 2016).
Council's regulatory and fee systems	All council regulations and fees applicable to each sample NRAS dwelling are reflective of council regulations and fees across the state in which the dwelling is located.
Investors	
Type of investors	All investors are individual investors who are Australian permanent residents or citizens, thereby being eligible for the 50% discount on capital gains tax liability when selling their NRAS dwelling.
Income tax	All investors are subject to individual income tax rates for 2013-2014 for the

	entire time period considered in this study.
Annual income	All investors earn annual income equivalent to the 2011 median income figure within the state of their residence. Table 3 displays median personal income by state.
NRAS dwelling portfolio	All investors invest in only one NRAS dwelling in the state they principally reside in. This assumption was incorporated in order to apply the median income figures from different states to the calculation of capital gains tax.
Financial Variables	
Inflation rate	The inflation rate of 2.2 per cent as at December 2013 was assumed as the yearly inflation rate for the entire time period in this study.
Discount rate	The Reserve Bank of Australia's cash rate of 2.5 per cent as at December 2013 was used as the NPV discount rate of all future cash flows.
Dwelling price growth rates	The average annual growth rate of house price indices across the states' capital city between September 2003 and September 2013[11] was assumed as the yearly growth rate of dwelling prices across all states.
Income growth rates	The average annual growth rates of median household income across all states between 2006 and 2011[12] were assumed as the yearly growth rates of median income figures in Figure 2.
Concession for taxes and fees	No concession was applied in calculation of taxes and fees payable by investors.
Employment	
Length of employment	All direct and indirect employment created by NRAS will continue for one year.
Annual income	All NRAS-related employees earn annual income equivalent to the 2011 median income figure within the state of their residence.

Figure 1 displays the proportion of dwelling sizes across different states as at June 2013, which has been assumed to continue until all 50,000 incentives are built by June 2016.
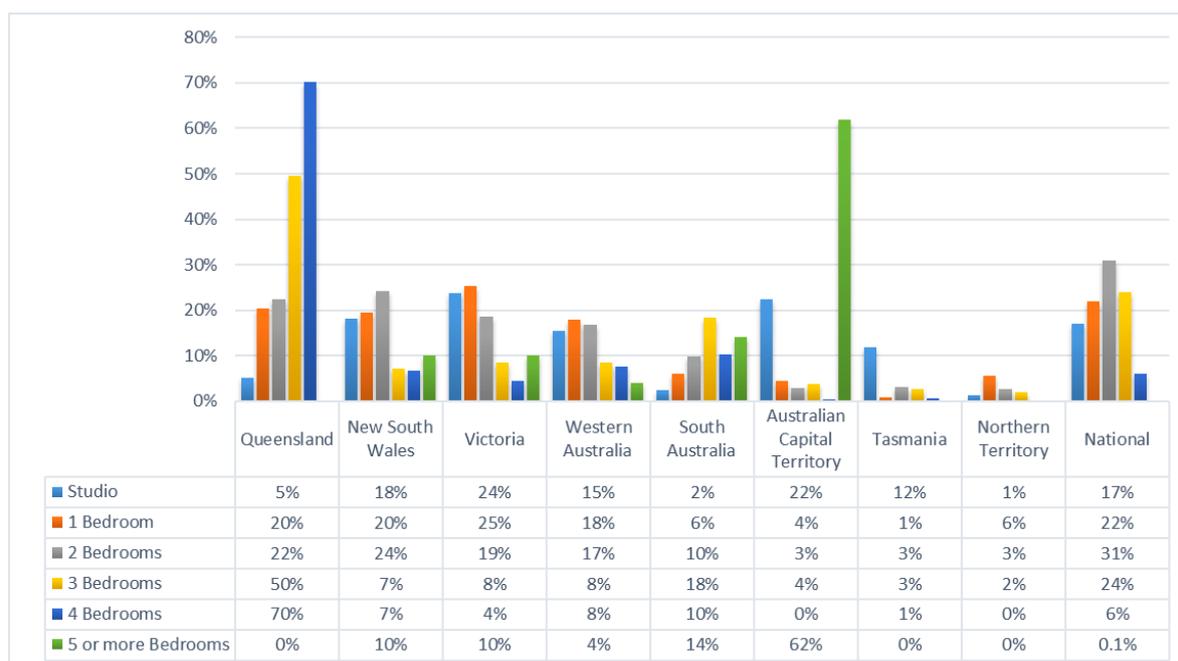

	Queensland	New South Wales	Victoria	Western Australia	South Australia	Australian Capital Territory	Tasmania	Northern Territory	National
■ Studio	5%	18%	24%	15%	2%	22%	12%	1%	17%
■ 1 Bedroom	20%	20%	25%	18%	6%	4%	1%	6%	22%
■ 2 Bedrooms	22%	24%	19%	17%	10%	3%	3%	3%	31%
■ 3 Bedrooms	50%	7%	8%	8%	18%	4%	3%	2%	24%
■ 4 Bedrooms	70%	7%	4%	8%	10%	0%	1%	0%	6%
■ 5 or more Bedrooms	0%	10%	10%	4%	14%	62%	0%	0%	0.1%

Figure 1. Proportion of Dwelling Sizes across States as at June 2013

Table 3 illustrates the assumed number of NRAS incentives and bedrooms across different states as at June 2016.

Table 3. Assumed NRAS Incentives and Bedrooms by State as at June 2016

	Total Incentives	Total Bedrooms
Queensland	14,166	35,923
New South Wales	8,798	14,084
Victoria	8,466	14,502
Western Australia	7,111	12,390
South Australia	4,864	11,710
Australian Capital Territory	3,315	4,796
Tasmania	1,902	3,044
Northern Territory	1,378	2,262
National	50,000	98,710

Median personal income figures by state as at 2011[13], which have been assumed to be representative of NRAS investors' income in this study, were obtained by dividing the median income figures of all households in each state by the average numbers of employed person per household. The calculated median personal income figures are displayed in Figure 2.
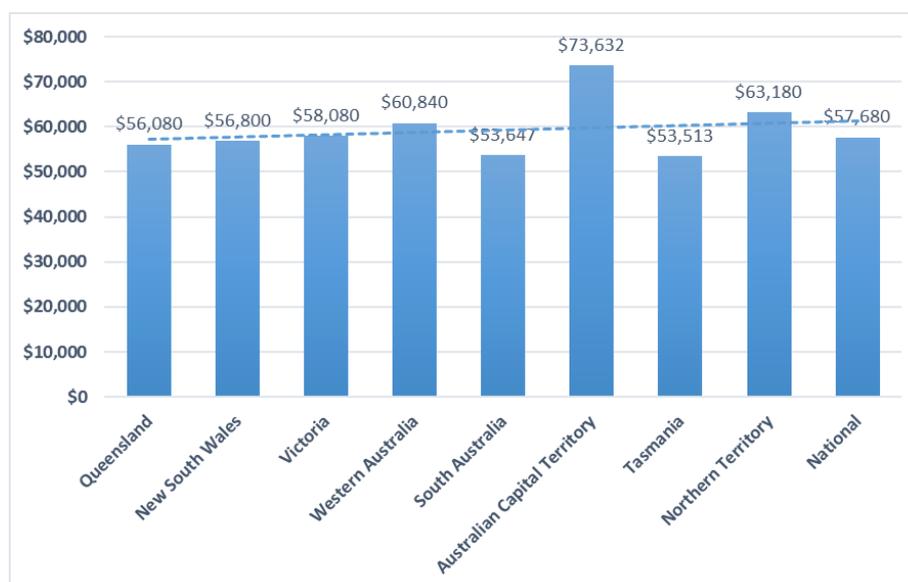

Figure 2. Assumed Median Income Figures by State

Methodology for Government Revenue Quantification

A single NRAS dwelling was chosen as a sample for the quantification of government revenue generated in each state. Where possible, the sample dwelling was chosen to reflect the predominant type of NRAS dwellings to ensure accuracy and relevance of quantified data. The study then calculated the total amount of government revenue generated from various activities driven by the delivery, investment and resale of the dwelling. Key sources of government revenue considered in this study are outlined in Table 4 below.

Table 4. Key Revenue Sources from NRAS for Local, State and Federal Governments

Government Level	Revenue Sources
Local	• Infrastructure charges • Development application fees • Building application fees • Council rates and charges
State	• Stamp duty for transaction of land purchase prior to NRAS property development • Stamp duty for transaction of NRAS properties • Land taxes • Payroll taxes
Federal	• Income taxes generated from direct and indirect jobs created by activities driven by NRAS • Goods and services taxes (GSTs) on construction costs associated with NRAS dwelling provisions • Capital gains taxes from the sale of NRAS dwellings at the end of their ten-year lease period

The different types of government revenues calculated for the sample dwelling were divided by the sample dwelling's number of bedrooms to obtain a revenue figure per bedroom. This figure was then multiplied by the projected, applicable number of bedrooms among NRAS dwellings to obtain government annual revenue inflows. Inflation was applied to all cash inflows generated in 2014 and thereafter which were adjusted for inflation. All the different revenue inflows were converted into net present values (NPVs). Finally, the NPV revenue inflows were aggregated into total government revenue generated by NRAS for the state. This process was repeated for the other seven sample NRAS dwellings from the other states. The revenue figures at the state level were then accumulated to quantify total government revenue generated by NRAS at the national level.

Methodology for Employment Quantification

Key activities driven by NRAS that generate employment include:
- Consultation for planning, designing and acquiring development approvals for NRAS dwellings;
- Construction of NRAS dwellings; and
- Sales and logistics of construction materials.

The activities above generate direct employment in the construction industry. Furthermore, indirect employment will be created in other industries through multiplier effects as a result of flow-on purchasing activities stimulated by the income associated with direct employment.

The study applied the Australian Bureau of Statistics' labour coefficient[14] to the total construction value of sample NRAS dwellings. The coefficients are as follow:
- 10.0090 full-time equivalent jobs created in the construction industry for every one million dollars of construction activities (direct jobs); and
- 1.727 full-time equivalent jobs created in other industries for every direct job (indirect job).

The quantification methodology for government revenue was then applied to the total direct and indirect jobs created for each sample NRAS dwelling to obtain the number of jobs created at the state and national levels.

Methodology for Income Quantification

To quantify income generated by NRAS, job figures quantified for each state were multiplied by the respective median income figure of the state. The income figures of all states were then aggregated into a national income figure.

GOVERNMENT REVENUE

The total government revenue generated at the national level is approximately 9.26 billion dollars. The distribution of the revenue to different levels of government is illustrated in Figure 3.
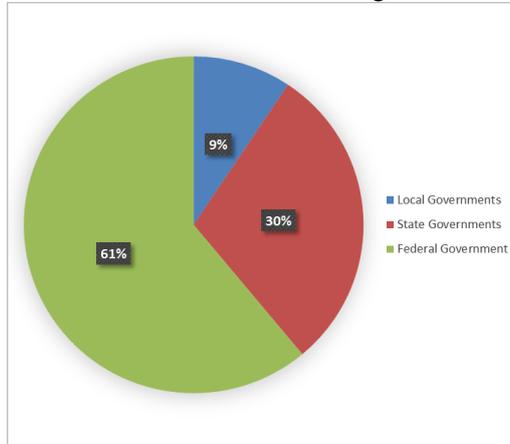

Figure 2. Distribution of Government Revenue Generated by NRAS

As shown in Figure 2, the majority of government revenue will be generated for the Federal Government. Figure 3 displays the relative amount of revenue generated across the different states.
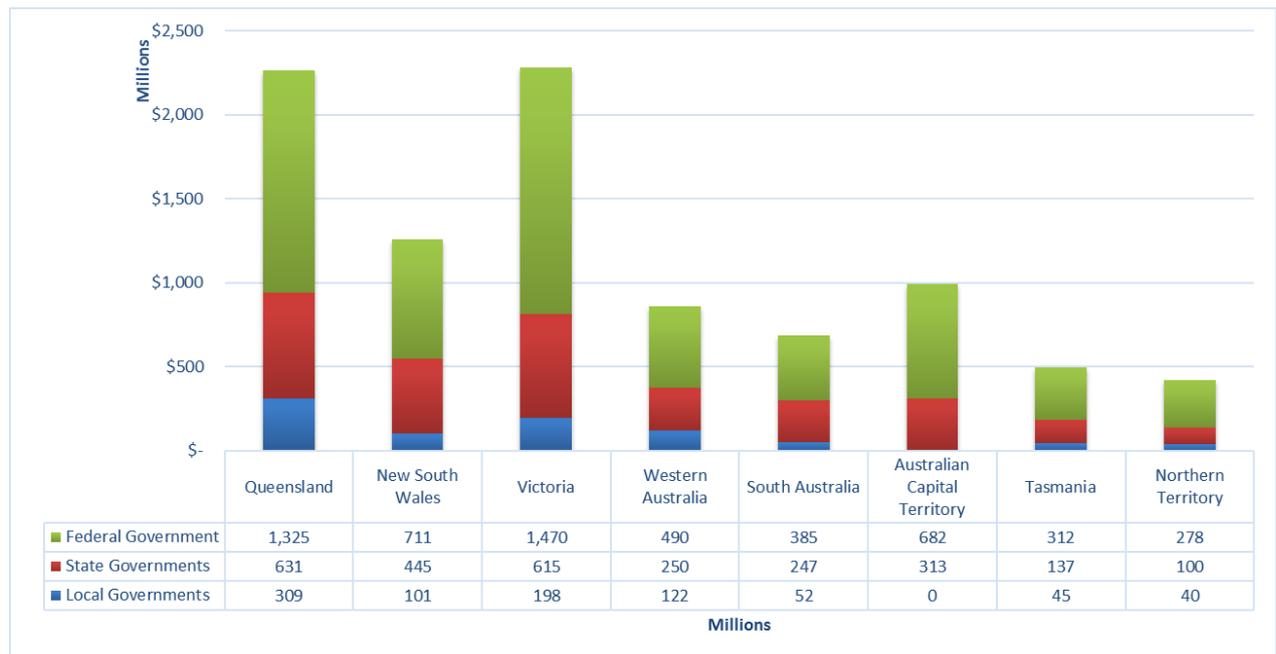

	Queensland	New South Wales	Victoria	Western Australia	South Australia	Australian Capital Territory	Tasmania	Northern Territory
Federal Government	1,325	711	1,470	490	385	682	312	278
State Governments	631	445	615	250	247	313	137	100
Local Governments	309	101	198	122	52	0	45	40

Figure 3. Government Revenue Generated by NRAS across all States

The majority of government revenue generated by NRAS will be in Queensland and Victoria where an accumulated revenue figure of 4.55 billion dollars is projected. Figure 4 illustrates the average amount of revenue generated per NRAS incentive and bedroom.
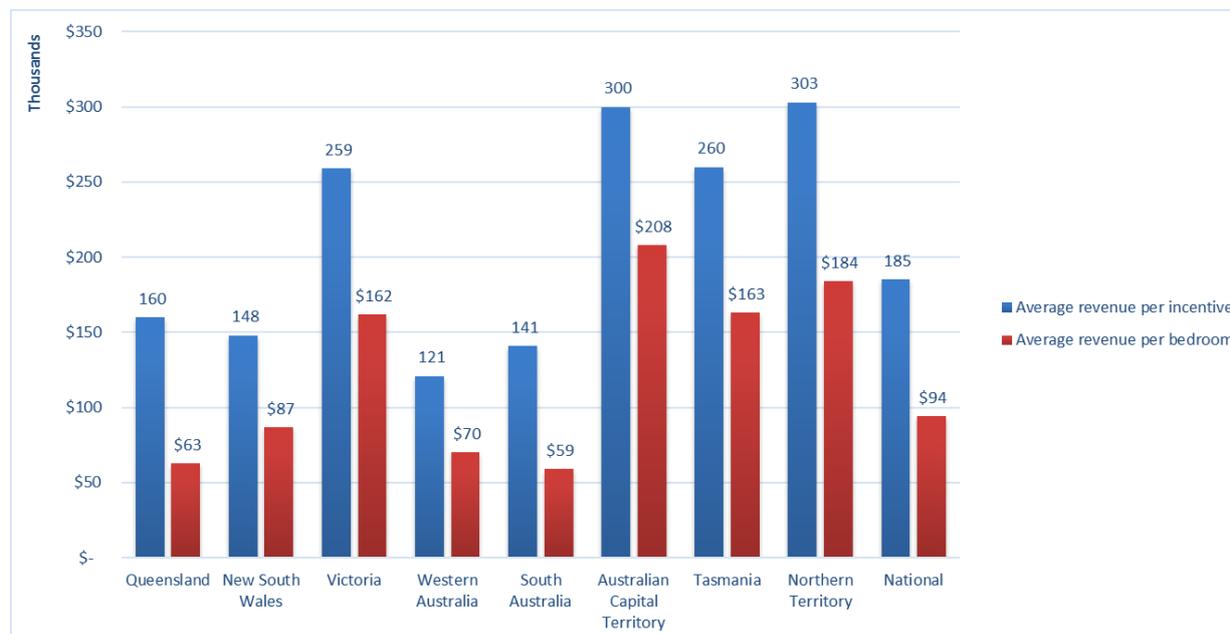
Figure 4. Average Revenue Generated per NRAS Incentive and Bedroom across all States

Among all states, Australian Capital Territory and Northern Territory will generate the highest amount of government revenue per incentive and bedroom. This is due to the fact that the states' median personal income figures are higher than other states, resulting in capital gains taxes as well as income taxes applicable to NRAS investors and employees involved in NRAS dwellings, respectively. Table 4 and Figure 5 display the distribution of government revenue generated by NRAS through various sources.

Table 5. Revenue Generated by NRAS for Local, State and Federal Governments across Various Sources

| Revenue Source	Amount (millions dollars)
Local Government	
Development application fees	27
Infrastructure charges	150
Council rates and charges	691
Total	868
State Government	
Land stamp duty	132
Property stamp duty	1,506
Payroll taxes	1,001
Land taxes	44
Other charges	55
Total	2,738
Federal Government	
GSTs	1,174
Income taxes	3,397
Capital gains taxes	1,082
Total	5,653
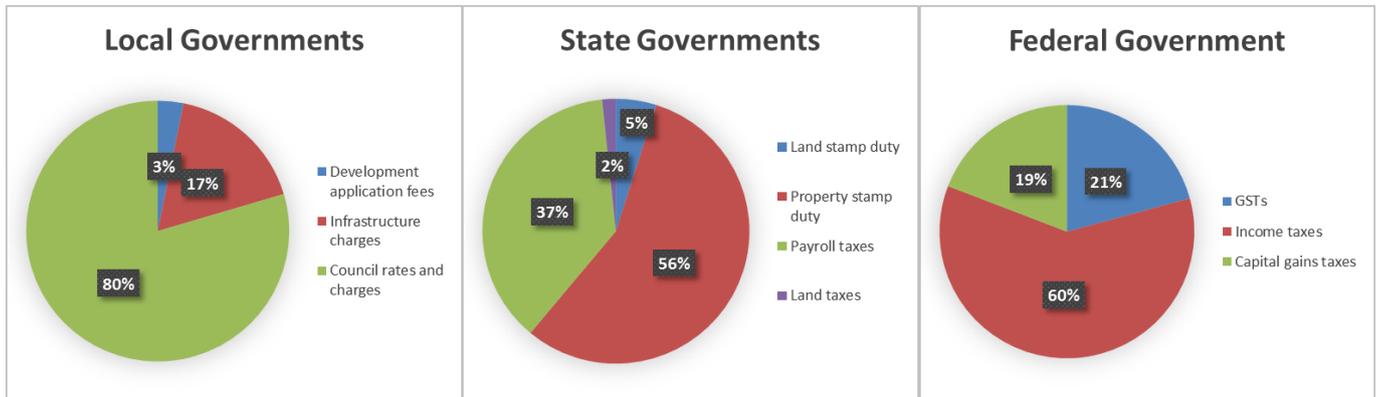
Figure 5. Sources of NRAS-generated Revenue for Local, State and Federal Governments

As shown in Table 5 above, the key sources of revenue which will create at least one billion dollars in government revenue are stamp duty and capital gains taxes applicable to transactions of NRAS dwellings, payroll and income taxes applicable to NRAS-driven jobs and GSTs applicable to the construction of NRAS dwellings. The majority of revenue for local, state and federal governments was generated by council rates and charges, property stamp duty and income taxes, respectively.

EMPLOYMENT

The total number of direct and indirect jobs created by NRAS are approximately 329,000. Around thirty-seven per cent of the jobs will be direct jobs whereas the majority of the jobs (sixty-three per cent) will be indirect jobs. Figure 6 below shows the distribution of jobs created by NRAS in each state.
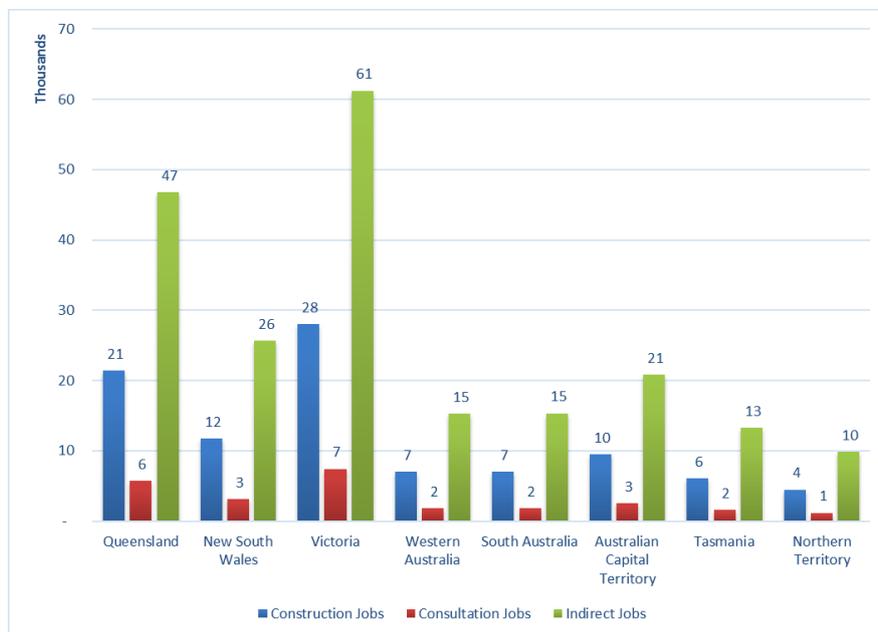

Figure 6. Jobs Created by NRAS across all States

The majority of jobs created by NRAS will be concentrated in Victoria due to the fact that one-bedroom dwellings were the most common among all NRAS dwellings in the state as at June 2013. As the quantification methodology relied on the number of bedrooms, the number of jobs created per NRAS incentive in Victoria are relatively high. The majority of jobs created by NRAS are indirect jobs in other industries.

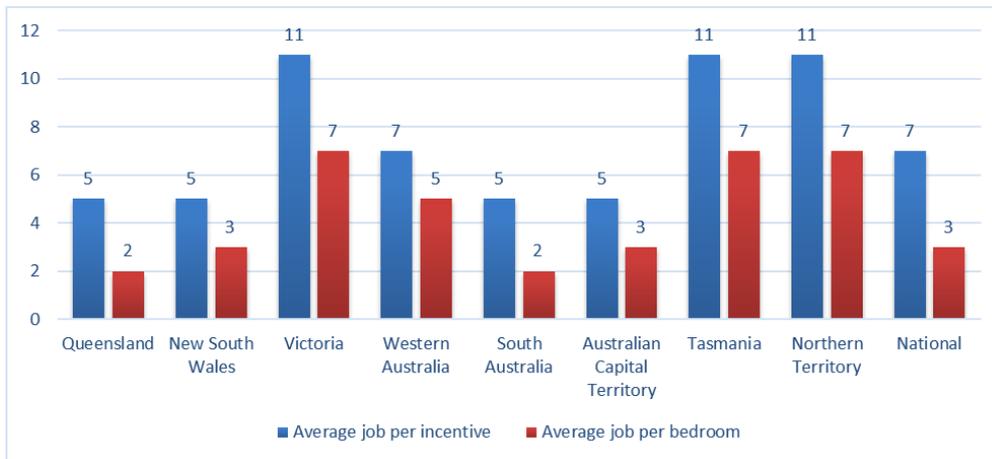Figure 7 displays the average number of jobs created per NRAS incentive and bedroom.

Figure 7. Jobs Created by NRAS across all States

As shown in Figure 7, the national average number of jobs created per NRAS incentive and bedroom are seven and three, respectively. Victoria, Tasmania and Northern Territory will generate the highest number of jobs per NRAS incentive and bedroom.

INCOME

The total amount of income generated by NRAS-driven employment across Australia is approximately 18.9 billion dollars. The breakdown of the income by state is displayed in Figure 8.
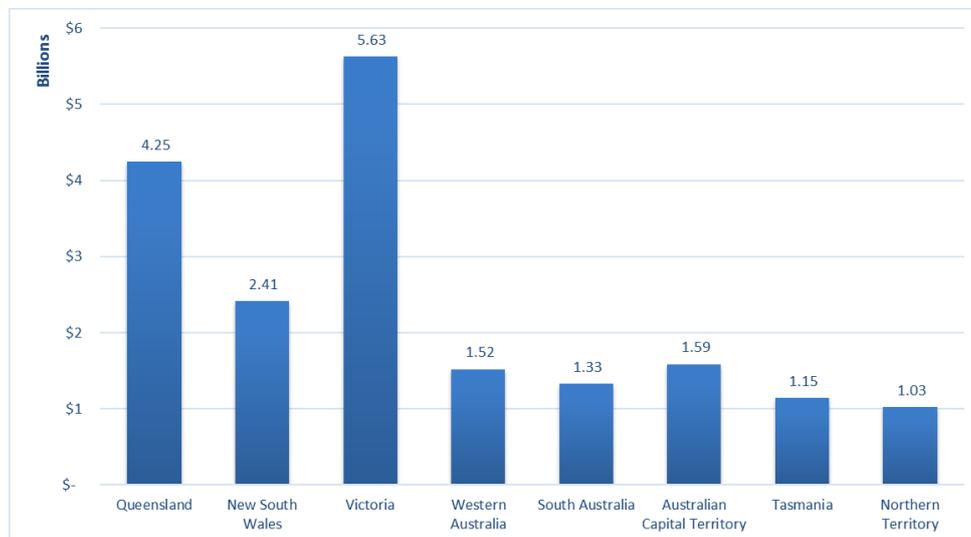

Figure 8. Total Income Generated by NRAS-driven Employment across all States

The majority of income will be generated in Victoria and Queensland where a combined total income figure of 9.88 billion dollars is projected. Figure 9 illustrates average income per NRAS incentive and bedroom across all states.
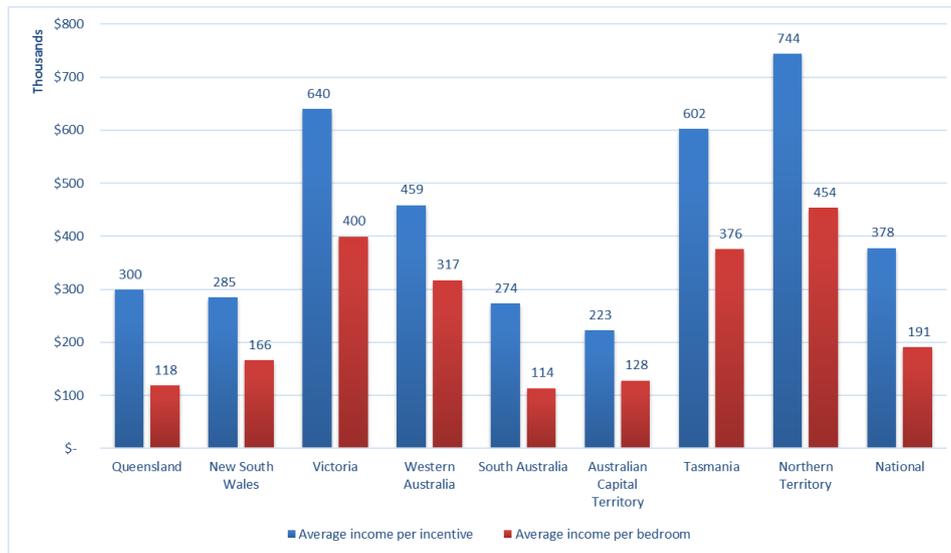
Figure 9. Average Income Generated by NRAS-driven Employment across all States

The highest average income figures per incentive and bedroom will be generated in Victoria, Tasmania and Northern Territory as shown in Figure 9.

Having outlined findings of government revenue, employment and income generated by NRAS, the paper now concludes with key findings and potential areas for future research.

CONCLUSION

NRAS is one of the key government initiatives to address housing affordability crisis in Australia by stimulating additional affordable rental dwellings to be built and invested in. In addition to providing affordable rentals, NRAS, as highlighted in this paper, will generate significant economic and taxation benefits in terms of government revenue, employment and income throughout all states. In summary, each NRAS incentive will generate seven jobs, 185,000 dollars in government revenue and 378,000 dollars of income. Meanwhile, each NRAS bedroom will create three jobs, 94,000 dollars in government revenue and 192,000 dollars of income. Some of the economic benefits quantified in this study, including government revenue from land taxes and council rates and charges are also on-going beyond the time period considered in this study. Therefore, the total government revenue generated by NRAS is higher than the figure quantified in this study.

An area for potential research in the future is to quantify economic and taxation benefits of NRAS with the latest status of incentives and the current financial variables, particularly median income figures and inflation and cash rates. Furthermore, not all NRAS dwellings may be sold to individual investors. Some parties such as non-profit organisations may retain NRAS dwellings longer than the ten-year period assumed in this research. Therefore, a future study could investigate holding periods of NRAS dwellings and apply the findings to the quantification of economic and taxation benefits of NRAS.

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