2015

National Cycling Participation Survey

National Results

AUSTRALIAN BICYCLE COUNCIL

Austroads

National Cycling Participation Survey 2015: National Results

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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 areas within each state and territory.

Cycling participation rates across Australia are measured over the previous week, month and year. Measured over the previous week the cycling participation rate has changed from 18.2% in 2011 (95% CI: 17.6% – 18.8%), to 16.5% (95% CI: 15.8% - 17.2%) in 2013 and 17.4% (95% CI: 16.6% - 18.4%) in 2015. Overall there has been no statistically significant change in participation measured over the previous week between 2011 and 2015.

When measured over the previous month and year there appears to have been a decline in cycling participation since 2011:

- Cycling participation over the past month has declined from 27.1% (95% CI: 26.4% - 27.8%) in 2011 to 24.3% (95% CI: 23.5% - 25.4%) in 2015.
- Cycling participation over the past year has declined from 40.2% (95% CI: 39.4% - 40.9%) in 2011 to 36.3% (95% CI: 35.4% - 37.5%) in 2015.

Keywords

National Cycling Strategy, cycling participation, active transport

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About Austroads

Austroads' purpose is to:

- promote improved Australian and New Zealand transport outcomes
- provide expert technical input to national policy development on road and road transport issues
- promote improved practice and capability by road agencies
- promote consistency in road and road agency operations.

Austroads membership comprises the six state and two territory road transport and traffic authorities, the Commonwealth Department of Infrastructure and Regional Development, the Australian Local Government Association, and NZ Transport Agency. Austroads is governed by a Board consisting of the chief executive officer (or an alternative senior executive officer) of each of its eleven member organisations:

- Roads and Maritime Services 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 Transport Northern Territory
- Territory and Municipal Services Directorate, Australian Capital Territory
- Commonwealth Department of Infrastructure and Regional Development
- Australian Local Government Association
- New Zealand Transport Agency.

The success of Austroads is derived from the collaboration of member organisations and others in the road industry. It aims to be the Australasian leader in providing high quality information, advice and fostering research in the road transport sector.

This report has been prepared for Austroads 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.

Austroads 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.

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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 areas within each state and territory.

The primary survey objective is to obtain accurate data on cycling participation to monitor performance towards the National Cycling Strategy 2011-16 target of doubling cycling participation. The 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 elsewhere[1].

The survey is a telephone-based survey of residents of the study area, and includes coverage of mobile-only households[2]. As 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 ABS census 2011 population. The household-level data are weighted to ABS census 2011 household size (1, 2, 3, 4, 5, 6+ usual residents). The number of persons cycling is estimated by expanding the 2011 weights to the estimated resident population for 30 June 2014 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 2015 survey around 30% of the sample was drawn from mobile phones.

1.4 Survey sample

The sample consisted of 8,375 households containing 20,879 persons (Table 1.1). The sample sizes in NSW were much larger than other locations as data from a separate survey instrument was used for metropolitan Sydney. In Queensland additional sampling was undertaken in metropolitan Brisbane at the request of the Brisbane City Council. The total sample sizes are similar to in 2011 and 2013, aside from the larger sample for Queensland.

Table 1.1: Sample sizes

State	Households	Persons
New South Wales	4,393	11,376
Victoria	491	1,247
Queensland	1,094	2,672
South Australia	528	1,194
Western Australia	408	934
Northern Territory	394	980
Tasmania	606	1,356
Australian Capital Territory	461	1,120
Total	**8,375**	**20,879**

2. Results

2.1 Cycling participation

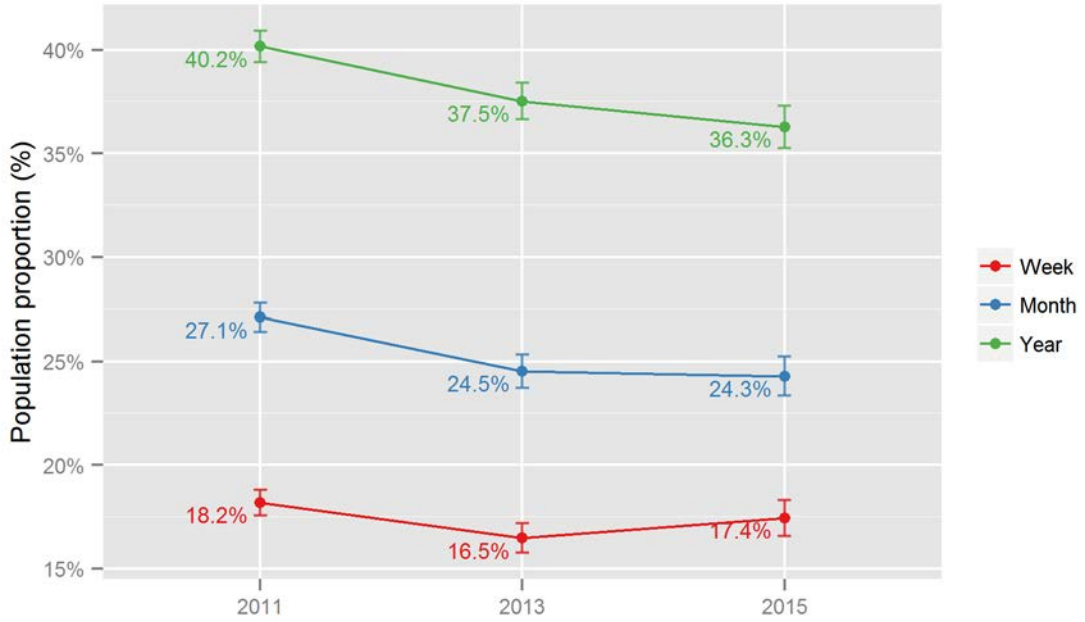
The cycling participation rate across Australia measured over the previous week, month and year is shown in Figure 2.1. Measured over the previous week the cycling participation rate has changed from 18.2% in 2011 (95% CI: 17.6% – 18.8%), to 16.5% (95% CI: 15.8% - 17.2%) in 2013 and 17.4% (95% CI: 16.6% - 18.4%) in 2015. Overall there has been no statistically significant change in participation measured over the previous week between 2011 and 2015.

When measured over the previous month and year there appears to have been a decline in cycling participation since 2011:

Cycling participation over the past month has declined from 27.1% (95% CI: 26.4% - 27.8%) in 2011 to 24.3% (95% CI: 23.5% - 25.4%) in 2015.

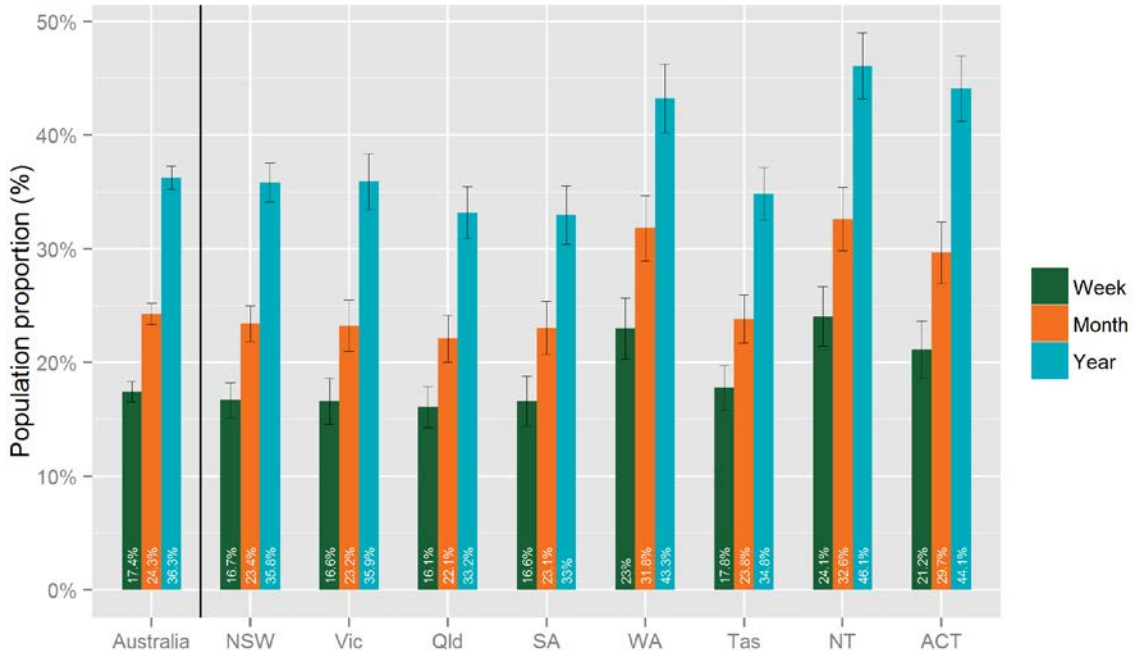
Cycling participation over the past year has declined from 40.2% (95% CI: 39.4% - 40.9%) in 2011 to 36.3% (95% CI: 35.4% - 37.5%) in 2015.

These changes are statistically significant at the 5% level.



■ **Figure 2.1: National cycling participation**

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



■ **Figure 2.2: Cycling participation by state**

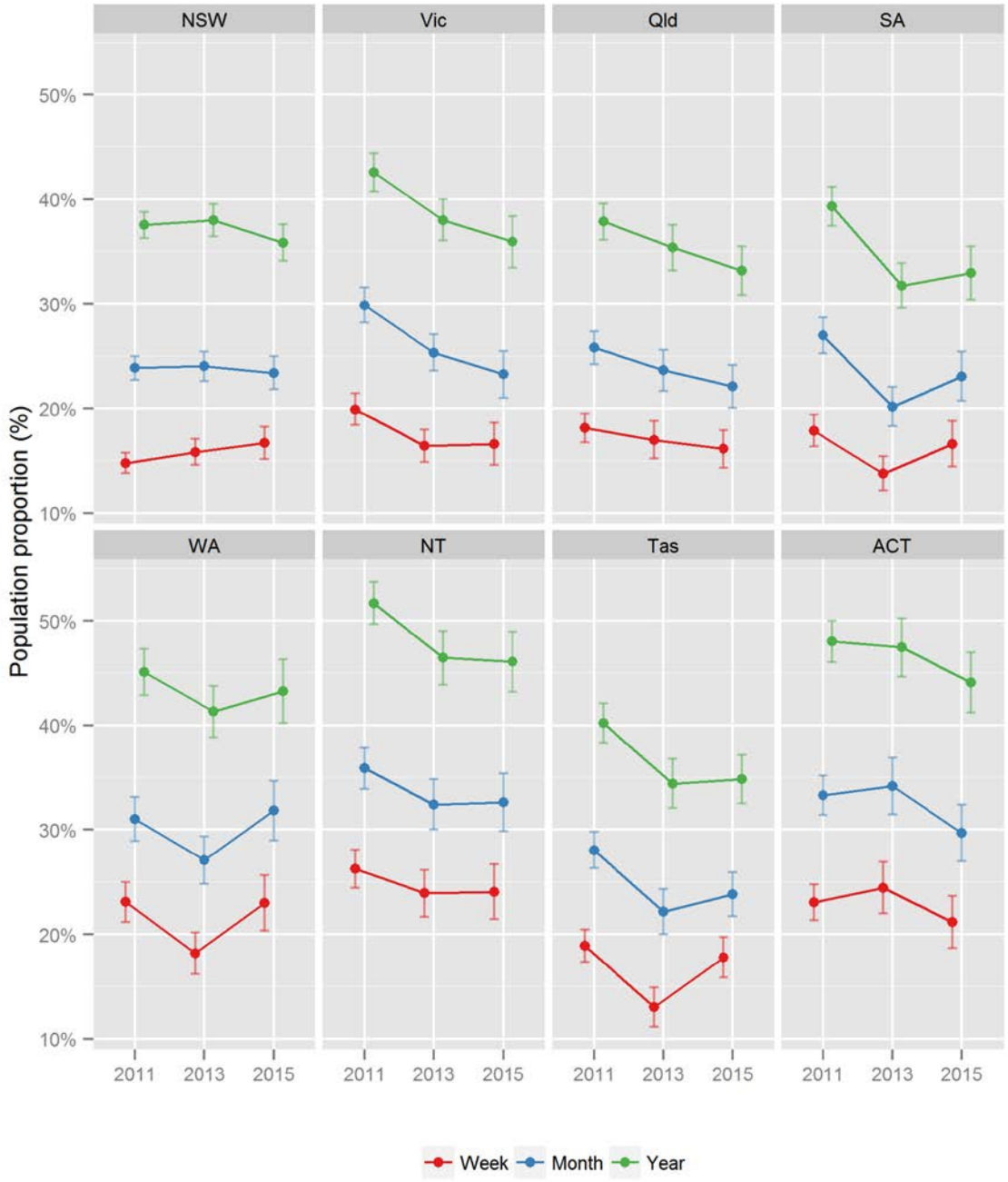
The trends in cycling participation by state and territory are provided in Figure 2.3. Comparing the participation rates in 2011 with those in 2015 and measured over the previous week we conclude that:

NSW has experienced a statistically significant increase in cycling participation.

Victoria and Queensland have experienced a statistically significant decrease in cycling participation

South Australia, Western Australia, the Northern Territory, Tasmania and the ACT have not experienced a statistically significant change in participation.

When measured over the previous year two states and territories experienced no statistically significant change in participation (NSW and Western Australia) while the other six all experienced statistically significant decreases (Figure 2.3).



■ **Figure 2.3: Cycling participation by state and territory**

2.2 Age and gender

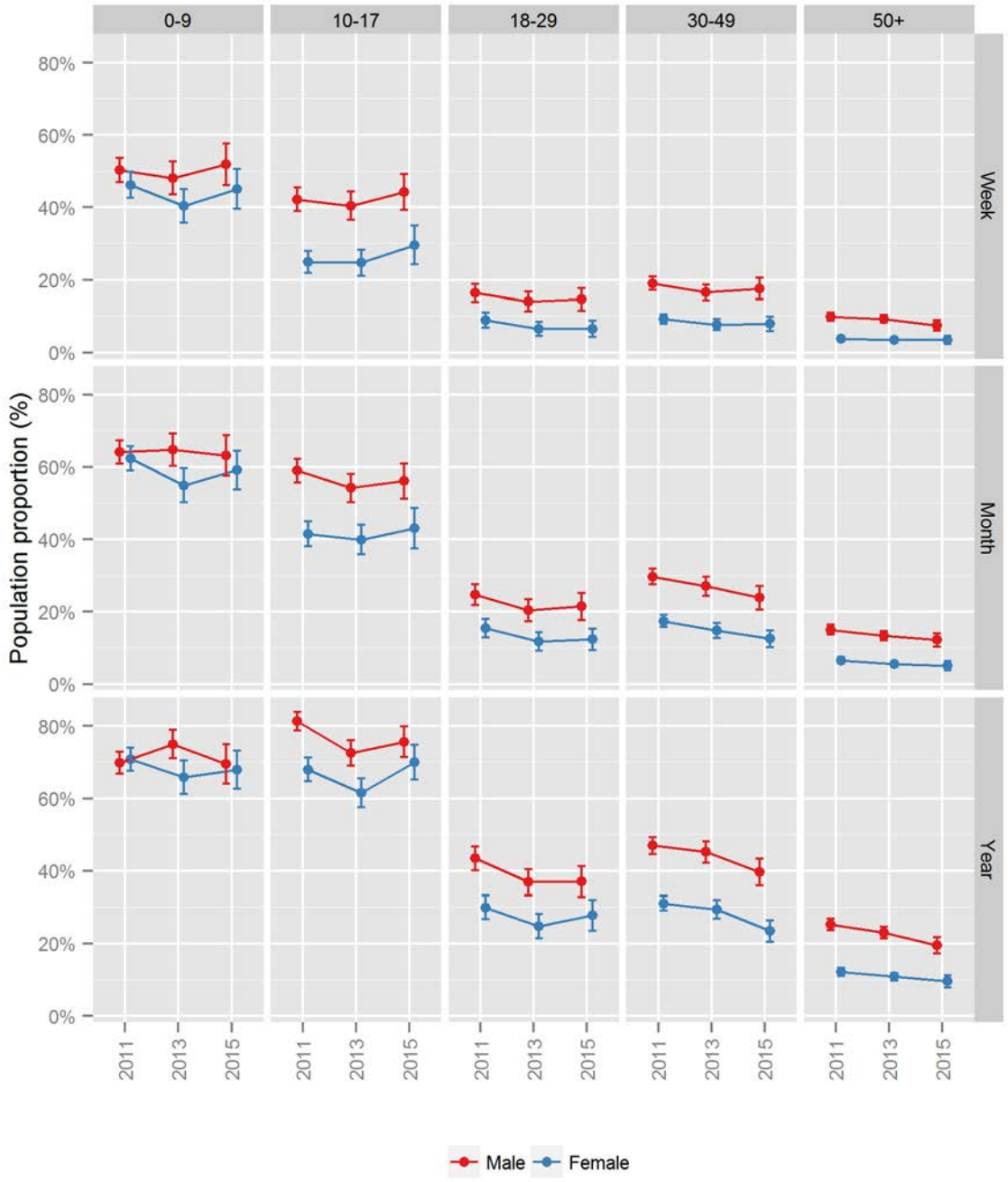
The change in cycling participation by gender and age group is presented in Figure 2.4. Between 2011 and 2015 there has been no statistically significant increases in cycling participation for any gender-age cohort across any of the three participation periods. There have been statistically significant decreases among the following groups:

Week: males aged 50+, females aged 18-29

Month: males aged 30-49 and 50+, females aged 30-49,

Year: males aged 10-17, 18-29, 30-49. 50+.

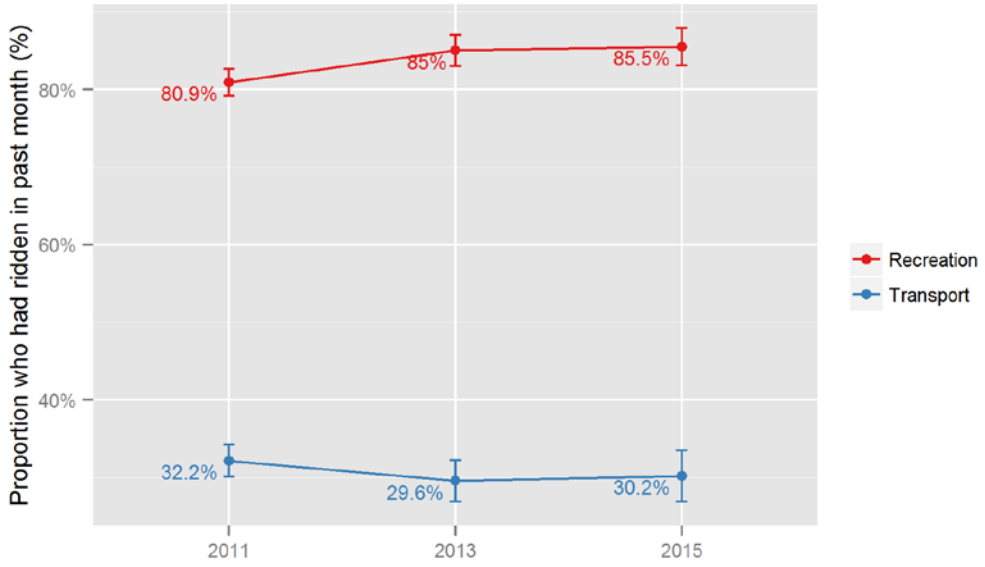
We conclude that there appears to be declining rates of cycling participation among both males and females aged 30 and over when measured over longer periods (i.e. past month and year). We suggest there is no conclusive evidence to suggest childhood or young adult cycling participation rates have changed since 2011.



■ **Figure 2.4: Cycling participation by gender and age group**

2.3 Purpose of travel

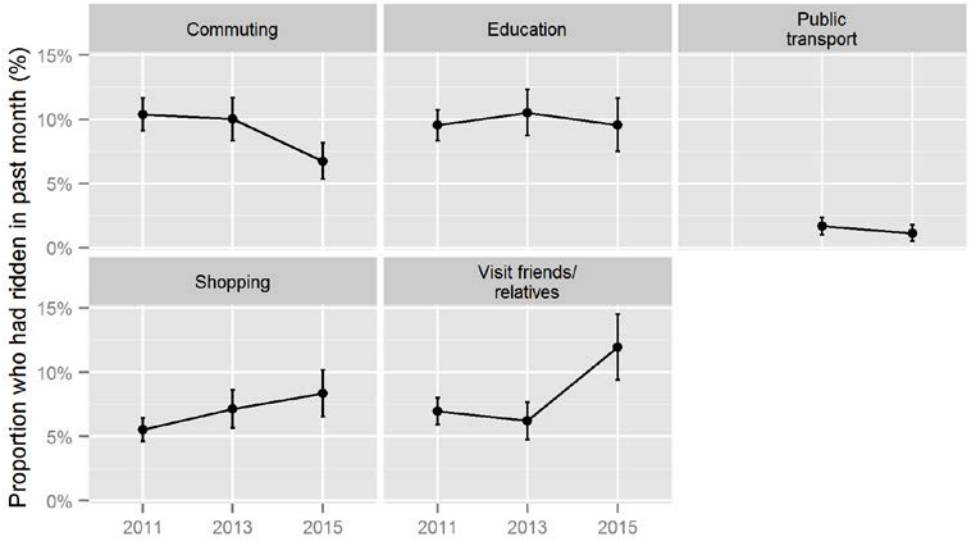
Survey respondents who had ridden in the past week for transport we asked for which purpose(s) they had ridden. When classified by main purpose (i.e. whether the purpose was for transport or recreation) there has been a statistically significant increase in the proportion of those riding in the past week for recreation but no significant change in the proportion riding for transport (Figure 2.5). 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.



■ **Figure 2.5: Main purpose of cycling participation**

Within transport purposes the most common purpose in 2015 was to visit friends or relatives (

Figure 2.6). This is a statistically significant increase on 2011. There has also been an increase in the proportion riding for shopping, but a marked decrease between 2013 and 2015 for commuting.

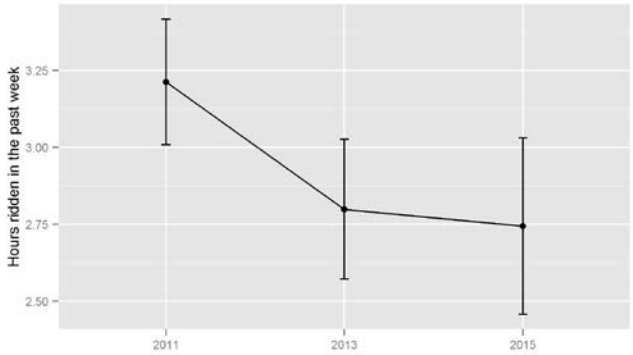


■ **Figure 2.6: Transport purpose**

2.4 Time ridden over past week

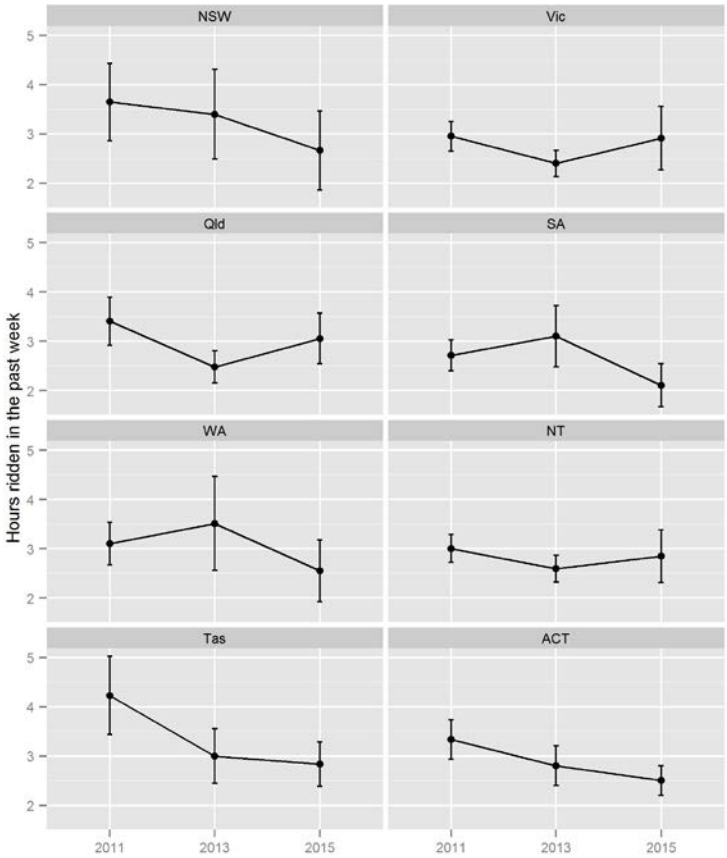
Respondents who had ridden over the past week were asked for an estimate of how much time they had spent riding. We note that this measure is based on respondent recall over the previous week; it is likely to be at best a rough estimate.

The number of hours ridden in 2015 averaged around 2.75 hours; this is significantly different than 2011 but not dissimilar to 2013 (Figure 2.7).



■ **Figure 2.7: Hours ridden in the past week**

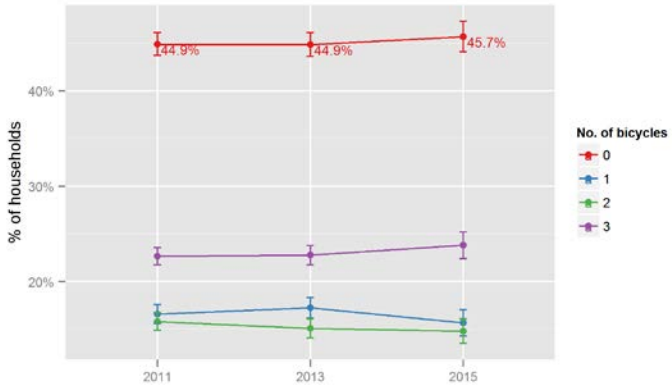
The number of hours ridden has not increased to a statistically significant level between 2011 and 2015 in any state or territory, but has significantly declined in NSW, South Australia, Tasmania and the ACT (Figure 2.8).



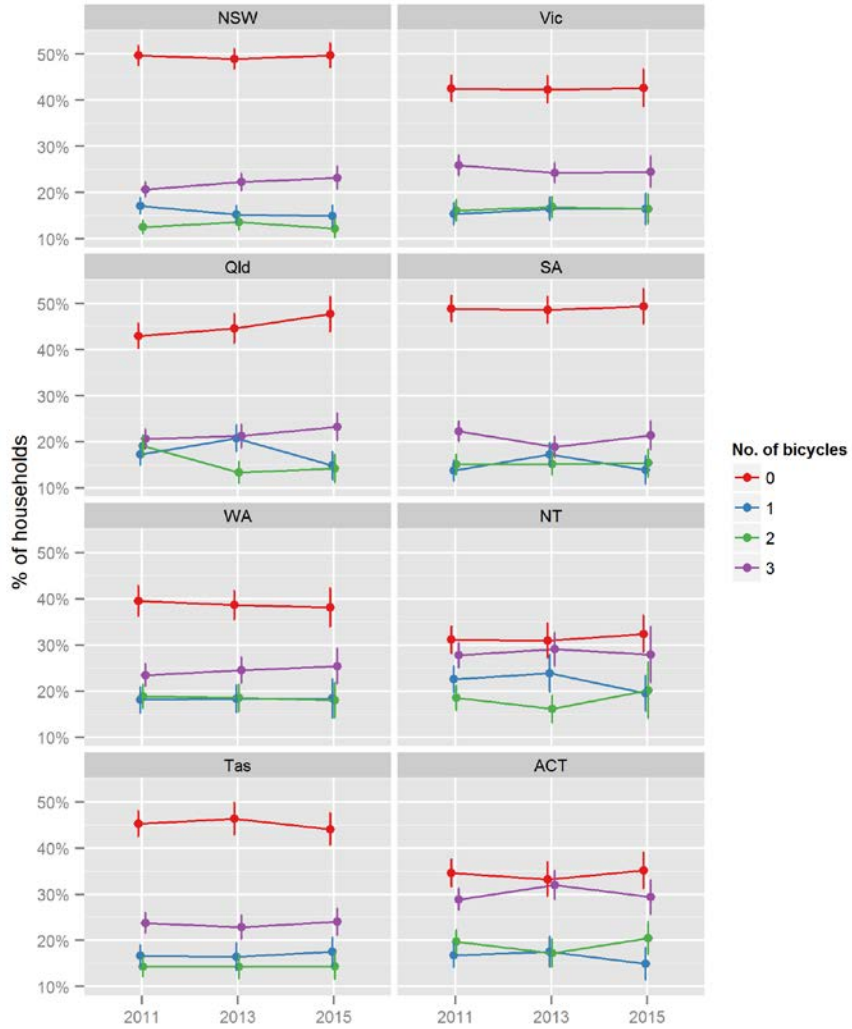
■ **Figure 2.8: Hours ridden in past week by state/territory**

2.5 Bicycle ownership

The number of households in Australia without a working bicycle has remained fairly stable at around 45% of households since 2011 (Figure 2.9). While there has been a significant increase in the proportion of households without a working bicycle in Queensland since 2011 there has been no significant change in other states (Figure 2.10).



■ **Figure 2.9: Bicycle ownership by year**



■ **Figure 2.10: Bicycle ownership by state**

3. Discussion

3.1 Progress towards the NCS target

The NCS target of doubling the number of people cycling between 2011 and 2016 is unlikely to be achieved. This is true irrespective of whether the target is defined as those cycling over a typical week, month or year. Instead, it appears cycling participation has at best remained stable and at worst declined marginally since 2011.

Notwithstanding the absence of growth in cycling participation, the cycling participation rate is very high for physical activity participation, and almost certainly higher than for organised sport activities such as football or cricket. Moreover, the high participation rate makes it all the more challenging to double participation – as the absolute change required is very large. Indeed, we would note that doubling participation when measured over the previous year from 40.2% in 2011 would require a cycling participation rate of 80.4% in 2016. This is highly unlikely to be achievable given that 6.6% of the population are aged under 3 or 80 or older (in September 2014), and a proportion of the remainder will have varying levels of disability that will preclude bicycle riding.

It is possible that the gradual ageing of the Australian population has contributed to the participation trend, and this may increase in future as the Australian population continues to age. The strong correlation between age and cycling participation means that over time, all else being equal, we would expect cycling participation to decline.

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 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.

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 Callback	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

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

GENDER: (RECORD AUTOMATICALLY)

Male	1
Female	2

Q.11. 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.12. 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.13. 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.14 – Q.21 FOR EACH OTHER HOUSEHOLD MEMBER THEN GO TO CLOSE

Q.14. GENDER: What is their gender?

Male	1
Female	2

Q.15. 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.16. 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.17. 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:

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CHILDREN WHO ARE IN A SEAT OR TRAILER ON A BICYCLE

RIDING ON A STATIONARY EXERCISE BICYCLE

Q.18. 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.19. 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.20. 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.

INSERT NO. OF HOURS .....

Q.21. 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.22. 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.....

CLOSE

Q23. 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

Q24. 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)

Q25. Was the date and time of interview correct?

Yes 1

No 2

Q26. Was the interview recorded correctly?

Yes 1

No 2

Q27. Was the interviewer courteous?

Yes 1

No 2

Q28. AUDITOR'S ID

ENTER ID.....

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