

2019

Australian Cycling Participation

Results of the 2019 National Cycling Participation Survey



National Cycling Participation Survey 2019

Prepared by

Dr Cameron Munro

Project Manager

Elaena Gardner

Publisher

Austrroads Ltd.
Level 9, 287 Elizabeth Street
Sydney NSW 2000 Australia
Phone: +61 2 8265 3300
austroads@austrroads.com.au
www.austrroads.com.au



Abstract

The National Cycling Participation Survey (NCPS) is a standardised survey that has been repeated biennially since March/April 2011, with minor changes to the survey structure between 2011 and 2013. The NCPS provides data on cycling participation at a national level and allows for estimates of participation for each state and territory, and the capital cities and non-capital city areas within each state and territory.

The cycling participation rate across Australia is measured over the previous week, month and year. Measured over the previous week the cycling participation rate has declined from 15.5% in 2017 (95% CI: 14.4% – 16.7%), to 13.8% (95% CI: 12.8% - 14.8%) in 2019. This decline is statistically significant and appears to be consistent with the trend since the survey was first conducted in 2011. The decline measured over the previous week is however not reflected in similar changes over the past month and year.

Notwithstanding the decline in cycling participation, the cycling participation rate is very high for physical activity participation, and in absolute numbers the survey estimates there are around 3.43 million Australians riding in a typical week and 8.39 million in the past year. This makes cycling one of the most common forms of physical activity.

Keywords

Cycling, bicycle, active travel, active transport.

ISBN 978-1-925854-18-3

Austrroads Publication No. AP-C91-19

Publication date September 2019

Pages 33

About Austrroads

Austrroads is the peak organisation of Australasian road transport and traffic agencies.

Austrroads' purpose is to support our member organisations to deliver an improved Australasian road transport network. To succeed in this task, we undertake leading-edge road and transport research which underpins our input to policy development and published guidance on the design, construction and management of the road network and its associated infrastructure.

Austrroads provides a collective approach that delivers value for money, encourages shared knowledge and drives consistency for road users.

Austrroads is governed by a Board consisting of senior executive representatives from each of its eleven member organisations:

- Transport for New South Wales
- Roads Corporation Victoria
- Department of Transport and Main Roads Queensland
- Main Roads Western Australia
- Department of Planning, Transport and Infrastructure South Australia
- Department of State Growth Tasmania
- Department of Infrastructure, Planning and Logistics Northern Territory
- Transport Canberra and City Services Directorate, Australian Capital Territory
- Australian Government Department of Infrastructure, Regional Development and Cities
- Australian Local Government Association
- New Zealand Transport Agency.

© Austrroads 2019

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without the prior written permission of Austrroads.

This report has been prepared for Austrroads as part of its work to promote improved Australian and New Zealand transport outcomes by providing expert technical input on road and road transport issues.

Individual road agencies will determine their response to this report following consideration of their legislative or administrative arrangements, available funding, as well as local circumstances and priorities.

Austrroads believes this publication to be correct at the time of printing and does not accept responsibility for any consequences arising from the use of information herein. Readers should rely on their own skill and judgement to apply information to particular issues.

Contents

1. Introduction	1
1.1 Background	1
1.2 Weighting	1
1.3 Statistical significance	1
1.4 Survey sample	2
2. Results	3
2.1 Cycling participation	3
2.2 Age and gender	8
2.3 Purpose of travel	10
2.4 Time ridden over past week	12
2.5 Bicycle ownership	13
2.6 Bicycle share subscriptions	16
2.7 Willingness to consider cycling	17
3. Discussion	18
3.1 Trends	18
3.2 Comparability	18
Appendix A Data Tables	19
Appendix B Survey Script	22

Tables

Table 1.1: Sample sizes	2
Table 1.2: Call statistics	2

Figures

Figure 2.1: National cycling participation	3
Figure 2.2: Cycling participation by state	4
Figure 2.3: Cycling participation by state and territory (see Appendix A.1 for tabulated data)	5
Figure 2.4: Cycling participation by capital city (see Appendix A.2 for tabulated data)	6
Figure 2.5: Cycling participation by non-capital city areas (see Appendix A.3 for tabulated data)	7
Figure 2.6: Cycling participation by gender (see Appendix A.4 for tabulated data)	8
Figure 2.7: Cycling participation by age group (see Appendix A.5 for tabulated data)	9
Figure 2.8: Cycling participation by gender and age group (see Appendix A.6 for tabulated data)	10
Figure 2.9: Main purpose of cycling participation	11
Figure 2.10: Transport purpose	11
Figure 2.12: Hours ridden in past week by state/territory	13
Figure 2.13: Bicycle ownership by year	14
Figure 2.14: Bicycle ownership by state	15
Figure 2.15: Electric bicycle ownership	16
Figure 2.16: Households with at least one bicycle share subscription	16
Figure 2.17: Willingness to consider cycling for transport	17

1. Introduction

1.1 Background

The National Cycling Participation Survey (NCPS) is a standardised survey that has been repeated biennially since March/April 2011, with minor changes to the survey structure between 2011 and 2013. The NCPS provides data on cycling participation at a national level and allows for estimates of participation for each state and territory, and the capital cities and non-capital city areas within each state and territory.

The survey objective is to measure *participation* rather than *travel*. Participation is defined as the number of individuals who have cycled for any journey or purpose and in any location over a specified time period. By comparison, travel is the number of cycling trips that occurred over that time period, and may include the distance travelled, purpose and so on. Participation is much easier to define, and for individuals to recall, than travel. It is reasonable to expect an individual would remember whether they had ridden a bicycle over the past week, month or year, but far less likely they would be able to accurately recall the number of trips they have made over that period. Further details on the method and results used in NCPS are reported in detail elsewhere¹.

The survey is a telephone-based survey of residents of the study area and includes coverage of mobile-only households². Previous cycling participation surveys have indicated that cycling participation is greatest among children, it is critical that the survey have coverage of this group. Data on cycling participation of those aged under 15 is obtained by asking an adult in the household to report on behalf of other household members, including children. The survey fieldwork is undertaken by Market Solutions Pty Ltd and the data analysis and reporting is provided by CDM Research.

1.2 Weighting

The person-level data are weighted at the gender and age level (2 – 9, 10 – 24, 25 – 49, 50+) to the Australian Bureau of Statistics (ABS) census 2016 population. The household-level data are weighted to ABS census 2016 household size (1, 2, 3, 4, 5, 6+ usual residents). The number of persons cycling is estimated by expanding the 2016 weights to the estimated resident population for 30 June 2018 provided by the ABS.

1.3 Statistical significance

The estimates presented in this report are based on a sample of residents from Australia. These estimates are subject to sampling variability as only a proportion of residents (approximately 0.09% of the resident population) were interviewed. The approach adopted in this report to expressly this variability is to present the 95% confidence interval. This represents the range within which we would expect the true population estimate to reside 95% of the time. Significant differences between parameters are present where the point estimate falls outside the confidence interval.

1 Munro, C. (2011) Australian Cycling Participation: Results of the 2011 National Cycling Participation Survey, Austroads Publication No. AP-C91-11.

2 In the 2019 survey 50% of completions were from mobile phones. This has increased steadily over the years of the survey; for example, in 2015 around 30% of the sample was drawn from mobile phones. Not all of these mobile-phone completions will be from mobile-only households; it is estimated around a third of mobile respondents will be in this category such that, roughly, around 15% of the sample are likely to be from mobile-only households.

1.4 Survey sample

The sample consisted of 4,453 households containing 10,301 persons (Table 1.1). The sample sizes in Queensland were much larger than other locations as additional sampling was conducted at the request of the Department of Transport and Main Roads, and in the Brisbane City Council area at the request of the council, which covers a large part of metropolitan Brisbane. The sample sizes for most states and territories have remained consistent over the five survey periods aside from (a) additional Queensland sampling in 2017 and 2019, and (b) much higher sample sizes from metropolitan Sydney between 2011 and 2015. The higher Sydney samples in previous years was due to the use of data from Transport for NSW's Sydney Cycling Survey in lieu of the Cycling Participation Survey instrument. That survey was different in a number of respects from the Cycling Participation Survey, including that it sampled around 4,000 households in Sydney.

Table 1.1: Sample sizes

State	Households	Persons
New South Wales	505	1,223
Victoria	443	1,151
Queensland	1,192	2,637
South Australia	437	995
Western Australia	475	1,092
Northern Territory	338	835
Tasmania	623	1,305
Australian Capital Territory	440	1,063
Total	4,453	10,301

Summary call statistics are provided in Table 1.2. The overall response rate was 22%. The sample was sourced from two commercial phone number lists (Alpha Five and Survey Pages). A random sample within each geographic area was selected from the Alpha Five list and a 50/50 split was obtained from the Survey Pages list with an intentional bias towards younger age groups. Both landline and mobile numbers were drawn from the samples; of the completed interviews 28% were from mobile numbers.

Table 1.2: Call statistics

Category	Calls
Surveys	
Completed interviews	4,472
In scope	
Refusal	12,842
No contact	49,290
Out of scope	
Non-qualifying ¹	843
Consent rate	26%
Response rate	22%
¹ Usually wrong area.	

2. Results

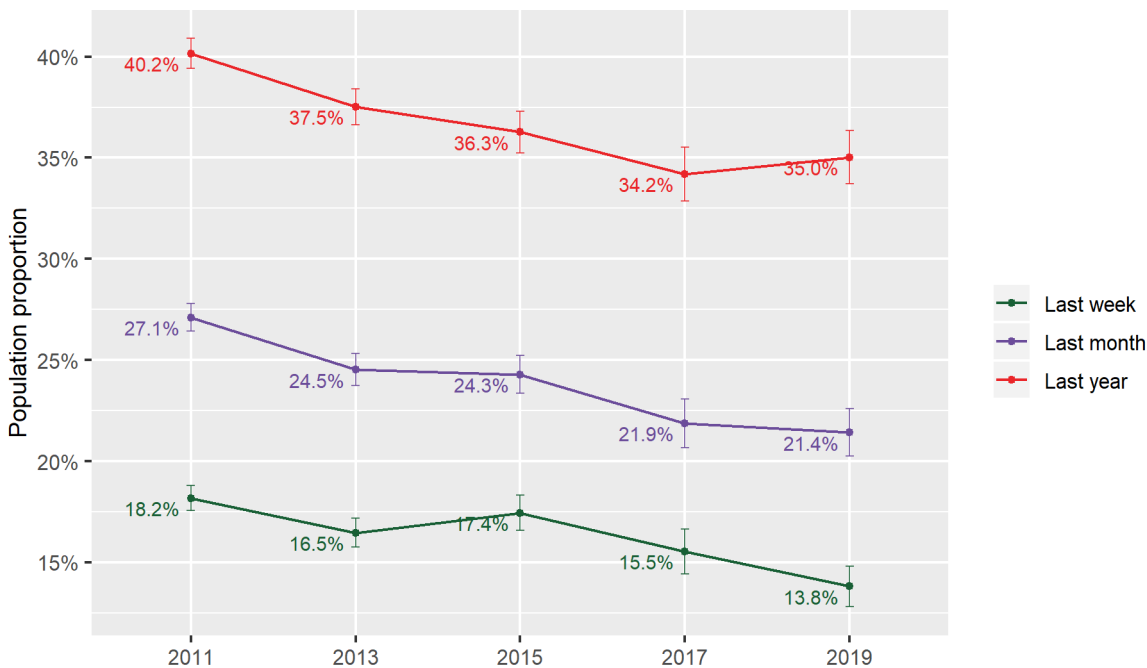
2.1 Cycling participation

The cycling participation rate across Australia measured over the previous week, month and year is shown in Figure 2.1. Measured over the previous week the cycling participation rate has declined from 15.5% in 2017 (95% CI: 14.4% – 16.7%), to 13.8% (95% CI: 12.8% - 14.8%) in 2019. This decline is statistically significant and appears to be consistent with the trend since the survey was first conducted in 2011. The decline measured over the previous week is however not reflected in similar changes over the past month and year:

- Cycling participation over the past month has declined only marginally from 21.8% (95% CI: 20.6% - 23.0%) in 2017 to 21.4% (95% CI: 20.3% - 22.6%) in 2019. This decline is not statistically significant.
- Cycling participation over the past year has marginally increased from 34.1% (95% CI: 32.8% - 35.4%) in 2017 to 35.0% (95% CI: 33.7% - 36.3%) in 2019. This increase is not statistically significant.

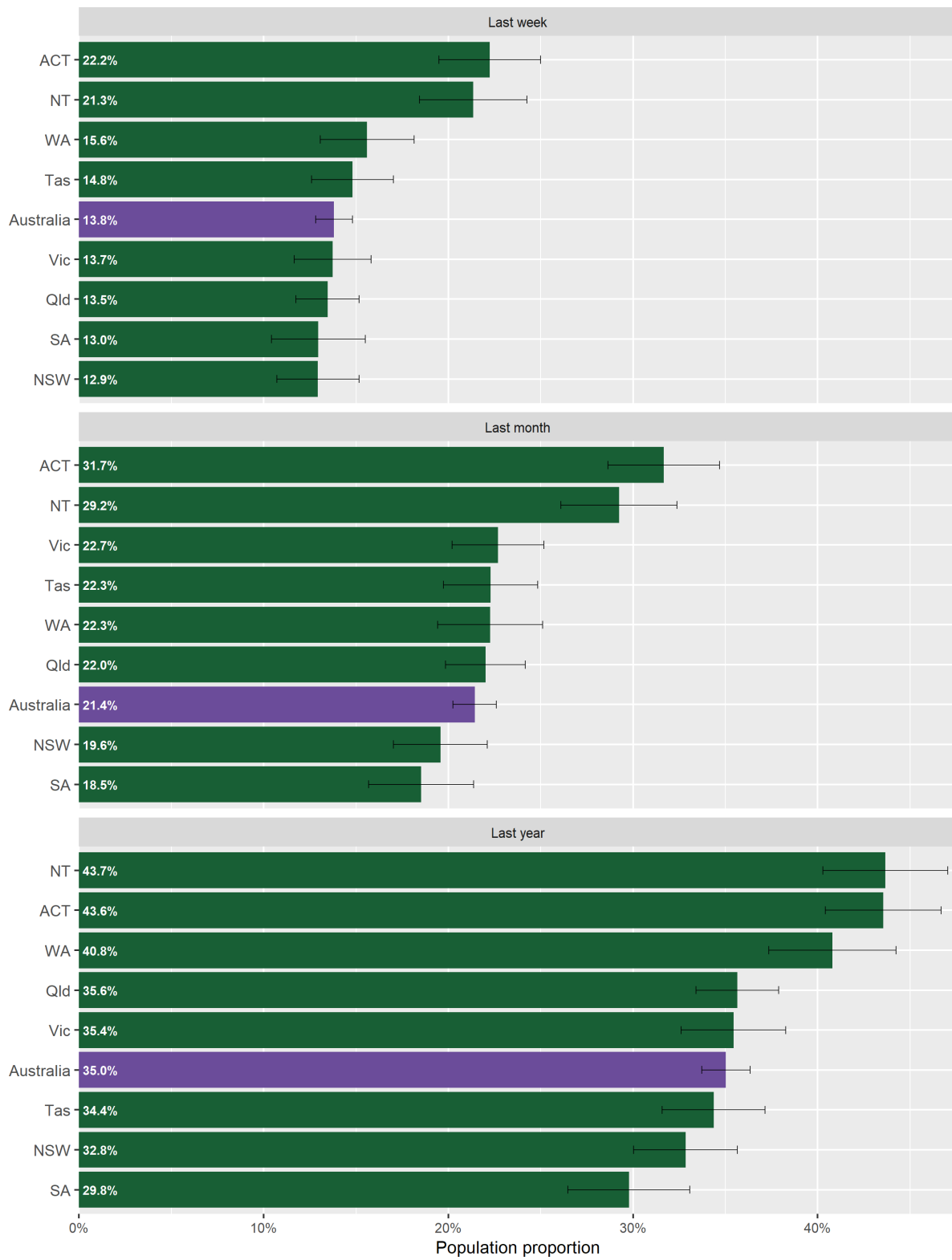
When measured over the longer term, the survey suggests cycling participation has declined by around 5% since 2011.

Figure 2.1: National cycling participation



The cycling participation rates in 2019 are highest in the Australian Capital Territory and Northern Territory (Figure 2.2).

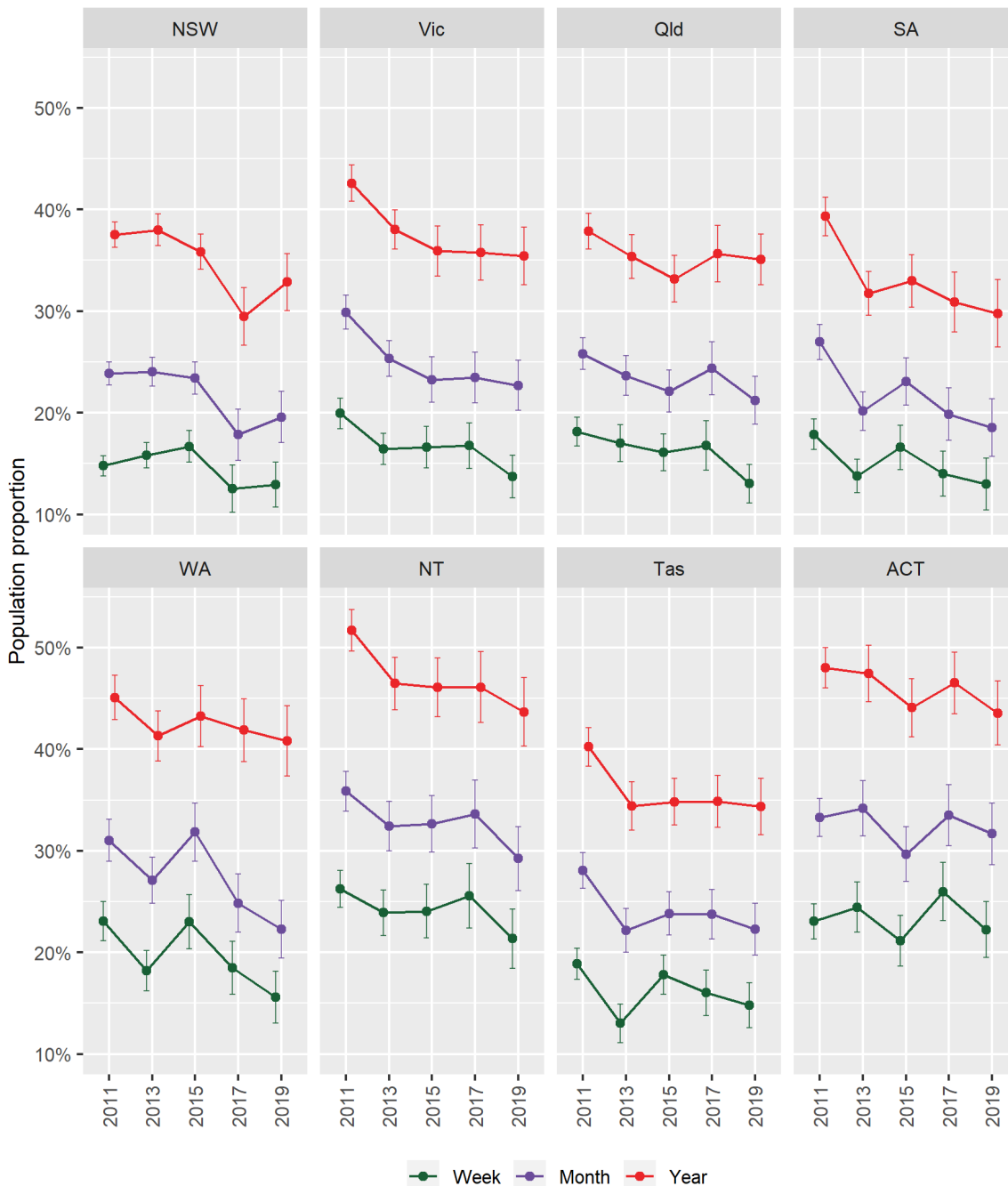
Figure 2.2: Cycling participation by state



The trends in cycling participation by state and territory are shown in Figure 2.3. The key findings from this analysis are:

- Statistically significant declines in cycling participation (measured over the past week) were observed in Victoria, Queensland, Western Australia, the Northern Territory and the Australian Capital Territory. When considered over the eight years for which data has been available, the 2019 result for Victoria, Queensland and the Northern Territory may be outliers.
- Cycling participation in New South Wales may have rebounded somewhat from 2017 levels, particularly when measured over the past year. The increases observed over the past week and month are not significantly different from 2017.
- Overall, cycling participation appears to either be stable or declining across most jurisdictions.

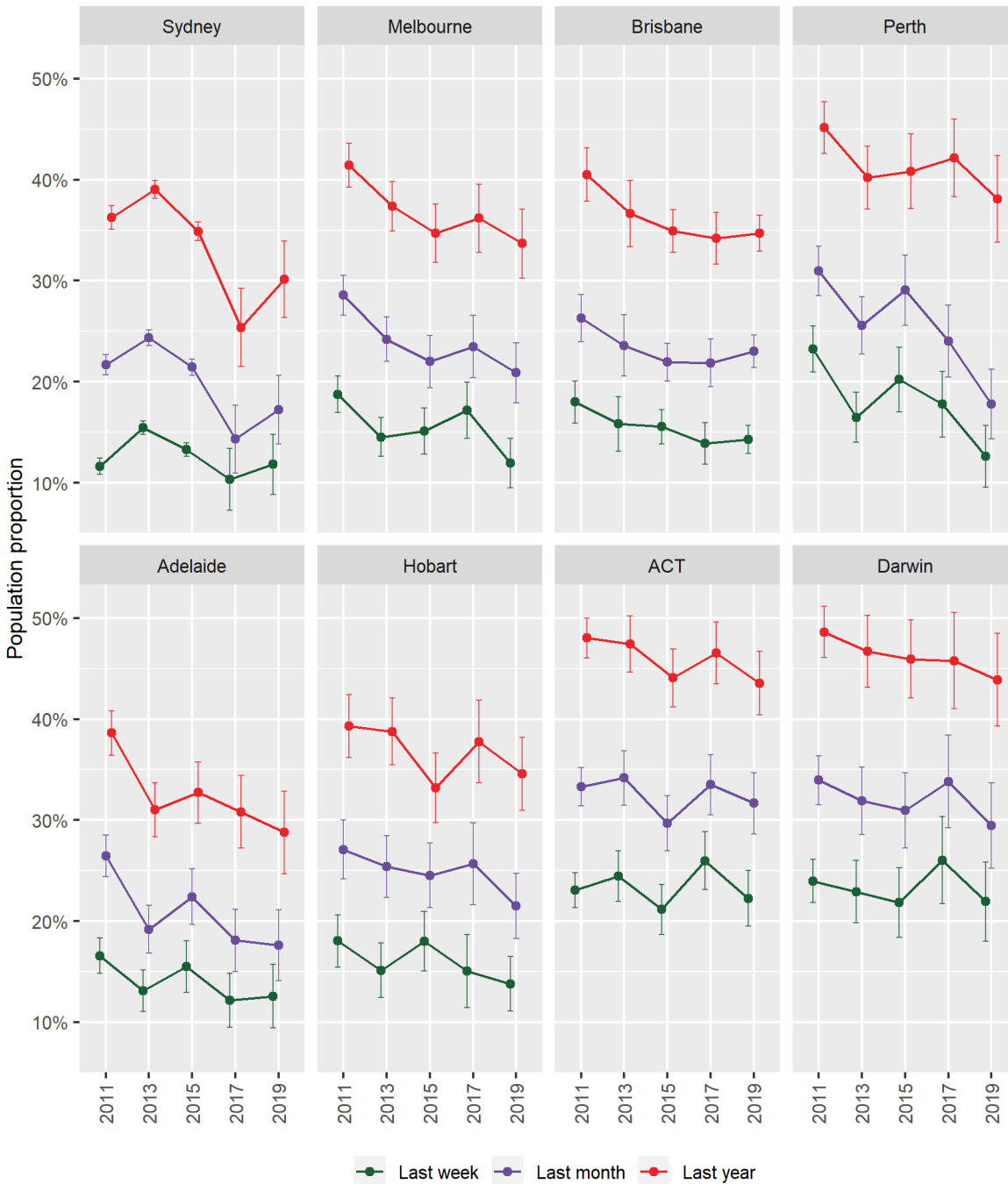
Figure 2.3: Cycling participation by state and territory (see Appendix A.1 for tabulated data)



Sydney data was derived from Sydney Cycling Survey prior to 2017

The capital city areas in each state and territory were defined using the Greater Capital City Statistical Area (GCCSA) defined by the Australia Bureau of Statistics except in the case of Sydney, where the Greater Metropolitan Area was used³. In most cases the trends in cycling participation in the capital cities reflect the state-wide trends, except that there appears to have been much smaller declines in Brisbane than in regional Queensland (Figure 2.4).

Figure 2.4: Cycling participation by capital city (see Appendix A.2 for tabulated data)



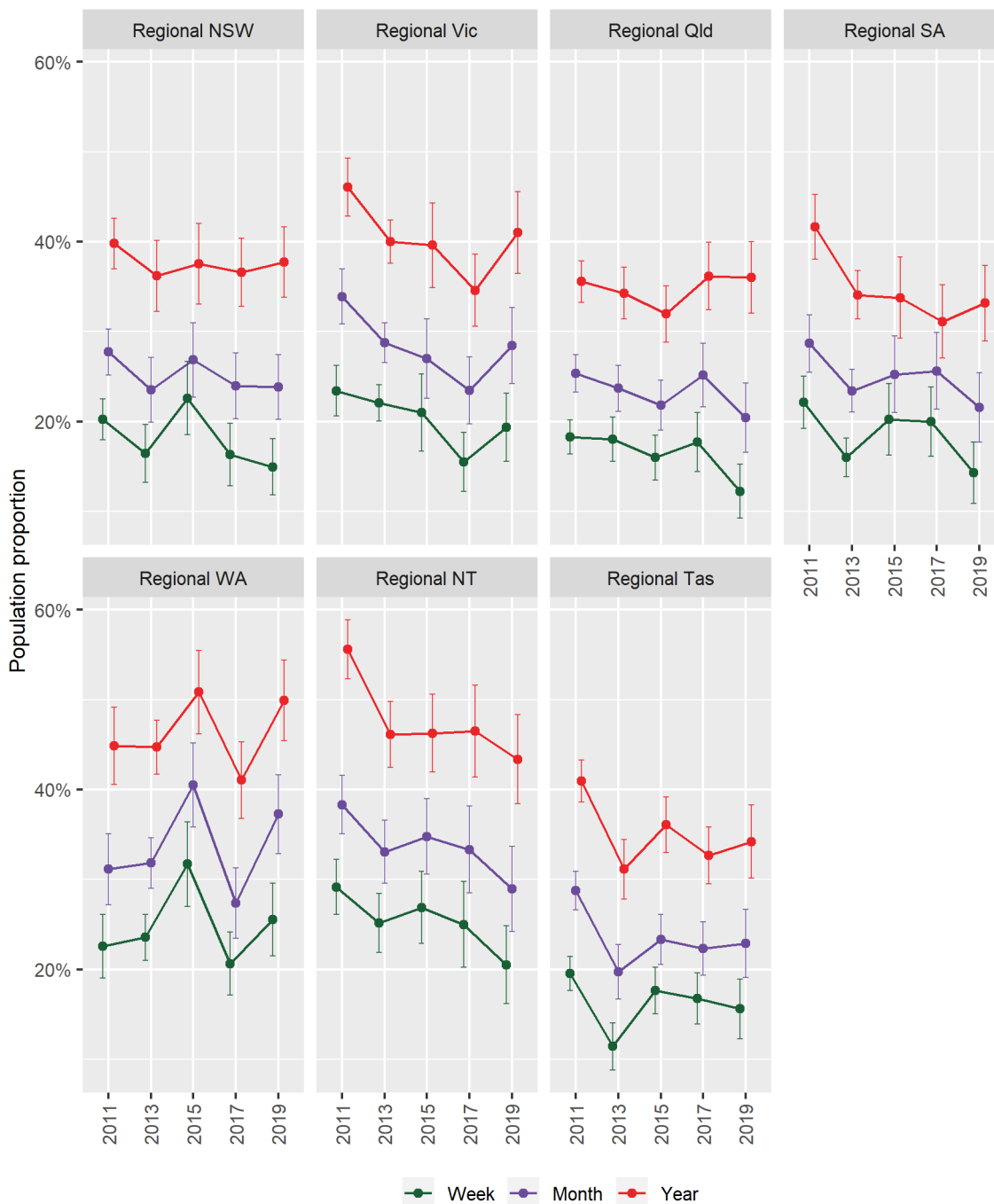
Sydney data was derived from the Sydney Cycling Survey prior to 2017

3 This is to remain consistent with the Sydney Cycling Survey, which was used prior to 2017.

The cycling participation rates outside the capital city areas of each of the seven states and territories where this distinction applies (excluding the Australian Capital Territory) is shown in Figure 2.5. When considered in conjunction with the previous graphs, this analysis suggests that:

- The increase in cycling participation observed in NSW is entirely due to growth in Sydney; outside Sydney cycling participation is stable.
- While Melbourne has experienced significant declines in cycling participation (when measured across the past week) the opposite has been observed in regional Victoria.
- Regional Queensland and South Australia have experienced declines in participation while their capital city areas have been stable, while regional Western Australia has experienced growth (contrary to the declines observed in Perth).

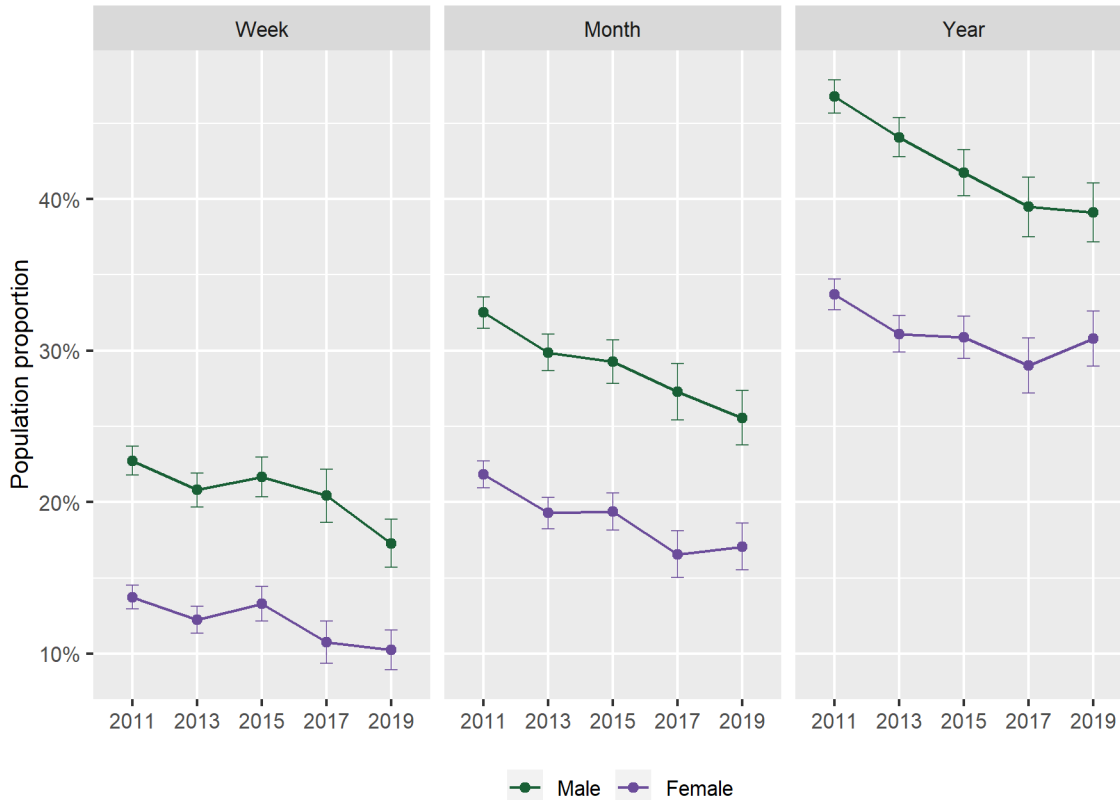
Figure 2.5: Cycling participation by non-capital city areas (see Appendix A.3 for tabulated data)



2.2 Age and gender

The trend in cycling participation rate by gender across the four survey years is shown in Figure 2.6. When measured over the past week, participation has decreased from 20.4% to 17.3% for males and from 10.7% to 10.4% for females between 2017 and 2019. Only the change in male participation over the past week is statistically significant. The proportion of females riding over the past year has increased significantly from 29.0% to 31.0%.

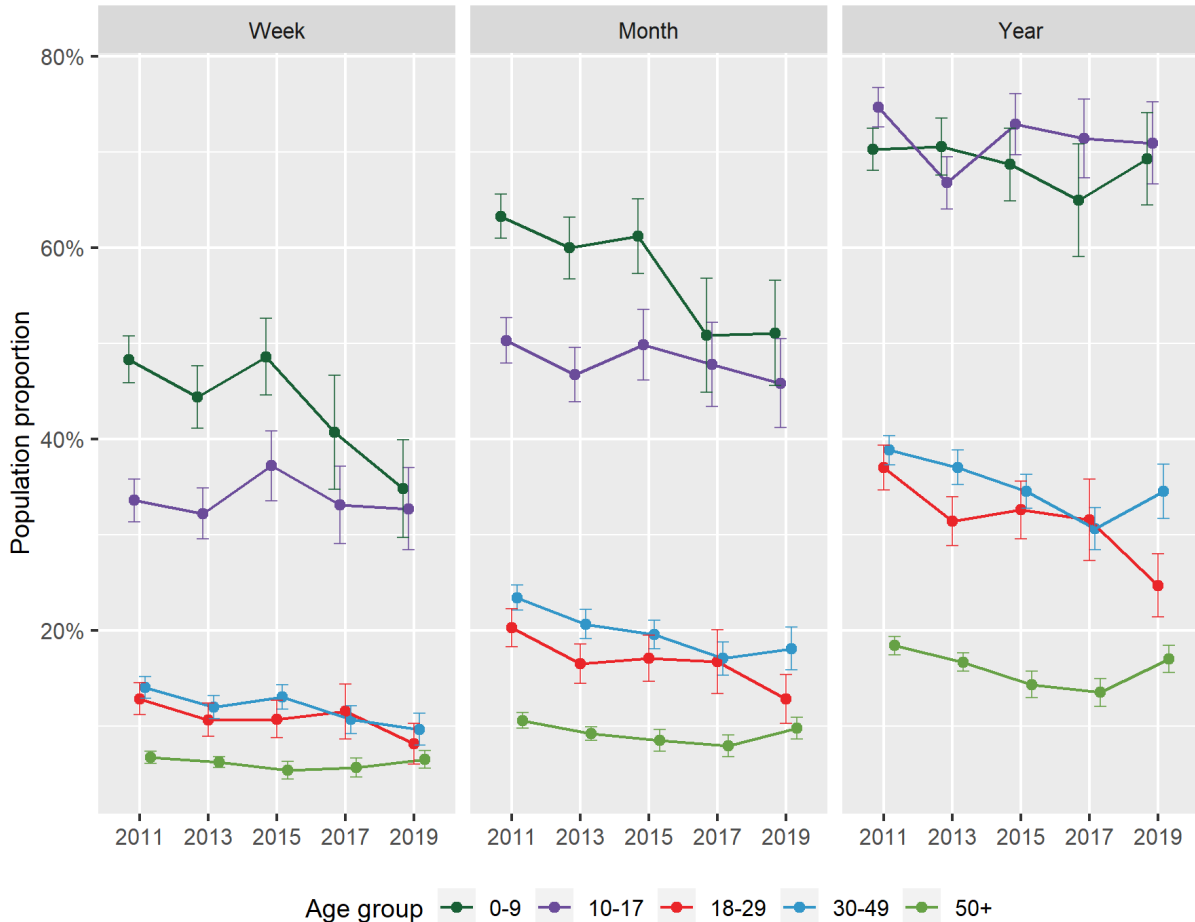
Figure 2.6: Cycling participation by gender (see Appendix A.4 for tabulated data)



The trend in cycling participation rate by age is shown in Figure 2.7. While only those aged 15 or older were eligible to respond to the survey, they were asked to provide responses for all household members aged over two. Children aged two or younger were assumed to not have cycled, but are included within the statistics for the youngest age group.

While the confidence intervals are wide for children (who also represent the groups with by far the highest participation rates), the data would suggest significant declines in participation among children under 10 since 2015; the participation rate among this group has declined from 48.6% in 2015 to 35.0% in 2019 (measured over the past week). The other group to experience significant changes in cycling participation has been young adults aged 18 to 29, for which participation has declined significantly between 2017 and 2019 across all time periods (past week, month and year). However, there is some evidence to suggest cycling is increasing among those aged 50 and above, albeit off a lower base than for younger ages.

Figure 2.7: Cycling participation by age group (see Appendix A.5 for tabulated data)

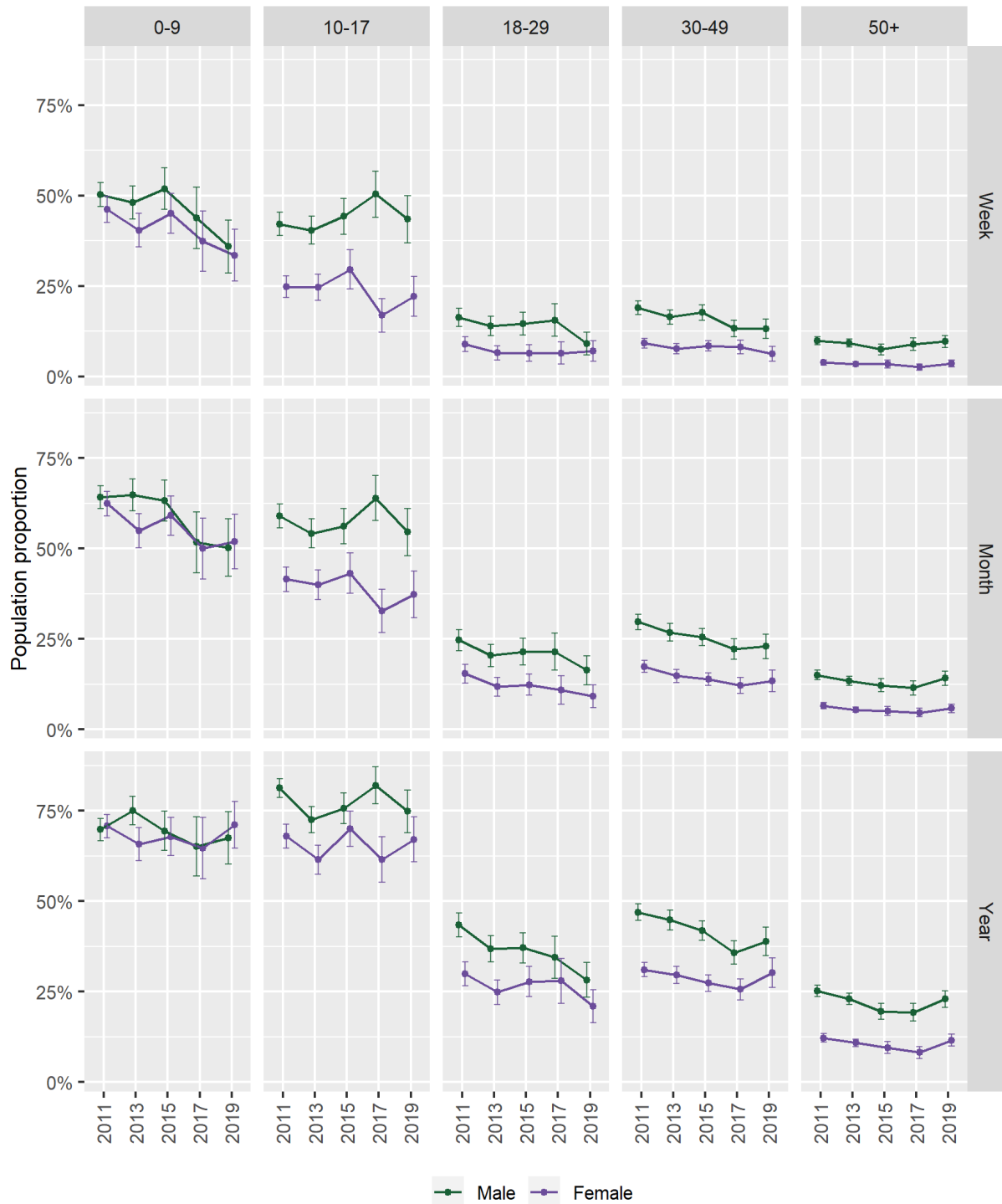


The change in cycling participation by gender and age group together is presented in Figure 2.8. We note the wide error bands in some groups, particularly children, that limit the robustness of conclusions drawn from this data. Nonetheless, we would suggest the main conclusions from this analysis are that:

- males have higher levels of cycling participation than females across all age groups except for children aged under 10,
- teenage male cycling participation appeared to increase from 2013 to 2017 but may have declined in 2019; conversely, teenage female participation may have increased between 2017 and 2019,
- participation among young adults aged 18 to 29 of both genders was stable between 2011 and 2017 but male participation in particular may have decreased in 2019, and
- participation among adults aged 30 to 49 decreased between 2011 and 2017 when measured over the longer periods (past month and year) but has stabilised or increased between 2017 and 2019, and
- participation among those aged 50 and over has always been markedly lower than among younger age groups but has increased somewhat between 2017 and 2019.

It is concluded that the decline in cycling participation observed at a national level appears to be driven primarily by declines among children of both genders, teenage males and young adult males, and this has not been fully compensated by an increase in teenage female cycling and among those aged 50 and over.

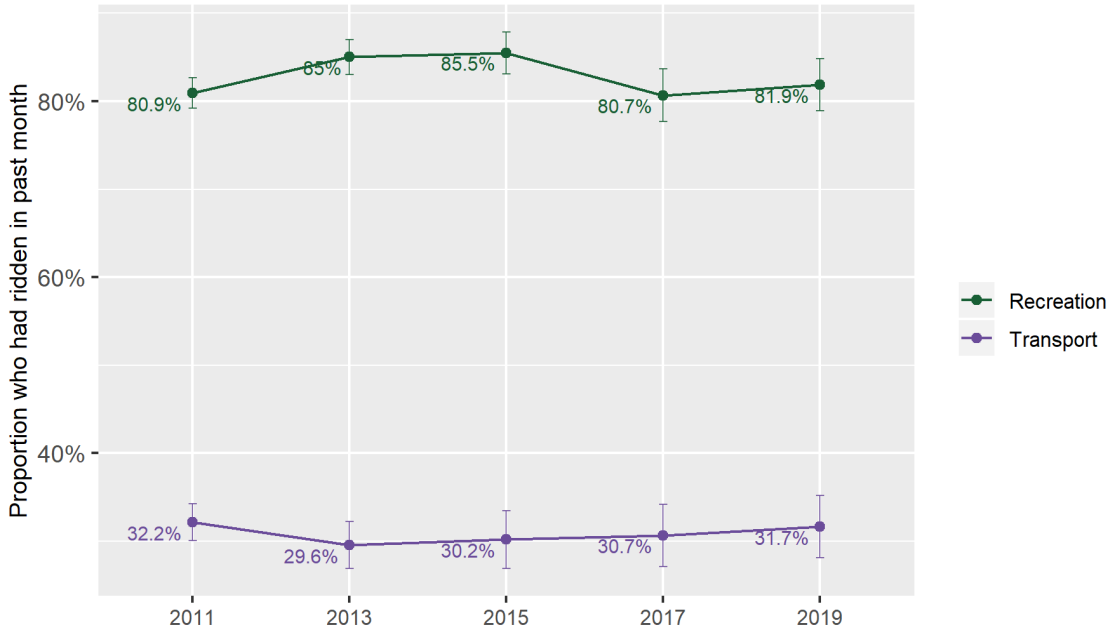
Figure 2.8: Cycling participation by gender and age group (see Appendix A.6 for tabulated data)



2.3 Purpose of travel

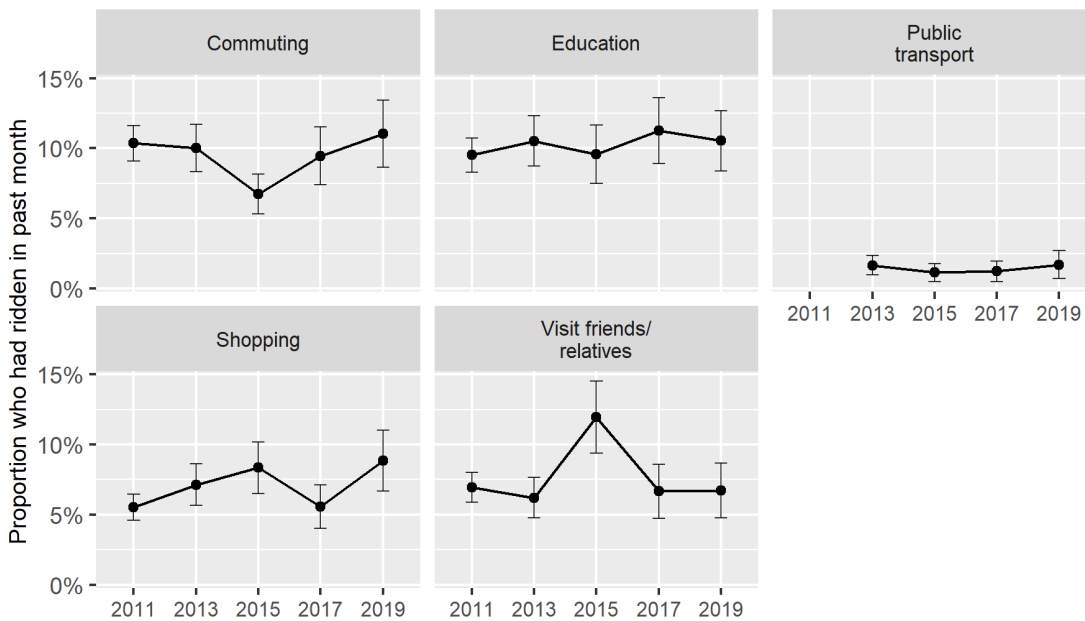
Survey respondents who had ridden in the past month for transport were asked for which purpose(s) they had ridden. These purposes were then classified into transport or recreation groups; the change over time in these proportions is shown in Figure 2.9. It is noted that these purposes are not mutually exclusive; some bicycle riders will have travelled solely for recreation or transport and others will have done both and hence the proportions will add to more than 100%. The data would suggest no significant change over time, and that the majority of cycling participations are doing so for recreation, with slightly under one third riding at least once for a transport purpose.

Figure 2.9: Main purpose of cycling participation



Within transport purposes the most commonly cited purposes were for commuting, education, shopping or to visit friends (Figure 2.10). There does not appear to have been a statistically significant change in the proportion of riders travelling for these purposes over the eight-year period.

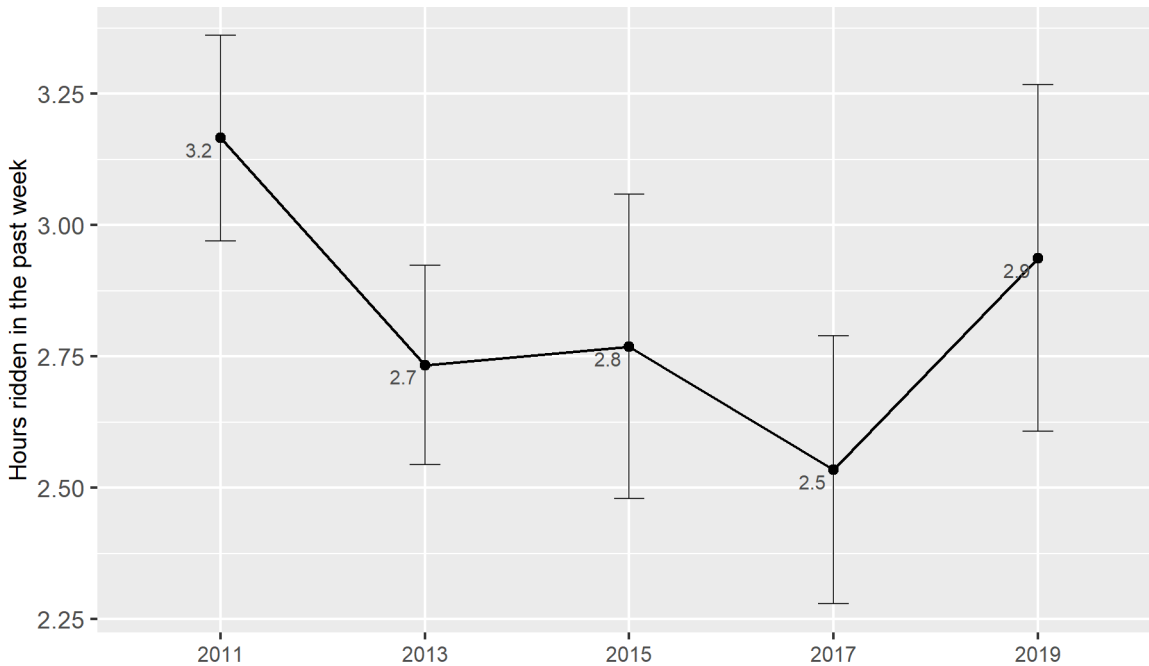
Figure 2.10: Transport purpose



2.4 Time ridden over past week

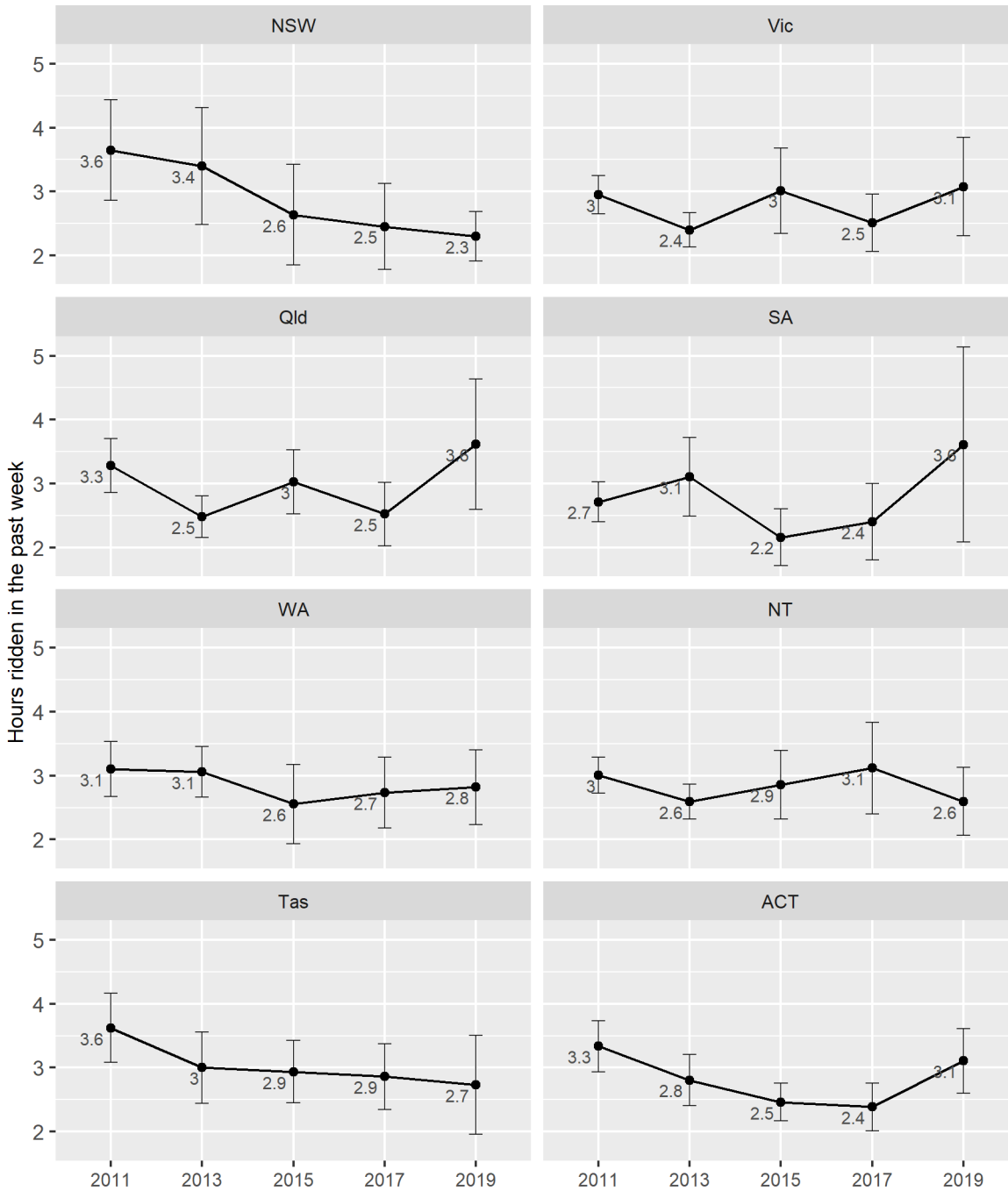
Respondents who had ridden over the past week were asked for an estimate of how much time they had spent riding. This measure is based on respondent recall over the previous week and is likely to be at best a rough estimate. The number of hours ridden in 2019 averaged 2.9 hours per week (95% CI: 2.6 –3.3); this is a statistically significant increase on 2017 (Figure 2.11). It is hypothesised that children and teenager males, for whom much of the decline in participation over the past week can be attributed, ride fewer hours per week and hence the average has increased in the most recent survey. However, given the recall nature of this question it is suggested this result be treated with caution.

Figure 2.11: Hours ridden in the past week



The number of hours ridden has declined to a statistically significant extent between 2011 and 2019 in NSW while for other states the changes are generally minor (Figure 2.12). There has been a very substantial increase in hours ridden in Queensland, and to a lesser extent South Australia, in 2019. The magnitude of these changes, and the broad confidence intervals, suggest these estimates should be treated with caution.

Figure 2.12: Hours ridden in past week by state/territory



2.5 Bicycle ownership

The number of households in Australia without a working bicycle has remained fairly stable at around 43 - 45% of households since 2011, with a possible declining trend since 2015 (Figure 2.13). Unsurprisingly, there appears to be a correlation between jurisdictions with high cycling participation and bicycle ownership; only 34% of households do not have a working bicycle in the Australian Capital Territory, and 30% in the Northern Territory (Figure 2.14).

Figure 2.13: Bicycle ownership by year

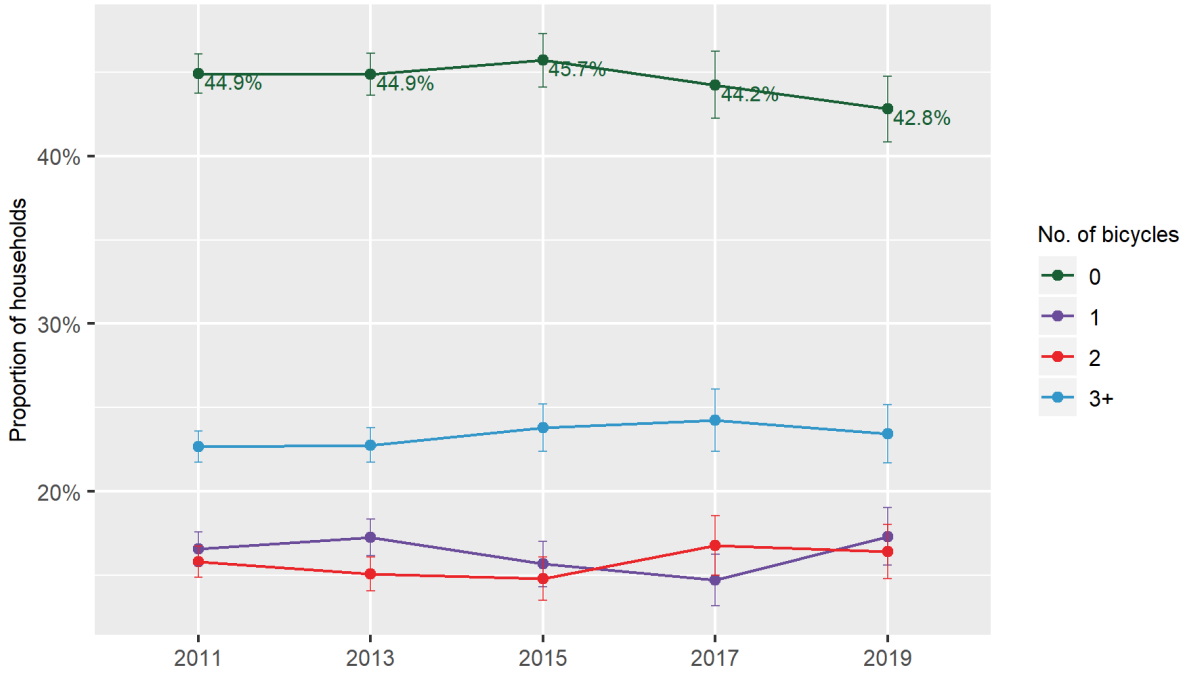
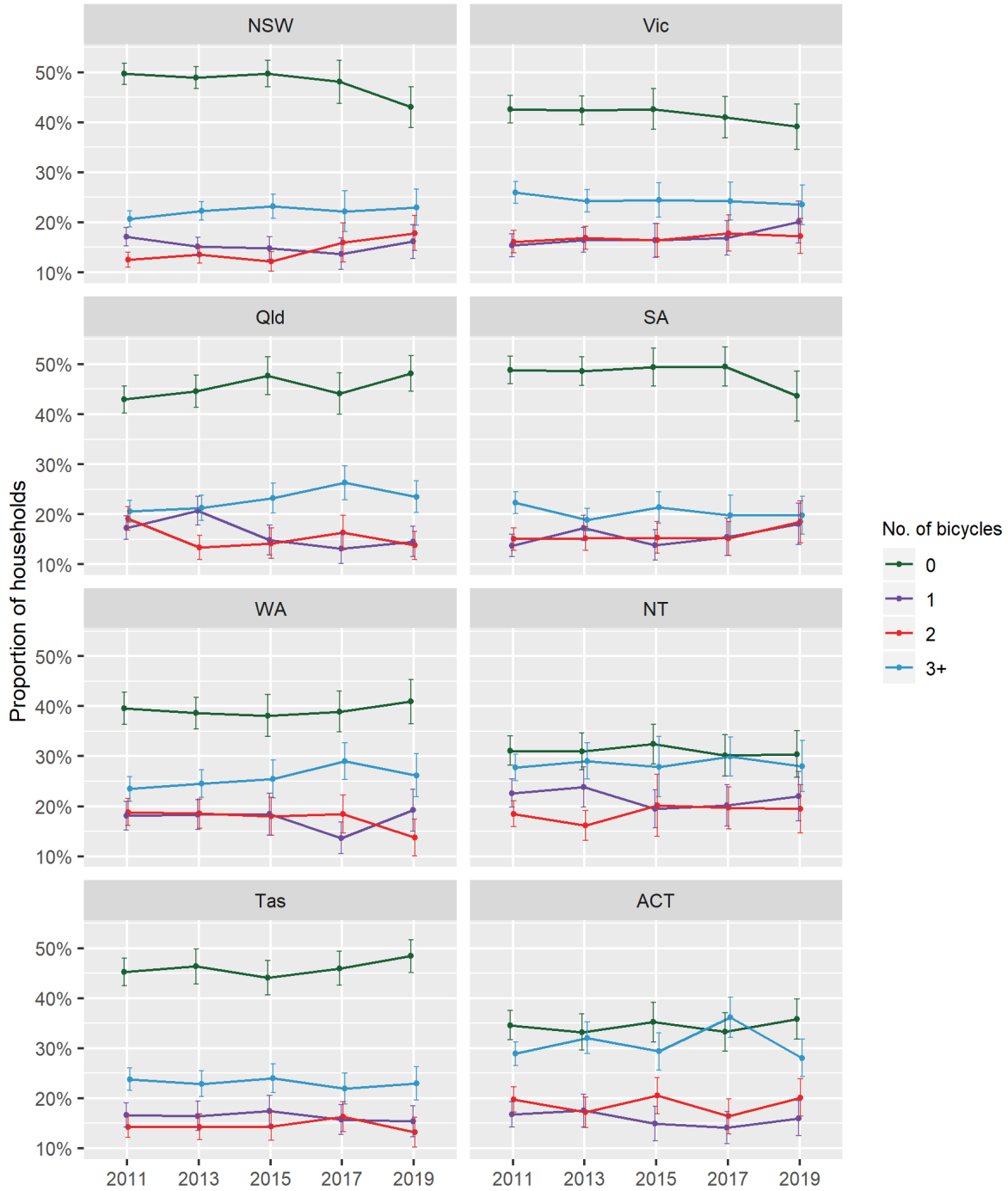
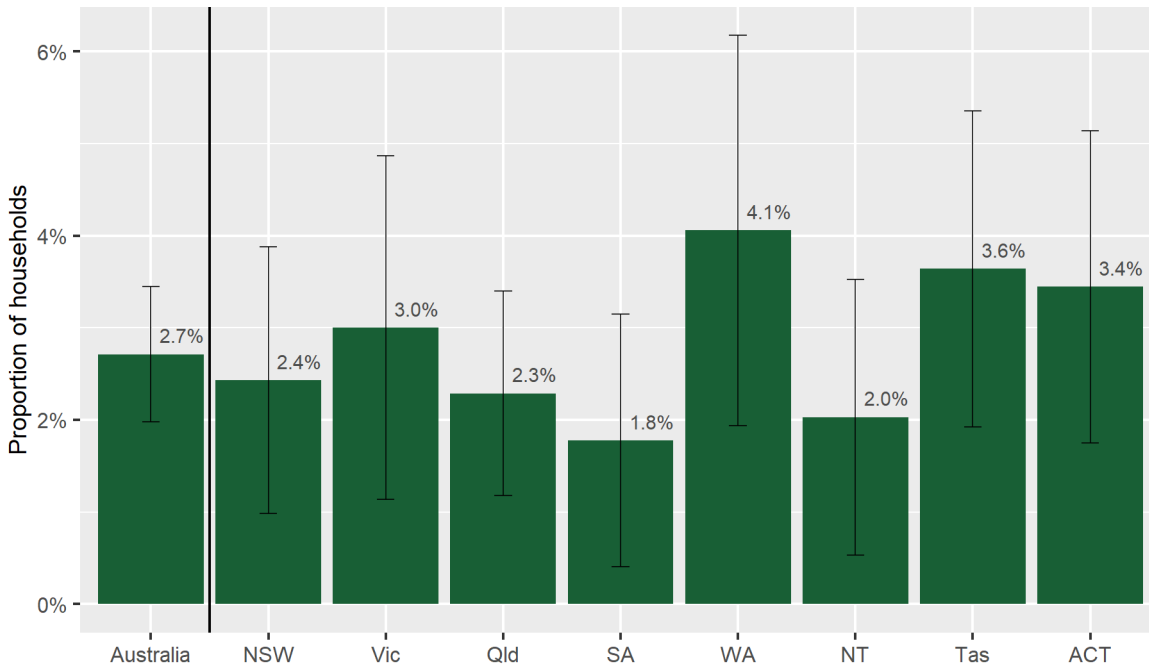


Figure 2.14: Bicycle ownership by state



In the 2019 survey respondents were asked, in addition to working bicycles, how many electrically assisted bicycles they had in their household. Across Australia 2.7% of households (95% CI: 2.0 – 3.5%) indicated they had one or more electrically assisted bicycle in their household.

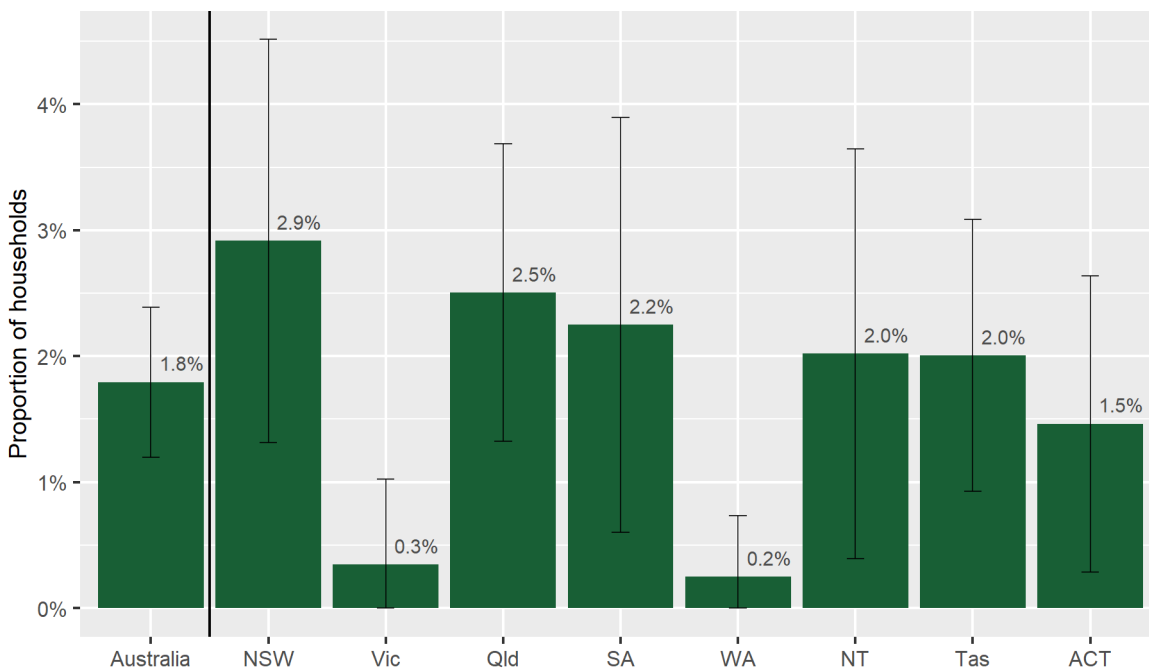
Figure 2.15: Electric bicycle ownership



2.6 Bicycle share subscriptions

In the 2019 survey respondents were asked whether any member of the household had a current subscription to a bicycle share service. Around 1.7% of households (95%: 1.1 – 2.3%) appear to have at least active subscription.

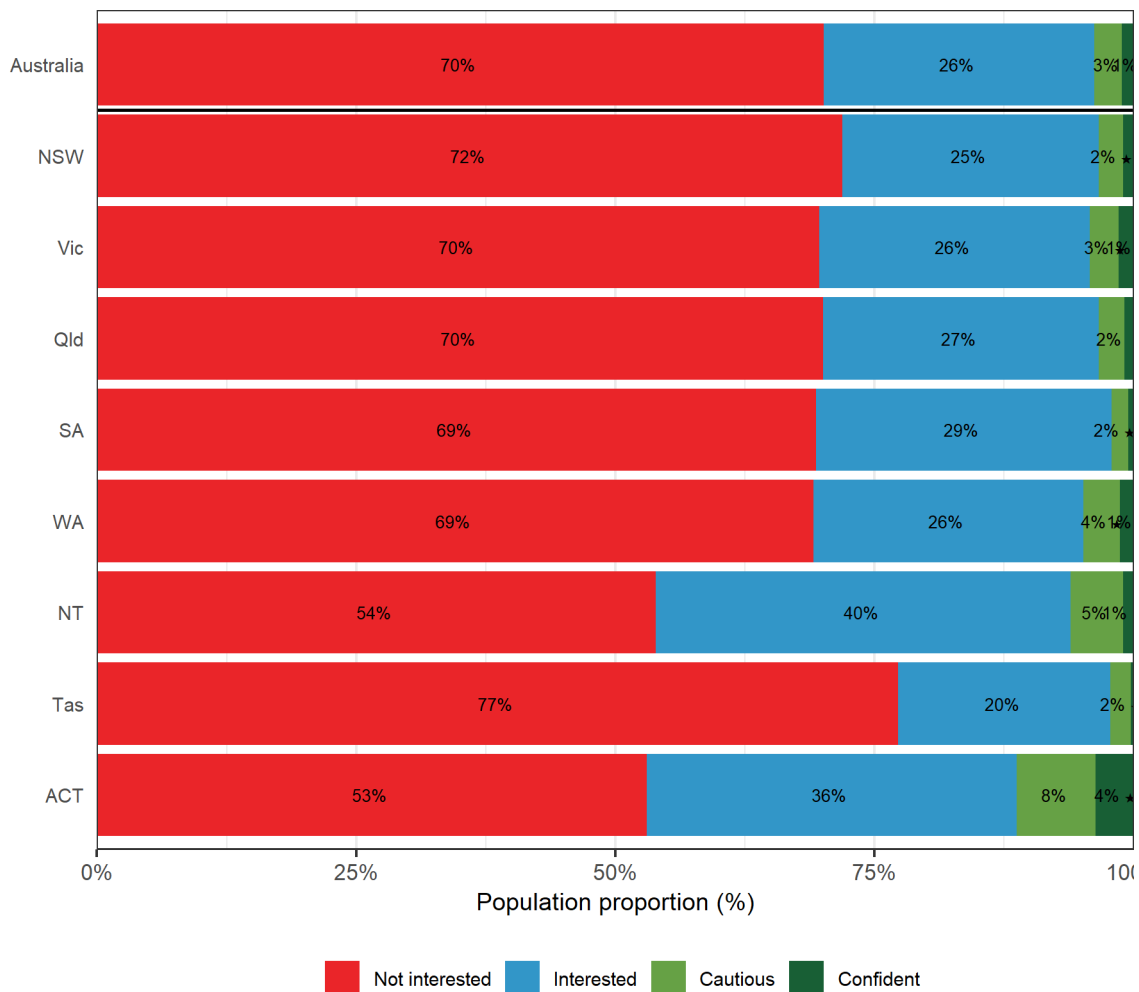
Figure 2.16: Households with at least one bicycle share subscription



2.7 Willingness to consider cycling

Respondents aged 15 or older were asked a range of questions about whether they would consider riding for transport trips. These respondents were then classified into four categories depending on whether they had undertaken cycling trips for transport over the past month or indicated they would consider doing so. Across Australia 70% of respondents indicated they were not interested in riding for transport (Figure 2.17). Most of the remainder (26%) indicated they were interested but did not currently ride for transport. This group may already ride for recreation purposes and indicated they could conceivably ride for transport. Around 3% identified themselves as cautious riders; that is, they already ride for transport but prefer circuitous routes to avoid traffic. The remaining 1% identified themselves as confident transport riders; that is, they already ride for transport and will take the shortest route irrespective of traffic. These findings are consistent across the states and territories, except for the Northern Territory and Australian Capital Territory where the proportion who are interested is significantly higher (40% and 36%, respectively), and in Tasmania where it is lower (20%).

Figure 2.17: Willingness to consider cycling for transport



Sample: persons aged 15+

3. Discussion

3.1 Trends

Over the eight years between 2011 and 2019 the cycling participation rate appears to have declined steadily. This conclusion holds irrespective of whether the target is defined as those cycling over a typical week, month or year. At the state and local level, the trends are more difficult to ascertain, partly because of the wide confidence intervals and fluctuations across years. At the demographic level the declines appear to be primarily driven by children aged under 10, who have cycling participation rates much higher than the rest of the population, and to a lesser extent by adults aged 18 to 49. Cycling participation among those aged 50 and above has been stable or increased, albeit off a low base.

Notwithstanding the decline in cycling participation, the cycling participation rate is very high for physical activity participation, and in absolute numbers the survey estimates there are around 3.43 million Australians riding in a typical week and 8.39 million in the past year. This makes cycling one of the most common forms of physical activity.

The absence of an increase in cycling participation may appear contrary to the investment made by state and local governments over this period in promoting and encouraging cycling. However, it is suggested the scale and breadth of investment has been occurring at a local and corridor level that is insufficient to affect population-level changes. That is, while interventions may well be having an impact at a local level these localised impacts are minor at the broader scale and saturated by broader social, demographic and urban changes. These broader changes include the gradual ageing of the Australian population; the strong correlation between age and cycling participation means that over time we would expect cycling participation to decline without significant policy intervention or natural cultural shifts.

3.2 Comparability

In comparing this participation data with other data sources, such as automatic counts, we note the following:

- This data corresponds to cyclist participation *not* travel; it is plausible that participation could remain unchanged while travel changes, or participation remains unchanged but those who ride do so for more or fewer trips.
- Counts at discrete locations will not necessarily reflect population level changes. This is particularly true for automatic counts, as these sites will almost invariably be busy, high quality routes (e.g. shared paths or bridges). Such locations are inherently biased and may not be broadly representative of changes in travel across a larger area.
- A great deal of cycling participation occurs among children, for whom much of this riding occurs off public roads in parks and backyards. Such trips are unlikely to be measured by any automatic or manual counting program. A change in childhood cycling participation will have significant effects on overall cycling participation but may not be detected as part of counting programs.
- By asking about the week/month immediately preceding the survey there is likely to be variation related to weather. This is particularly true for riding over the past week, where participation is likely to be highly sensitive to prevalent weather conditions in the local area. By rolling the survey fieldwork over a period of around four weeks these short-term weather effects are reduced. Furthermore, weather conditions are unlikely to track in the same direction over the entire country; it may be raining in one area while sunny in another. Such effects may balance out when pooling the data at a national level. Irrespective, such effects are not (and cannot) be reflected in the variance estimates represented by the confidence intervals.

Appendix A Data Tables

All values in the tables herein are population proportions represented as percentages.

A.1 Cycling participation by state and territory (Figure 2.3)

Year	Period	Region								
		Aus	NSW	Vic	Qld	SA	WA	NT	Tas	ACT
2011	Week	18.2	14.8	19.9	18.1	17.9	23.1	26.3	18.9	23.1
	Month	27.1	23.9	29.9	25.8	27.0	31.0	35.9	28.0	33.3
	Year	40.2	37.5	42.6	37.9	39.3	45.1	51.7	40.2	48.0
2013	Week	16.5	15.8	16.4	17.0	13.8	18.2	23.9	13.0	24.5
	Month	24.5	24.0	25.3	23.6	20.2	27.1	32.4	22.2	34.2
	Year	37.5	38.0	38.0	35.4	31.7	41.3	46.5	34.4	47.4
2015	Week	17.4	16.7	16.6	16.1	16.6	23.0	24.1	17.8	21.2
	Month	24.3	23.4	23.2	22.1	23.1	31.8	32.6	23.8	29.7
	Year	36.3	35.8	35.9	33.2	33.0	43.3	46.1	34.8	44.1
2017	Week	15.5	12.5	16.7	16.6	14.0	18.5	25.6	16.0	26.0
	Month	21.8	17.8	23.5	24.1	19.9	24.8	33.6	23.8	33.5
	Year	34.2	29.5	35.8	35.4	30.9	41.9	46.1	34.9	46.5
2019	Week	13.8	12.9	13.7	13.5	13.0	15.6	21.3	14.8	22.2
	Month	21.4	19.6	22.7	22.0	18.5	22.2	29.2	22.2	31.7
	Year	35.0	32.8	35.4	35.6	29.8	40.8	43.7	34.3	43.6

Values are population proportions (%).

A.2 Cycling participation by capital city (Figure 2.4)

Year	Period	Capital City						
		Sydney	Melbourne	Brisbane	Adelaide	Perth	Darwin	Hobart
2011	Week	11.6	18.8	18.0	16.6	23.3	24.0	18.1
	Month	21.7	28.5	26.3	26.5	31.0	33.9	27.1
	Year	36.2	41.4	40.5	38.6	45.2	48.6	39.3
2013	Week	15.5	14.5	15.8	13.1	16.5	22.9	15.1
	Month	24.3	24.2	23.6	19.2	25.6	31.9	25.4
	Year	39.0	37.4	36.6	31.0	40.2	46.7	38.8
2015	Week	13.3	15.1	15.5	15.5	20.2	21.9	18.0
	Month	21.4	22.0	21.9	22.4	29.1	31.0	24.5
	Year	34.9	34.7	34.9	32.7	40.8	45.9	33.2
2017	Week	10.3	17.2	13.7	12.2	17.8	26.0	15.1
	Month	14.3	23.5	21.6	18.1	24.0	33.8	25.7
	Year	25.4	36.2	33.9	30.8	42.1	45.8	37.8
2019	Week	11.8	12.0	14.3	12.6	12.6	21.9	13.8
	Month	17.2	20.9	23.0	17.6	17.8	29.5	21.5
	Year	30.2	33.7	34.7	28.8	38.1	43.9	34.6

A.3 Cycling participation by regional area (Figure 2.5)

Year	Period	Regional area						
		NSW	Vic	Qld	SA	WA	NT	Tas
2011	Week	20.2	23.4	18.3	22.1	22.6	29.1	19.5
	Month	27.7	33.9	25.3	28.7	31.1	38.3	28.8
	Year	39.	46.0	35.5	41.6	44.9	55.6	40.9
2013	Week	16.4	22.0	18.0	16.0	23.5	25.2	11.4
	Month	23.5	28.7	23.7	23.4	31.8	33.1	19.7
	Year	36.2	40.0	34.3	34.1	44.7	46.1	31.1
2015	Week	22.6	21.0	16.0	20.2	31.7	26.9	17.6
	Month	26.8	27.0	21.8	25.2	40.5	34.8	23.3
	Year	37.5	39.6	32.0	33.8	50.8	46.3	36.1
2017	Week	16.3	15.5	17.7	20.0	20.6	25.0	16.7
	Month	23.9	23.4	25.2	25.6	27.4	33.3	22.3
	Year	36.6	34.6	36.2	31.1	41.1	46.5	32.7
2019	Week	14.9	19.3	12.2	14.3	25.5	20.5	15.6
	Month	23.8	28.4	20.4	21.6	37.3	28.9	22.9
	Year	37.8	41.0	36.0	33.1	49.9	43.4	34.2

A.4 Cycling participation by gender (Figure 2.6)

Year	Period	Gender	
		Male	Female
2011	Week	22.7	13.7
	Month	32.5	21.8
	Year	46.8	33.7
2013	Week	20.8	12.2
	Month	29.9	19.3
	Year	44.1	31.1
2015	Week	21.7	13.3
	Month	29.3	19.4
	Year	41.8	30.9
2017	Week	20.4	10.7
	Month	27.3	16.5
	Year	39.5	29.0
2019	Week	17.3	10.4
	Month	25.6	17.3
	Year	39.2	31.0

A.5 Cycling participation by age (Figure 2.7)

Year	Period	Age group				
		0 -9	10 -17	18 - 29	30 - 49	50 +
2011	Week	48.3	33.6	12.8	14.0	6.7
	Month	63.3	50.3	20.3	23.4	10.6
	Year	70.3	74.7	37.0	38.8	18.4
2013	Week	44.4	32.2	10.6	12.0	6.2
	Month	60.0	46.7	16.5	20.6	9.2
	Year	70.5	66.8	31.4	37.0	16.7
2015	Week	48.6	37.2	10.7	13.0	5.4
	Month	61.2	49.8	17.0	19.6	8.5
	Year	68.7	72.9	32.6	34.5	14.3
2017	Week	40.7	33.1	11.5	10.7	5.6
	Month	50.9	47.8	16.7	17.0	7.9
	Year	64.9	71.4	31.5	30.6	13.5
2019	Week	34.9	32.7	8.2	9.8	6.6
	Month	51.2	45.9	13.0	18.4	9.8
	Year	69.7	71.1	25.0	34.6	16.9

A.6 Cycling participation by gender and age (Figure 2.8)

Year	Period	Age group									
		0 -9		10 -17		18 - 29		30 - 49		50 +	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
2011	Week	50.3	46.2	42.2	24.9	16.4	9.0	19.0	9.2	9.9	3.9
	Month	64.1	62.4	59.0	41.5	24.7	15.4	29.7	17.4	15.0	6.5
	Year	69.8	70.7	81.3	67.9	43.4	29.9	46.9	31.1	25.2	12.2
2013	Week	48.1	40.5	40.5	24.7	14.0	6.5	16.4	7.7	9.3	3.4
	Month	64.8	54.9	54.2	39.9	20.4	11.7	26.8	14.7	13.4	5.4
	Year	75.0	65.8	72.5	61.5	36.9	24.8	44.8	29.6	23.1	10.8
2015	Week	51.9	45.1	44.3	29.6	14.6	6.5	17.7	8.5	7.5	3.5
	Month	63.2	59.1	56.1	43.1	21.4	12.4	25.5	13.8	12.2	5.1
	Year	69.4	67.9	75.6	70.0	37.1	27.8	41.9	27.3	19.6	9.6
2017	Week	43.8	37.4	50.4	16.9	15.4	6.5	13.3	8.1	9.0	2.6
	Month	51.7	50.0	63.9	32.7	21.2	11.0	22.2	12.1	11.5	4.7
	Year	65.2	64.7	82.0	61.5	34.3	28.1	35.8	25.5	19.3	8.2
2019	Week	35.9	33.8	43.0	22.8	9.2	7.2	13.3	6.4	9.9	3.6
	Month	50.2	52.3	54.1	37.9	16.3	9.5	23.2	13.7	14.2	5.8
	Year	67.5	71.9	74.5	67.7	28.3	21.5	39.0	30.2	23.0	11.5

Appendix B Survey Script

INTRODUCTION

My name is (...) calling on behalf of [insert relevant state roads authority or Council] from Market Solutions, a social and market research company. Today we are conducting a quick survey about the travel habits of people across Australia. The survey will be used to track travel patterns over time. Would you be able to spend a few minutes describing a little about the way you get around?

RESPONDENTS MUST BE AGED 15 YEARS OR OVER. DO NOT MENTION CYCLING IN INTRO.

USE BIRTHDAY SCREENER TO SELECT MAIN RESPONDENT

Your responses will be held strictly confidential. My supervisor may listen to parts of this interview to assist in quality control monitoring.

CONTINUE	1
Schedule call back	2
Soft refusal	3
Hard refusal	4
Non qualifying	5
Not a residential number	6
Terminated early	7
Communication difficulty	8
Language other than English	9
No contact on final attempt	10
Over quota	11
Duplicate	12
Away for duration of study	13
Non working number	14
No answer	15
Answering machine – msg left	16
Answer mach. – other attempts	17
Engaged	18
Incorrect details	19

CONFIRM LOCATION (LGA, REGION)

Q.1. We are interested in speaking to people who live in [READ IN POSTCODE]. Can you confirm this is your postcode?

Yes	1
No (SPECIFY POSTCODE)	2

Q.2. Ask only Council samples – otherwise go to next question
 And can you confirm that your council area is (READ IN COUNCIL AREA)?
 INSERT COUNCIL AREA
 CHECK QUOTAS AND CONTINUE OR TERMINATE AS REQUIRED

SECTION 1: MAIN RESPONDENT'S TRAVEL

Q.3. In the last 7 days, have you used any of the following? (READ OUT) (ACCEPT MULTIPLES)

- | | |
|--|---|
| Car as a driver | 1 |
| Car as a passenger | 2 |
| Motorcycle | 3 |
| Train | 4 |
| Bus | 5 |
| Tram | 6 |
| Bicycle, even just riding in your backyard | 7 |
| None of the above | 8 |

INTERVIEWER NOTE: DEFINITIONS OF BICYCLES

INCLUSIONS:

- ADULT AND CHILDREN'S BICYCLES WITH TWO OR MORE WHEELS
- CHILDRENS BICYCLES WITH TRAINING WHEELS

EXCLUSIONS:

- ANY REGISTERED VEHICLES (E.G. MOPEDS)
- CHILDREN RIDING TOYS SUCH AS TRICYCLES AND SCOOTERS
- CHILDREN WHO ARE IN A SEAT OR TRAILER ON A BICYCLE
- RIDING ON A STATIONARY EXERCISE BICYCLE

Q.4. Ask if did not ride in the last 7 days – otherwise go to next question

When did you last ride a bicycle? (READ OUT) (ONE ONLY)

- | | |
|-----------------------|---|
| In the last 2 weeks | 1 |
| In the last 3 weeks | 2 |
| In the last 4 weeks | 3 |
| More than a month ago | 4 |
| More than a year ago | 5 |
| Never | 6 |

Q.5. Ask if last rode in the last 7 days – otherwise go to Q.7

In the last 7 days, on how many days did you ride a bicycle?

INSERT NO. DAYS

Q.6. What is your best estimate of the total time you have spent riding over the past 7 days?

INTERVIEWER NOTE: Record number of HOURS. e.g. 90 minutes should be recorded as 1.5 hours.

INSERT NO. OF HOURS

Q.7. Ask if rode in past 4 weeks – otherwise go to next question

For what purposes did you ride over the last 7 days/2 weeks/3 weeks/4 weeks? (READ OUT) (ACCEPT MULTIPLES)

To or from work	1
To or from school, university or study	2
To or from shopping	3
For recreation or exercise	4
To get a train, bus or tram	5
To visit friends or relatives	6
Some other reason (Specify)	7

Q.8. Ask if rode in past year – otherwise go to Q.10

Which of the following statements best describes you? Would you say you... (READ OUT)

Are new to cycling (started cycling in the last 12 months)	1
Have started to cycle again after a break of 12 months or more	2
Have been cycling for more than 12 months	3

Q.9. Ask if rode in past year and have been cycling for more than 12 months – otherwise go to next question

And would you say that you... (READ OUT)

Cycle more frequently than a year ago	1
Cycle as frequently as a year ago	2
Cycle less frequently than a year ago	3

Q.10. Now we would like you to think about comfort when bike riding within the [AREA], that is, how at ease you feel when riding in the area. Can you tell me how comfortable you feel riding in the [AREA], are you...? (READ OUT)

Very comfortable	1
Comfortable	2
Neither comfortable nor uncomfortable	3
Uncomfortable	4
Very uncomfortable	5
(Have not ridden in the area in the past year)	6

Q.11. In the past year, do you think that cycling conditions in the [AREA] have become much better, better, about the same, worse or much worse? (READ OUT)

Much better	1
Better	2
About the same	3
Worse	4
Much worse	5
(Unsure/Don't know)	6

Q.12. Do you have any comments regarding conditions for bike riding in the [AREA]? (RECORD VERBATIM)

Q.13. In general, in the past year have you done any of the following activities?
(READ OUT) INTERVIEWER NOTE: NOT JUST ACTIVITIES DONE ON A BICYCLE

Travel to work	1
Travel to school or university	2
Travel to the shops	3
Recreational exercise or fitness	4
Travelled on a tram, bus or train	5
(None of the above)	8

Q.14. In the past year, have you used a bicycle for any of the following...?
(READ OUT)

IF Q13=1: Travel to work	Yes/No
IF Q13=2: Travel to school or university	Yes/No
IF Q13=3: Travel to the shops	Yes/No
IF Q13=4: For recreational exercise or fitness	Yes/No
IF Q13=5: To travel to a tram, bus or train	Yes/No

Q.15. IF Q13=1 & Q14=1 - Why have you not used a bicycle for travel to work in the past year?
(DO NOT READ OUT) (ACCEPT MULTIPLES)

Too far	1
Prefer other methods of transport	2
Too many items to carry on a bike	3
Hygiene reasons	4
Nowhere to park the bike	5
Too dangerous	6
Too close	7
Other (specify)	8
No particular reason	9

Q.16. IF Q13=2 & Q14=2 - Why have you not used a bicycle for travel to school or university in the past year?

(DO NOT READ OUT) (ACCEPT MULTIPLES)

Too far	1
Prefer other methods of transport	2
Too many items to carry on a bike	3
Hygiene reasons	4
Nowhere to park the bike	5
Too dangerous	6
Too close	7
Other (specify)	8
No particular reason	9

Q.17. IF Q13=3 & Q14=3 - Why have you not used a bicycle for travel to the shops in the past year?

(DO NOT READ OUT) (ACCEPT MULTIPLES)

Too far	1
Prefer other methods of transport	2
Too many items to carry on a bike	3
Hygiene reasons	4
Nowhere to park the bike	5
Too dangerous	6
Too close	7
Other (specify)	8
No particular reason	9

Q.18. IF Q13=4 & Q14=4 - Why have you not used a bicycle for recreational exercise or fitness in the past year?

(DO NOT READ OUT) (ACCEPT MULTIPLES)

Prefer other forms of exercise	1
Too dangerous	2
Other (specify)	3
No particular reason	4

Q.19. IF Q13=5 & Q14=5 - Why have you not used a bicycle for travel to the shops in the past year?

(DO NOT READ OUT) (ACCEPT MULTIPLES)

Too far	1
Prefer other methods of transport	2
Too many items to carry on a bike	3
Hygiene reasons	4
Nowhere to park the bike	5
Too dangerous	6
Too close (no need)	7
Other (specify)	8
No particular reason	9

Q.20. There are a number of actions the [AUTHORITY] could take to encourage bike riding in the [AREA]. For each of the following, can you tell me whether these are very high priority, high priority, moderate priority, low priority or not a priority?

SCALE: 1= VERY HIGH, 2=HIGH, 3=MODERATE, 4=LOW, 5=NOT A PRIORITY, 6=UNSURE

More off-road paths and cycleways	—
More on-road bicycle lanes	—
Better connections between bike paths and schools	—
Better connections between bike paths and shops	—
Better connections between bike paths and parks and swimming pools	—
Better connections between bike paths and public transport	—
More bicycle parking	—
Lower local road speed limits	—
More bike skills training	—
More signs highlighting bicycle routes	—
More events or campaigns that promote bike riding	—

Q.21. Do you have any suggestions for actions you would like to see [AUTHORITY] take regarding bike riding in the [AREA]? (RECORD VERBATIM)

SECTION 2: MAIN RESPONDENT'S DEMOGRAPHICS

We are interested in understanding a little about those who ride bikes and those who do not. This will help us understand how interest in cycling changes over time.

Q.24. Just a couple of questions now to help us analyse responses.

GENDER: (RECORD AUTOMATICALLY)

Male	1
Female	2

Q.25. AGE: What is your age? (INSERT 99 FOR DON'T KNOW – NONE SHOULD BE UNDER 15 YEARS OF AGE)

Under 2 years	1
2 to 4 years	2
5 to 9 years	3
10 to 14 years	4
15 to 17 years	5
18 to 24 years	6
25 to 29 years	7
30 to 39 years	8
40 to 49 years	9
50 to 59 years	10
60 to 69 years	11
70 to 79 years	12
80 years or over	13
(Refused)	14

Q.26. OCCUPATION: Which of the following categories apply to you at the moment? (READ OUT) (ACCEPT MULTIPLES)

Student – Full time	1
Student – Part time	2
Work – Full time (>35hrs/week)	3
Work – Part time (<35hrs/week)	4
Work – Casual	5
Work – Unpaid voluntary work	6
Unemployed and looking for work	7
Home duties	8
Pensioner – not retirement age	9
Retired – on pension	10
Retired – not on pension	11
Other (Specify)	12
(Refused)	13

Q.27. How many people usually live in your household? INCLUDE ALL AGES – A RESIDENT IS SOMEONE WHO HAS, OR WILL, LIVE AT THE HOUSEHOLD FOR A PERIOD OF AT LEAST 3 MONTHS
RECORD NUMBER.....

Ask next section if household has more than 1 member – otherwise go to close

SECTION 3: OTHER HOUSEHOLD MEMBERS TRAVEL

INTRO > 2 PEOPLE IN HOUSEHOLD:

We would now like to understand a little about the way the other people in your household use bikes and get a little detail about them. Starting with the oldest person in the household other than yourself and working down, could you tell me...?

INTRO = 2 PEOPLE IN HOUSEHOLD:

We would now like to understand a little about the way other people in your household use a bike and get a little detail about them, could you tell me...?

ASK Q.28 – Q.35 FOR EACH OTHER HOUSEHOLD MEMBER THEN GO TO CLOSE

Q.28. GENDER: What is their gender?

Male	1
Female	2

Q.29. AGE: What is their age? (INSERT 99 FOR DON'T KNOW)

Under 2 years	1
2 to 4 years	2
5 to 9 years	3
10 to 14 years	4
15 to 17 years	5
18 to 24 years	6
25 to 29 years	7
30 to 39 years	8
40 to 49 years	9
50 to 59 years	10
60 to 69 years	11
70 to 79 years	12
80 years or over	13
(Refused)	14
(Don't know)	15

Q.30. Ask for each person aged five years or over – otherwise go to next section OCCUPATION: Which of the following categories apply to THIS PERSON at the moment? (READ OUT) (ACCEPT MULTIPLES)

Student – Full time	1
Student – Part time	2
Work – Full time (>35hrs/week)	3
Work – Part time (<35hrs/week)	4
Work – Casual	5
Work – Unpaid voluntary work	6
Unemployed and looking for work	7
Home duties	8
Pensioner – not retirement age	9
Retired – on pension	10
Retired – not on pension	11
Other (Specify)	12
(Refused)	13
Child – not school age	14

Q.31. In the last 7 days, has this person used any of the following methods of transport? (READ OUT) (ACCEPT MULTIPLES)

Car as a driver	1
Car as a passenger	2
Motorcycle	3
Train	4
Bus	5
Tram	6
Bicycle, even just riding in your backyard	7
None of the above	8
(Don't know)	7

INTERVIEWER NOTE: DEFINITIONS OF BICYCLES

INCLUSIONS:

- ADULT AND CHILDREN'S BICYCLES WITH TWO OR MORE WHEELS
- CHILDRENS BICYCLES WITH TRAINING WHEELS

EXCLUSIONS:

- ANY REGISTERED VEHICLES (E.G. MOPEDS)
- CHILDREN RIDING TOYS SUCH AS TRICYCLES AND SCOOTERS
- CHILDREN WHO ARE IN A SEAT OR TRAILER ON A BICYCLE
- RIDING ON A STATIONARY EXERCISE BICYCLE

Q.32. Ask if did not ride in the last 7 days – otherwise go to next question

When did THIS PERSON last ride a bicycle? (READ OUT) (ONE ONLY)

In the last 2 weeks	1
In the last 3 weeks	2
In the last 4 weeks	3
More than a month ago	4
More than a year ago	5
Never	6
(Don't know)	7

Q.33. Ask if last rode in the last 7 days – otherwise go to Q21

In the last 7 days, on how many days did they ride a bicycle? (RECORD 99 FOR DON'T KNOW)

INSERT NO. DAYS

Q.34. What is your best estimate of the total time they have spent riding over the past 7 days?

(RECORD 99 FOR DON'T KNOW)

INTERVIEWER NOTE: Record number of HOURS. E.g. 60 minutes should be recorded as 1 hour.

MinutesHours MinutesHours

INSERT NO. OF HOURS

Q.35. Ask if rode in past 4 weeks, otherwise go to next question

For what purposes did they ride over the last 7 days/2 weeks/3 weeks/4 weeks? (READ OUT) (ACCEPT MULTIPLES)

To or from work	1
To or from school, university or study	2
To or from shopping	3
For recreation or exercise	4
To get a train, bus or tram	5
To visit friends or relatives	6
Some other reason (Specify)	7
Don't know	8

Q.36. How many bicycles in working order are in your household?

INTERVIEWER NOTE: DEFINITIONS OF BICYCLES

INCLUSIONS:

- ADULT AND CHILDREN'S BICYCLES WITH TWO OR MORE WHEELS
- CHILDRENS BICYCLES WITH TRAINING WHEELS

EXCLUSIONS:

- ANY REGISTERED VEHICLES (E.G. MOPEDS)
- CHILDREN RIDING TOYS SUCH AS TRICYCLES AND SCOOTERS
- CHILDREN WHO ARE IN A SEAT OR TRAILER ON A BICYCLE
- RIDING ON A STATIONARY EXERCISE BICYCLE

RECORD NUMBER.....

Q.37. How many electrically assisted bicycles in working order are in your household? INTERVIEWER NOTE: these may be referred to as e-bikes, and are bikes which have an electric motor to assist the rider).

Q.38. Do you have a current subscription to a bike share service?

- | | |
|-----------------------|---|
| Yes | 1 |
| No | 2 |
| Unsure (DO NOT READ) | 3 |
| Refused (DO NOT READ) | 4 |

INTERVIEWER NOTE: This is a public bike share system like Lime, oBike or Melbourne Bike Share

Q.39. How many residents of your household have a current subscription to a bike share service?

None 1

Enter value ____ (RANGE 0 – 20)

Unsure (DO NOT READ)

Refused (DO NOT READ)

INTERVIEWER NOTE: This is a public bike share system like Lime, oBike or Melbourne Bike Share

CLOSE

Q37. As part of quality control procedures, someone from our project team may wish to re-contact you to verify a couple of responses you provided today. For this reason, may I please have your first name?

RECORD FIRST NAME

Q38. As this is market research, it is carried out in compliance with the Privacy Act and the information you provided will be used only for research purposes. Your answers will be combined with those of other participants, no individual responses will be identified.

We do re-contact people from time to time for related research projects. Would it be okay if we contacted you again in the future to invite you to participate in any similar research? We will only use this information to contact you to invite you to participate in research, your details will not be passed on to any third party.

IF AGREE, SAY: We will only keep your contact details on record for 12 months. You may ask to have your details removed at any time over the next 12 months.

- Agree to future research 1
- Do not agree to future research 2

CLOSE: That's the end of the interview. Thank you for your time and responses. My name is (...) from Market Solutions, if you have any queries about this survey feel free to call this office during business hours – would you like the number? (Provide number if required – 03 9372 8400 and ask to speak to Anna Lethborg. If you have any general queries, you can call the Market Research Society's Survey Line on 1300 364 830.

RECORD INTERVIEWER'S ID

AUDITING (OFFICE ONLY)

Q39. Was the date and time of interview correct?

- Yes 1
- No 2

Q40. Was the interview recorded correctly?

- Yes 1
- No 2

Q41. Was the interviewer courteous?

- Yes 1
- No 2

Q42. AUDITOR'S ID

ENTER ID.....



Austroads

Level 9, 287 Elizabeth Street
Sydney NSW 2000 Australia

Phone: +61 2 8265 3300

austroads@austroads.com.au
www.austroads.com.au