



**Comparative analysis of cost of living**

WA Department of Treasury

July 2022

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# Executive summary

## Purpose of this report

Deloitte Access Economics was engaged by the Western Australian Department of Treasury to undertake a comparative analysis of cost of living between Perth and other major state capital cities in Australia, namely Sydney, Melbourne, and Brisbane; and between the major regional cities of Bunbury, Newcastle, Geelong, and Sunshine Coast.

These regional cities were chosen because they are sufficiently distant from their respective state capitals so that the analysis captures real differences in the underlying drivers of household costs. In addition, they also represent large population centres outside of Sydney, Melbourne, Brisbane, and Perth.

The purpose of the work is to measure current living costs likely to be faced by new migrants to WA relative to other states, as a tool to inform the WA Government's strategy to attract and retain skilled workers in the State.

## Approach

Deloitte Access Economics estimated the expenditure profile in 2021-22 for the average household in each of the capital cities examined, using a combination of historical ABS Household Expenditure Survey (HES) data and other data. As the HES is limited to capital city residents, the regional city analysis focused on data for a subset of expenditure items, collected separately, that account for a significant share of the typical household spend. This includes housing costs, spending on food and beverages, electricity, and transport.

## Key findings

### Cost of living in capital cities

The analysis found that **the average Perth household spent an estimated \$1,630 per week on the consumption of goods and services, including housing costs, in 2021-22 – around 10 per cent lower than the next cheapest capital city, Melbourne.** The average household in Perth spent 19 per cent less than the average Brisbane household (\$2,002 per week) on the consumption of goods and services including housing costs, and 24 per cent less than the average Sydney household (\$2,143 per week). The average Melbourne household spend around \$1,805 per week including housing costs.

Housing costs for the average capital city household are discussed further in Chapter 3.2. Alternative measures of the key components of housing costs that might be faced by new migrants purchasing or renting the median dwelling are shown in Appendix A.

### Cost of living in regional cities

Limited cost of living data exists for regional cities in Australia. As such, the study compiled a partial view of cost of living for the selected regional cities based on the largest components of household outlays, with consideration of the availability of credible data in the short period available for the analysis. The costs examined include:

- Housing costs (typically around 26 per cent of total household costs, based on the HES)
- Food and beverages (15 per cent)
- Electricity costs (2 to 3 per cent)
- Transportation costs (14 per cent).

As noted above, housing costs are both the largest individual item in the average household expenditure profile, and the largest source of gaps in cost of living between the major capital cities. Analysis of housing costs for the four regional cities revealed a similar trend, with **Bunbury being the most affordable in terms of median prices and median rents for both houses and units.**

Relative to the median household income in each of the four regional cities, **Bunbury was the most affordable in terms of mortgage repayments on the median dwelling as a share of household income** (22.5 per cent). The highest share of median household income being committed to a mortgage repayment on a newly purchased

median house was evident on the Sunshine Coast, at 57.5 per cent. Mortgage repayments on a newly purchased median unit as a share of household income was also lowest in Bunbury at 19.6 per cent.

In terms of median house rents as a share of household income, Geelong was close to parity with Bunbury (around 27 per cent), but **Bunbury was still significantly more affordable than Newcastle (32.4 per cent) and Sunshine Coast (40.2 per cent)**. Median unit rents as a share of household income were lowest in Geelong (24 per cent), but only marginally so relative to Bunbury (24.4 per cent).

**The average Bunbury household was also found to spend less on a common basket of food and beverage goods than in the other regional cities**, mainly due to lower prices for fresh produce. The cost of the common basket of groceries in Bunbury was 2.2 per cent lower than in Newcastle, 1.4 per cent lower than in Geelong, and 2.0 per cent lower than in Sunshine Coast.

**The average household electricity bill was estimated to be relatively close for Bunbury and Geelong, with higher average costs for Newcastle and Sunshine Coast.** However, in 2022-23 WA and other interstate households are set to benefit from State Government electricity credits and concessions to assist with rising living costs. In WA for example, a \$400 household electricity credit will be applied in 2022-23. Taking these credits into account, the average Bunbury household is likely to pay around 9 per cent less than the average household in Geelong, 27 per cent less than the average Newcastle household, and around 28 per cent less than the average Sunshine Coast household.

While fuel costs were found to be similar across the four regional cities, a range of other government fees and charges relating to transport – including **vehicle registration, driver's license fees, and compulsory motor injury insurance – also lower for the typical WA household** than in NSW, Victoria, or Queensland.

# 1 Background

## 1.1 Cost of living in Australia

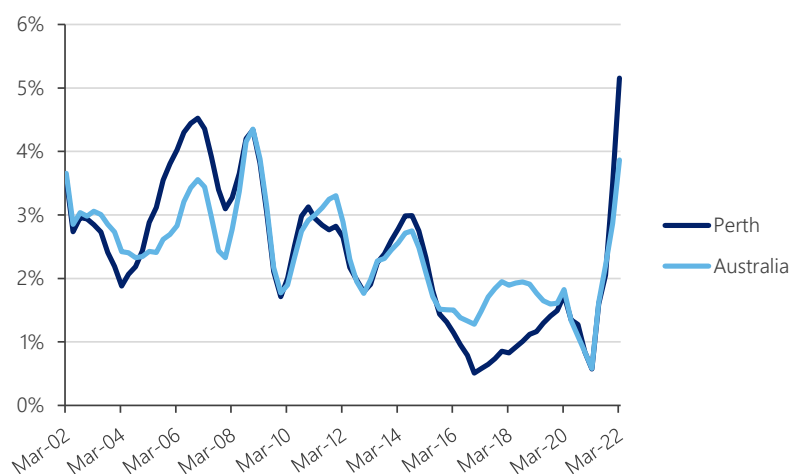
Australia is currently experiencing the highest rate of inflation in consumer prices since the introduction of the GST more than 20 years ago. It is not alone among the advanced economies, with similar multi-decade-high inflation figures recently being posted in the United States, United Kingdom, and major European economies.

The surge in inflation follows a period of unprecedented expansionary monetary and fiscal policy in response to the COVID-19 pandemic. Governments the world over used their budgets to support households and businesses to offset adverse economic impacts, while central banks brought official interest rates down to zero or near-zero and deployed a range of unconventional balance sheet policy to sustain lending activity and avoid a liquidity crisis.

At the same time, the pandemic disrupted the operation of mines, factories, refineries, and shipping routes, disrupting supply chains and purchasing activities by businesses as they attempted to navigate the impacts of the pandemic on their customers and adjust their own production accordingly.

The net result is an inflationary environment that reflects both supply-side problems with the cost and availability of inputs and the production and movement of goods, and very strong demand (with the latter currently being addressed by monetary tightening). Consequently, the consumer price index (CPI) grew at an annual average rate of 3.9 per cent over the year to March 2022 across Australia (Figure 1.1). In Perth, growth in the local CPI was even stronger at 5.2 per cent in annual average terms.

Figure 1.1: Average annual change in the consumer price index, Perth and Australia



Source: ABS Cat. 6401.0

This follows a prolonged period of low inflation in Australia. Measures of underlying inflation – which abstract away from short-term ups and downs in the prices of volatile goods by examining mean or median price movements – had consistently been below the lower bound of the Reserve Bank’s target band (2 per cent) for more than five years between early 2016 and mid-2021. Prior to that, underlying inflation had been well within the target band of 2 to 3 per cent since mid-2010.

There is a general view that CPI inflation in Australia is yet to reach its peak, with the Reserve Bank of Australia predicting national inflation to reach as high as 7 per cent before the end of 2022,<sup>1</sup> and a recent survey of economists expecting inflation to peak at 7.1 per cent in the December quarter of 2022,<sup>2</sup> in year-ended terms.

## 1.2 About this report

Amidst this high inflation environment, Deloitte Access Economics was engaged by the Western Australian Department of Treasury ('WA Treasury') to undertake comparative analysis of cost of living between Perth and other major state capital cities in Australia, namely Sydney, Melbourne, and Brisbane; and between a major regional city in WA and a regional city in each of New South Wales, Victoria, and Queensland.

Deloitte Access Economics undertook this work in a two-week period in late June and early July 2022. Given the short timeframe, the analysis primarily uses publicly available data from the Australian Bureau of Statistics (ABS) with a range of other data applied to estimate household expenditure profiles for the capital cities. For the regional cities, where comprehensive household expenditure data does not exist, a series of other data sources were used to produce indicative analysis of expenses and affordability for major components of the average household spend. The approach is outlined in further detail in Chapter 2, while the results of the analysis for capital cities and regional cities are presented in Chapters 3 and 4, respectively.

### 1.2.1 Limitations

As noted above, the findings in this report reflect a desktop-based exercise conducted primarily using publicly available data over a two-week period. The purpose of this report is to provide high-level, indicative analysis of differences in cost of living between a select number of locations in Australia. The extent to which compositional differences in household spending between locations were examined was limited by the timeframe and reliance on publicly available data as opposed to the longitudinal survey data typically used to provide insight into household behaviours, preferences, and other factors that influence cost of living.

## 2 Approach

This chapter outlines key steps and data sources applied to estimate the results shown in Chapters 3 and 4.

### 2.1 Capital cities

#### 2.1.1 Household expenditure profiles

Analysis of cost of living between Perth, Sydney, Melbourne, and Brisbane primarily relies on a 'nowcast' of household expenditure profiles developed by Deloitte Access Economics.

The main inputs to the nowcast are the results from the most recent ABS Household Expenditure Survey (HES) in 2015-16, expressed on an average expenditure per week basis for the average household in each greater capital city statistical area (GCCSA) corresponding to the four capital cities of interest.

These survey results were nowcast to 2021-22 terms using per-household growth rates in each of the expenditure components developed as follows:

- Total growth in the value of household consumption (in current prices), by broad expenditure group, was estimated based on the ABS National Accounts detailed components of state final demand for each relevant state for the period from March 2016 to March 2022. The growth rate for each expenditure group in the HES was matched to its closest corresponding expenditure group in the National Accounts framework
- These growth rates were adjusted to per capita terms using estimates of state population growth from the ABS. Because March 2022 population data were not available at the time, data for this quarter was drawn from Deloitte Access Economics' in-house demographic model,<sup>3</sup> which estimates population by state and territory and the components of population change
- To convert per capita growth rates to per household terms, an assumption was adopted that the number of people per household as recorded in the 2015-16 HES was unchanged. This assumption was sense-checked following the release of 2021 Census data for population and dwellings, which confirmed that changes in the number of people per household by GCCSA was immaterial.

#### 2.1.2 Household income

Median weekly household income data was drawn from the 2021 Census for the greater capital city statistical areas corresponding to Perth, Sydney, Melbourne, and Brisbane. To convert household income to 2022 terms, the latest year-on-year growth in current price compensation of employees from the ABS National Accounts was applied to the Census estimates, for the state corresponding to each capital city, offset by population growth (see Chapter 2.1.1) to produce estimates of growth in compensation of employees on a per capita basis. As for household expenditure, it was implicitly assumed that the median number of people per household did not change and therefore per capita growth rates were applied on a per household basis.

While not a perfect match for total household income at the capital city level, state-level compensation of employees does capture: (1) state-specific differences that are likely to be reflective of each state's capital city; and (2) the most significant component of household income, in that compensation of employees accounts for around two-thirds of primary household income.

### 2.2 Regional cities

While the 2015-16 HES forms the basis of the estimates of cost of living for the capital cities, no such dataset exists for regional cities in Australia. As such, the study sought to compile a partial view of cost of living for selected regional cities based on the largest components of household outlays, with consideration of the availability of credible data in the short time period available for the analysis. The costs examined include:

- Housing costs (typically around 26 per cent of total household costs, based on the HES)
- Food and beverages (15 per cent)
- Electricity costs (2 to 3 per cent)

- Transportation costs (14 per cent).

These regional cities were chosen because they are sufficiently distant from their respective state capitals so that the analysis captures real differences in the underlying drivers of household costs. In addition, they also represent large population centres outside of Sydney, Melbourne, Brisbane, and Perth.

It is important to recognise that these regional cities – while being large population centres outside the respective capitals – are distinct with regard to their economic drivers and key employing sectors. Such characteristics also influence affordability and cost of living in terms of ease of gaining employment and wage levels. However, such considerations were out of scope for this study given the tight timeframe of analysis.

### **2.2.1 Housing costs**

Median sales prices and median rents for houses and units in the regional cities were drawn from REA Group<sup>4</sup> data and represent prices for sales over the most recent 12-month period, that is, 2021-22. As the data is published on a suburb basis, information was collected for multiple suburbs in each regional city area, with the final estimate representing a weighted average compiled by Deloitte Access Economics on the basis of suburb-level median sales price, sales volume, median rent, and rent listing volume data from REA Group.

#### **2.2.1.1 Median dwelling values and mortgage payments**

To illustrate housing costs for owner occupiers with a mortgage, mortgage repayments for the median dwelling were estimated by Deloitte Access Economics using the median dwelling values and the following assumptions:

- The buyer borrows 80 per cent of the dwelling value
- Repayments are based on a 3.73 per cent interest rate, reflecting the average standard variable rate on offer in Australia for new loans in June 2022 as canvassed by 'Finder' (3.23 per cent), plus 50 basis points to reflect the increase in official interest rates effective from 5 July 2022
- The loan is repaid monthly over a period of 30 years.

#### **2.2.1.2 Median asking rent**

Median asking rents in the selected regional cities were drawn from Domain's quarterly rental report for March 2022.

### **2.2.2 Household income**

Median household income for the selected regional areas was estimated using the same approach as for capital cities (see Chapter 2.1.2).

### **2.2.3 Food and beverage costs**

To identify differences in costs of food and beverages, a common basket of goods was developed by Deloitte Access Economics based on the structure of this group in the ABS' CPI classification. The websites of two national supermarkets (Coles and Woolworths) were used to compare pricing for the items in this common basket between the four regional cities. The common basket of goods for the regional cities is not as extensive as the CPI basket, with items selected on the basis of their being non-discretionary in nature (as reflected in their CPI weights). Specials and discounts were excluded when selecting the items for price comparison.

Differences in prices for each item were then weighted according to their relative importance in the CPI, and insights drawn from the weighted difference in the total cost of the common basket of goods between regional cities.

It should be noted that both Coles and Woolworths have employed nationally consistent pricing models across their Australian stores since around 2010 for most products.<sup>5</sup> This may mean that regional differences in wholesale costs and other factors that might otherwise affect retail prices are masked or minimised. It may be the case that price differences for similar products between regions would be more pronounced at other non-national chain retailers, however, the approach to data collection was limited by the project timeframe and that smaller retailers either do not advertise prices online and / or are not present in the regional cities selected.

### **2.2.4 Electricity costs**

The average annual spend on electricity by the 'representative' household in Western Australia is drawn from the WA State Budget 2022-23. On the basis of the assumptions underpinning this estimate – namely, that the average household uses 4,721kWh of electricity per year – Deloitte Access Economics used price comparison tools to cost the approximately equivalent consumption of electricity in each of the selected regional cities.

The Australian Energy Regulator's (AER) 'Energy Made Easy' tool was utilised to compare retail offers for Newcastle and Sunshine Coast, while the Victorian Department of Environment, Land, Water and Planning's 'Victorian Energy



Compare' tool was used to compare retail offers for Geelong. The estimates shown in Chapter 4 represent a simple average of all offers from all retailers for each regional city.

In addition to matching the assumptions underpinning the WA estimate as closely as possible, the inputs to each comparison tool also exclude any concessions although some discounts, incentives, or other changes to the typical retail price of electricity may have impacted the estimated annual spend. These issues could not be filtered out of the government price comparison tools employed. However, given that the comparison tools were used to extract data on electricity costs in Newcastle, Geelong, and Sunshine Coast, the potential application of discounts and incentives to these prices only serve to create a more conservative measure of cost relative to Bunbury (which was not extracted from these tools and have no discounts applied).

### **2.2.5 Transport costs**

Average weekly fuel price data was collected for each regional city from fuel price aggregator, FuelPrice Australia. FuelPrice Australia uses a mix of open source data for advertised fuel prices across almost 9,000 fuel stations in more than 200 towns and cities in Australia, and official data from Fair Trading NSW's Fuel Check service, the Queensland Department of Natural Resources, Mines and Energy's Fuel Prices QLD service, and the WA Department of Mines, Industry Regulation and Safety's FuelWatch service.

Analysis of motor vehicle charges for each of the four states was informed by the WA Department of Treasury's 'Representative Household' assumptions presented in the 2022-23 State Budget (Table 8.7 of Budget Paper 3). Vehicle and drivers licence charges, as well as motor injury insurance figures, were informed by each respective state's Department of Transport. The charges calculated assumed – in line with WA Treasury's assumptions on the representative household - that the average household has two drivers that own one car (a sedan with tare weight of 1,600 kilograms).

## 3 Cost of living in capital cities

This chapter discusses differences in the average weekly household spend in Perth, Sydney, Melbourne, and Brisbane. As discussed in Chapter 2.1.1, it is primarily based on the results of the most recent ABS Household Expenditure Survey (HES), which has been nowcast to 2021-22 terms using a variety of other data from the ABS and other sources. The methodology employed is outlined further in Chapter 2.1.

### 3.1 Overview

According to the methodology employed, the average Perth household spent around \$1,630 per week on the consumption of goods and services, including housing costs, in 2021-22 (Table 3.1). This is around 10 per cent lower than the average household in Melbourne (\$1,805), 19 per cent lower than the average household in Brisbane (\$2,002) and 24 per cent lower than the average household in Sydney (\$2,143). The estimates of Deloitte Access Economics' nowcast of average household spending, including housing costs, by capital city are shown in Table 3.1.

Table 3.1: Average household spend, all items, 2021-22 (dollars per week)

Item	Perth	Sydney	Melbourne	Brisbane
Housing costs <sup>6</sup>	480	735	527	778 <sup>7</sup>
Food and non-alcoholic beverages	271	332	302	286
Recreation	187	230	226	207
Medical care and health expenses	121	126	98	100
Miscellaneous goods and services	106	132	117	128
Transport	71	101	78	97
Education	65	76	71	57
Household furnishings and equipment	61	95	67	67
Domestic fuel and power	53	40	58	28
Household services and operation	47	67	51	59
Clothing and footwear	45	64	64	59
Communication	45	53	52	50
Alcoholic beverages	33	40	43	37
Personal care	32	37	36	36
Tobacco products	12	14	15	15
<b>Total costs</b>	<b>1,630</b>	<b>2,143</b>	<b>1,805</b>	<b>2,002</b>
<b>Perth relative to others</b>	<b>-</b>	<b>-24%</b>	<b>-10%</b>	<b>-19%</b>

Source: Deloitte Access Economics estimates based on ABS Household Expenditure Survey

Of the four capital cities assessed, Sydney had the highest median weekly household income in 2021-22, estimated at around \$2,146 per week in 2022, followed by Perth at around \$2,027 per week. Brisbane and Melbourne had similar estimates of around \$1,960 per week (Table 3.2).

Table 3.2: Median weekly household income by capital city, 2021-22<sup>8</sup>

	Perth	Sydney	Melbourne	Brisbane
Median weekly household income	\$2,027	\$2,146	\$1,958	\$1,962

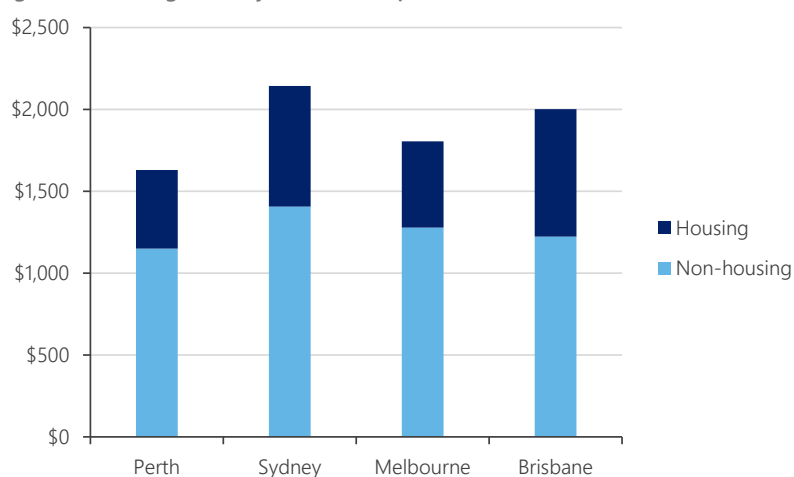
Source: Deloitte Access Economics estimates based on the 2021 Census; ABS Household Expenditure Survey

### 3.2 Housing costs

The HES estimate of housing costs is a broad measure and includes rent or mortgage repayments for a principal place of residence, as well as local government rates, water rates, home insurance, strata fees, and other housing costs.

This approach shows that the average Perth household is estimated to have spent around \$480 per week on housing costs in 2021-22. On this same basis, estimated average weekly household housing costs in Perth were around 35 per cent lower than Sydney (\$735 per week), 9 per cent lower than Melbourne (\$527 per week), and 38 per cent lower than Brisbane (\$778 per week) in 2021-22 (Figure 3.1).

Figure 3.1: Average weekly household spend based on the HES nowcast, 2021-22

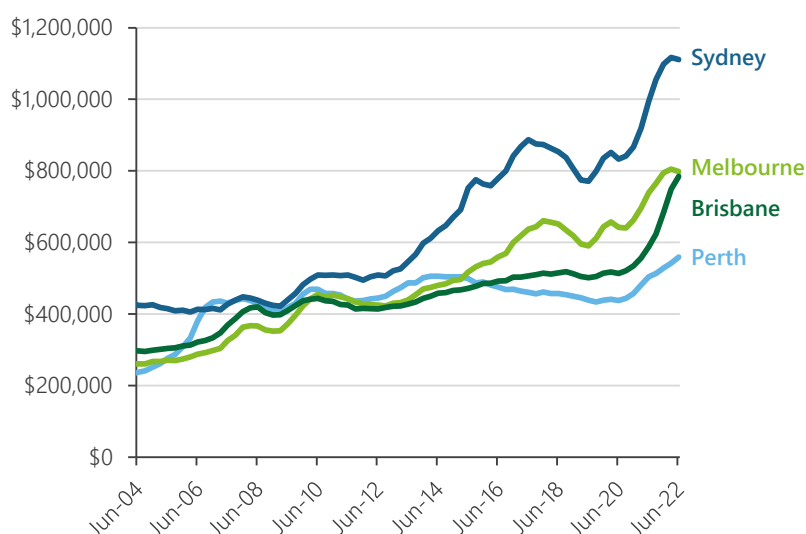


Source: Deloitte Access Economics estimates based on ABS Household Expenditure Survey

This measure of housing costs considers all households in each capital city – including those with substantially lower housing costs because, for example, they are owner occupiers with no mortgage or because they receive rental assistance or other concessions that significantly reduce their net expenditure on housing.

However, lower housing costs in Perth also likely reflect the greater affordability of dwellings than the other three major state capitals through recent history. Median dwelling values in Perth overtook those of Melbourne and Brisbane during the resources boom in 2005-06 and generally remained competitive with those two capitals until the downturn in the WA mining industry caused by a decline in global commodity prices a decade later (Figure 3.2). Lower dwelling values are likely reflected in lower average rents and other housing-related costs of the average Perth household, relative to the other capital cities.

Figure 3.2: Median dwelling values, quarterly



Source: CoreLogic Home Value Index and ABS Cat. 6416.0

Because the measures of housing costs shown in Table 3.1 and Figure 3.1 represent average spend across all households in each capital city, they may not necessarily be representative of some components of housing costs – such as mortgage repayments or rents – likely to be incurred by new migrants to each state. For example, new migrants to a capital city would incur higher mortgage repayments than some of those included in the HES measure of housing costs as a result of needing to purchase a home at current market prices. As such, some alternative measures of housing costs more specific to a cohort that may be required to purchase or rent the current median dwelling in each capital city, are presented in Appendix A.

### 3.3 Non-housing costs

The analysis conducted also suggests that Perth is estimated to be the most affordable capital city in terms of most other components of the typical household weekly spend (see Table 3.1 on page 10). This includes spending on non-discretionary items like food and non-alcoholic beverages, where the average Perth household spent an estimated 5 to 18 per cent less per week than the average household across the other three capital cities (Figure 3.3). As there are no material differences in the size or composition of households across the four cities examined, these differences indicate that the same basket of household food and non-alcoholic beverages is likely to be more affordable in Perth than in any of the other three capital cities.

Figure 3.3: Average weekly household spend on food and non-alcoholic beverages, 2021-22



Source: Deloitte Access Economics estimates

Other areas where the average household spend was lower in Perth than in the other capital cities include:

- Clothing and footwear
- Household furnishings and equipment
- Household services (which includes services like childcare)
- Transport (which includes automotive fuel and maintenance and repair of motor vehicles, as well as urban transport fares and road tolls)
- Communication (which includes postal services, and telecommunication equipment and services)
- Recreation (which includes audio, visual and computing equipment and services, holiday travel and accommodation, recreational equipment, and sports participation)
- Personal care (which includes toiletries, cosmetics, and hairdressing services).

The average Perth household is estimated to have spent \$45 per week on clothing and footwear, which is at least \$14 less per week than any of the other three capital cities. Differences in clothing and footwear costs contributed 1 percentage point to the gap in household costs (including housing costs) between Perth and all three of the other capital cities.

Across the 15 categories in the household expenditure profile, spending on recreation and culture exhibits some of the largest disparities amongst the capital cities. The average Perth household was estimated to have spent less than \$200 per week on recreation and culture, while households in the other capital cities were estimated to have spent between 10 and 23 per cent more.

Household expenditure on home furnishings and equipment also varied across the examined capital cities, with Sydney households spending 56 per cent more in this category than the typical Perth household. Likewise, the typical Perth household was estimated to have spent \$47 a week on household services and operations in 2021-22, 21 and 31 per cent less than Brisbane and Sydney, respectively.

The average weekly household expenditure on transport in Perth in 2021-22 was estimated to be \$30 less than the typical weekly spend in Sydney, \$27 less than Brisbane, and \$7 less than Melbourne. Weekly expenditure on communication and personal care was also estimated to be lower in Perth than the other three capital cities examined.

There were some categories of household spending where the average Perth household spent *more* than the average household in at least one other city. These include domestic fuel and power, medical care and health expenses, and education. While the relative differences in average spend may seem significant for each line item, the overall contribution of these items is small and outweighed by areas where Perth households spend less than interstate households.

## 4 Cost of living in regional cities

As noted in Chapter 2.2, household spending data for regional areas is not available at the same degree of detail as for the major capital cities. While data does exist for 'rest of state' areas – that is, the entire state excluding the capital city – these data are unlikely to be representative of any particular regional centre, as they would not capture differences in cost of living between, for example, Port Hedland and Albany.

To provide insight into the cost of living in regional centres, this chapter discusses differences in drivers of significant components of the average household spend for four regional cities – Bunbury, Newcastle, Geelong, and Sunshine Coast. The study sought to compile a partial view of cost of living for these selected regional cities based on the largest components of household outlays, with consideration of the availability of credible data in the short time period available for the analysis.

These regional areas were selected for the comparative analysis because each is a regional city representing a large population centre in its respective state, outside of the greater capital city statistical area. Each regional city is also sufficiently distant from its respective state capital that it is likely to capture real differences in the underlying drivers of household costs.

The cost-of-living items considered include:

- Housing costs
- Food and beverage costs
- Electricity consumption
- Transport costs.

The subset of costs collected for the regional cities are shown in Table 4.1 and expressed on a weekly basis.<sup>9</sup>

Table 4.1: Illustrative household spend, by regional city, 2022 (dollars per week)

Item	Bunbury	Newcastle	Geelong	Sunshine Coast
Housing costs – mortgage repayments on median house price <sup>a</sup>	304	820	725	914
Housing costs – mortgage repayments on median unit price <sup>a</sup>	265	644	463	502
Housing costs – private house median asking rent	385	590	454	681
Housing costs – private unit median asking rent	351	526	394	512
Food and beverages <sup>b</sup>	196	202	201	202
Transport – Fuel <sup>c</sup>	40.1	40.6	38.9	40.3
Transport – Motor vehicle charges <sup>d</sup>	17.4	20.1	26.7	22.8
Electricity consumption	34.9	37.2	34.7	41.3

Source: Various.

a. See Chapter 2.2.1 for assumptions applied

b. See Chapter 2.2.3 and Appendix B for assumptions applied

c. Based on an average per litre unleaded fuel price collected for 2021-22 for each regional city and calculated using a weekly trip distance of 213.5km (i.e., average annual mileage of 11,100km for passenger cars in Australia according to the *ABS Survey of Motor Vehicle Use, Australia, 2019-20*) in a passenger vehicle where fuel consumption is assumed to average 11.1L/100km (also based on the *ABS Survey of Motor Vehicle Use, Australia, 2019-20*).

d. Includes vehicle licensing costs, driver's license costs and motor injury insurance (or equivalent). Motor vehicle charges were estimated for an average household, on the basis of two drivers owning one car (a sedan with tare weight of 1,600 kg), consistent with assumptions used by WA Treasury in the 2022-23 State Budget.

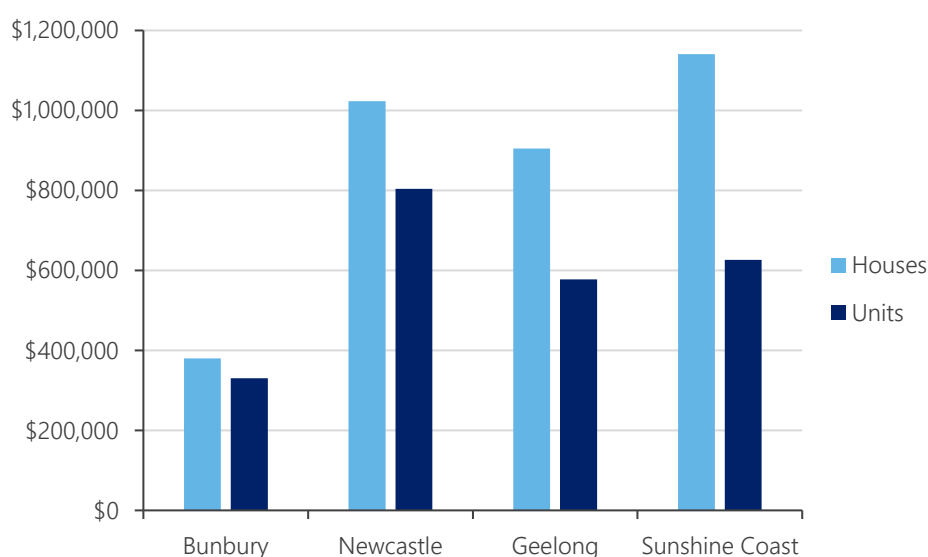
## 4.1 Housing costs

As outlined in Chapter 3, housing costs are the single largest component of the average capital city household's weekly spend, typically accounting for around 26 per cent of total spending, based on the HES. Housing costs are mainly driven by rent or mortgage repayments (in turn driven by dwelling values), dependent on the occupant's status in the dwelling.

According to data from REA Group, the median house price in Bunbury in 2021-22 was estimated at a little under \$380,000. Bunbury's median house price was 67 per cent lower than that of the Sunshine Coast (\$1.1 million), which had the highest median price of the regional cities examined. The median price in Bunbury was around 63 per cent below that of Newcastle (just over \$1.0 million) and 58 per cent below that of Geelong (a little over \$900,000) (Figure 4.1).

Similar differences were observed for median sales prices for units. The median unit price in Bunbury was estimated at around \$330,000, 59 per cent below that of Newcastle (\$800,000), 43 per cent lower than Geelong (\$580,000), and 47 per cent below that of Sunshine Coast (\$625,000).

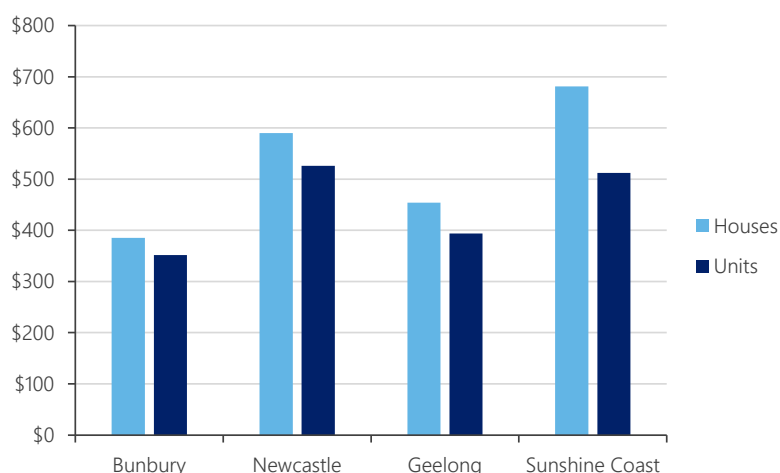
Figure 4.1: Median house and unit prices by regional city, 2021-22



Source: REA Group data

The gaps between median asking rents among the regional cities is smaller than that between median house prices, but Bunbury still emerges as the most affordable for renting a house (\$385 per week) or unit (\$351) in 2021-22 (Figure 4.2). Median rents for houses in Bunbury were 15 per cent below the next most affordable city, Geelong, 35 per cent lower than in Newcastle, and 43 per cent lower than in Sunshine Coast. Geelong was also the next most affordable for renting units, while Sunshine Coast was marginally more affordable than Newcastle. Bunbury unit rents were 11 per cent lower than in Geelong, 31 per cent lower than in Sunshine Coast, and 33 per cent lower than in Newcastle.

Figure 4.2: Median house and unit rent by regional city, 2021-22



Source: REA Group data

Deloitte Access Economics estimated the mortgage repayment on the median dwelling as a share of median household income for each of the regional cities (using income data by LGA from the 2021 Census – see Chapter 2.2.2). As noted in Chapter 3.2 relating to the capital cities, this analysis is not intended to reflect the average mortgage repayment-to-income ratio that might currently apply among households in each of the regional cities; rather, they are ‘what if’ indicators of what proportion of income would need to be applied to mortgage repayments were the median income household to purchase the median dwelling in each regional city, given current housing market and lending conditions.

This analysis shows that Bunbury exhibits the lowest mortgage repayment on the median dwelling to median income ratio among the regional cities, at 22.5 per cent for houses and 19.6 per cent for units. Sunshine Coast is the least affordable among the regional cities for houses, with mortgage repayments on the median house representing 57.5 per cent of median household income, while Newcastle is the least affordable for units at 37.7 per cent (Table 4.2).

Table 4.2: Mortgage repayment on the median dwelling, as share of median income, 2022

Indicator	Bunbury	Newcastle	Geelong	Sunshine Coast
Mortgage repayment on the median house, as a share of median income	22.5%	48.0%	47.0%	57.5%
Mortgage repayment on the median unit, as a share of median income	19.6%	37.7%	30.0%	31.6%

Source: Deloitte Access Economics estimates

Bunbury is close to parity with Geelong in terms of median rent as a share of median income, with higher rents in Geelong offset by higher household income. On this measure, Bunbury is marginally more affordable than Geelong for median rent on houses, but marginally less so for units (Table 4.3). Sunshine Coast is the least affordable of the regional cities, followed by Newcastle, viewed through the share of median household income represented by median rents.



Table 4.3: Median asking rent, as share of median income, 2022

Indicator	Bunbury	Newcastle	Geelong	Sunshine Coast
Median asking rent for houses, as a share of median income	26.7%	32.4%	27.7%	40.2%
Median asking rent for units, as a share of median income	24.4%	28.9%	24.0%	30.3%

Source: Deloitte Access Economics estimates

## 4.2 Food and beverage costs

As shown in Table 3.1 on page 10 for the capital cities, spending on food and beverages is the second-largest item in the average household expenditure profile, after direct housing costs. To inform costs of food and non-alcoholic beverages between the regional cities, a common basket of goods was developed, and prices collected from two national supermarket outlets in each city. Prices were then weighted according to the importance of each item in the CPI. The common basket of goods for the regional cities is not as extensive as the CPI basket, with items selected on the basis of their being non-discretionary in nature (as reflected in their CPI weights).

Appendix A contains details of the prices collected for the common basket of goods by CPI sub-group for the regional cities. It is important to note that the costs shown in Appendix A are not comparable to the 'Food and non-alcoholic beverages' costs calculated for capital cities, as presented in Table 3.1 on page 10. The data contained in Table 3.1 are based on a full spectrum of goods in the HES and nowcasted to 2021-22, rather than a subset of goods where costs are based on primary data collection from retailers.

The analysis found that this common household basket of food and beverage items had the lowest cost in Bunbury. The cost of the common basket in Bunbury was around 1.4 per cent lower than in Geelong, 2.0 per cent than in Sunshine Coast, and 2.2 per cent lower than in Newcastle (Table 4.4).

Table 4.4: Weighted difference in the cost of a representative basket of food and beverage goods, Bunbury relative to other regional cities

	Newcastle	Geelong	Sunshine Coast
Relative basket price, overall	-2.2%	-1.4%	-2.0%

Source: Deloitte Access Economics estimates based on Coles and Woolworths online prices

The variation between locations is relatively small, and mainly driven by variations in the price of fresh produce such as fruit and vegetables.<sup>10</sup> Some fruit items were found to be between 4 and 14 per cent cheaper in Bunbury than in the other regional cities, with some vegetable items found to be as much as 50 per cent cheaper in Bunbury than in the other regional cities. Appendix B contains details of the prices collected for the common basket of goods by CPI sub-group for the regional cities.

Nationwide, the prices of fruit and vegetables have seen notable increases on account of COVID-related supply chain disruptions earlier in the year, as well as fertilizer shortages and flooding in NSW and Queensland. The consistency of the difference between other cities relative to Bunbury suggests that Bunbury has, to some extent, been insulated from these price shocks.

## 4.3 Electricity costs

Bunbury is included in the South West Interconnected System (SWIS) in the WA electricity network, meaning that households in Bunbury are non-contestable consumers and are therefore supplied by Synergy. Tariffs, fees, and charges relating to electricity retailed by Synergy in the SWIS are set annually by the WA Government.

In its most recent State Budget, the WA Government estimated that the average household spend on electricity consumption was around \$1,768 in 2021-22 and would rise to around \$1,813 in 2022-23, not accounting for the \$400 credit provided to WA households in 2022-23 which would reduce the average amount payable to approximately \$1,413.<sup>11</sup>

The three other regional cities assessed exist within the National Electricity Market (NEM), the retail segment of which is contestable but regulated by a series of Commonwealth agencies. Retailers have substantial capacity to offer incentives, discounts, and other pricing arrangements, in particular for new customers, that make it difficult to ascertain the 'average' or 'representative' electricity bill for households in these regional cities.

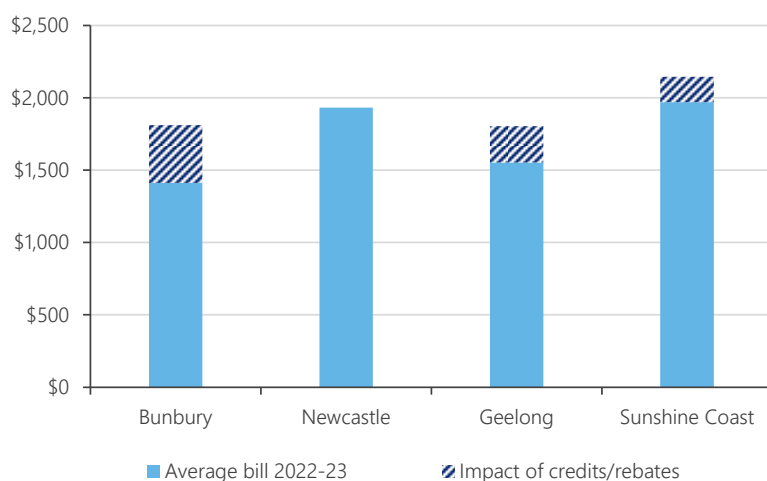
Price comparison tools provided by the Australian Government for New South Wales and Queensland, and by the Victorian Government for Victoria, were used to estimate the average annual household electricity cost based on offers from retailers. These were based specifically on Newcastle, Geelong, and Sunshine Coast, with assumptions kept as consistent as possible relative to those used by the WA Government, including household size.

This analysis found that the average annual household electricity bill was likely to be a little more than \$1,800 in Geelong, only marginally lower than the \$1,813 payable by the average Bunbury household (excluding the electricity credit). Average bills in Newcastle were likely to be significantly higher than Bunbury (approximately \$1,933 per year) and the Sunshine Coast (approximately \$2,145 per year) (Figure 4.3).

These estimates do not account for the \$250 Power Saving Bonus payment available to all Victorian households or the \$175 Cost of Living Rebate available to all Queensland households, both of which are measures announced in the respective 2022-23 state budgets.<sup>12,13</sup>

Taking the WA, Victorian, and Queensland credits into account, the average Bunbury household is likely to pay around 9 per cent less than the average household in Geelong, 27 per cent less than the average Newcastle household, and around 28 per cent less than the average Sunshine Coast household.

Figure 4.3: Average annual household electricity costs, 2022-23



Source: Deloitte Access Economics estimates

The NSW Government also offers a family energy rebate up to \$180, however, this has not been included given it is only available to households that meet certain concession eligibility requirements.<sup>14</sup> This is consistent with the general approach to include credits and rebates where they are universally available to all households, but to present estimates of the average electricity bill net of any concessions available only to some households based on specific characteristics.

Note that these figures may differ from how a 'typical' household electricity bill is calculated in other jurisdictions and may not reflect the current average household electricity bill in each regional city, dependent on compositional differences in the 'average' household. Rather, because they have been estimated based on the household size and usage assumptions prescribed in the WA State Budget, they are best thought of as a 'what if' indicator of what the average Bunbury household would pay in annual electricity costs if it were to relocate to any of the other regional cities.

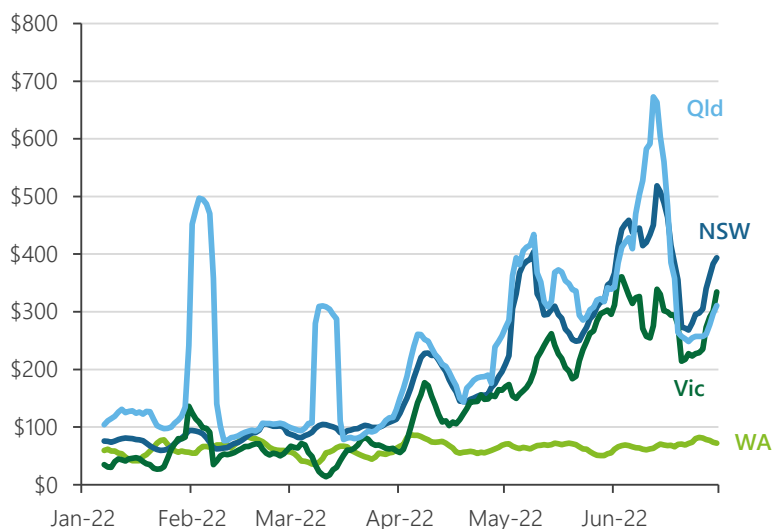
#### 4.3.1 Increase in electricity prices 2022-23

Wholesale electricity prices account for a significant share of the final retail price paid by households. Wholesale prices in the NEM have been impacted by higher prices of inputs like coal and gas, as well as severe weather events including flooding, and have trended upward consistently over the first half of 2022 (Figure 4.4). Wholesale prices

averaged around \$398/MWh in NSW, \$296/MWh in Victoria, and \$400/MWh in Queensland in June 2022, representing increases between twofold and fivefold relative to the average through January 2022.

The WA Wholesale Electricity Market (WEM) has not gone unaffected, but wholesale prices in Western Australia have increased to a lesser extent over the first half of 2022, by around 22 per cent.

Figure 4.4: Daily\* weighted average wholesale electricity prices by state (\$/MWh)

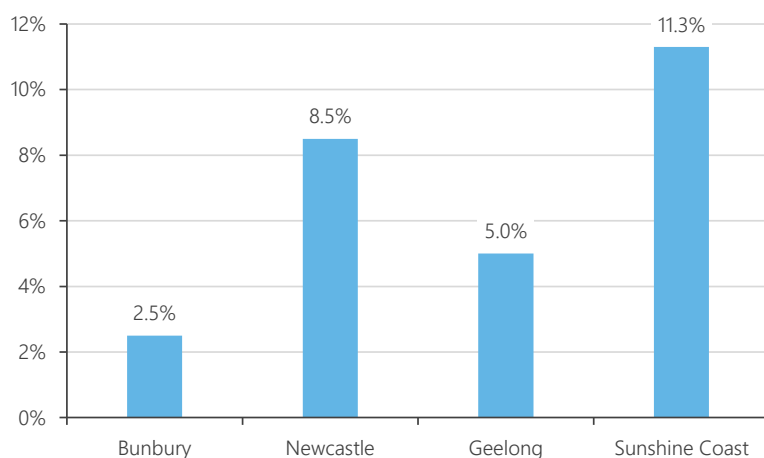


Source: AEMO. \*Data are seven-day moving averages.

While wholesale price increases are not necessarily passed on to the retail consumer, they do represent around 30 to 35 per cent of the retail electricity price.<sup>15</sup> The recent increase in wholesale prices in the NEM have driven increases in benchmark retail prices set by the Australian Energy Regulator (AER) for NSW and Queensland, and by the Victorian Essential Services Commission (ESC) for Victoria.

The AER lifted its default market offer (DMO) benchmark price for 2022-23 by between 7.2 and 14.1 per cent (dependent on the distribution area),<sup>16</sup> including an 8.5 per cent for the Ausgrid network area (includes Newcastle) and 11.3 per cent for the Energex network area (includes Sunshine Coast). The ESC lifted its default offer benchmark price for Victoria by 5 per cent.<sup>17</sup> By contrast, the WA Government lifted the tariff applicable to most residential consumers by 2.5 per cent in its 2022-23 Budget (Figure 4.5)<sup>18</sup> This demonstrates the sensitivity of retail electricity prices faced by consumers to wholesale prices.

Figure 4.5: Annual growth in residential retail electricity benchmark prices, 2022-23



Source: AER; ESC; WA Government

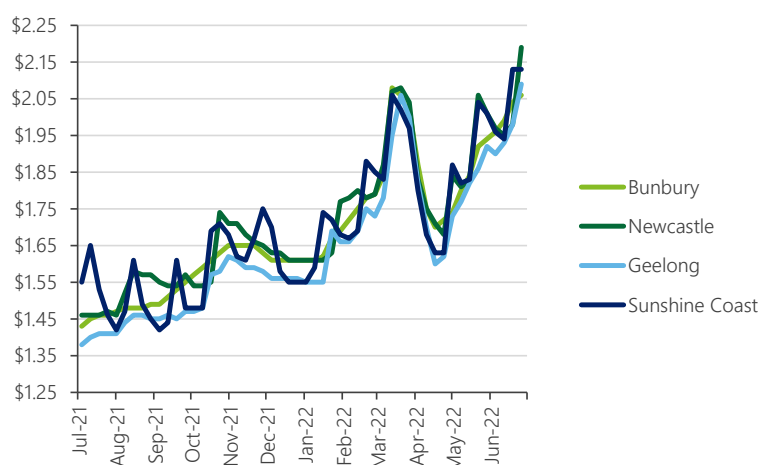
## 4.4 Transport costs

### 4.4.1 Fuel prices

A comparison of average unleaded petrol prices through 2021-22 shows only marginal differences between regional cities. Unleaded petrol prices averaged approximately \$1.69/L in Bunbury in 2021-22, marginally higher than an average of \$1.64/L in Geelong and marginally lower than averages of \$1.70/L in Sunshine Coast and \$1.71/L in Newcastle.

Petrol prices generally moved consistently across the regional cities in line with the increase in oil prices through the first half of calendar year 2022 (Figure 4.6). Through June 2022, Bunbury's petrol price averaged \$2.01/L, again slightly higher than Geelong (\$1.98/L) and slightly lower than Newcastle and Sunshine Coast (\$2.02/L and \$2.04/L, respectively).

Figure 4.6: Average weekly petrol price, unleaded (\$/L)



Source: FuelPrice Australia

Sunshine Coast, and to a lesser extent Newcastle, exhibits strong periodic cycles in fuel prices, while prices in Bunbury and Geelong tended to be less periodic when expressed on an average weekly basis.

Fuel retailers in regional cities are less prone to rapid price fluctuations than retailers in Australia's largest cities. Changes in wholesale prices usually take longer to impact regional distributors, with lower volumes of fuel sold resulting in lower stock turnover. However, higher transport and storage costs associated with more remote locations, as well as reduced local competition culminates in higher fuel prices for regional areas.

This comes on top of the already significantly higher fuel prices Australian motorists are paying nationwide. Despite the halving of the national fuel excise in March of this year, global economic conditions and growing geopolitical tensions have meant petrol prices remain high, responsible for a growing proportion of the average weekly household spend.

### 4.4.2 Motor vehicle charges

Motor vehicle charges are a significant annual household expense in Australia given commuters' significant dependence on transport by car. Motor vehicle charges are largely consistent within states, so state-wide comparisons have been drawn. Motor vehicle charges were estimated for an average household, on the basis of two drivers owning one car, consistent with assumptions used by WA Treasury in the 2022-23 State Budget. Costs relating to vehicle registration, driver's license fees, and compulsory motor injury insurance were compared across states on this basis. This found that total motor vehicle-related costs were lowest in WA (Table 4.5).

Table 4.5: Average annual motor vehicle charges, Bunbury compared to other regional centres, 2021-22 dollars

Indicator	WA	NSW	VIC	QLD
Vehicle registration	400	554	791	755
Driver's license fees*	88	76	56	77
Motor injury insurance	416	414	539	356
<b>Total</b>	<b>904</b>	<b>1,044</b>	<b>1,386</b>	<b>1,188</b>

Source: State Government Treasury and Transport departments. \*Drivers licence fees are calculated on the basis of two drivers owning one car per household, consistent with assumptions used by WA Treasury in the 2022-23 State Budget.

The cost of registering a vehicle is significantly lower in Western Australia than in other states. Victoria and Queensland have similar registration fees, being 98 per cent and 89 per cent more expensive charges than WA, respectively. NSW is cheaper than its Eastern states counterparts but is still around 39 per cent more expensive than WA.

In terms of registering for a driver's licence, WA is the costliest for a two-person household, with fees of \$44.05 in 2021-22 applying per person for a yearly licensing period. However, WA provides the option for license-holders to renew on a five-yearly basis at an average annual cost per person of \$32.70, implying an average annual household cost of \$65.40 which would place it below NSW and Queensland. Victoria was the cheapest for driver's licenses, at \$56 per annum for a two-driver household (or \$84 per person over a 3-yearly licensing period). Motor injury insurance fees are more consistent across the states, with minor differences between WA and NSW. Queensland has the lowest motor injury insurance, being 14 per cent cheaper than WA.

# Appendix A

## Alternative measures of housing costs for capital cities

As noted in Chapter 2.1.1, the HES formed the basis of calculations to estimate household expenditure profiles for the capital cities, including housing costs. For housing costs, the HES draws on survey data of households that contain a wide range of variables that directly relate to many aspects of housing, including tenure, dwelling structure, number of bedrooms, and rental structure (e.g., private renters relative to renters from state and territory housing authorities). HES respondents also include, for example, owner occupiers with no mortgage and renters who receive rental assistance or other concessions that reduce their net rent payment. Further detail on these compositional matters is contained in ABS Catalogue 6503.0 - *Household Expenditure Survey and Survey of Income and Housing, User Guide, Australia, 2015-16* (see 'Housing' chapter).

As an example, the mortgage costs of some HES respondents may be reflective of recent purchases for whom mortgage repayment costs may be high, while respondents who are long-time owner occupiers may face substantially lower mortgage costs as a result of house purchases made in the past when market prices were lower or because their initial loan has been substantially amortised over time.

The HES-based estimates of housing costs are included in the findings of this reports as 'core' results (see Table 3.1 on page 10) because they are consistent with measures of average expenditure by households on other goods and services in 2021-22. However, the HES estimate of housing costs may not necessarily represent some components of direct housing cost – such as mortgage repayments or rent – that would be faced by new residents or migrants to WA, who might, for example, purchase the median dwelling at current prices with a new loan or be required to rent the median dwelling at current market rates.

Therefore, to provide an alternative view of housing costs for new migrants and residents to WA (and the other states), additional data was utilised. To illustrate housing costs for owner occupiers with a mortgage, the analysis in this appendix draws upon more recent median dwelling values from CoreLogic's monthly Home Value Index publications for the period from February 2020 to June 2022. Median values prior to February 2020 were imputed by Deloitte Access Economics using the ABS' Residential Property Price Indexes: Eight Capital Cities release, which the ABS ceased publishing in December 2021.

These alternative measures of housing costs are shown in Table A.1 and discussed further below.<sup>19</sup>

**Table A.1: Illustrative household spend on housing costs, 2022 (dollars per week)**

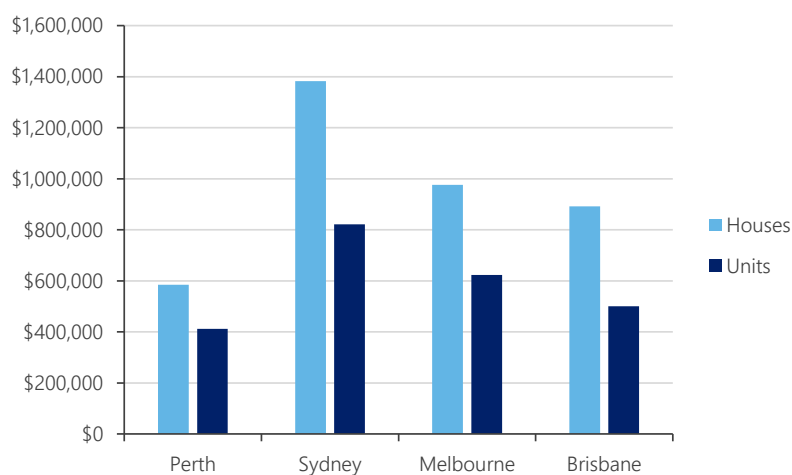
Item	Perth	Sydney	Melbourne	Brisbane
Mortgage payment on the median house	499	1,179	832	761
Mortgage payment on the median unit	352	700	532	427
Rent on the median house	480	600	450	500
Rent on the median unit	400	500	390	430

Source: Deloitte Access Economics estimates based on CoreLogic data; Domain data.

Table A.1 confirms that Perth is currently the most affordable capital city for mortgage costs (see Chapter 2.2.1.1 for the approach adopted in calculating mortgage repayments) and only marginally higher for rents than the cheapest capital city for renters, Melbourne. The lower housing costs in Perth shown in Table A.1 in part reflect lower median residential property values, which drive both the average mortgage repayment and other capital components of housing costs (including the actual purchase, plus stamp duty and other fees and charges).

Based on data from CoreLogic's monthly Home Value Index, the median house value in Perth was estimated at around \$585,000 as at the end of June 2022, around 58 per cent lower than the median house in Sydney, where the median price stood at almost \$1.4 million (Figure A.1). Large differences were also observed between Perth and Melbourne, where Perth's median house value was around 40 per cent lower than Melbourne's (\$976,000); and between Perth and Brisbane (Perth's median house value was around 34 per cent lower than Brisbane's \$892,000). Similar disparities exist for median unit values, for which Perth was 18 and 34 per cent lower than Brisbane and Melbourne at the end of June 2022, respectively. Perth's median unit value was around 50 per cent lower than Sydney's (Figure A.1).

Figure A.1: Median dwelling values by dwelling type, June 2022

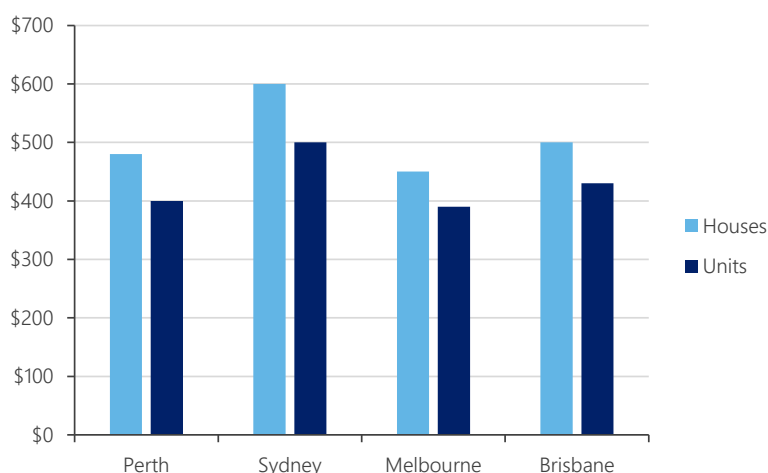


Source: CoreLogic Home Value Index, June 2022

Recent data reflect a significant increase in median dwelling values and sales prices during the COVID-19 pandemic. The growth in values has been similar in Perth and Sydney over the course of the pandemic, with median values at the end of June 2022 around 26 to 27 per cent higher than at the end of February 2020. Growth in Melbourne was softer at around 16 per cent, likely reflecting the harsher and more prolonged lockdowns in that city relative to other capitals, while Brisbane dwellings have seen the largest increase in value of around 56 per cent over the same period.

The Perth rental market – while currently suffering from high demand and supply shortages – remains significantly more affordable than that of Sydney, with median asking rents through the March quarter of 2022 of \$480 per week for houses and \$400 per week in Perth, both around 25 per cent lower than in Sydney. While the Perth rental market has historically been more affordable than Melbourne and Brisbane, the strong growth in Perth over the last year – and relative weakness in the Melbourne market in particular – mean that rents across these markets are closer to parity (Figure A.2), with Perth slightly less affordable than Melbourne. Perth median asking rents are also comparable with Brisbane, being slightly more affordable for both houses and units.

Figure A.2: Median asking rent, per week, March quarter 2022



Source: Domain Rent Report, March 2022

The affordability of housing across the four capital cities can also be seen in the context of average incomes – that is, the share of the average household income that would be taken up by mortgage repayments or rent.

This implies that were the 'median household' to purchase the 'median house' in Perth, the corresponding mortgage repayment would represent around 24.6 per cent of their income (Table A.2).<sup>20</sup> On the same basis, the median household would need to use 38.8 per cent of their income to service a mortgage on the median house in Brisbane, 42.5 per cent in Melbourne, and 55.0 per cent in Sydney.

The ratio of mortgage repayments on the 'median unit' to median income is also lowest for Perth at around 17.3 per cent, with the other three capital cities ranging between 21.8 and 32.6 per cent (Table A.2).

Table A.2: Mortgage repayment on the median dwelling, as share of median income, 2022

Indicator	Perth	Sydney	Melbourne	Brisbane
Mortgage repayment on the median house, as a share of median income	24.6%	55.0%	42.5%	38.8%
Mortgage repayment on the median unit, as a share of median income	17.3%	32.6%	27.1%	21.8%

Source: Deloitte Access Economics estimates

Note that the figures in Table A.2 are not intended to represent the average mortgage repayment-to-income ratio in each capital city, which would reflect (among other things) that mortgages are taken out at different points in time reflecting different housing market conditions through time. Rather, these figures are best thought of as 'what if' indicators, representing the share of income that a median household would need to forego if it sought to purchase the median dwelling in each capital city in the current housing market environment.

On this same basis, the median household would need to expend around 23.7 per cent of their income to rent the median house in Perth, slightly greater than the 23.0 per cent to do so in Melbourne. Renting the median dwelling would cost the median household 25.5 per cent of their income in Brisbane, and 28.0 per cent in Sydney (Table A.3).

A combination of the smaller gap between median rents for units, and higher median income in Perth, means that the ratio of median rents to median income is lowest in Perth at 19.7 per cent, just behind Melbourne at 19.9 per cent, while Brisbane and Sydney are again significantly higher (Table A.3).



Table A.3: Median asking rent, as share of median income, 2022

Indicator	Perth	Sydney	Melbourne	Brisbane
Median asking rent for houses, as a share of median income	23.7%	28.0%	23.0%	25.5%
Median asking rent for units, as a share of median income	19.7%	23.3%	19.9%	21.9%

Source: Deloitte Access Economics estimates

While the median asking rent for units as a share of median income is generally lower in Perth than other capitals (Table A.3), it is evident that relative to other capitals, the ratio of median *rent* for units to median income is higher in Perth than the ratio of *mortgage repayments* on the median units relative to median income (see Table A.2). This implies that as a share of income, rental costs are higher in Perth compared to mortgage costs for the median unit.

This likely reflects the fact that Perth property prices – despite having grown significantly since the pandemic – are nonetheless coming off a low base post the end of the mining boom, which saw prices cool considerably from 2010 to 2020 (see Figure 3.2 on page 12). In contrast, the Perth rental market has tightened significantly over the course of the pandemic, with median rents rising to record high levels. Despite the higher cost of rent for units to income compared to mortgage repayments on the median unit to income, there remains several barriers which prevent renters from transitioning to home ownership (e.g., borrowing eligibility, ability to save a deposit, etc.).

# Appendix B

## Regional food and beverage cost data collection

To identify differences in costs of food and non-alcoholic beverages, a common basket of goods was developed by Deloitte Access Economics based on the structure of this group in the ABS' CPI classification. The websites of national supermarkets, Coles and Woolworths, were used to compare pricing for the items in this common basket between the four regional cities. It is important to note that the costs shown in Table B.1 are not comparable to the 'Food and non-alcoholic beverages' costs calculated for capital cities, as presented in Table 3.1 on page 10.

It should be noted that both Coles and Woolworths have employed nationally consistent pricing models across their Australian stores since around 2010 for most products.<sup>21</sup> This may mean that regional differences in wholesale costs and other factors that might otherwise affect retail prices are masked or minimised. It may be the case that price differences for similar products between regions would be more pronounced at other non-national chain retailers, however, the approach to data collection was limited by the project timeframe and that smaller retailers either do not advertise prices online and / or are not present in the regional cities selected.

Table B.1: Regional city prices differences

Item	CPI Weight	Average price by regional city, \$			
		Bunbury	Newcastle	Geelong	Sunshine Coast
Bread and cereal products					
Bread	0.53	3.70	3.70	3.70	3.70
Cakes and biscuits	0.61	12.50	12.50	12.50	12.50
Breakfast cereals	0.12	5.00	5.00	5.00	5.00
Meat and seafoods					
Beef and veal	0.54	26.00	26.00	26.00	26.00
Pork	0.32	15.34	15.34	15.34	15.34
Poultry	0.45	10.00	10.00	10.00	10.00
Fish and other seafood	0.44	10.00	10.00	10.00	10.00
Dairy and related products					
Milk	0.40	3.90	3.90	3.90	3.90
Cheese	0.32	9.90	9.90	9.90	9.90
Ice cream and other dairy products	0.29	9.00	9.00	9.00	9.00
Fruit and vegetables					
Fruit	1.00	20.20	20.40	19.43	19.18
Vegetables	1.31	22.77	28.00	28.22	28.80

Item	CPI Weight	Average price by regional city, \$			
		Bunbury	Newcastle	Geelong	Sunshine Coast
Food products n.e.c.					
Eggs	0.13	4.70	4.70	4.70	4.70
Snacks and confectionery	0.84	3.60	3.60	3.60	3.60
Non-alcoholic beverages					
Waters, soft drinks, and juices	0.86	2.15	2.15	2.15	2.15
Coffee, tea, and cocoa	0.24	9.80	9.80	9.80	9.80
Alcoholic beverages					
Wine	2.06	9.00	9.00	9.00	9.00
Beer	2.36	18.75	19.00	18.50	19.00
<b>Total</b>	<b>12.82</b>	<b>196.3</b>	<b>201.9</b>	<b>200.7</b>	<b>201.7</b>
<b>Bunbury relative to others (weighted percentage difference)</b>		-	-2.23%	-1.41%	-2.00%

Source: Coles and Woolworths online price data

# Endnotes

<sup>1</sup> Lowe, Philip (14 June 2022) appearance on *7.30 Report*, ABC television.

<sup>2</sup> Martin, Peter (30 June 2022) *Sky-high mortgages, 7.1% inflation, and a 20% chance of recession. How the Conversation's panel sees the year ahead*, *The Conversation*, accessed 4 July 2022.

<sup>3</sup> Deloitte Access Economics' estimate for March quarter 2022 population growth incorporates December 2021 data, so the series are consistent.

<sup>4</sup> REA Group operates Australian residential and commercial property websites – realestate.com.au and realcommercial.com.au – as well as a website dedicated to share property, Flatmates.com.au. REA owns Smartline Home Loans Pty Ltd and Mortgage Choice Pty Ltd, Australian mortgage broking franchise groups, and PropTrack Pty Ltd, a provider of property data services.

<sup>5</sup> Miletic, Daniella (27 January 2010) *Coles to standardise prices across the state*, *The Sydney Morning Herald*, accessed 7 July 2022.

<sup>6</sup> Housing costs in the HES include, among other components, current housing costs (including rent, the interest component of mortgage repayments, council rates, water rates, housing insurance, and repairs and maintenance costs), in addition to the capital component of mortgage repayments and other capital housing costs (which includes a representative cost for the purchase of a dwelling, adjusted for the proportion of households in each jurisdiction who purchased a dwelling in the sample year). The HES estimates presented in Table 3.1 are implicitly dependent on the compositional differences in housing costs between capital cities in 2015-16 (the HES sample year).

<sup>7</sup> Brisbane had a relatively high estimated housing cost in the HES sample year (\$660 per week in 2015-16 dollars), significantly higher than Perth (\$472) and Melbourne (\$457) and only marginally lower than Sydney (\$668). As outlined in Endnote 6, the estimate of housing costs in 2021-22 is dependent on the HES sample result from 2015-16 and may implicitly reflect conditions specific to each capital city's housing market in 2015-16. However, it should also be noted that the estimated growth in per-household housing costs between 2015-16 and 2021-22 was greatest in Brisbane, with a compound annual growth rate of 8.5 per cent compared to 7.4 per cent per year in Melbourne, 4.9 per cent per year in Sydney, and 0.9 per cent per year in Perth. That is, the 2021-22 estimate of housing costs in Brisbane reflects both a relatively high starting base in 2015-16, and the highest growth rate between 2015-16 and 2021-22 among the four capital cities.

The HES-based estimate of housing costs for Brisbane is also higher than the illustrative mortgage repayment and rent costs for Brisbane shown in Appendix A. As outlined in Endnote 6, the HES-based estimates include other costs – including council and water rates, insurance, and expenditure on repairs and maintenance – over and above the standalone estimates of mortgage repayments and rents.

<sup>8</sup> Because household income is expressed on a median basis and is based on the 2021 Census, the nowcast HES expenditure items shown in Table 3.1 – which are weighted means from the ABS Household Expenditure Survey sample – cannot be expressed as a share of the household income figures shown in Table 3.2.

<sup>9</sup> It is important to note that these costs are not comparable to those calculated for capital cities, as presented in Table 3.1 on page 10. The data contained in Table 3.1 are based on a full spectrum of goods in the HES and nowcasted to 2021-22, rather than the subset of goods and services for regional cities, where costs are based on primary data collection.

<sup>10</sup> Note that the two national grocery chains from which prices were collected for the regional cities have for some years committed to setting uniform prices on products across the country. This means the basket of goods compiled for the purposes of this study generally showed little variance across the selected regional cities.

<sup>11</sup> Government of Western Australia (May 2022) *Western Australia State Budget: Budget Paper No. 3 Economic and Fiscal Outlook*: p. 372.

<sup>12</sup> Government of Victoria (May 2022), *Victorian Budget 2022/23: Budget Paper No. 3 Service Delivery*, p. 28.

<sup>13</sup> Government of Queensland (June 2022), *Queensland Budget 2022-23 Budget Paper No. 4 Budget Measures*, p. 89.

<sup>14</sup> NSW Government, *NSW Energy Saver: Find an energy rebate*, accessed 7 July 2022.

<sup>15</sup> Australian Energy Regulator (May 2022) *Default market offer prices 2022-23: Final determination*, p. 8.

<sup>16</sup> Ibid.

<sup>17</sup> Victorian Essential Services Commission (May 2022) *Victorian Default Offer 2022-23*, p. 1.

<sup>18</sup> Government of Western Australia (May 2022) *Western Australia State Budget: Budget Paper No. 3 Economic and Fiscal Outlook*: p. 373.

<sup>19</sup> Because they are drawn from different data sources over different time periods, and reflect different methods of data collection, the alternative measures of housing costs shown in Appendix A should not be directly compared with the HES-based estimates shown in Table 3.1.

<sup>20</sup> Calculated on the basis of each capital city's median house and unit value as at June 2022 and Deloitte Access Economics' estimate of median household income in 2022 terms. The repayment estimate assumes a loan principal equal to 80 per cent of the median house or unit value, an interest rate of 3.73 per cent (reflecting the average standard variable rate on offer for new owner-occupier loans across Australia in June 2022 plus 50 basis points to reflect the increase in official interest rates effective from 5 July 2022), and that the loan is repaid monthly over a period of 30 years.

<sup>21</sup> Miletic, Daniella (27 January 2010) *Coles to standardise prices across the state*, The Sydney Morning Herald, accessed 7 July 2022.

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