



Australian Government
Australian Sports Commission

PARTICIPATION IN VOLLEYBALL BY AUSTRALIAN CHILDREN 2003 – 2012

Report prepared by the Australian Sports Commission



Participation Data for Australian Children 5-14 Year Olds

This report presents data from the ***Children's Participation in Cultural & Leisure Activities Survey (CPCLAS)*** which was administered by the Australian Bureau of Statistics (ABS) in 2003, 2006, 2009 and 2012.

The ***CPCLAS*** collected information about participation in *organised sport outside of school hours* for Australian 5-14 year olds as recalled by their parents.

More details on the ***CPCLAS*** can be found via ABS cat. no. 4901.0 or the following link:

<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4901.0Main+Features1Apr%202012?OpenDocument>

This report has been prepared by the Australian Sports Commission (ASC) and includes some data that has not been presented in previous ABS ***CPCLAS*** publications. The ASC purchased custom data for select sports through the ABS Sports Unit.

The Children's Participation in Cultural & Leisure Activities Survey

The *Children's Participation in Cultural & Leisure Activities Survey* asked parents:

Which sports has [Child name] played or trained for outside of school hours since this time last year?

In each year the survey was administered, a number of parents responded:

*Volleyball**

* In this report participation in indoor and outdoor volleyball is referred to as volleyball. In 2006, newcombe ball was also included in the volleyball category.

Explanatory notes for interpreting the Children's Participation Data

Data from the **CPCLAS** should not be directly compared with results from other sport participation surveys, such as the **Exercise Recreation And Sport Survey (ERASS)** or the **ABS adult sport participation surveys**, without considering the difference in methodology, scope and years.

It should be noted that the **CPCLAS** data:

- Is based upon a different data collection process to the ERASS adults' data
- Is not collected in the same years as the ERASS and ABS adults' data
- Reflects parent responses, while the ERASS and ABS adults' data reflects participant responses
- Reflects participation outside of school hours only, while the ERASS and ABS adults' data also included measures of total participation
- Reflects organised participation only, while information on non-organised participation data was also collected for the ERASS and ABS adults
- Reports different participation frequency categories to the ERASS adults data (e.g. Regular participation for the children's data is defined as 27 times or more a year, while for the adults data is defined as 26 times or more a year)

How to interpret the Children's Participation Data

Some of the data in this report has not been publically released by the ABS. The ASC sourced custom data tables from the ABS containing information relevant for sports. Please note that the ASC did not have access to the raw data. As the ABS reported the total survey sample size (sample size in 2003 = 8,900; sample size in 2006 = 8,682; sample size in 2009 = 5,825; sample size in 2012 = 7,300), it was possible to compare the proportion of Australian children participating in a sport across the four time periods with significance testing. The ABS, however, did not report the sample sizes for the demographic (e.g. age or gender) categories, so it was not possible to conduct significance tests on demographic subgroups. As such, the interpretation of data relating to the demographic subgroups in this report is indicative only.

The ABS does not publically release data with high Relative Standard Errors (RSEs). It is important to note that most of the volleyball data was associated with high (25% – 50%) RSEs and therefore should be interpreted with caution. Labels for data points have not been included on charts where they may be associated with high RSEs. For further information* related to RSEs associated with the data please refer to ABS cat. no. 4901.0.

Please note that scales may differ between charts.

Australian children's population (5–14 year olds) by year from ABS population estimates:

2003: 2,647,500	2006: 2,664,700
2009: 2,722,500	2012: 2,786,100

Participation frequency definitions:

- Annual defined as participating in a given sport at least once a year
- Regular defined as participating in a given sport at least 27 times a year
- Non-regular defined as participating in a given sport at least once but less than 27 times a year

*<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/4901.0Technical%20Note1Apr%202012?opendocument&tabname=Notes&prodno=4901.0&issue=Apr%202012&num=&view=>

Summary of Trends

Summary of General Trends in Children's Participation Among 21 Selected Sports

Between 2003 and 2012 there was a significant increase in children's organised participation in the following sports:

- *Gymnastics* and *rugby union* had a significant increase in annual, regular and non-regular participation rates.
- *Rugby union* had a significant increase in annual and non-regular participation rates.
- *Touch football* and *football* had a significant increase in the non-regular participation rate.

Between 2003 and 2012 there was a significant decrease in children's organised participation in the following sports:

- *Hockey* had a significant decrease in annual, regular and non-regular participation rates.
- *Netball*, *tennis* and *softball* had a significant decrease in annual and regular participation rates.
- *Athletics* had a significant decrease in the annual participation rate.
- *Cricket*, *touch football* and *golf* had a significant decrease in the regular participation rate.

For information on general trends in children's organised participation across sports please refer to the following ABS reports:

1. [http://www.ausport.gov.au/data/assets/pdf_file/0011/276914/ABS - Childrens participation in organised - 2003 - 2006.pdf](http://www.ausport.gov.au/data/assets/pdf_file/0011/276914/ABS_-_Childrens_participation_in_organised_-_2003_-_2006.pdf)
2. [http://www.ausport.gov.au/data/assets/pdf_file/0009/197829/childrens participation in organised sport 2003 2006 survey multi-variate analysis.pdf](http://www.ausport.gov.au/data/assets/pdf_file/0009/197829/childrens_participation_in_organised_sport_2003_2006_survey_multi-variate_analysis.pdf)

Summary of General Trends in Children's Volleyball Participation

Organised volleyball participation

Between 2003 and 2012:

- The ABS estimation of the number of children annually participating in organised volleyball varied around 11,000 (in 2006) and 16,000 (in 2012).
- The ABS estimation of the proportion of Australian children annually participating in organised volleyball varied between 0.40% (in 2006 and 2009) and 0.55% (in 2012).

Across the four time periods, there was no statistically significant change in annual participation rate for children's organised volleyball.

Comparison of regular v. non-regular organised volleyball participation

In 2006 and 2009 the non-regular participation rate for children's organised volleyball was statistically significantly higher than the regular participation rate. In 2003 and 2012 there were no significant differences between the regular and non-regular participation rates.

Demographic analysis of organised volleyball participation

Both the age and gender estimates for organised children's volleyball reported high RSEs (in the range of 25%-50%). Therefore, fluctuations across the four time periods for the different age and gender categories should be interpreted with caution.

For all four time periods, the ABS estimated that a much higher number of 12-14 year olds than 5-11 year olds participated in organised volleyball at least once a year.

Organised* Participation in Volleyball^

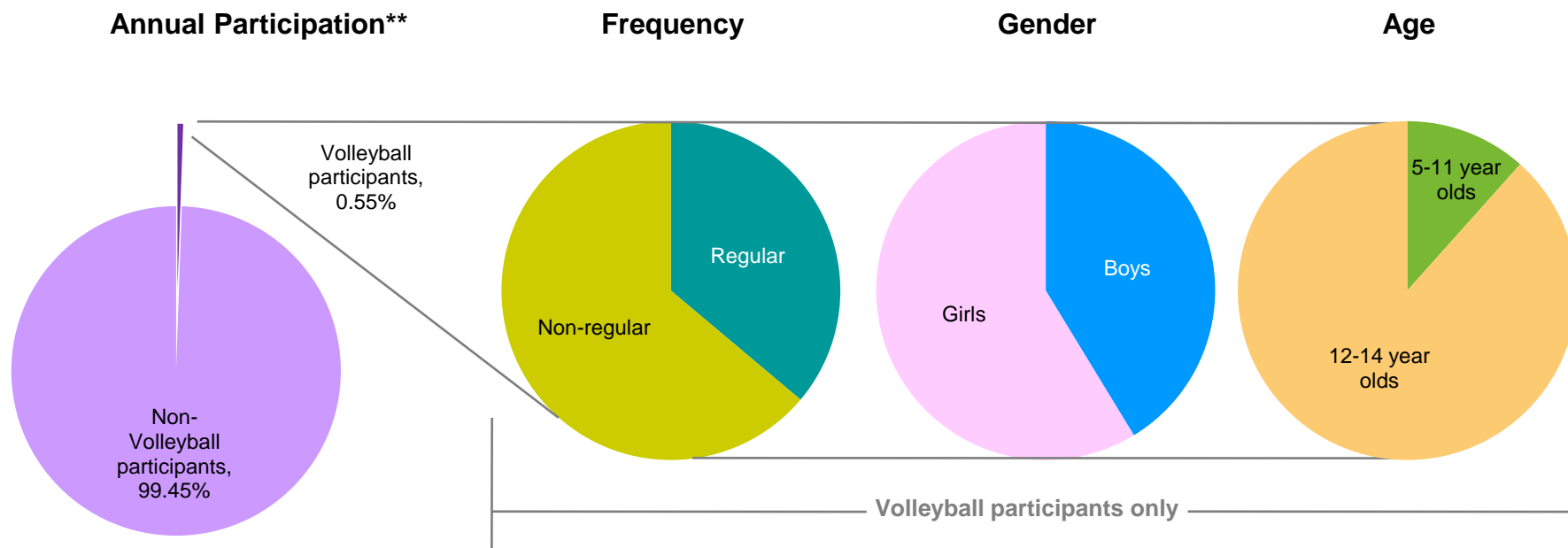
* The CPCLAS refers to “organised sport” as a sport which is played or trained for outside of school hours and is organised by a school, club or association

^ Includes indoor and outdoor volleyball. In 2006, newcombe ball was included in the volleyball category.

Current Participation Status (2012)

Interpretive Notes

- 0.55% of the Australian children's population participated in organised volleyball at least once in 2012.
- In 2012 there was estimated to be more children participating in organised volleyball non-regularly than regularly, although this difference was not found to be statistically significant.
- Just over half of the estimated annual organised volleyball participants were girls*.
- The majority of annual organised volleyball participants were aged 12-14 years*.

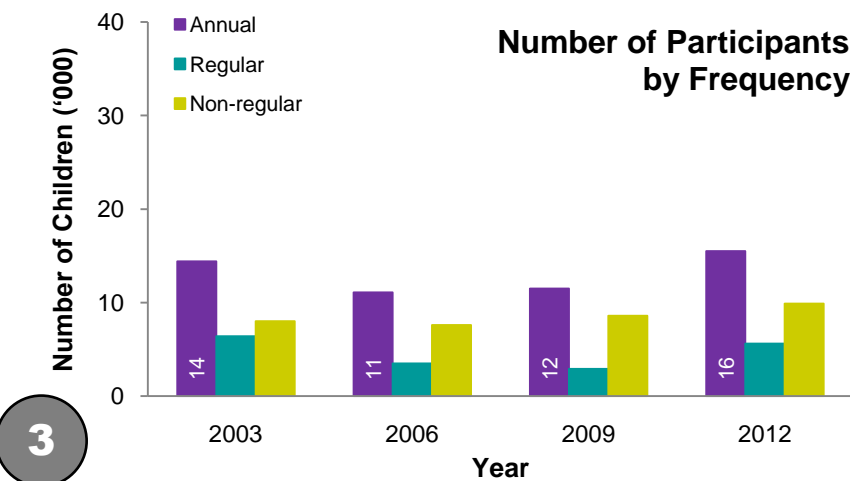
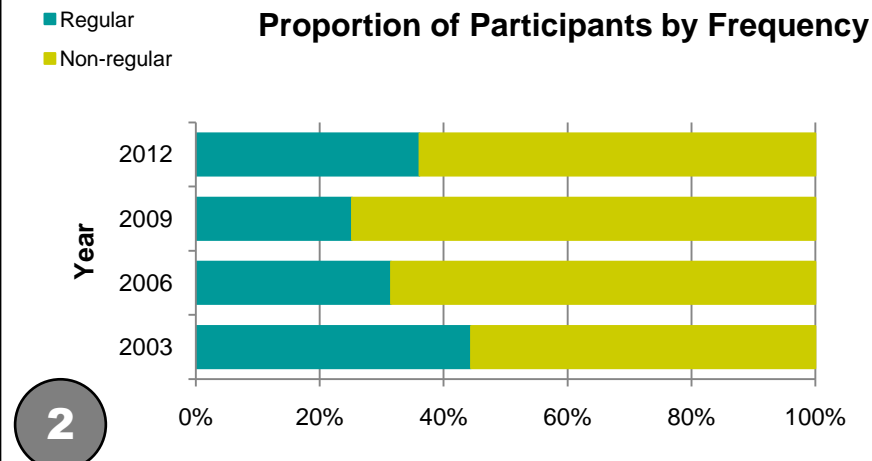
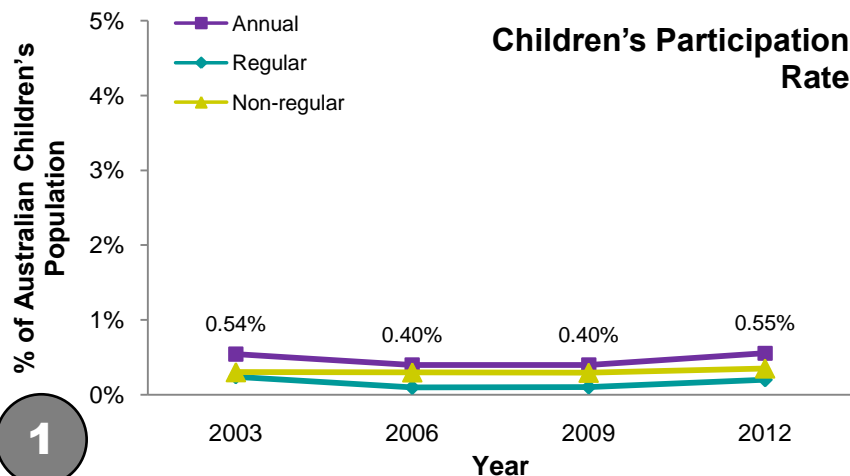


*As the ABS did not report the survey sample sizes for the demographic (e.g. age or gender) categories it was not possible to conduct a significance test on the demographic subgroups

**Based on the 2012 ABS population estimate for Australian 5-14 year olds

A one sample Difference in Proportions T-Test at 95% confidence level was used to compare regular and non-regular participation rates

2003 – 2012 Participation by Frequency



Interpretive Notes

Between 2003 and 2012, the ABS estimation of the number of children annually participating in organised volleyball varied around 11,000 (in 2006) and 16,000 (in 2012).

Between 2003 and 2012, the ABS estimation of the percentage of Australian children annually participating in organised volleyball varied between 0.40% (in 2006 and 2009) and 0.55% (in 2012).

Across the four time periods, there was no statistically significant change in annual participation rate for children's organised volleyball.

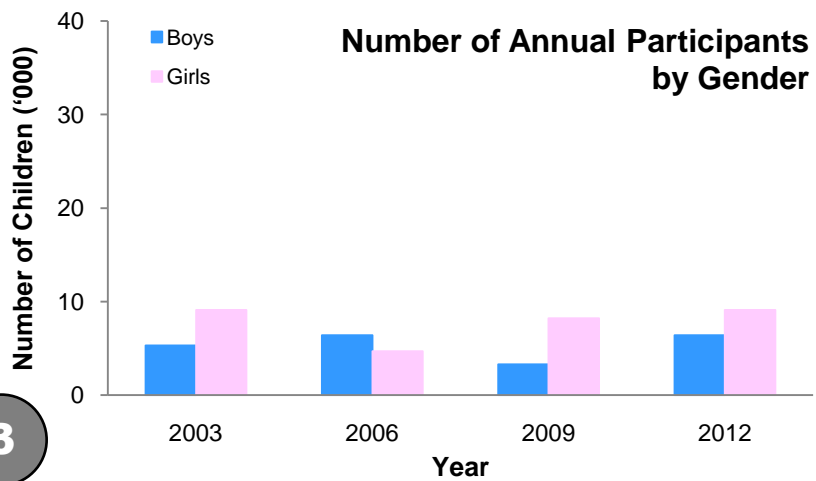
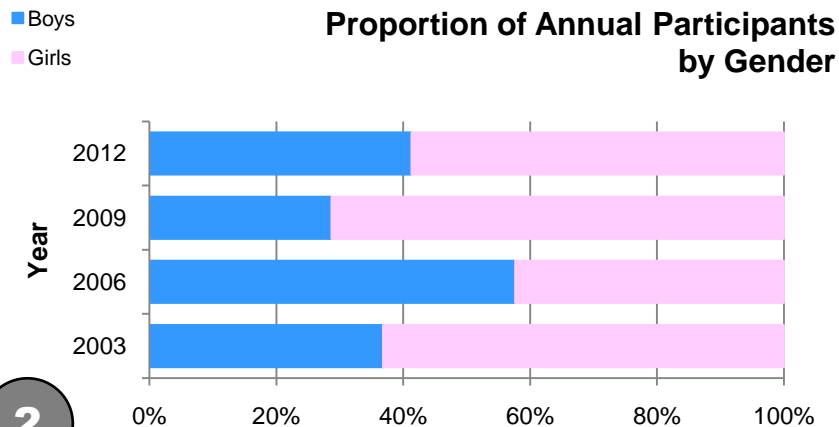
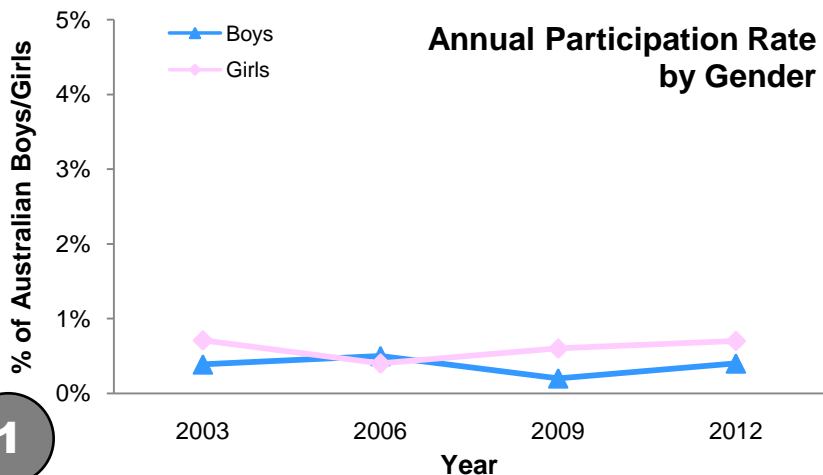
In 2006 and 2009 the non-regular participation rate for children's organised volleyball was statistically significantly higher than the regular participation rate. In 2003 and 2012 there were no significant differences between the regular and non-regular participation rates.

Note: A two sample Difference in Proportions T-Test at 95% confidence level was used to compare the percentage of Australian 5-14 year olds participating across the four time periods. A one sample Difference in Proportions T-Test at 95% confidence level was used to compare regular and non-regular participation rates.

Demographic Analysis*

* Demographic analysis only available for annual participation due to high RSEs/small sample sizes for regular participation. Limited data is available for regular participation as a result of ABS confidentialisation processes. For annual participation, gender was the only demographic with sufficient data for analysis.

Participation by Gender



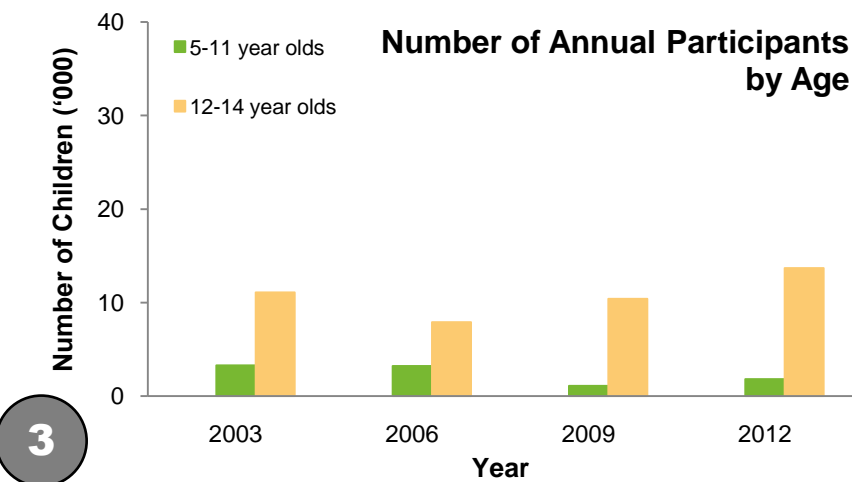
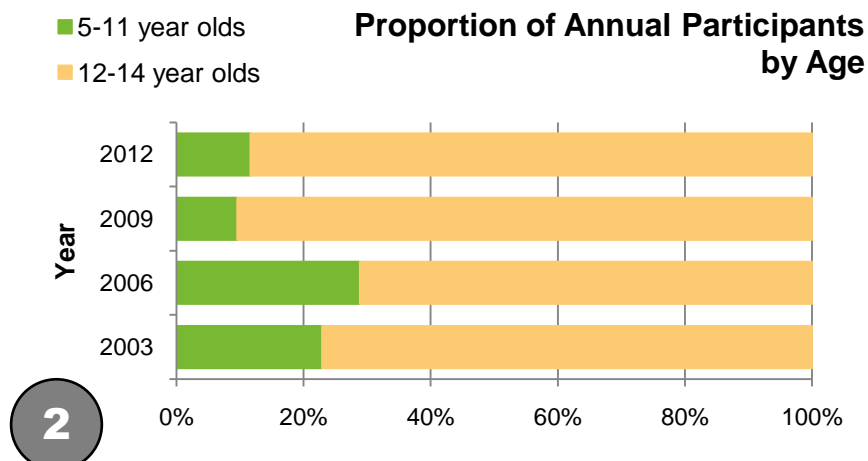
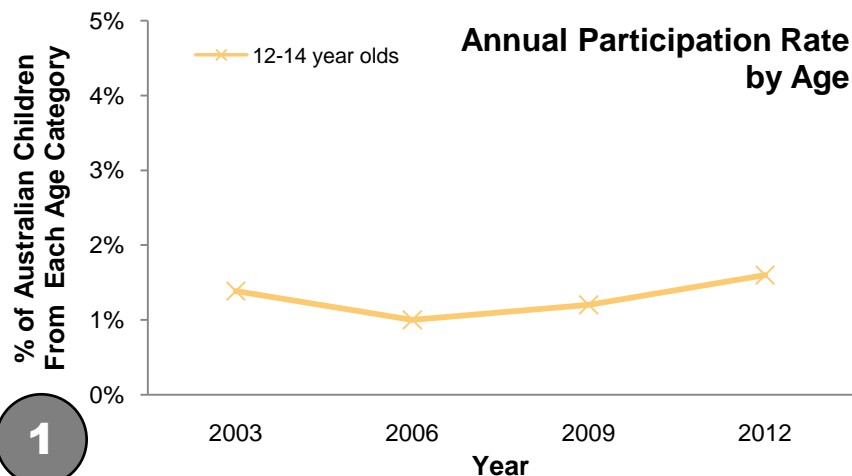
Interpretive Notes

The data presented on this slide appears to indicate the following:

- In 2003, 2009 and 2012 more girls than boys were estimated to participate in organised volleyball at least once a year, while in 2006 it was estimated that there were more boys than girls participating in organised volleyball annually.

The gender estimates were associated with high RSEs (in the range of 25%-50%). Therefore, fluctuations across the four time periods for the different gender categories should be interpreted with caution.

Participation by Age



Interpretive Notes

The data presented on this slide appears to indicate the following:

- The estimated proportion of 5-11 year olds participating in organised volleyball was so small that the ABS confidentialised the data.
- For all four time periods, the ABS estimated that more 12-14 year olds than 5-11 year olds participated in organised volleyball at least once a year.

The age category estimates were associated with high RSEs (in the range of 25%-50%). Therefore, fluctuations across the four time periods and comparisons of the different age categories should be interpreted with caution.

Sport Comparison

Ranking of Selected Sports According to Annual Participation

2012 Ranking	SPORT	2003 Ranking	↑ ↓
1	Swimming	1	-
2	Football	2	-
3	Australian Football	6	↑ 3
4	Netball	3	↓ 1
5	Basketball	5	-
6	Tennis	4	↓ 2
7	Gymnastics	9	↑ 2
8	Cricket	7	↓ 1
9	Rugby League	10	↑ 1
10	Track and Field Athletics	8	↓ 2
11	Rugby Union	14	↑ 3

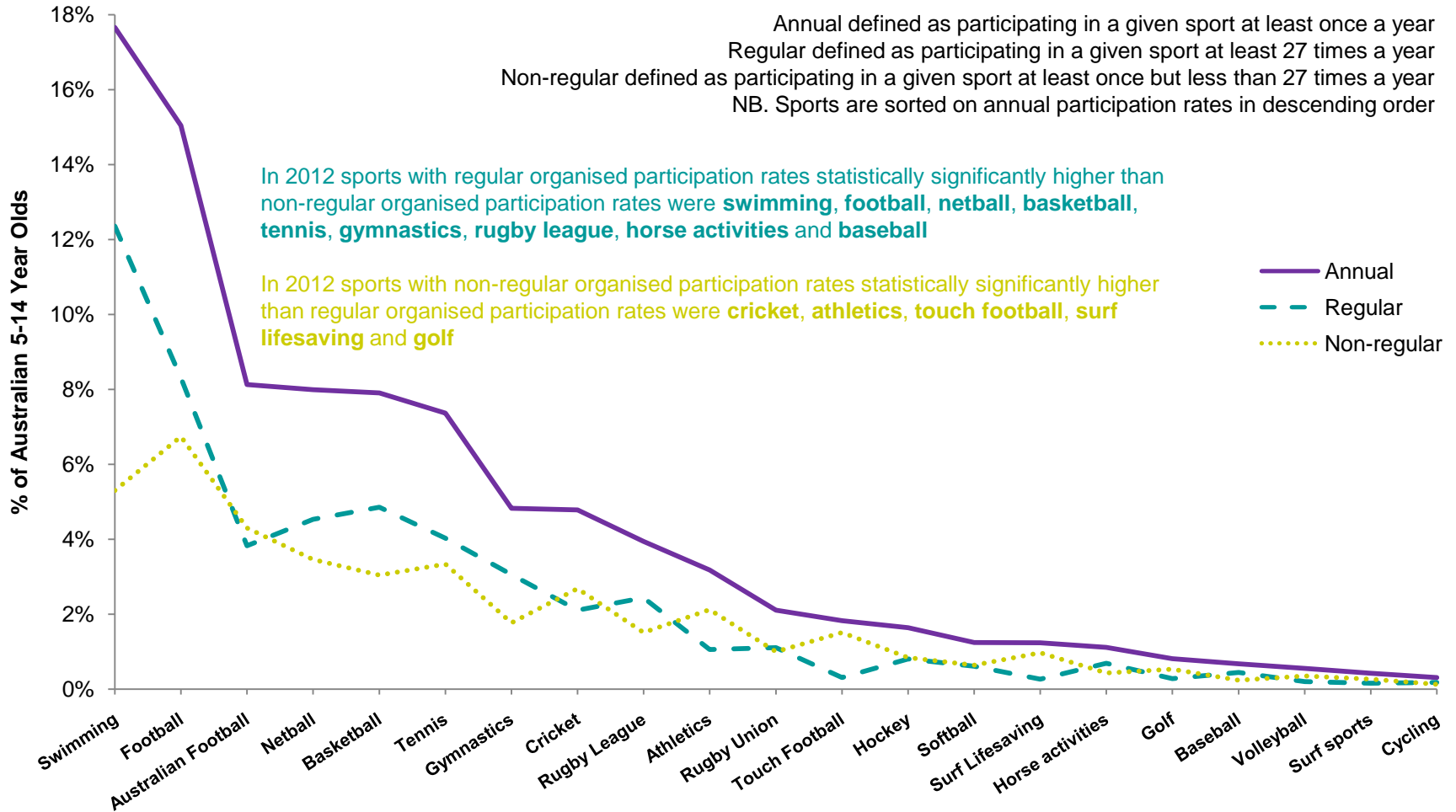
2012 Ranking	SPORT	2003 Ranking	↑ ↓
12	Touch Football	13	↑ 1
13	Hockey	11	↓ 2
14	Softball	12	↓ 2
15	Surf Lifesaving	16	↑ 1
16	Horse activities	15	↓ 1
17	Golf	17	-
18	Baseball	18	-
19	Volleyball	19	-
20	Surf sports	21	↑ 1
21	Cycling	20	↓ 1

The Table represents a ranking of 21 selected sports

Table sorted on 2012 rankings

#1 ranking = sport with the highest participation among the 21 selected sports

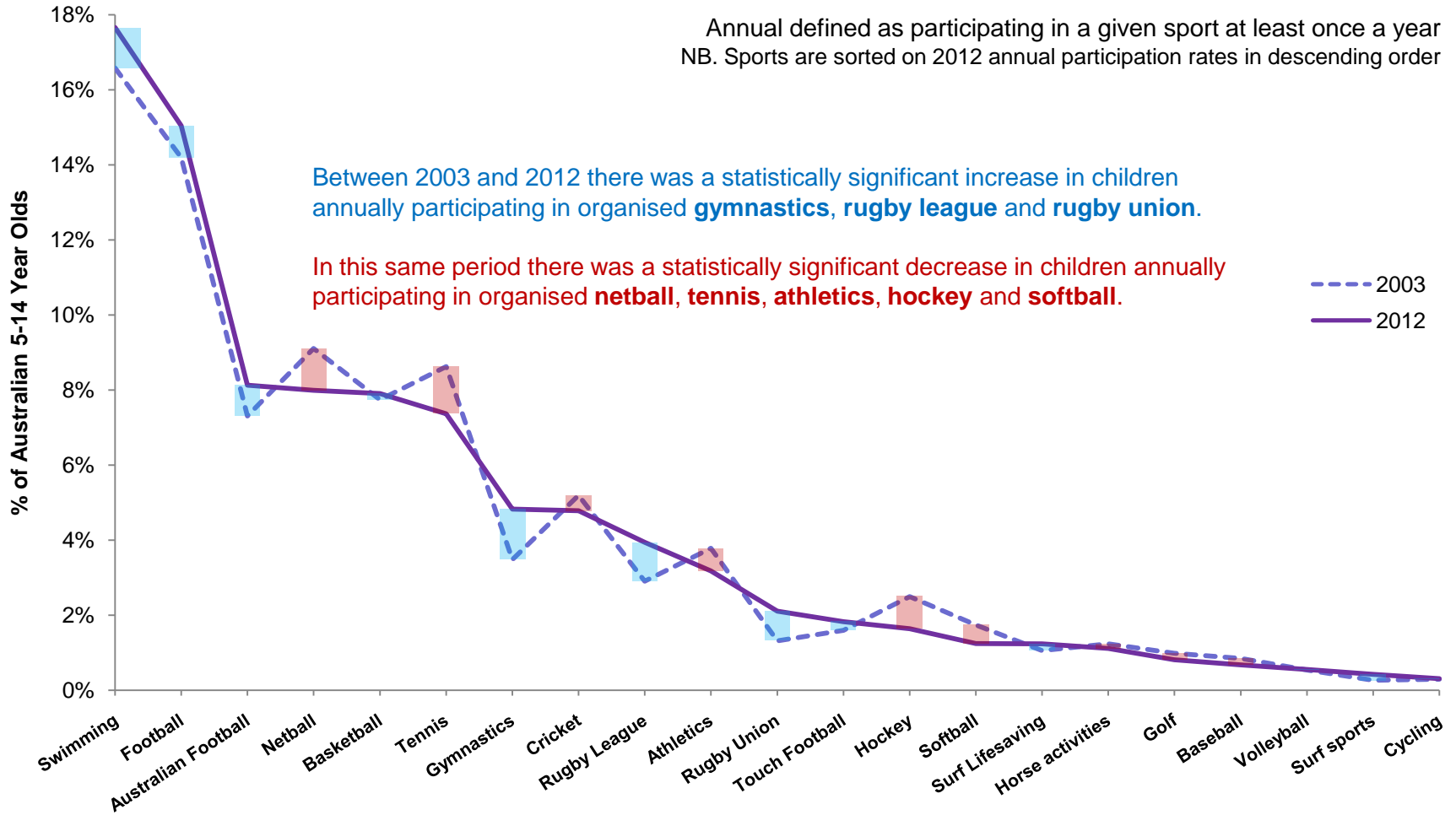
2012 Annual v. Regular v. Non-regular Participation Rates for Selected Sports



Note: A one sample Difference in Proportions T-Test at 95% confidence level was used to compare regular and non-regular participation rates.

2003 v. 2012 Annual Participation Rates for Selected Sports

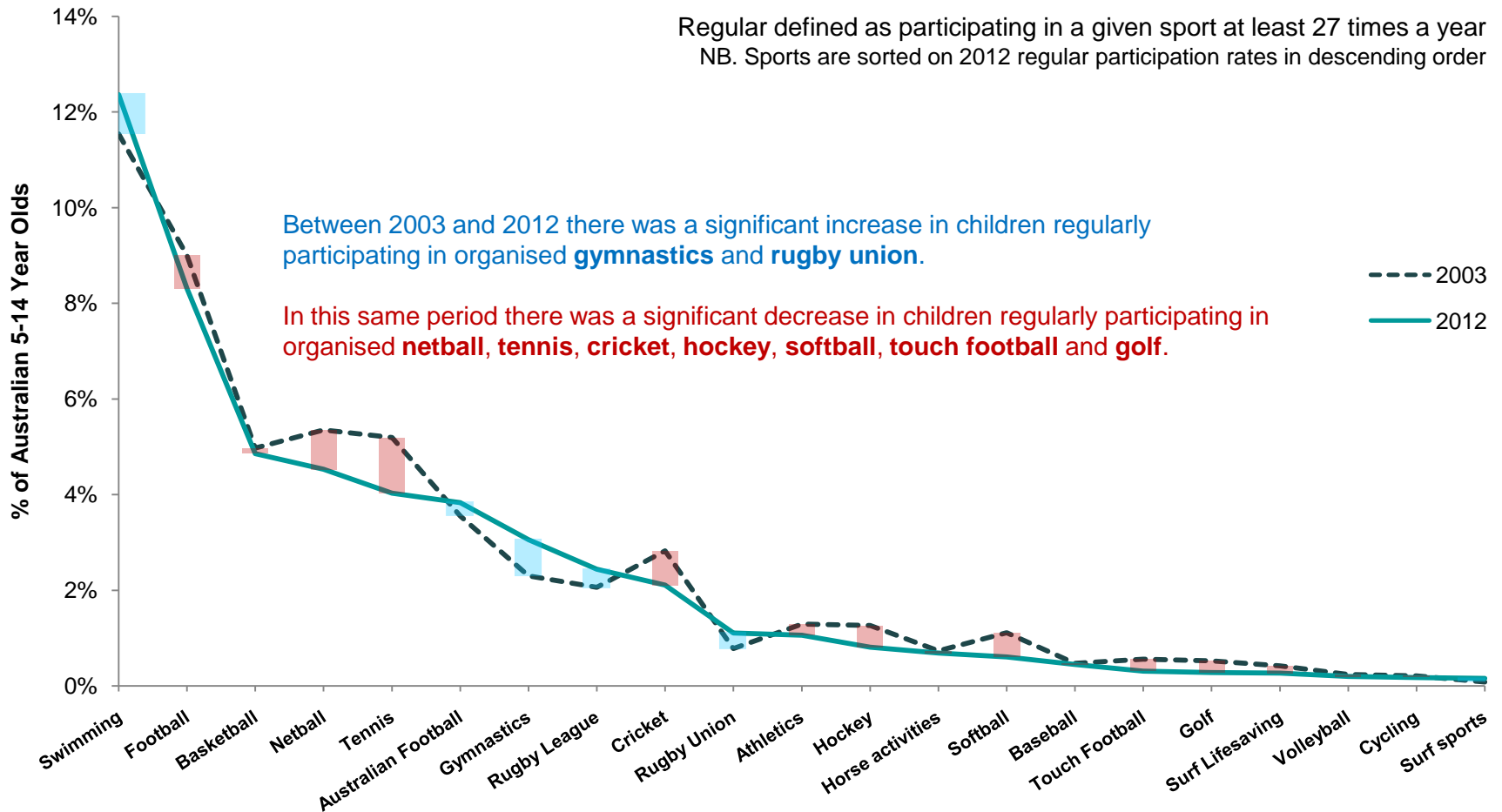
Annual defined as participating in a given sport at least once a year
 NB. Sports are sorted on 2012 annual participation rates in descending order



Note: A two sample Difference in Proportions T-Tests at 95% confidence level was used to compare the percentage of Australian 5-14 year olds participating in 2003 and 2012.

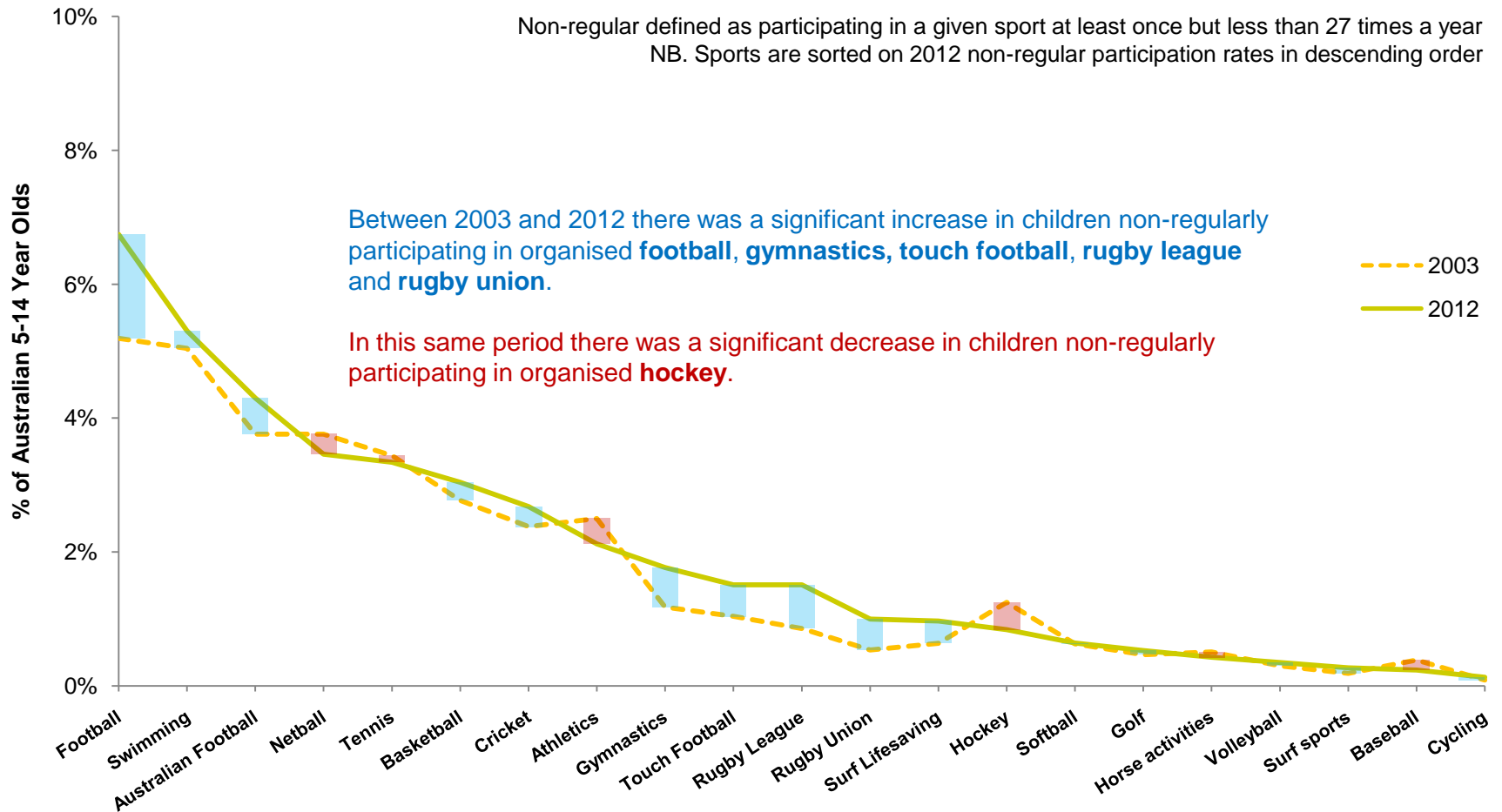
2003 v. 2012 Regular Participation Rates for Selected Sports

Regular defined as participating in a given sport at least 27 times a year
 NB. Sports are sorted on 2012 regular participation rates in descending order



Note: A two sample Difference in Proportions T-Tests at 95% confidence level was used to compare the percentage of Australian 5-14 year olds participating in 2003 and 2012.

2003 v. 2012 Non-regular Participation Rates for Selected Sports



Note: A two sample Difference in Proportions T-Tests at 95% confidence level was used to compare the percentage of Australian 5-14 year olds participating in 2003 and 2012.