



# TRANSPORT AFFORDABILITY INDEX



Australian  
Automobile  
Association



**SGS**  
Economics  
& Planning

Report - August 2016



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# Transport Affordability Index: August 2016

The Australian Automobile Association (AAA) is the peak organisation for Australia's motoring clubs and their eight million members. The AAA advances the interests of all road users across Australia to ensure land transport networks are safe and sustainable, and that the cost and access to transport are fair.

Transport is a major, and in most cases unavoidable, cost for Australian households. The AAA has developed the Transport Affordability Index to provide Australians with a detailed breakdown of a group of expenses which, according to the Australian Bureau of Statistics, collectively make up more than 16 percent of an average household budget.<sup>1</sup> In comparison, household expenses relating to telecommunications, electricity and water consume a far smaller share of that budget, ordinarily around one to three per cent. This index will allow the AAA to track these costs over time.

Each year, motorists contribute billions of dollars in revenue to federal, state and territory governments. In 2013-14, road-related taxes and charges totalled almost \$28 billion. This contribution made by motorists consists of taxes associated with all elements of buying and running a car over its lifetime, and includes taxes when a motorist purchases a vehicle (stamp duty, GST, customs duty on cars purchased overseas, and for some car purchases, the Luxury Car Tax); and taxes or charges associated with running the vehicle (state based registration, drivers licence fees, fuel excise, GST on excise, and potentially Fringe Benefits Tax).

It is difficult to identify another area of economic activity in Australia that is taxed as heavily as motoring. In addition to taxes and charges, Australians also face a range of other expenses including loan repayments, insurance, servicing costs, fuel costs, public transport, parking and increasingly, road tolls.

The AAA's Transport Affordability Index enables individuals, families and policymakers to better understand household transportation costs. This will allow households to make informed decisions about where their money is spent, and give policymakers a greater understanding of how their decisions impact households across Australia.

<sup>1</sup> ABS Household Expenditure Survey, 2009-10



**Michael Bradley**

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Chief Executive  
Australian Automobile Association



## Section One

# Overview

The Australian Automobile Association (AAA) commissioned SGS Economics and Planning (SGS) to design and develop the Transport Affordability Index to provide a snapshot of the costs of transport for a typical household in Australia's capital cities, including public transport costs and costs associated with car use. This Index will be regularly updated to show how transport costs move over time relative to incomes. The baseline is quarter one (January to March) 2016.

The Index is based on the incomes and transport costs of a hypothetical household in each capital city. The characteristics of the household reflect the most common or average characteristics of the population. In some cases, household characteristics have been chosen to ensure some typical transport costs are well illustrated, while still being representative. The hypothetical household is identical across cities to allow for ready comparison.

### The hypothetical household

The hypothetical household in each capital city is a couple with children – the most common type of household in Australia. The couple consists of a 38 year old woman and a 36 year old man – the average ages for a man and a woman in Australia. They live in a detached house and have two cars. Both are employed.

A typical Australian passenger vehicle is driven 13,800 kilometres per year, and is 9.8 years old. Therefore, the model assumes that the household's two motor vehicles will be driven 15,000 and 10,000 kilometres per year. The car that drives 10,000 kilometres per year is assumed to be ten years old and owned outright. The car that drives 15,000 kilometres per year is assumed to be a near-new vehicle (less than three years old) purchased new and financed with a car loan. In addition, one member of the household is assumed to travel by public transport into the CBD and home again, five days per week.

In each city, the hypothetical household is assumed to live in middle to outer ring suburbs, with a relatively high population density, good access to public transport, and in the case of the Sydney, Melbourne and Brisbane households, would need to use toll roads to access the CBD.

The Index is designed so that the hypothetical household's transport costs are influenced not only by changes in the prices of transport, but also by changes in transport patterns. The Index reflects the total weekly cost of all transportation expenses for the hypothetical household, as a share of income. Calculations are made for capital cities in each state and territory. National averages are calculated by simply averaging each jurisdiction's result. (Note - a weighted average would have skewed the results towards the densely populated jurisdictions).

The Index includes a wide range of costs families face when they own a car. Broadly these fall into two categories: upfront costs and ongoing costs. Upfront costs include purchase costs for a new vehicle such as interest payments, registration, stamp duty, compulsory third party (CTP) insurance, driver's licences and comprehensive car insurance. Ongoing costs are those which increase the more the vehicle is driven, namely fuel costs, tolls and car maintenance. Public transport costs for an average commute to work are also captured as these are fixed costs to many families and make up a growing share of weekly expenses.

While the AAA recognises that vehicle depreciation costs represent a significant, often hidden, cost to families, this cost has not been included in the Index. The Index seeks to account for actual weekly transport cash flow for an average Australian household, covering costs that need to be factored into the weekly family budget; depreciation is not usually accounted for in this way. Similarly, parking costs have not been included in the Index due to the lack of consistent data available on the cost to regular parking users in the respective capital cities and the price variation that exists between CBDs and suburban locations.

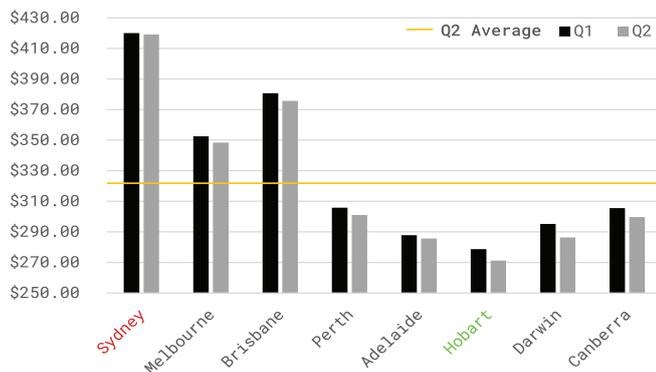
Finally, the Index seeks to compare the affordability of transport costs across Australia by comparing them with an estimate of the median weekly income of the hypothetical household. Total transport costs in each city are compared with the average income of a typical family in that city, as a way to illustrate the proportion of income spent on transport related costs.

As the Index is updated over time, a clearer picture will emerge of the key transport costs putting pressure on the budget of a typical Australian family, which may differ across Australia's capital cities. The Index will allow the AAA to assess the impact of proposed government policy decisions with implications for the average weekly budget demonstrated in a timely, easy to understand format. Consumers will also be better informed about how their decisions around transport affect their overall household budgets.

## Section Two

# Summary of Results

### Household total weekly transport costs



Q2 Ranking	State	Q1	Q2
1	Sydney	\$420.11	\$419.06
3	Melbourne	\$352.52	\$348.49
2	Brisbane	\$380.71	\$375.64
4	Perth	\$305.80	\$300.99
7	Adelaide	\$287.79	\$285.66
8	Hobart	\$278.73	\$271.17
6	Darwin	\$295.14	\$286.28
5	Canberra	\$305.52	\$299.61
Average	National	\$328.29	\$323.36

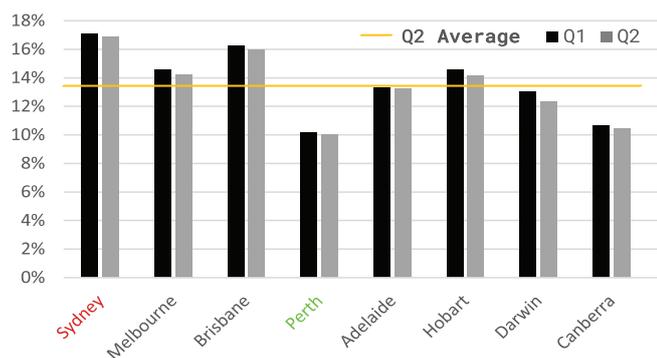
The first edition of the Transport Affordability Index, which includes two consecutive quarters of transport data, finds that the most densely populated capital cities in Australia face higher weekly transport costs. Contributing factors are the costs of toll roads, public transport, vehicle registration, and insurance costs.

Whilst overall costs have declined slightly between Q1 and Q2 of 2016, Sydney households continue to face the highest transport costs of any city in Australia both in dollar terms and as a percentage of household income, by a wide margin. The higher costs in Sydney relate to tolls, registration and Compulsory Third Party (CTP) insurance.

For Q2 2016 a typical two-car Sydney household faced weekly transport costs of \$419 per week, ahead of Brisbane and Melbourne (at \$376 and \$348 per week respectively), even without taking parking costs into account. Tolls contribute heavily to the weekly transport costs of families in these three cities, but even without tolls, these cities still top the list of the most expensive for transport in Australia.

Annualised figures reveal a total transport cost for Q2 of \$21,791 in Sydney, while the annual cost for Hobart is \$7,691 less, at \$14,100.

## Household total transport costs as a share of income



Q2 Ranking	State	Q1	Q2
1	Sydney	17.1%	16.8%
3	Melbourne	14.5%	14.1%
2	Brisbane	16.2%	15.9%
8	Perth	10.2%	10.1%
5	Adelaide	13.3%	13.2%
4	Hobart	14.6%	14.2%
6	Darwin	13.0%	12.0%
7	Canberra	10.7%	10.5%
	<b>Average</b>	<b>13.7%</b>	<b>13.3%</b>

In contrast, in the higher income but lower density cities of Perth and Canberra, weekly transport costs for Q2 for similar hypothetical households are lower at \$301 per week and \$300 per week respectively.

Higher incomes in these capitals also mean transport is more affordable. In these cities, transport costs tend to take the lowest shares of total income compared to other capitals, at around only 10 per cent of median household income. This figure is significant when compared to residents of Sydney, who spend 17 per cent of their weekly income on transport, and Brisbane where 16 per cent of weekly income is spent on transport.

Lower income, lower density cities such as Adelaide, Hobart and Darwin have relatively low transport costs, at \$286, \$271 and \$286 per week respectively. In these cities, public transport, driver's licences and vehicle registration are all relatively less expensive. However, these cities also have lower average household incomes. For example, when taking into consideration household incomes, transport in Hobart is only slightly more affordable than Melbourne and less affordable than Canberra, Darwin, Adelaide, and Perth.

Over the most recent two quarters, fuel costs and new car repayment costs experienced the greatest change. Fuel prices dipped in the first quarter of 2016, but rose again in Q2 from \$1.08-1.22 to \$1.14 t-1.22 per litre. The increase in fuel prices has been largely offset by the fall in car loan interest rates by around 0.25 per cent and by falls in new car prices in most states. Paying off a new car became less expensive, but the fuel to fill the tank now costs more.

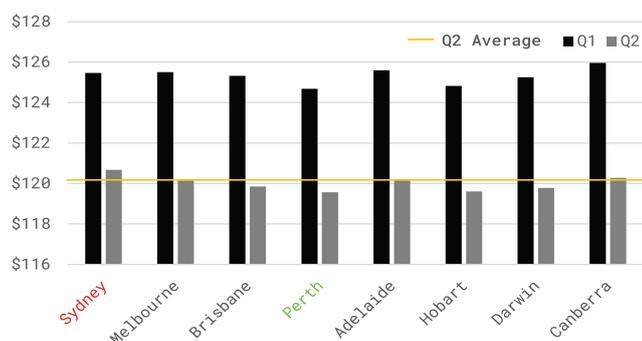
The price movements in the last quarter resulted in falls in transport costs across all capital cities. The largest falls of around 3 per cent were experienced in Darwin and Hobart while smaller falls were recorded in Sydney and Adelaide.

Even with low interest rates, car loans still make up the biggest share of a household's transport costs, followed by fuel. However, if a family lives in a city with tolls and drives on toll roads regularly, these can cost more than fuel.

## Section Three

# Detailed Results

### Household weekly car loan payment costs

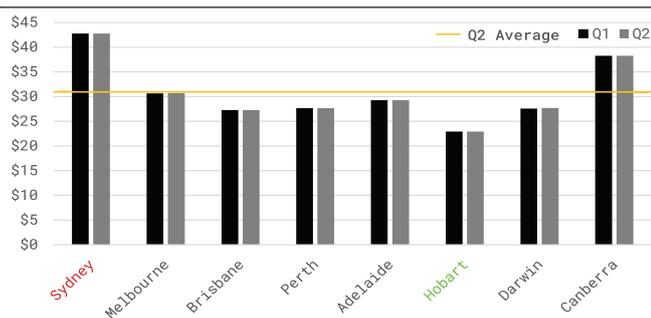


Q2 Ranking	State	Q1	Q2
1	Sydney	\$125.47	\$120.67
4	Melbourne	\$125.50	\$120.15
5	Brisbane	\$125.32	\$119.85
8	Perth	\$124.68	\$119.56
3	Adelaide	\$125.59	\$120.21
7	Hobart	\$124.83	\$119.61
6	Darwin	\$125.25	\$119.79
2	Canberra	\$125.96	\$120.28
Average	National	\$125.33	\$120.02

Significant reductions in new loan rates were experienced right across the capital cities resulting in a significant reduction in the cost of servicing a new loan. The average cost of the top ten selling cars also dropped significantly over the quarter, putting further downward pressure on loan servicing costs.

Perth remained the cheapest place to take out a loan for a new car due to slightly lower upfront purchase costs, but only marginally. For the same reason, Canberra and Sydney have higher costs of servicing a car loan but again only marginally.

### Household weekly rego, CTP & driver's licence costs

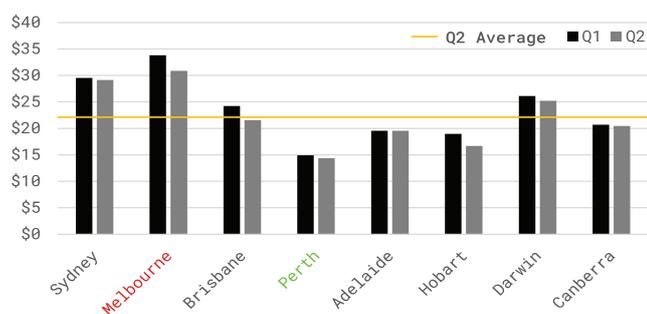


Q2 Ranking	State	Q1	Q2
1	Sydney	\$42.77	\$42.77
3	Melbourne	\$30.65	\$30.69
7	Brisbane	\$27.26	\$27.26
6	Perth	\$27.65	\$27.65
4	Adelaide	\$29.27	\$29.27
8	Hobart	\$22.93	\$22.93
5	Darwin	\$27.58	\$27.67
2	Canberra	\$38.24	\$38.24
Average	National	\$30.79	\$30.81

Sydney has the highest rates of registration, CTP and driver's licencing costs. For example, Hobart cost around \$20 per week less than Sydney in this category.

Annually the difference of these on road costs between Sydney and Hobart is over \$1,000 in total for both drivers and cars. Registration and licencing remained very static over the quarter.

### Household weekly comprehensive insurance costs

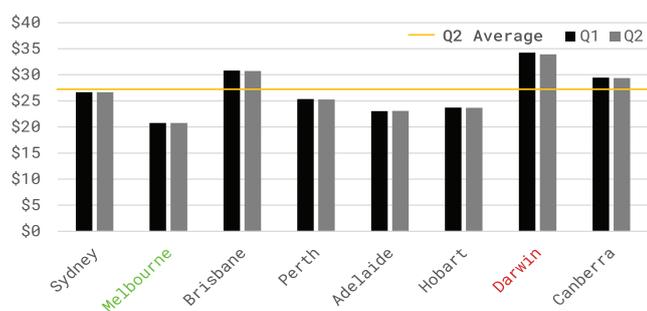


Q2 Ranking	State	Q1	Q2
2	Sydney	\$29.54	\$29.14
1	Melbourne	\$33.80	\$30.88
4	Brisbane	\$24.24	\$21.57
8	Perth	\$14.91	\$14.37
6	Adelaide	\$19.56	\$19.56
7	Hobart	\$18.98	\$16.69
3	Darwin	\$26.12	\$25.22
5	Canberra	\$20.70	\$20.45
Average	National	\$23.48	\$22.24

The weekly cost of comprehensive car insurance for both the new car and the older car recorded a marginal decrease over the quarter across all capital cities.

Perth remains the cheapest place to insure a car while Melbourne prices are double of those in Perth.

### Household total weekly car maintenance costs

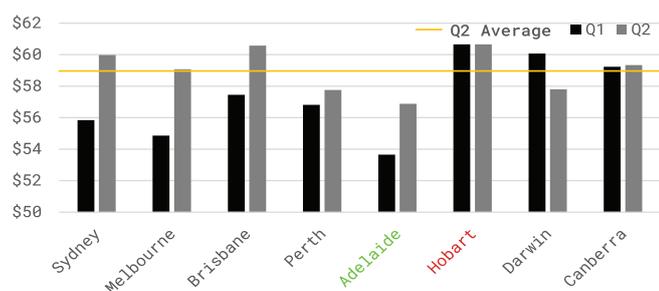


Q2 Ranking	State	Q1	Q2
4	Sydney	\$26.67	\$26.67
8	Melbourne	\$20.78	\$20.77
2	Brisbane	\$30.80	\$30.73
5	Perth	\$25.34	\$25.25
7	Adelaide	\$23.05	\$23.07
6	Hobart	\$23.72	\$23.67
1	Darwin	\$34.23	\$33.90
3	Canberra	\$29.47	\$29.38
Average	National	\$26.76	\$26.68

The maintenance cost of running both the new and older vehicle including regular car servicing and purchasing new tyres remained fairly static over the quarter. The cost of servicing the new car is the same across cities as these costs are based on the manufacturers servicing schedule, while the older cars costs have been derived from ABS data.

The cost of servicing both cars in Darwin is almost 40 per cent higher than Melbourne - in large part due to the older car's servicing costs and the cost of tyres. Brisbane recorded a relatively high cost given one would expect the used car servicing and new tyre markets would be large enough to keep prices down.

## Household weekly fuel costs

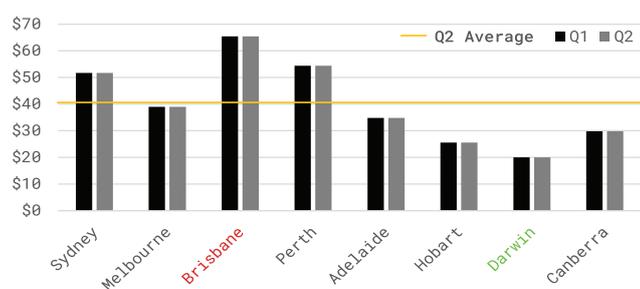


Q2 Ranking	State	Q1	Q2
3	Sydney	\$55.84	\$59.98
5	Melbourne	\$54.86	\$59.07
2	Brisbane	\$57.45	\$60.58
7	Perth	\$56.81	\$57.75
8	Adelaide	\$53.65	\$56.88
1	Hobart	\$60.66	\$60.65
6	Darwin	\$60.06	\$57.80
4	Canberra	\$59.22	\$59.34
Average	National	\$57.32	\$59.01

Fuel costs experienced the greatest variability over the period as the cost of petrol increased by around \$4 per week in many states. Annually, if this trend persisted, motorists would be out of pocket by around \$208.

The exception to this trend was in Darwin, Hobart and Canberra, where prices either stayed static or decreased. Adelaide recorded the lowest petrol prices in both quarters while the highest prices were experienced in Hobart.

## Household weekly public transport costs

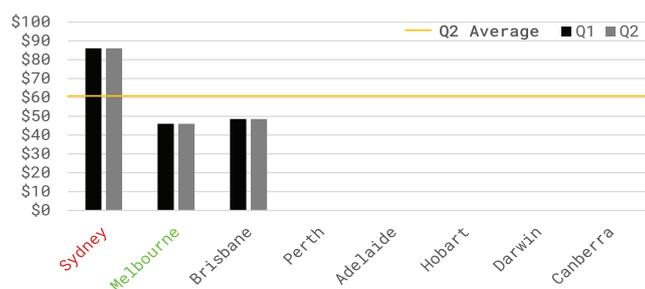


Q2 Ranking	State	Q1	Q2
3	Sydney (max 8 trips)	\$51.68	\$51.68
4	Melbourne	\$39.00	\$39.00
1	Brisbane (max 9 trips)	\$65.43	\$65.43
2	Perth	\$54.40	\$54.40
5	Adelaide	\$34.80	\$34.80
7	Hobart	\$25.60	\$25.60
8	Darwin	\$20.00	\$20.00
6	Canberra	\$29.80	\$29.80
Average	National	\$40.09	\$40.09

Brisbane has the highest cost of public transport incurred by the hypothetical family analysed in the Index, followed by Perth and Sydney. For the size of the network, Melbourne's public transport fares represent value for money compared to the other capital cities.

Public transport costs remained constant over the quarter. However, some variation in these costs is expected next quarter as Sydney has announced fare changes as of 5 September 2016.

## Household weekly costs of toll roads

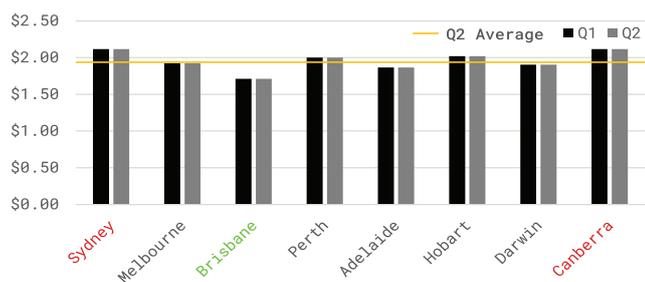


Q2 Ranking	State	Q1	Q2
1	Sydney	\$86.04	\$86.04
3	Melbourne	\$46.00	\$46.00
2	Brisbane	\$48.50	\$48.50
	Perth	\$-	\$-
	Adelaide	\$-	\$-
	Hobart	\$-	\$-
	Darwin	\$-	\$-
	Canberra	\$-	\$-
Average	Syd/Mel/Bris	\$60.18	\$60.18

Tolls can be a significant cost to road users in Sydney, Melbourne and Brisbane. In Sydney, the Index assumes that one member of the family uses toll roads only two days per week to travel to central Sydney due to the high cost of the tolls. However, even this relatively low use of toll roads costs the household more than the cost of fuel for the week.

The Index assumes toll roads are used by one member of the household every weekday in Melbourne and Brisbane. Tolls are the third highest cost in Melbourne, behind car loan repayments and fuel, while tolls are the fourth highest cost in Brisbane, behind car loan payments, public transport and fuel.

## Household weekly costs of roadside assistance



Q2 Ranking	State	Q1	Q2
1	Sydney	\$2.12	\$2.12
5	Melbourne	\$1.92	\$1.92
8	Brisbane	\$1.71	\$1.71
4	Perth	\$2.00	\$2.00
7	Adelaide	\$1.87	\$1.87
3	Hobart	\$2.02	\$2.02
6	Darwin	\$1.90	\$1.90
1	Canberra	\$2.12	\$2.12
Average	National	\$1.96	\$1.96

The cost of road side assistance is a very small component of total weekly transport costs at around \$2 per week.

The highest ongoing cost is in Sydney and Canberra at \$110 per annum while the lowest is Brisbane at \$97 per annum.

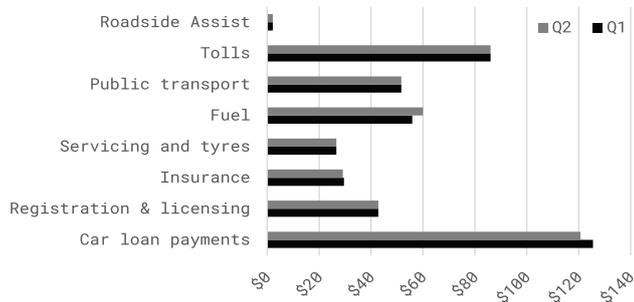
## Section Four

# City by City Comparison

Across all capital cities the highest cost for households was the car loan payment of the new car. This cost was followed by fuel, public transport, and registration and licencing. However, where tolls were present, they constituted the second highest cost in Sydney, and third

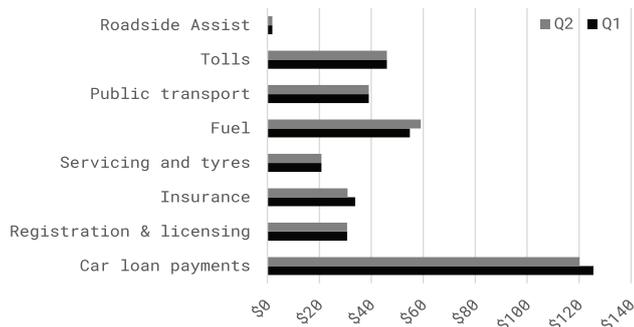
highest in Melbourne. The exceptions to these trends were Brisbane — where public transport was the second highest cost (a higher cost than fuel) — and Hobart and Darwin, where car maintenance and servicing recorded higher costs than registration and licencing.

### Sydney weekly costs of transport



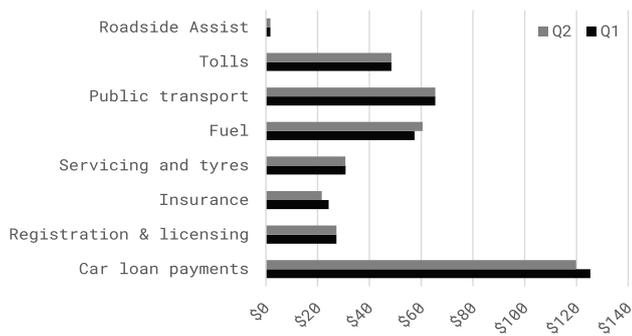
Q2 Ranking	Expenses	Q1	Q2
8	Roadside Assist	\$2.12	\$2.12
2	Tolls	\$86.04	\$86.04
4	Public transport	\$51.68	\$51.68
3	Fuel	\$55.84	\$59.98
7	Servicing and tyres	\$26.67	\$26.67
6	Insurance	\$29.54	\$29.14
5	Registration & licensing	\$42.77	\$42.77
1	Car loan payments	\$125.47	\$120.67

### Melbourne weekly costs of transport



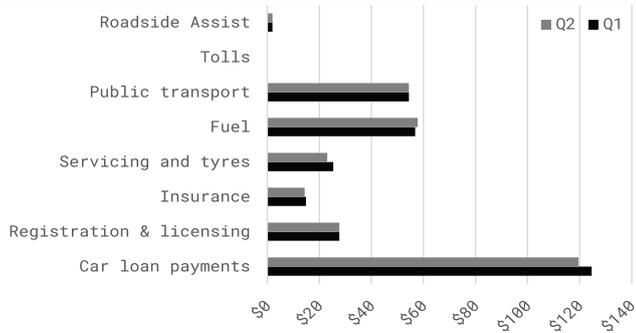
Q2 Ranking	Expenses	Q1	Q2
8	Roadside Assist	\$1.92	\$1.92
3	Tolls	\$46.00	\$46.00
4	Public transport	\$39.00	\$39.00
2	Fuel	\$54.86	\$59.07
7	Servicing and tyres	\$20.78	\$20.77
5	Insurance	\$33.00	\$30.88
6	Registration & licensing	\$30.65	\$30.69
1	Car loan payments	\$125.50	\$120.15

### Brisbane weekly costs of transport



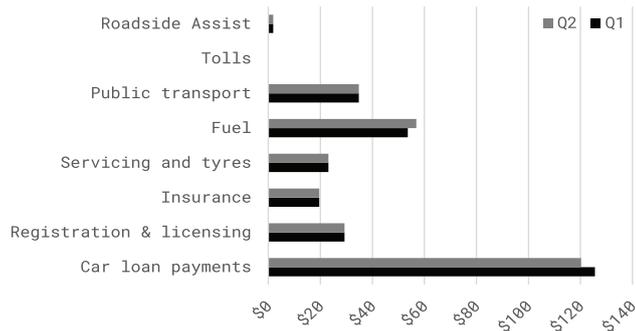
Q2 Ranking	Expenses	Q1	Q2
8	Roadside Assist	\$1.71	\$1.71
4	Tolls	\$48.50	\$48.50
2	Public transport	\$65.43	\$65.43
3	Fuel	\$57.45	\$60.58
5	Servicing and tyres	\$30.80	\$30.73
7	Insurance	\$24.24	\$21.57
6	Registration & licensing	\$27.26	\$27.26
1	Car loan payments	\$125.32	\$119.85

### Perth weekly costs of transport



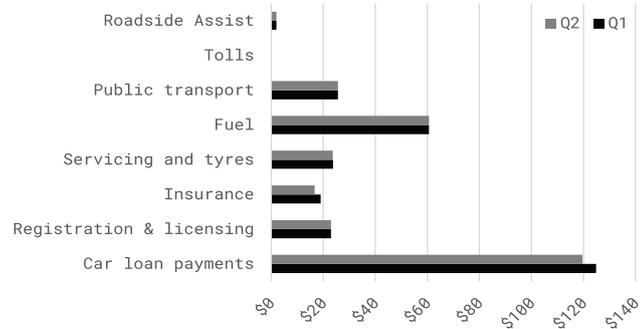
Q2 Ranking	Expenses	Q1	Q2
7	Roadside Assist	\$2.00	\$2.00
8	Tolls	\$-	\$-
3	Public transport	\$54.40	\$54.40
2	Fuel	\$56.81	\$57.75
5	Servicing and tyres	\$25.34	\$23.07
6	Insurance	\$14.91	\$14.37
4	Registration & licensing	\$27.65	\$27.65
1	Car loan payments	\$124.68	\$119.56

### Adelaide weekly costs of transport



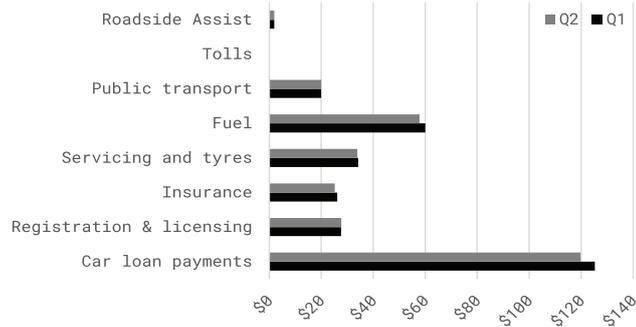
Q2 Ranking	Expenses	Q1	Q2
7	Roadside Assist	\$1.87	\$1.87
8	Tolls	\$-	\$-
3	Public transport	\$34.80	\$34.80
2	Fuel	\$53.65	\$56.88
5	Servicing and tyres	\$23.05	\$23.07
6	Insurance	\$19.56	\$19.56
4	Registration & licensing	\$29.27	\$29.27
1	Car loan payments	\$125.59	\$120.21

### Hobart weekly costs of transport



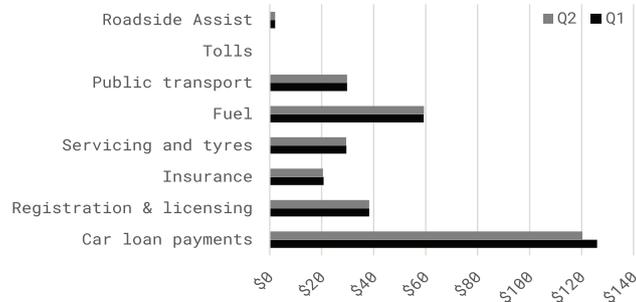
Q2 Ranking	Expenses	Q1	Q2
7	Roadside Assist	\$2.02	\$2.02
8	Tolls	\$-	\$-
3	Public transport	\$25.60	\$25.60
2	Fuel	\$60.66	\$60.65
4	Servicing and tyres	\$23.72	\$23.67
6	Insurance	\$18.98	\$16.69
5	Registration & licensing	\$22.93	\$22.93
1	Car loan payments	\$124.83	\$119.61

### Darwin weekly costs of transport



Q2 Ranking	Expenses	Q1	Q2
7	Roadside Assist	\$1.90	\$1.90
8	Tolls	\$-	\$-
6	Public transport	\$20.00	\$20.00
2	Fuel	\$60.06	\$57.80
3	Servicing and tyres	\$34.23	\$33.90
5	Insurance	\$26.12	\$25.22
4	Registration & licensing	\$27.58	\$27.67
1	Car loan payments	\$125.25	\$119.79

### Canberra weekly costs of transport



Q2 Ranking	Expenses	Q1	Q2
7	Roadside Assist	\$2.12	\$2.12
8	Tolls	\$-	\$-
4	Public transport	\$29.80	\$29.80
2	Fuel	\$59.22	\$59.34
5	Servicing and tyres	\$29.47	\$29.38
6	Insurance	\$20.70	\$20.45
3	Registration & licensing	\$38.24	\$38.24
1	Car loan payments	\$125.96	\$120.28

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