


Age Profiles of Sport Participants- Victoria 2015
October 2016

## Age profiles of players of club-based sport

This report provides the results of an analysis of participation in Victorian club-based sport across the lifespan. It combines data from 11 major Victorian State Sporting Associations (SSAs):

Australian Football League, Basketball, Bowls, Cricket, Football, Golf, Gymnastics, Hockey, Netball, Sailing, and Tennis (Figure 1).

A participant, or player, is defined as a registered member of a Victorian sporting club that is associated with one of the 11 SSAs, in 2015, who was aged between 4 and 100 years and resided in Victoria. These SSAs recorded a total of 1,048,171 player registrations in 2015. Those for which age or postcode was missing or invalid ( $14 \%$ of registrations. See Table 1 for more detail) were excluded from the analysis, and adjustments to counts were made in postcodes that were partly allocated to a Local Government Authority (LGA) outside Victoria (see the note on data accuracy on page 12 of this report). This report provides a summary of the 899,349 player registrations for which complete and valid data was recorded. It should be noted that, because a person could be a registered player of more than one sport, when data for multiple sports are combined the total number of registrations is greater than the number of individual players. Strictly, when we refer to counts or proportions of 'participants' or 'players' in this report, we are referring to registrations.

The age profiles presented in this report are based on proportions of players, not on age-specific participation rates relative to the size of the population. The variable tabulated or graphed, for Victoria as a whole and for each sex and/or region, is the proportion of all player registrations which fall within each age range, defined as the number of player registrations in that age range, expressed as a percentage of the total number of player registrations of all ages. This results in standardised profiles that can be directly compared between sexes and regions, regardless of widely varying participation rates for the different sports.

Table 1 shows a summary of participation counts and age profiles, and also provides a key to the profiles displayed in the figures.

Figure 1 shows the age profiles for Victoria for the eleven separate sports
Figure 2 shows the overall age profile of players in Victoria.
Figure 3 shows the age profiles of players of each sex. Figure 3a differs in format from all the graphs which follow; it shows the age/sex profile for both sexes combined. Figure 3b shows separate age profiles for each sex.

Figure 4 shows the age profiles of players in the four regions defined on page 11 of this report.
Figures $5 a-5 d$ show, separately for each region, the age profiles of players of each sex.
Figures 6 a and 6 b show, separately for each sex, the age profiles of players in each region.

## Data Quality

- Overall, $86 \%$ of records were complete with regard to date of birth, sex and postcode, and hence were able to be used in this analysis and reporting. This amounts to nearly 900,000 player records integrated for these reports.


## Specific Sports

- For three sports (Sport D, F, and K), over 30\% of participants were aged 5-9 years. Sport I had equal proportions of participants (22\%) at the peak ages of $5-9$ and 10-14 years. For four sports (A, C, E, and G) the highest proportion of players was aged 10-14 years. Three sports (B, H and J) had over 10\% of players in later age bands (Figure 1).
- For the majority of sports, immediately after the peak there was a sharp drop in the participant proportions in each 5-year age band (Figure 1).
- Whilst there were substantial differences between different sports in the proportions of participants who were young children or adolescents, for all sports the proportion of participants aged $30-34$ years was $5 \%$ or less. Beyond age 34, proportions continued to decline for all sports except sailing, golf and bowls (Figure 1).


## Sports overall

- The integration of data from all 11 included sports shows that overall, the highest proportion of all players were those aged $5-9$ years, representing $26.8 \%$ of all participants. Over half of all participants (52.0\%) were aged 5-14 years (Table 1, Figure 2).
- After the peak at 5-14 years the proportion of players for the next age group 15-19 years dropped by more than half, to $11.6 \%$ of participants. From ages $25-85+$ less than $5 \%$ of participants were within each age group (Table 1, Figure 2).
- It should be noted that the magnitudes of both the peak proportion and the subsequent drop are in part attributable to 'sampling behaviour', whereby some younger children participate in multiple sports (and are counted multiple times in the dataset) and then specialise in fewer sports in mid to late adolescence.


## Sex

- In all age groups males represented a higher proportion of all participants (Figure 3a).
- Within each sex, the patterns of age profiles were very similar (Figure 3b). However, the proportion of females aged 5-14 was higher than that of males, and the proportion of males was higher than that of females for all age groups from 20-84 years.


## Region

- While the age profiles of players were broadly similar in all four regions, there were some consistent small differences. For example, with one small exception, the Metropolitan - Growth and Regional - Other areas had higher proportions than the other two regions in all age ranges from 5-39 years, and the Metropolitan - Growth areas had the lowest proportions in all age ranges from 45 years upward (Figure 4).


## Sex and Region

- Within all regions the sex-age profiles were reasonably similar. In each region a higher proportion of female players were aged 5-14 compared to males, and a higher proportion of male players were aged 20+ compared to females. Over $30 \%$ of female players in Metropolitan - Growth and Regional - Growth areas were aged 5-9 years (Figures 5a-6b).


Figure 1. Age profile of registered players: by sport, 2015, Victoria

Table 1. Age profiles of registered players: Victoria 2015

| Region | Sex | Figure |  | Age range |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75-79 | 80-84 | 85+ |  |
| Victoria | Persons | 1 | n | 20,1172 | 241,4702 | 226,2621 | 104,502 | 61,065 | 43,768 | 32,269 | 24,797 | 24,851 | 21,566 | 18,332 | 15,745 | 15,852 | 17,542 | 13,829 | 9,565 | 5,175 | 2,642 | 899,349 |
|  |  |  | \% | 2.2 | 26.8 | 25.2 | 11.6 | 6.8 | 4.9 | 3.6 | 2.8 | 2.8 | 2.4 | 2.0 | 1.8 | 1.8 | 2.0 | 1.5 | 1.1 | 0.6 | 0.3 | 100.0 |
| Victoria | Males | $2 a^{1}, 2 b$ | n | 13,0751 | 150,8051 | 138,996 | 68,642 | 44,053 | 32,341 | 23,818 | 17,306 | 16,981 | 15,157 | 3,076 | 11,217 | 10,927 | 12,048 | 9,391 | 6,686 | 3,606 | 1,827 | 589,951 |
|  |  |  | \% | 2.2 | 25.6 | 23.6 | 11.6 | 7.5 | 5.5 | 4.0 | 2.9 | 2.9 | 2.6 | 2.2 | 1.9 | 1.9 | 2.0 | 1.6 | 1.1 | 0.6 | 0.3 | 100.0 |
| Victoria | Females | $2 a^{1}, 2 b$ | n | 7,042 | 90,665 | 87,266 | 35,860 | 17,012 | 11,427 | 8,452 | 7,492 | 7,869 | 6,409 | 5,256 | 4,528 | 4,925 | 5,494 | 4,438 | 2,880 | 1,569 | 815 | 309,398 |
|  |  |  | \% | 2.3 | 29.3 | 28.2 | 11.6 | 5.5 | 3.7 | 2.7 | 2.4 | 2.5 | 2.1 | 1.7 | 1.5 | 1.6 | 1.8 | 1.4 | 0.9 | 0.5 | 0.3 | 100.0 |
| Metropolitan - Growth | Persons | 3 | n | 3,327 | 38,182 | 34,934 | 16,848 | 10,069 | 7,238 | 5,785 | 4,153 | 3,677 | 2,668 | 1,926 | 1,451 | 1,333 | 1,374 | 1,005 | 656 | 312 | 141 | 135,078 |
|  |  |  | \% | 2.5 | 28.3 | 25.9 | 12.5 | 7.5 | 5.4 | 4.3 | 3.1 | 2.7 | 2.0 | 1.4 | 1.1 | 1.0 | 1.0 | 0.7 | 0.5 | 0.2 | 0.1 | 100.0 |
| Metropolitan - Other | Persons | 3 | n | 11,5451 | 127,3711 | 20,992 | 52,513 | 31,516 | 22,907 | 16,449 | 12,540 | 13,643 | 2,813 | 1,257 | 9,532 | 9,136 | 9,764 | 7,464 | 4,864 | 2,691 | 1,371 | 478,367 |
|  |  |  | \% | 2.4 | 26.6 | 25.3 | 11.0 | 6.6 | 4.8 | 3.4 | 2.6 | 2.9 | 2.7 | 2.4 | 2.0 | 1.9 | 2.0 | 1.6 | 1.0 | 0.6 | 0.3 | 100.0 |
| Regional- Growth | Persons | 3 | n | 2,169 | 29,284 | 24,727 | 11,427 | 6,736 | 4,775 | 3,416 | 2,659 | 2,603 | 2,180 | 2,060 | 1,973 | 2,360 | 2,682 | 2,183 | 1,527 | 804 | 422 | 103,986 |
|  |  |  | \% | 2.1 | 28.2 | 23.8 | 11.0 | 6.5 | 4.6 | 3.3 | 2.6 | 2.5 | 2.1 | 2.0 | 1.9 | 2.3 | 2.6 | 2.1 | 1.5 | 0.8 | 0.4 | 100.0 |
| Regional- Other | Persons | 3 | n | 3,076 | 46,633 | 45,609 | 23,715 | 12,743 | 8,848 | 6,619 | 5,445 | 4,929 | 3,906 | 3,089 | 2,789 | 3,023 | 3,722 | 3,176 | 2,518 | 1,368 | 709 | 181,918 |
|  |  |  | \% | 1.7 | 25.6 | 25.1 | 13.0 | 7.0 | 4.9 | 3.6 | 3.0 | 2.7 | 2.1 | 1.7 | 1.5 | 1.7 | 2.0 | 1.7 | 1.4 | 0.8 | 0.4 | 100.0 |
| Metropolitan - Growth | Males | 4a, 5a | n | 2,228 | 24,895 | 23,081 | 11,791 | 7,488 | 5,482 | 4,416 | 2,951 | 2,650 | 2,005 | 1,427 | 1,105 | 986 | 999 | 720 | 477 | 230 | 89 | 93,020 |
|  |  |  | \% | 2.4 | 26.8 | 24.8 | 12.7 | 8.0 | 5.9 | 4.7 | 3.2 | 2.8 | 2.2 | 1.5 | 1.2 | 1.1 | 1.1 | 0.8 | 0.5 | 0.2 | 0.1 | 100.0 |
| Metropolitan - Growth | Females | $4 \mathrm{a}, 5 \mathrm{~b}$ | n | 1,100 | 13,286 | 11,853 | 5,057 | 2,581 | 1,756 | 1,369 | 1,201 | 1,027 | 663 | 499 | 346 | 348 | 375 | 285 | 180 | 82 | 51 | 42,059 |
|  |  |  | \% | 2.6 | 31.6 | 28.2 | 12.0 | 6.1 | 4.2 | 3.3 | 2.9 | 2.4 | 1.6 | 1.2 | 0.8 | 0.8 | 0.9 | 0.7 | 0.4 | 0.2 | 0.1 | 100.0 |
| Metropolitan - Other | Males | 4b, 5a | n | 7,412 | 80,448 | 74,638 | 34,073 | 23,056 | 17,444 | 12,612 | 9,260 | 9,618 | 9,133 | 8,203 | 6,828 | 6,445 | 6,785 | 5,228 | 3,481 | 1,941 | 989 | 317,593 |
|  |  |  | \% | 2.3 | 25.3 | 23.5 | 10.7 | 7.3 | 5.5 | 4.0 | 2.9 | 3.0 | 2.9 | 2.6 | 2.1 | 2.0 | 2.1 | 1.6 | 1.1 | 0.6 | 0.3 | 100.0 |
| Metropolitan - Other | Females | $4 \mathrm{~b}, 5 \mathrm{~b}$ | n | 4,133 | 46,922 | 46,355 | 18,440 | 8,461 | 5,464 | 3,837 | 3,280 | 4,025 | 3,679 | 3,054 | 2,704 | 2,692 | 2,979 | 2,235 | 1,383 | 750 | 382 | 160,773 |
|  |  |  | \% | 2.6 | 29.2 | 28.8 | 11.5 | 5.3 | 3.4 | 2.4 | 2.0 | 2.5 | 2.3 | 1.9 | 1.7 | 1.7 | 1.9 | 1.4 | 0.9 | 0.5 | 0.2 | 100.0 |
| Regional - Growth | Males | 4c, 5a | n | 1,429 | 17,971 | 14,818 | 7,446 | 4,708 | 3,332 | 2,403 | 1,749 | 1,746 | 1,515 | 1,438 | 1,409 | 1,557 | 1,840 | 1,464 | 1,030 | 539 | 293 | 66,683 |
|  |  |  | \% | 2.1 | 26.9 | 22.2 | 11.2 | 7.1 | 5.0 | 3.6 | 2.6 | 2.6 | 2.3 | 2.2 | 2.1 | 2.3 | 2.8 | 2.2 | 1.5 | 0.8 | 0.4 | 100.0 |
| Regional - Growth | Females | 4c, 5b | n | 741 | 11,314 | 9,910 | 3,980 | 2,028 | 1,444 | 1,013 | 910 | 857 | 665 | 622 | 565 | 803 | 842 | 719 | 497 | 266 | 129 | 37,303 |
|  |  |  | \% | 2.0 | 30.3 | 26.6 | 10.7 | 5.4 | 3.9 | 2.7 | 2.4 | 2.3 | 1.8 | 1.7 | 1.5 | 2.2 | 2.3 | 1.9 | 1.3 | 0.7 | 0.3 | 100.0 |
| Regional - Other | Males | 4d, 5a | n | 2,007 | 27,491 | 26,460 | 15,332 | 8,802 | 6,084 | 4,387 | 3,346 | 2,968 | 2,504 | 2,008 | 1,875 | 1,941 | 2,425 | 1,978 | 1,698 | 898 | 456 | 112,655 |
|  |  |  | \% | 1.8 | 24.4 | 23.5 | 13.6 | 7.8 | 5.4 | 3.9 | 3.0 | 2.6 | 2.2 | 1.8 | 1.7 | 1.7 | 2.2 | 1.8 | 1.5 | 0.8 | 0.4 | 100.0 |
| Regional - Other | Females | 4d, 5b | n | 1,069 | 19,143 | 19,149 | 8,382 | 3,942 | 2,764 | 2,232 | 2,100 | 1,961 | 1,402 | 1,081 | 914 | 1,083 | 1,297 | 1,199 | 821 | 470 | 253 | 69,262 |
|  |  |  | \% | 1.5 | 27.6 | 27.6 | 12.1 | 5.7 | 4.0 | 3.2 | 3.0 | 2.8 | 2.0 | 1.6 | 1.3 | 1.6 | 1.9 | 1.7 | 1.2 | 0.7 | 0.4 | 100.0 |



Figure 2. Age profile of registered players, 2015, Victoria


Figure 3a. Age and sex profile of registered players, 2015, Victoria


Figure 3b. Age profiles of registered players, 2015, Victoria: by sex


Figure 4. Age profiles of registered players, 2015, Victoria: by region


Figure 5a. Age profiles of registered players, 2015, Metropolitan - Growth: by sex


Figure 5b. Age profiles of registered players, 2015, Metropolitan - Other: by sex


Figure 5c. Age profiles of registered players, 2015, Regional - Growth: by sex


Figure 5d. Age profiles of registered players, 2015, Regional - Other: by sex


Figure 6a. Age profiles of registered players, 2015, males: by region


Figure 6b. Age profiles of registered players, 2015, females: by region

## Definition of the four Sport Participation Research Project (SPRP) regions

For the purpose of regional breakdowns included in standard reports prepared under the Sport Participation Research Project (SPRP), four regions have been defined by the SPRP research team in consultation with Sport and Recreation Victoria and VicHealth. Each region consists of a group of local government areas (LGAs), listed here in alphabetical order. B =Borough, C = City, RC = Rural City, S = Shire.

There are two driving principles behind the designation of these four regions:

- The patterns of sport participation in metropolitan and non-metropolitan areas are known to differ substantially.
- Within both metropolitan and nonmetropolitan areas, projected growth in population is very uneven.

The Metropolitan - Growth region consists of the seven LGAs containing the four growth corridors designated by the Metropolitan Planning Authority. Six of the seven are within the current Melbourne Metropolitan Area designated by the State Government. The seventh, Mitchell Shire, is currently designated Non-metropolitan.

The Regional - Growth region consists of the LGAs containing the three largest regional centres, Geelong, Ballarat and Bendigo, together with four LGAs which are expected, according to State Government population projections, to experience high population growth during the period up to 2021. Each of these four LGAs is on the outer periphery of one or more of Melbourne, Geelong and Ballarat.

The Metropolitan - Other region consists of the remaining 25 LGAs within the designated Melbourne Metropolitan Area.

The Regional - Other region consists of the remaining 40 LGAs outside the designated Melbourne Metropolitan Area.

Metropolitan - Growth (7) Regional - Other (41)
Cardinia (S)
Casey (C)
Hume (C)
Melton (C)
Mitchell (S)
Whittlesea (C)
Wyndham (C)

Metropolitan - Other (25)
Banyule (C)
Bayside (C)
Boroondara (C)
Brimbank (C)
Darebin (C)
Frankston (C)
Glen Eira (C)
Greater Dandenong (C)
Hobsons Bay (C)
Kingston (C)
Knox (C)
Manningham (C)
Maribyrnong (C)
Maroondah (C)
Melbourne (C)
Monash (C)
Moonee Valley (C)
Moreland (C)
Mornington Peninsula (S)
Nillumbik (S)
Port Phillip (C)
Stonnington (C)
Whitehorse (C)
Yarra (C)
Yarra Ranges (S)

Regional - Growth (7)
Ballarat (C)
Bass Coast (S)
Baw Baw (S)
Greater Bendigo (C)
Greater Geelong (C)
Moorabool (S)
Surf Coast (S)

Alpine (S)
Ararat (RC)
Benalla (RC)
Buloke (S)
Campaspe (S)
Central Goldfields (S)
Colac-Otway (S)
Corangamite (S)
East Gippsland (S)
Gannawarra (S)
Glenelg (S)
Golden Plains (S)
Greater Shepparton (C)
Hepburn (S)
Hindmarsh (S)
Horsham (RC)
Indigo (S)
Latrobe (C)
Loddon (S)
Macedon Ranges (S)
Mansfield (S)
Mildura (RC)
Moira (S)
Mount Alexander (S)
Moyne (S)
Murrindindi (S)
Northern Grampians (S)
Pyrenees (S)
Queenscliffe (B)
South Gippsland (S)
Southern Grampians (S)
Strathbogie (S)
Swan Hill (RC)
Towong (S)
Wangaratta (RC)
Warrnambool (C)
Wellington (S)
West Wimmera (S)
Wodonga (RC)
Yarriambiack (S)

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## Contact: Associate Professor Rochelle Eime

 Victoria University and Federation University, Australia r.eime@federation.edu.au (03) 53279687Data accuracy
This report is based on 2015 player registration data provided by 11 sports in Victoria. Data screening checks led to some anomalies being identified in the player registration data, and to the extent that it was possible these were resolved after consultation with the separate sports. Some postcode areas cross state borders, requiring mathematical 'border effect' adjustments. The results in this report are based on the datasets as they stand at the date of publication.

