



**Australian  
Bureau of  
Statistics**

**INVOLVEMENT IN SPORT  
AUSTRALIA  
MARCH 1993**



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**INVOLVEMENT IN SPORT  
AUSTRALIA  
MARCH 1993**

**IAN CASTLES**  
*Australian Statistician*

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## PREFACE

This publication has been prepared by the ABS's National Culture/Leisure Statistics Unit, established within the Adelaide Office of the ABS in 1991.

The publication contains results from supplementary questions to the Monthly Population Survey of March 1993. These questions were asked to obtain national data about the population's involvement in sport.

Data in this publication show the numbers and basic demographic characteristics of persons involved in sport at some time during the 12 months ended March 1993. It also gives data on the types of involvement and whether payment was received for each type of involvement.

Additional State/Territory data in similar format to the national data which is presented in this publication can be ordered from the ABS. Other special tabulations may also be available on request.

Information on the concepts and methods used in this survey, definitions and interpretation and reliability of the results are given in the Explanatory Notes (pages 12–13), Technical Note (page 14) and Glossary (page 16).

**IAN CASTLES**  
Australian Statistician

Australian Bureau of Statistics  
CANBERRA ACT  
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### INQUIRIES

- *for more information about statistics in this publication and the availability of related unpublished statistics, contact Roger Mableson on Adelaide (08) 237 7449 or any ABS State Office.*
  - *for information about other ABS statistics and services please contact Information Services on Canberra (06) 252 6627, 252 5402, 252 6007 or any ABS State Office.*
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## INVOLVEMENT IN SPORT

*In March 1993, a survey was conducted throughout Australia of persons 15 years of age and over. It obtained information about their involvement in sport during the previous 12 months.*

*This publication provides details of the extent and nature of sporting involvement by Australians aged 15 and over based on that survey.*

*Involvement in sport was defined to include both paid and unpaid participation in playing and non-playing capacities. Persons were asked if they had been involved in sport. Where they were unsure whether activities were classified as sport, a list of sports was shown to the respondent. This list is presented in Appendix A (see page 18). Spectator involvement in sport was excluded.*

*Details of all definitions used in the survey are contained in the Glossary on page 16.*

### MAIN FEATURES

During the 12 months ended March 1993

- 4.5 million people or 33.1 per cent of the Australian population aged 15 years or more were involved in sport;
- males had a significantly higher rate of involvement in sport than females – participation rates were 39.4 per cent for males and 26.9 per cent for females. Most of the difference between males and females was attributable to players. For non-players, males had only a slightly higher participation rate;
- the 15–24 years age group had the highest player participation rate for any age group, with almost 50 per cent being involved. For non-players, the 35–44 year age group had the highest participation (16.9 per cent);
- the participation rate for Australian born persons was 37.6 per cent whilst that for persons born overseas was 21.2 per cent;
- almost 4 million people were involved in sport as a player at some time during the year, whilst just over 540,000 persons were involved solely in a non-playing capacity;
- only 213,300 persons (less than 5 per cent) received some payment for their involvement. Coaching, instructing or teaching of sport was the activity for which most persons were paid (97,800 persons);

**SUMMARY OF FINDINGS**

**INVOLVEMENT IN SPORT**

There were 4.5 million people, or 33.1 per cent of all persons 15 years and over, involved in sport either as players, non-players or both, during the 12 months ending March 1993. Only 4.7 per cent of those involved (213,300 persons) received some payment for their participation.

**CHARACTERISTICS OF PERSONS INVOLVED: SEX**

Participation rates for males were higher than those for females in all States and Territories (see Table 1). Overall, 39.4 per cent of males (2.7 million) were involved in sport compared with 26.9 per cent of females (1.8 million).

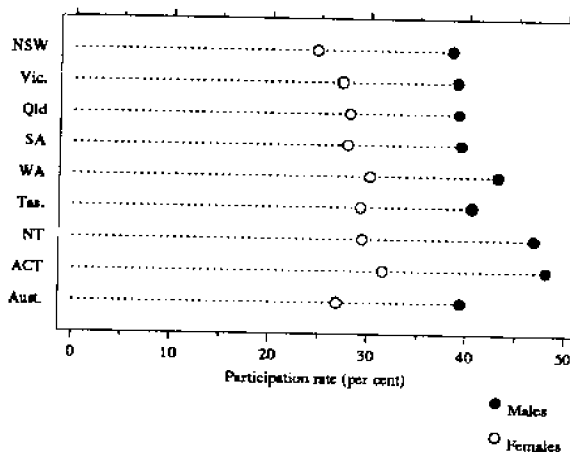
Table 3 presents details according to playing status.

The number of males whose only involvement in sport was as a player amounted to 1.9 million, a participation rate of 27.7 per cent, whilst the comparative figures for females were 1.2 million, 17.7 per cent. For people involved in a non-playing capacity only, there was a similar number of females participating as there was males. 263,200 females (3.8 per cent) were involved solely as non-players while the number of males in this group was 278,100 (4.1 per cent)

**CHARACTERISTICS OF PERSONS INVOLVED: RESIDENCE**

The highest participation rate for involvement in sport was for people resident in the ACT (39.6 per cent or 90,300 persons), closely followed by those living in the Northern Territory (38.3 per cent or 43,500 persons) (see Table 1). The lowest rate was observed in NSW (31.4 per cent) where an estimated 1.5 million persons were involved in sport during the 12 months ending March 1993.

**PARTICIPATION RATES BY STATE AND SEX**

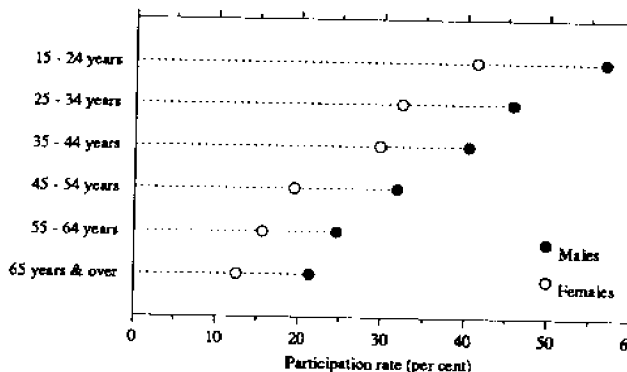


The participation rates for capital city residents were lower than those of people living in rest of State regions for both paid and unpaid involvement (see Table 2). For capital city residents the rate for all involvement in sport was 31.1 per cent. The corresponding figure for persons in rest of State regions was 36.8 per cent.

**CHARACTERISTICS OF PERSONS INVOLVED: AGE**

The youngest age group (15-24 year olds) had the highest participation rate for both paid and unpaid involvement in sport (see Table 2). The overall participation rate of 49.2 per cent represented involvement in sport by 1.3 million people of this age group.

**PARTICIPATION RATES BY AGE AND SEX**



Participation rates declined in each subsequent age group. Those in the oldest age grouping, 65 years and over had a rate of involvement of 16.5 per cent (309,400 persons). Non-players have different age-specific participation rates than players (see Table 3). The participation rate for non-playing involvement rose from 10.0 per cent for the youngest age group to peak at 16.9 per cent (450,100 persons) for those 35-44 years of age. The rate then steadily declined to 3.2 per cent (59,200 people) for persons 65 years or more.

#### CHARACTERISTICS OF PERSONS INVOLVED: EMPLOYMENT STATUS

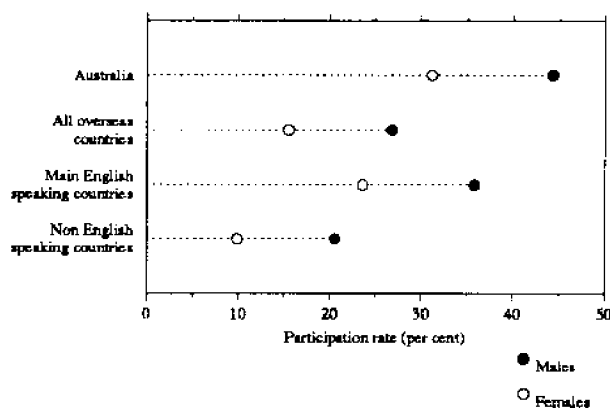
Involvement in sport was cross classified with employment status as reported in the survey for the week prior to interview. Overall, 3.1 million persons, or 39.7 per cent of employed Australians, were involved in sport at some time during the 12 months ending March 1993 (see Tables 2 and 3). There was little difference in the participation rates between persons employed full-time and part-time.

Unemployed persons and those not in the labour force for the week prior to the survey had participation rates in sport over the previous 12 months of 31.2 per cent (310,800 persons) and 23.1 per cent (1.1 million persons) respectively.

#### CHARACTERISTICS OF PERSONS INVOLVED: COUNTRY OF BIRTH

Australian born persons had a higher participation rate in sport (37.6 per cent) than those born outside of Australia (21.2 per cent) (see Tables 2 and 3). Of the latter group, migrants from the main English speaking countries had a participation rate almost double that of people born in non-English speaking countries. Those rates were 29.8 per cent and 15.3 per cent respectively.

PARTICIPATION RATES BY COUNTRY OF BIRTH AND SEX



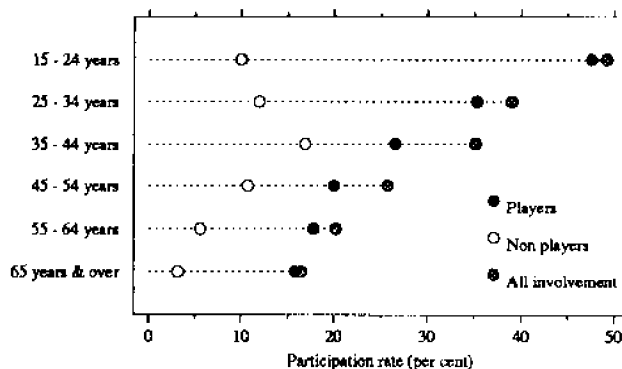
#### TYPE OF INVOLVEMENT

Table 3 presents selected demographic characteristics of players and non-players as a group in terms of both numbers involved and participation rates.

Involvement was classified as paid if a person had received any payment at all for that participation (see Glossary).

There were 4.0 million persons or 29.1 per cent of Australians aged 15 years or more who played sport at some time in the 12 months ending March 1993 (see Table 3). Less than 1.5 per cent of them (57,000) received payment for their playing involvement (see Table 4). 878,400 persons playing sport (22.2 per cent of all players) also had involvement as non-players (see Table 3).

PARTICIPATION RATES BY AGE AND PLAYING STATUS



*Non-player*

A total of 1.4 million persons (a participation rate of 10.4 per cent) were involved in sport in a non-playing capacity during the reference period. Of those, 38.1 per cent (541,300 persons) had no playing involvement at all, with little difference in the participation rate of males and females.

Females whose only involvement in sport was as non-players had higher participation rates than those of males for the youngest 3 age groups (*i.e.* 15–24 years, 25–34 years and 35–44 years) and all classifications of employment status, except full-time employed (*see* Table 3).

There were 4 types of non-playing involvement identified. These are shown, together with player involvement, in Table 4. Persons could have been involved in more than one type of involvement.

*Coach/instructor/teacher*

There were 531,500 people, a participation rate of 3.9 per cent, involved in the tuition of sport, 97,800 (18.4 per cent of those teaching) of whom had paid involvement. This was the largest number and highest rate of paid involvement of any type of involvement in sport.

*Referee/umpire*

Of the 425,800 people who refereed or umpired sport (a participation rate of 3.1 per cent), 63,100, or 14.8 per cent all umpires and referees, received payment.

*Administrator/committee member*

Involvement in an administrative capacity or as a committee member was the non-playing role for which most numbers were recorded. There were 630,900 persons with this type of involvement, 604,900 of whom did so solely on a voluntary basis.

*Other involvement*

There were 394,300 people who had involvement in other non-playing capacities, most (378,900) of whom were involved as volunteers. Only 15,400 persons received payment for this role.

TABLE 1 – PERSONS WITH PAID AND UNPAID INVOLVEMENT IN SPORT BY SEX AND STATE, AUSTRALIA

<i>State of usual residence</i>	<i>Paid involvement</i>	<i>Unpaid involvement only</i>	<i>Paid and unpaid involvement</i>	<i>All sport involvement</i>	<i>No involvement</i>	<i>Total persons</i>	<i>Participation rate</i>
	'000	'000	'000	'000	'000	'000	<i>Per cent</i>
<b>MALES</b>							
NSW	21.2	841.0	14.5	876.7	1,409.6	2,286.4	38.3
Vic.	18.8	629.7	18.9	667.4	1,046.2	1,713.6	38.9
Qld	9.3	437.0	12.5	458.7	717.2	1,175.9	39.0
SA	6.0	212.9	5.3	224.2	346.1	570.3	39.3
WA	6.4	267.0	7.7	281.1	370.4	651.5	43.1
Tas.	2.2	66.8	1.8	70.8	104.1	174.8	40.5
NT	*0.4	25.7	*1.2	27.3	31.0	58.3	46.8
ACT	1.6	50.5	1.9	54.0	58.6	112.6	48.0
<b>Aust.</b>	<b>65.8</b>	<b>2,530.7</b>	<b>63.7</b>	<b>2,660.2</b>	<b>4,083.2</b>	<b>6,743.4</b>	<b>39.4</b>
<b>FEMALES</b>							
NSW	10.2	550.7	12.4	573.3	1,758.9	2,332.2	24.6
Vic.	8.8	457.7	12.1	478.6	1,280.3	1,758.9	27.2
Qld	7.7	314.5	8.4	330.6	851.7	1,182.2	28.0
SA	2.9	153.8	5.3	162.0	420.7	582.7	27.8
WA	5.6	184.7	5.1	195.4	452.7	648.1	30.1
Tas.	*1.1	50.2	*1.1	52.4	127.1	179.4	29.2
NT	*0.2	15.7	*0.3	16.2	39.0	55.2	29.4
ACT	1.3	33.7	1.3	36.3	79.1	115.4	31.5
<b>Aust.</b>	<b>37.8</b>	<b>1,760.9</b>	<b>46.0</b>	<b>1,844.7</b>	<b>5,009.5</b>	<b>6,854.2</b>	<b>26.9</b>
<b>PERSONS</b>							
NSW	31.5	1,391.7	26.9	1,450.1	3,168.5	4,618.6	31.4
Vic.	27.6	1,087.4	31.0	1,145.9	2,326.5	3,472.4	33.0
Qld	17.0	751.4	20.9	789.3	1,568.9	2,358.2	33.5
SA	9.0	366.7	10.5	386.2	766.8	1,153.0	33.5
WA	12.0	451.8	12.8	476.5	823.2	1,299.6	36.7
Tas.	3.3	117.0	2.9	123.1	231.1	354.3	34.8
NT	*0.6	41.4	1.5	43.5	70.0	113.5	38.3
ACT	2.8	84.3	3.2	90.3	137.7	228.0	39.6
<b>Aust.</b>	<b>103.7</b>	<b>4,291.6</b>	<b>109.7</b>	<b>4,504.9</b>	<b>9,092.7</b>	<b>13,597.6</b>	<b>33.1</b>

TABLE 2 – PERSONS WITH PAID AND UNPAID INVOLVEMENT IN SPORT  
BY CHARACTERISTICS OF PERSONS INVOLVED, AUSTRALIA

Characteristics	Some paid involvement		No paid involvement		All involvement	
	Total	Participation rate	Total	Participation rate	Total	Participation rate
	'000	per cent	'000	per cent	'000	per cent
Sex:						
Males	129.5	1.9	2,530.7	37.5	2,660.2	39.4
Females	83.8	1.2	1,760.9	25.7	1,844.7	26.9
Age group:						
15 to 24 years	69.2	2.5	1,271.0	46.7	1,340.2	49.2
25 to 34 years	60.2	2.1	1,036.5	36.8	1,096.7	39.0
35 to 44 years	43.2	1.6	892.3	33.4	935.5	35.1
45 to 54 years	28.4	1.4	500.2	24.4	528.6	25.7
55 to 64 years	9.5	0.7	285.0	19.5	294.5	20.2
65 years and over	*2.8	*0.1	306.6	16.3	309.4	16.5
Employment status:						
Employed full-time	138.2	2.3	2,209.0	37.3	2,347.2	39.6
Employed part-time	41.6	2.3	686.1	37.6	727.7	39.8
Total employed	179.8	2.3	2,895.1	37.3	3,074.9	39.7
Unemployed	10.8	1.1	300.0	30.1	310.8	31.2
Not in the labour force	22.7	0.5	1,096.5	22.6	1,119.2	23.1
Area of usual residence:						
Capital city	127.9	1.5	2,591.9	29.6	2,719.7	31.1
Rest of State	85.5	1.8	1,699.7	35.1	1,785.2	36.8
Country of birth:						
Born in Australia	184.5	1.9	3,536.2	35.7	3,720.7	37.6
Born outside Australia	28.9	0.8	755.3	20.4	784.2	21.2
Main English speaking countries	19.2	1.3	429.2	28.5	448.4	29.8
Non-English speaking countries	9.6	0.4	326.1	14.9	335.8	15.3
<b>Total</b>	<b>213.3</b>	<b>1.6</b>	<b>4,291.6</b>	<b>31.6</b>	<b>4,504.9</b>	<b>33.1</b>

TABLE 3 - CHARACTERISTICS OF PERSONS INVOLVED IN SPORT BY PLAYING STATUS, AUSTRALIA

<i>Characteristics</i>	<i>Players only</i>	<i>Non-players only</i>	<i>Players with non-playing involvement</i>	<i>All players</i>	<i>All non-players</i>	<i>Total involved in sport</i>
	(A)	(B)	(C)	(A + C)	(B + C)	(A + B + C)
<b>MALES ('000)</b>						
<b>Age group:</b>						
15 to 24 years	645.1	18.6	121.1	766.1	139.7	784.8
25 to 34 years	465.1	44.2	133.2	598.3	177.4	642.5
35 to 44 years	296.6	108.5	133.8	430.4	242.4	538.9
45 to 54 years	194.4	71.2	68.4	262.8	139.6	334.0
55 to 64 years	124.6	26.0	30.4	155.0	56.4	181.0
65 years and over	145.0	9.5	24.4	169.4	33.9	179.0
<b>Employment status:</b>						
Employed full-time	1,156.0	220.7	371.5	1,527.5	592.2	1,748.2
Employed part-time	166.5	14.6	42.6	209.1	57.2	223.7
<i>Total employed</i>	<i>1,322.5</i>	<i>235.2</i>	<i>414.2</i>	<i>1,736.7</i>	<i>649.4</i>	<i>1,971.9</i>
Unemployed	147.1	16.6	31.1	178.2	47.7	194.8
Not in the labour force	401.2	26.3	66.0	467.2	92.2	493.5
<b>Area of usual residence:</b>						
Capital city	1,195.3	166.4	263.4	1,458.7	429.8	1,625.0
Rest of State	675.5	111.7	247.9	923.4	359.6	1,035.2
<b>Country of birth:</b>						
Born in Australia	1,500.8	219.6	439.7	1,940.5	659.4	2,160.2
Born outside Australia	370.0	58.5	71.5	441.5	130.0	500.0
Main English speaking countries	190.9	33.4	47.8	238.7	81.2	272.1
Non-English speaking countries	179.1	25.1	23.8	202.8	48.8	227.9
<b>Total</b>	<b>1,870.8</b>	<b>278.1</b>	<b>511.3</b>	<b>2,382.1</b>	<b>789.4</b>	<b>2,660.2</b>
<b>PARTICIPATION RATE (Per cent)</b>						
<b>Age group:</b>						
15 to 24 years	46.8	1.3	8.8	55.5	10.1	56.9
25 to 34 years	33.1	3.1	9.5	42.5	12.6	45.7
35 to 44 years	22.2	8.1	10.0	32.3	18.2	40.4
45 to 54 years	18.5	6.8	6.5	25.0	13.3	31.8
55 to 64 years	16.9	3.5	4.1	21.1	7.7	24.6
65 years and over	17.3	1.1	2.9	20.3	4.1	21.4
<b>Employment status:</b>						
Employed full-time	28.8	5.5	9.3	38.1	14.8	43.6
Employed part-time	36.3	3.2	9.3	45.6	12.5	48.8
<i>Total employed</i>	<i>29.6</i>	<i>5.3</i>	<i>9.3</i>	<i>38.8</i>	<i>14.5</i>	<i>44.1</i>
Unemployed	24.6	2.8	5.2	29.8	8.0	32.6
Not in the labour force	24.0	1.6	3.9	27.9	5.5	29.5
<b>Area of usual residence:</b>						
Capital city	27.8	3.9	6.1	33.9	10.0	37.8
Rest of State	27.7	4.6	10.2	37.9	14.7	42.4
<b>Country of birth:</b>						
Born in Australia	30.8	4.5	9.0	39.8	13.5	44.3
Born outside Australia	19.8	3.1	3.8	23.6	7.0	26.8
Main English speaking countries	25.1	4.4	6.3	31.4	10.7	35.8
Non-English speaking countries	16.2	2.3	2.1	18.3	4.4	20.6
<b>Total</b>	<b>27.7</b>	<b>4.1</b>	<b>7.6</b>	<b>35.3</b>	<b>11.7</b>	<b>39.4</b>

TABLE 3 - CHARACTERISTICS OF PERSONS INVOLVED IN SPORT BY PLAYING STATUS, AUSTRALIA - *continued*

Characteristics	Players only (A)	Non-players only (B)	Players with non-playing involvement (C)	All players (A + C)	All non-players (B + C)	Total involved in sport (A + B + C)
FEMALES ('000)						
Age group:						
15 to 24 years	422.9	25.4	107.2	530.1	132.6	555.4
25 to 34 years	295.4	58.9	99.9	395.3	158.8	454.2
35 to 44 years	188.8	120.8	86.9	275.7	207.8	396.6
45 to 54 years	114.5	46.5	33.6	148.1	80.0	194.5
55 to 64 years	87.6	7.9	18.0	105.6	25.9	113.5
65 years and over	105.2	*3.7	21.6	126.7	25.3	130.5
Employment status:						
Employed full-time	383.4	86.6	128.9	512.4	215.5	599.0
Employed part-time	295.4	98.2	110.3	405.8	208.6	504.0
Total employed	678.9	184.8	239.2	918.1	424.1	1,103.0
Unemployed	76.4	17.4	22.2	98.6	39.6	116.0
Not in the labour force	459.1	60.9	105.8	564.8	166.7	625.7
Area of usual residence:						
Capital city	751.6	157.8	185.3	936.8	343.1	1,094.7
Rest of State	462.8	105.3	181.9	644.7	287.2	750.0
Country of birth:						
Born in Australia	1,011.0	219.2	330.3	1,341.3	549.6	1,560.5
Born outside Australia	203.4	44.0	36.8	240.2	80.8	284.2
Main English speaking countries	120.4	27.6	28.3	148.6	55.9	176.3
Non-English speaking countries	83.0	16.3	8.6	91.6	24.9	107.9
<b>Total</b>	<b>1,214.3</b>	<b>263.2</b>	<b>367.2</b>	<b>1,581.5</b>	<b>630.4</b>	<b>1,844.7</b>
PARTICIPATION RATE (Per cent)						
Age group:						
15 to 24 years	31.5	1.9	8.0	39.4	9.9	41.3
25 to 34 years	21.0	4.2	7.1	28.1	11.3	32.3
35 to 44 years	14.2	9.1	6.5	20.7	15.6	29.7
45 to 54 years	11.4	4.6	3.4	14.8	8.0	19.4
55 to 64 years	12.1	1.1	2.5	14.5	3.6	15.6
65 years and over	10.1	0.4	2.1	12.2	2.4	12.5
Employment status:						
Employed full-time	20.0	4.5	6.7	26.8	11.3	31.3
Employed part-time	21.6	7.2	8.1	29.6	15.2	36.8
Total employed	20.7	5.6	7.3	28.0	12.9	33.6
Unemployed	19.2	4.4	5.6	24.8	10.0	29.2
Not in the labour force	14.5	1.9	3.3	17.8	5.2	19.7
Area of usual residence:						
Capital city	16.9	3.6	4.2	21.1	7.7	24.6
Rest of State	19.2	4.4	7.6	26.8	11.9	31.1
Country of birth:						
Born in Australia	20.1	4.4	6.6	26.7	10.9	31.1
Born outside Australia	11.1	2.4	2.0	13.1	4.4	15.5
Main English speaking countries	16.1	3.7	3.8	19.9	7.5	23.6
Non-English speaking countries	7.6	1.5	0.8	8.4	2.3	9.9
<b>Total</b>	<b>17.7</b>	<b>3.8</b>	<b>5.4</b>	<b>23.1</b>	<b>9.2</b>	<b>26.9</b>



TABLE 3 – CHARACTERISTICS OF PERSONS INVOLVED IN SPORT BY PLAYING STATUS, AUSTRALIA – *continued*

<i>Characteristics</i>	<i>Players only</i>	<i>Non-players only</i>	<i>Players with non-playing involvement</i>	<i>All players</i>	<i>All non-players</i>	<i>Total involved in sport</i>
	(A)	(B)	(C)	(A + C)	(B + C)	(A + B + C)
<b>PERSONS ('000)</b>						
<b>Age group:</b>						
15 to 24 years	1,068.0	44.0	228.3	1,296.2	272.2	1,340.2
25 to 34 years	760.5	103.1	233.1	993.6	336.2	1,096.7
35 to 44 years	485.4	229.4	220.7	706.1	450.1	935.5
45 to 54 years	308.9	117.7	102.0	410.9	219.7	528.6
55 to 64 years	212.2	33.9	48.4	260.6	82.3	294.5
65 years and over	250.2	13.3	46.0	296.2	59.2	309.4
<b>Employment status:</b>						
Employed full-time	1,539.5	307.3	500.5	2,039.9	807.8	2,347.2
Employed part-time	461.9	112.8	153.0	614.9	265.8	727.7
<i>Total employed</i>	<i>2,001.4</i>	<i>420.1</i>	<i>653.4</i>	<i>2,654.8</i>	<i>1,073.5</i>	<i>3,074.9</i>
Unemployed	223.5	34.0	53.3	276.8	87.3	310.8
Not in the labour force	860.3	87.2	171.7	1,032.0	258.9	1,119.2
<b>Area of usual residence:</b>						
Capital city	1,946.8	324.2	448.7	2,395.5	772.9	2,719.7
Rest of State	1,138.3	217.1	429.8	1,568.1	646.9	1,785.2
<b>Country of birth:</b>						
Born in Australia	2,511.8	438.9	770.1	3,281.8	1,208.9	3,720.7
Born outside Australia	573.4	102.4	108.4	681.8	210.8	784.2
Main English speaking countries	311.3	61.1	76.1	387.4	137.1	448.4
Non-English speaking countries	262.1	41.4	32.3	294.4	73.7	335.8
<b>Total</b>	<b>3,085.2</b>	<b>541.3</b>	<b>878.4</b>	<b>3,963.6</b>	<b>1,419.7</b>	<b>4,504.9</b>
<b>PARTICIPATION RATE (Per cent)</b>						
<b>Age group:</b>						
15 to 24 years	39.2	1.6	8.4	47.6	10.0	49.2
25 to 34 years	27.0	3.7	8.3	35.3	11.9	39.0
35 to 44 years	18.2	8.6	8.3	26.5	16.9	35.1
45 to 54 years	15.0	5.7	5.0	20.0	10.7	25.7
55 to 64 years	14.5	2.3	3.3	17.8	5.6	20.2
65 years and over	13.3	0.7	2.4	15.8	3.2	16.5
<b>Employment status:</b>						
Employed full-time	26.0	5.2	8.4	34.4	13.6	39.6
Employed part-time	25.3	6.2	8.4	33.7	14.5	39.8
<i>Total employed</i>	<i>25.8</i>	<i>5.4</i>	<i>8.4</i>	<i>34.2</i>	<i>13.8</i>	<i>39.7</i>
Unemployed	22.4	3.4	5.4	27.8	8.8	31.2
Not in the labour force	17.7	1.8	3.5	21.3	5.3	23.1
<b>Area of usual residence:</b>						
Capital city	22.3	3.7	5.1	27.4	8.8	31.1
Rest of State	23.5	4.5	8.9	32.3	13.3	36.8
<b>Country of birth:</b>						
Born in Australia	25.4	4.4	7.8	33.2	12.2	37.6
Born outside Australia	15.5	2.8	2.9	18.4	5.7	21.2
Main English speaking countries	20.7	4.1	5.0	25.7	9.1	29.8
Non-English speaking countries	11.9	1.9	1.5	13.4	3.4	15.3
<b>Total</b>	<b>22.7</b>	<b>4.0</b>	<b>6.5</b>	<b>29.1</b>	<b>10.4</b>	<b>33.1</b>

TABLE 4 - PAID AND UNPAID INVOLVEMENTS IN SPORT BY TYPE OF INVOLVEMENT AND STATE, AUSTRALIA

Type of involvement	Paid	Unpaid	Total	Participation
	involvements	involvements	involvements	rate
	'000	'000	'000	Per cent
<b>NEW SOUTH WALES</b>				
Playing involvements	15.5	1269.3	1284.8	27.8
Non-playing involvements:				
Coach/instructor/teacher	28.8	120.4	149.2	3.2
Referee/umpire	15.4	97.2	112.6	2.4
Administrator/committee member	8.3	156.9	165.1	3.6
Other involvement	*3.5	99.4	102.9	2.2
<i>Total non-playing involvements</i>	56.0	473.9	529.8	..
<b>Total involvements</b>	<b>71.5</b>	<b>1,743.2</b>	<b>1,814.6</b>	<b>..</b>
<b>VICTORIA</b>				
Playing involvements	16.2	999.4	1015.6	29.2
Non-playing involvements:				
Coach/instructor/teacher	25.4	95.1	120.5	3.5
Referee/umpire	19.7	78.1	97.8	2.8
Administrator/committee member	5.3	166.6	171.9	5.0
Other involvement	5.1	96.7	101.8	2.9
<i>Total non-playing involvements</i>	55.5	436.5	492.0	..
<b>Total involvements</b>	<b>71.7</b>	<b>1,435.9</b>	<b>1,507.6</b>	<b>..</b>
<b>QUEENSLAND</b>				
Playing involvements	10.0	686.2	696.2	29.5
Non-playing involvements:				
Coach/instructor/teacher	17.1	84.9	102.1	4.3
Referee/umpire	11.6	70.4	81.9	3.5
Administrator/committee member	5.1	105.5	110.6	4.7
Other involvement	*2.4	61.9	64.3	2.7
<i>Total non-playing involvements</i>	36.2	322.7	358.9	..
<b>Total involvements</b>	<b>46.2</b>	<b>1,008.9</b>	<b>1,055.1</b>	<b>..</b>
<b>SOUTH AUSTRALIA</b>				
Playing involvements	5.6	326.4	332.0	28.8
Non-playing involvements:				
Coach/instructor/teacher	6.5	44.9	51.4	4.5
Referee/umpire	6.2	36.8	43.0	3.7
Administrator/committee member	*2.0	68.1	70.0	6.1
Other involvement	*1.6	45.5	47.1	4.1
<i>Total non-playing involvements</i>	16.3	195.3	211.5	..
<b>Total involvements</b>	<b>21.9</b>	<b>521.7</b>	<b>543.5</b>	<b>..</b>
<b>WESTERN AUSTRALIA</b>				
Playing involvements	5.6	407.9	413.5	31.8
Non-playing involvements:				
Coach/instructor/teacher	13.9	55.8	69.6	5.4
Referee/umpire	6.8	53.0	59.8	4.6
Administrator/committee member	3.6	69.3	72.9	5.6
Other involvement	*1.5	50.2	51.7	4.0
<i>Total non-playing involvements</i>	25.8	228.3	254.0	..
<b>Total involvements</b>	<b>31.4</b>	<b>636.2</b>	<b>667.5</b>	<b>..</b>

TABLE 4 – PAID AND UNPAID INVOLVEMENTS IN SPORT BY TYPE OF INVOLVEMENT AND STATE, AUSTRALIA

<i>Type of involvement</i>	<i>Paid involvements</i>	<i>Unpaid involvements</i>	<i>Total involvements</i>	<i>Participation rate</i>
	'000	'000	'000	Per cent
<b>TASMANIA</b>				
Playing involvements	2.1	103.1	105.1	29.7
Non-playing involvements:				
Coach/instructor/teacher	2.5	15.1	17.6	5.0
Referee/umpire	*1.2	12.0	13.2	3.7
Administrator/committee member	*0.6	20.2	20.8	5.9
Other involvement	*0.2	10.4	10.6	3.0
<i>Total non-playing involvements</i>	4.5	57.7	62.2	..
<b>Total involvements</b>	<b>6.6</b>	<b>160.8</b>	<b>167.3</b>	<b>..</b>
<b>NORTHERN TERRITORY</b>				
Playing involvements	*0.4	37.8	38.2	33.7
Non-playing involvements:				
Coach/instructor/teacher	*1.3	7.2	8.5	7.5
Referee/umpire	*0.7	4.9	5.7	5.0
Administrator/committee member	*0.3	7.8	8.1	7.1
Other involvement	*0.3	4.4	4.7	4.1
<i>Total non-playing involvements</i>	2.6	24.3	27.0	..
<b>Total involvements</b>	<b>3.0</b>	<b>62.1</b>	<b>65.2</b>	<b>..</b>
<b>AUSTRALIAN CAPITAL TERRITORY</b>				
Playing involvements	1.7	76.5	78.2	34.3
Non-playing involvements:				
Coach/instructor/teacher	2.2	10.3	12.6	5.5
Referee/umpire	1.5	10.3	11.8	5.2
Administrator/committee member	*0.9	10.5	11.4	5.0
Other involvement	*0.8	10.5	11.2	4.9
<i>Total non-playing involvements</i>	5.4	41.6	47.0	..
<b>Total involvements</b>	<b>7.1</b>	<b>118.1</b>	<b>125.2</b>	<b>..</b>
<b>AUSTRALIA</b>				
Playing involvements	57.0	3906.5	3963.6	29.1
Non-playing involvements:				
Coach/instructor/teacher	97.8	433.7	531.5	3.9
Referee/umpire	63.1	362.8	425.8	3.1
Administrator/committee member	26.0	604.9	630.9	4.6
Other involvement	15.4	378.9	394.3	2.9
<i>Total non-playing involvements</i>	202.3	1,780.3	1,982.5	..
<b>Total involvements</b>	<b>259.3</b>	<b>5,686.8</b>	<b>5,946.1</b>	<b>..</b>

## EXPLANATORY NOTES

This publication presents results from the supplementary survey to the March 1993 Monthly Population Survey. The statistical tables contain estimates of the number of people who were involved in sport by type of involvement. They also provide details on the characteristics of people involved and the nature of involvement, whether paid or unpaid.

**Scope***Geographical areas*

2. The survey was conducted in both rural and urban areas in all States and Territories.

*Dwellings*

3. The survey covered both private and non-private dwellings. Private dwellings are houses, flats, home units and any structures used as places of residence at the time of the survey. Non-private dwellings are hotels, motels, hostels, boarding houses, hospitals and homes, educational and religious institutions, construction camps, caravan parks, etc.

*Persons*

4. The survey included all persons aged 15 years and over except:
- (a) members of the Australian permanent defence forces;
  - (b) certain diplomatic personnel of overseas governments, customarily excluded from census and estimated populations;
  - (c) overseas residents in Australia;
  - (d) members of non-Australian defence forces (and their dependents) stationed in Australia; and
  - (e) boarding school pupils not resident in households, some patients in hospitals and sanatoria and inmates of reformatories and gaols.

**Coverage**

5. In the population survey, coverage rules are applied which aim to ensure that each person is associated with only one dwelling, and hence has only one chance of selection. See *The Labour Force, Australia (6203.0)* for more details.

**Data collection methodology**

6. The survey was conducted on the monthly population survey sample. The monthly population survey (which is described in *The Labour Force, Australia(6203.0)*) comprises the monthly labour force and supplementary topics. The household sample was selected using multi-stage sampling techniques and included approximately 30,000 dwellings. Respondents to the Labour Force Survey were asked additional questions by trained interviewers relating to involvement in sport.

**Reliability of the estimates**

7. The estimates provided in this publication are subject to two types of error.

*Sampling error*

8. This is the difference which would be expected between the estimate and the corresponding figure that would have been obtained from a collection based on the whole population, using the same questionnaire and procedures. A measure of the sampling error for a given estimate is provided by the standard error expressed as a percentage of the estimate (relative standard error). The Technical Note on *sampling variability* contains a discussion on sampling error as well as giving details for calculating the relative standard error for selected estimates in this publication.

*Non-sampling error*

9. Errors can occur whether the estimates are derived from a sample or a complete enumeration, and these errors are usually referred to as non-sampling errors. Three major sources of non-sampling error are:

- (a) inability to obtain comprehensive data from all people included in the sample. These errors arise because of differences which exist between the characteristics of respondents and non-respondents;
- (b) errors in reporting on the part of both the respondent and the interviewer. These errors may arise due to the inappropriate wording of questions, misunderstanding of what data is required, answers that were based on memory and inability or unwillingness to provide accurate information; and
- (c) errors arising during the processing of the survey data. These processing errors may arise through mistakes in coding and data recording.

10. Non-sampling errors are difficult to measure and may occur both in sample surveys and complete enumerations. Every effort is made to minimise these errors. In particular, the effects of reporting and processing errors described above were minimised by careful questionnaire design, intensive training and supervision of interviewers and extensive editing and quality control checking at all stages of data processing.

**Data interpretation**

11. Participation in each type of sporting involvement was only recorded once, even if there were a number of different sports or associations in which a person was involved during the 12 month reference period. For example, a person on the committees of a tennis club and a netball club would only be recorded once as being involved in sports administration. Therefore, figures shown for any type of involvement represent counts of persons involved in that category.

12. Persons with several types of involvement were counted once and only once against each type of involvement. For example, a person who coached and played sport would have been counted once in coaching and once in

playing. As a person can participate in several types of involvement, the summation of involvements does not equate to the total number of persons involved in sport.

13. Participation in a type of involvement was classified into 2 categories, viz. 'Paid' or 'Unpaid'. Paid involvement was recorded where any payment had been received for a particular category. Where people were involved in more than one type of involvement, the nature of the payment status for all involvement in sport (as presented in Tables 1 and 2) was determined by considering all categories combined.

14. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

Published percentages are calculated prior to rounding of the figures and therefore some discrepancy may occur between these percentages and those that could be calculated from the rounded figures.

#### Symbols and other usages

- \* subject to sampling variability too high for most practical uses. See the Technical Note.
- .. not applicable

## TECHNICAL NOTE

## Sampling variability

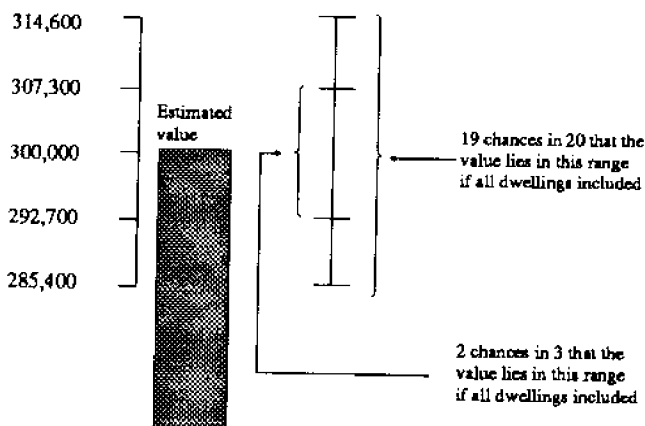
Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability, that is, they may differ from those that would have been produced if all dwellings had been included in the survey.

One measure of the likely difference is given by the standard error, which estimates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three (67 per cent) that a sample estimate will vary by less than one standard error from the number that would have been obtained if all dwellings had been included, and about nineteen chances in twenty (95 per cent) that the difference will be less than two standard errors.

Another measure of the likely difference is the relative standard error, which is obtained by expressing the standard error as a percentage of the estimate (RSE). The relative standard error is a useful measure in that it provides an immediate indication of the likely percentage error that may have occurred due to sampling.

An example of the calculation and the use of standard errors in relation to estimates of persons is as follows:

From Table 2 an estimated 300,000 Australians unemployed in the week prior to survey week reported that their involvement in sporting activities during the 12 months ended March 1993 was solely of a voluntary nature. Referring to the table of standard errors, an estimate of 300,000 has a standard error of 7,300 people. There are about two chances in three that the number that would have been produced if all dwellings had been included in the survey was between 292,700 and 307,300 (i.e. 300,000 plus or minus 7,300). There are about nineteen chances in twenty that the number lies between 285,400 and 314,600 (i.e. 300,000 plus or minus 14,600). This example is illustrated below.



Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the relative standard error (RSE) of a proportion is given below:

$$RSE(x/y) = \sqrt{[RSE(x)]^2 - [RSE(y)]^2}$$

From Table 1, of the 228,000 people 15 years or more resident in the ACT, 90,300 were involved in sport during the 12 months ended March 1993. The standard error of 90,300 for the ACT is about 1,480, so the relative standard error is  $1,480/90,300 \times 100 = 1.6$  per cent. The relative standard error of 228,000 is approximately  $2,030/228,000 \times 100 = 0.9$  per cent. Applying the above formula, the relative standard error of the proportion is  $\sqrt{[1.6]^2 - [0.9]^2}$  or 1.3 per cent. This then gives a standard error for the proportion ( $39.6$  per cent) of  $1.3/100 \times 39.6 = 0.5$ . Therefore, there are about two chances in three that the proportion of ACT people involved in sport was between 39.1 per cent and 40.1 per cent and approximately nineteen chances in twenty that the proportion was within the range 38.6 per cent and 40.6 per cent.

Particular care should be taken when comparing figures. It is not correct to assume that an apparent difference between figures is actually significant. Such an estimate is subject to sampling error. An approximate standard error (SE) of the difference between 2 estimates ( $x-y$ ) may be calculated by the following formula:

$$SE(x-y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

While this formula will only be exact for differences between separate and uncorrelated characteristics of sub-populations it is expected to provide a good approximation for all differences likely to be of interest in this publication.

As the standard errors in the following tables show, the size of the standard error increases with the size of the estimate. However, the larger the estimate the lower is the relative standard error. Thus, large estimates will be relatively more reliable than smaller estimates. Very small estimates are subject to such high relative standard errors as to detract seriously from their value for most reasonable uses. In the tables in this publication, only estimates with relative standard errors of 25 per cent or less and percentages based on such estimates are considered sufficiently reliable for most purposes. However, estimates and percentages with larger relative standard errors have been included and are preceded by an asterisk (e.g. \*3.4) to indicate that they should be treated with caution and viewed as being merely indicative of the magnitude involved.

TABLE A — STANDARD ERRORS OF ESTIMATES

Size of estimate (persons)									Australia	
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Relative standard error	
	No.	No.	No.	No.	No.	No.	No.	No.	No.	Per cent
100						90	100	80		
200	260	230	210	180	200	130	140	120	190	94.9
300	320	290	260	220	250	160	170	140	240	80.2
400	370	340	300	260	280	190	190	160	280	71.0
500	420	380	340	290	310	210	210	180	320	64.5
600	460	420	370	310	340	230	230	190	360	59.6
800	530	490	430	360	400	260	260	220	420	52.5
1,000	590	540	480	400	440	290	290	<u>240</u>	480	47.5
1,300	680	620	550	460	500	<u>330</u>	<u>330</u>	270	550	42.2
1,500	720	670	590	490	530	<u>350</u>	<u>350</u>	290	590	39.5
1,800	790	730	640	530	580	380	380	320	650	36.3
1,900	810	750	660	540	590	390	390	320	670	35.4
2,000	830	770	680	560	610	400	400	330	690	34.6
2,500	930	860	750	620	670	440	440	360	780	31.1
3,000	1,000	940	820	670	<u>730</u>	470	480	390	860	28.5
3,500	1,100	1,010	880	720	780	500	510	420	930	26.5
4,000	1,150	1,100	940	770	830	530	540	440	<u>990</u>	24.9
4,500	1,250	<u>1,150</u>	990	810	880	550	570	460	1,060	23.5
5,000	<u>1,300</u>	1,200	1,040	850	920	580	600	490	1,100	22.3
6,000	1,400	1,300	1,150	920	1,000	620	650	520	1,200	20.4
7,000	1,500	1,400	1,200	980	1,070	660	700	560	1,300	18.9
10,000	1,750	1,650	1,400	1,150	1,250	750	850	640	1,600	15.8
20,000	2,400	2,250	1,950	1,550	1,650	960	1,150	850	2,200	11.0
50,000	3,550	3,300	2,850	2,250	2,450	1,250	1,750	1,200	3,400	6.8
100,000	4,750	4,400	3,750	2,900	3,200	1,550	2,450	1,550	4,600	4.6
200,000	6,200	5,800	4,950	3,750	4,150	1,800	3,400	1,950	6,200	3.1
300,000	7,300	6,700	5,750	4,350	4,850	1,950		2,250	7,300	2.4
500,000	8,800	8,100	6,950	5,200	5,800	2,200			9,000	1.8
1,000,000	11,300	10,400	8,900	6,600	7,400				11,800	1.2
2,000,000	14,300	13,100	11,300	8,200	9,400				15,200	0.8
5,000,000	19,300	17,600	15,300						21,000	0.4
10,000,000									26,500	0.3

— Indicates the point at which the relative standard error of the estimates becomes greater than 25 per cent.

## GLOSSARY

- Capital cities* Are defined as the six State capital city Statistical Divisions, the Darwin Statistical Division and the Canberra Statistical Division as delimited for purposes of the 1991 Census of Population and Housing.
- Country of birth* Classified according to the *Australian Standard Classification of Countries for Social Statistics (ASCCSS)* (1269.0). The group 'Main English speaking countries' comprises United Kingdom and Ireland, New Zealand, Canada, U.S.A. and South Africa.
- Employed* For the definition of employed persons, see the publication *The Labour Force, Australia* (6203.0).
- Not in the labour force* For the definition of persons not in the labour force, see the publication *The Labour Force, Australia* (6203.0).
- Paid and unpaid involvement* Involvement in any one type of activity was classified as either paid or unpaid. Consequently, respondents could only be included in this category if they participated in more than one type of involvement and reported paid involvement and unpaid involvement for their different types of activity. For example, a person would fit into this classification if they were paid to referee and performed an administrative function voluntarily.
- Paid involvement* People were classified as being paid for involvement in an individual type of activity if they received any payment at all for that involvement. Where more than one type of activity was undertaken, payment had to be received for each type of activity for all involvement to be classified as paid.
- Participation rate* For any group, the number of people involved in sport, expressed as a percentage of the civilian population aged 15 and over in the same group.
- Some paid involvement* This classification combines people who were paid for all types of involvement in which they participated with those who had some paid involvements as well as unpaid involvements.
- Sport* Persons whose only involvement in sport were as spectators were excluded from the scope of the sporting questions of the survey. Sport was defined to generally include both social and competition involvement. However, participation in some sports was only recorded where it was undertaken competitively. Appendix A contains a list of the activities considered sport for this survey. Those regarded as sports only where competition was associated with them have been asterisked (\*).
- Unemployed* For the definition of unemployed persons, see the publication *The Labour Force, Australia* (6203.0).



## RELATED PUBLICATIONS

Other ABS publications which may be of interest include:

- Household Expenditure Survey, Detailed Expenditure Items, Australia, June 1988-89* (6335.0)
- Sports Participation, Victoria, October 1989* (4118.2)
- Participation in Sporting and Recreational Physical Activities, Urban Northern Territory, October 1991* (4108.7)
- Population Survey Monitor, Australia, November 1993* (4103.0)
- How Australians Use Their Time* (4153.0)

In addition, the publication *Participation in Sports, Queensland, October 1993* (4110.3) is expected to be released in May 1994.

Some selected results from the August 1993 and November 1993 Population Survey Monitor surveys are presented below. These surveys collected data on participation in sporting activities, both organised and social, during the week prior to interview week of persons aged 18 years and over.

### PARTICIPATION IN ORGANISED AND SOCIAL SPORTING ACTIVITIES, AUSTRALIA

	August 1993		November 1993	
	'000	Per cent	'000	Per cent
Males	2,045	31.1	2,099	31.9
Females	1,425	21.2	1,497	22.1
Persons	3,470	26.1	3,596	27.0

The supplementary survey to the March 1993 Monthly Population Survey also collected information about the involvement of people 15 years of age and over in selected culture and leisure activities during the previous 12 months. The results of that topic were released in the publication *Work in Selected Culture/Leisure Activities, Australia, March 1993* (6281.0) in December 1993.

Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia* (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Publications Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Publications Advice are available from any ABS office.

### Unpublished statistics

As well as the statistics included in this and related publications, the ABS may have other relevant unpublished data available. Inquiries should be made to the contact in the Inquiries box on the Contents page.

## APPENDIX A

Sports included in scope for this survey:

Aerobics (*)	Archery	Athletics
Australian Rules Football	Badminton	Baseball
Basketball	Billiards (*)	BMX
Bocce	Body Building (*)	Bowling (ten pin)
Bowls (indoor/lawn/carpet)	Boxing	Callisthenics
Canoeing	Cricket (including indoor)	Croquet
Cycling (*)	Darts (*)	Diving (tower/springboard)
Equestrian	Fishing (*)	Golf
Gymnastics	Handball	Hockey(field/ice)
Horse Racing	Ice sports (*)	Karting
Korfball	Lacrosse	Life Saving
Martial Arts (*)	Motor sports	Netball
Orienteering	Polo	Polocrosse
Rodeo	Roller sports (*)	Rowing
Rugby Union/League	Shooting (*)	Skiing (*)
Soccer (including indoor)	Softball	Squash
Snooker (*)	Snow sports (*)	Surfriding (*)
Swimming (*)	Table Tennis	Tennis
Triathlon	Trotting	Touch Football
Volleyball	Water Polo	Weightlifting (*)
Wrestling (*)	Yachting (*)	

(\*) Sport in scope only for competition involvement.





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