

# SPORT PARTICIPATION RESEARCH PROJECT

# SPORT PARTICIPATION AND RETENTION FOR YOUTH 14-18 YEARS 2015-2020

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# INTRODUCTION

The Sport Participation Research Project and other research consistently report that participation in club-based sport declines significantly during adolescence (Eime, et al. 2022, Eime, et al. 2019<sup>1</sup>). With the impact of COVID-19 restricting many sports, especially winter sports in 2019 and 2020, many of the older adolescents who were in under-age competitions will now be eligible for open-age competitions, which cater for a broader age range than junior teams. Therefore, older adolescents may be more impacted by COVID restrictions than other age groups.

The aim of this report is to report on participation trends for youth aged 14-18, including retention and drop-out, from 2015 to 2020. This report also demonstrates how participation trends were impacted by COVID-19.

This report is based on combined data from six sports (Australian football, basketball, cricket, gymnastics, netball and football/soccer). A sport participant or player for a particular year is defined as an individual who was a registered participant of a Victorian sports club or program that was affiliated with one of the six State Sporting Associations (SSAs) during that year (calendar year or financial year, as defined by each sport), and resided in Victoria.

This report is presented in three parts, based on three related analyses of changes in participation.

**Part 1:** An analysis of the number of participants in each of the six years 2015-2020, broken down by gender and age. This shows **trends in participation** over time, including the effect of COVID-19 in 2020. The changes from each year to the next include the effects of both recruitment of new players into each sport and retention of existing players.

**Part 2:** An analysis of the number of participants in each of the five years 2015-2019 who are retained in the sport in the following year, broken down by gender and age. This shows **trends in year-to-year retention** over time, including the effect of COVID-19 in 2020. This analysis separates the effect of retention from one year to the next from the effect of recruitment of new players each year.

**Part 3:** A six-year longitudinal analysis of participation patterns of the cohort of players who participated in 2015. This is based on tracking each individuals' participation over the six-year period, and presents **a more complex picture of retention, dropout and churn patterns** for the 2015 cohort.

Results are reported by gender (boys and girls) and by age within each gender.

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<sup>1</sup>Eime, R., M. Charity, H. Westerbeek, A. Pankowiak and J. Harvey (2022). Sport participation in Victoria 2015-2020 and the impact of COVID-19 on participation: Research summary. Melbourne: 11.

Eime, R. M., J. T. Harvey and M. J. Charity (2019). "Sport drop-out during adolescence: is it real, or an artefact of sampling behaviour?" International Journal of Sport Policy and Politics 11(4): 1-12.



# KEY RESULTS

## Participation trends pre-COVID 2015–2019

- There were gradual increases in participation throughout the pre-COVID period (2015–2019).
- The increases were greater, both in absolute terms and proportionally, for girls than boys.
- But more boys aged 14–18 participated in sport than girls.
- In each year, for both boys and girls the number of participants decreased with each age from 14 to 18.

## Year-to-year retention trends pre-COVID 2015–2019

- Throughout the pre-COVID period 2015–2019, the numbers retained from each year to the next gradually rose for both genders, but more strongly and consistently for girls than for boys.
- The percentage retained stayed fairly constant over time at around 60–70%, with the retention rate for boys slightly higher than for girls.
- In each year, for both boys and girls, both the number and the percentage of players retained generally decreased with each year of age from 14 to 18.

## Impact of COVID in 2020

- From 2019 to 2020, COVID contributed to a drop in participant numbers of around 25% for both boys and girls.
- There were 20,943 fewer boys and 11,536 fewer girls playing these sports in 2020 compared to 2019.
- For both boys and girls, the decrease in numbers were similar across all ages, resulting in larger drops in participation in the smaller, older age groups.

For both girls and boys, in 2020, there were around 15% fewer participants aged 14 and around 50% fewer participants aged 18 than in 2019.

- Regarding year-to-year retention, compared to retention from 2018 into 2019, retention of those playing in 2019 into 2020 dropped by about 40% for girls and almost 50% for boys.

## Retention patterns 2015–2020 for the cohort of 2015 players

- 32% of girls and 25% of boys played a given sport for only one year (i.e. 2015) before dropping out.
- Only 6% of girls and 11% of boys played a particular sport for all six years.
- Most participants dropped out at some time during the six-year period and did not return to playing. The proportion was higher for girls (81%) than for boys (70%).
- The percentages of participants who played in all six years trended upward with increasing age in the base year (2015), and were higher for boys (10% for age 14 increasing to 13% for age 18) than for girls (6% for age 14 increasing to 8% for age 18).
- The percentages of participants who dropped out and returned increased with age for both genders, with boys having higher dropout/return (17% for age 14 increasing to 23% for age 18) than girls (10% for age 14 increasing to 18% for age 18).
- In contrast, the percentages of participants who dropped out and did not return decreased with age for both genders, with boys having lower percentages of no return (74% for age 14 decreasing to 65% for age 18) than girls (84% for age 14 decreasing to 74% for age 18).



# CONCLUSIONS AND RECOMMENDATIONS

Sport participation continues to be dominated by boys although girls' participation is increasing at higher rates than for boys. However, retention is lower for girls than for boys.

Very few participants, 6% girls and 11% boys played their sport for all of the six years. The mean time to drop-out was around 2.5 years

Retention of youth (14–18 years) is very low and the impact of COVID-19 in terms of a drop in participation was greater for those older (18 years) compared to younger (14 years). Given that a drop in participation during adolescence has been a long-term trend, now further exacerbated by the COVID-19 pandemic particularly for those older adolescents/young adults, sport organisations need to consider what types and modes of sport opportunities, and playing environments are attractive for adolescents.

It may be that the traditional competitive sport model is not suitable for many of these individuals and that new sport offerings need to be developed, with more flexibility in regard to time and location of delivery, as well as less commitment in terms of training and competition, and more focussed on fun and enjoyment outcomes, and less on winning and competitions. Therefore, it is recommended that sports organisation focus on re-engaging youth in sport through other playing formats and opportunities (Eime et al 2020)<sup>1</sup>.

The long-term impact of COVID-19 is unknown. The patterns of pre-pandemic years may not be useful for decision making post-pandemic. Ongoing research will be required to monitor and understand patterns and trends of (non) participation in order to provide timely insights for the sport, government and health sectors.

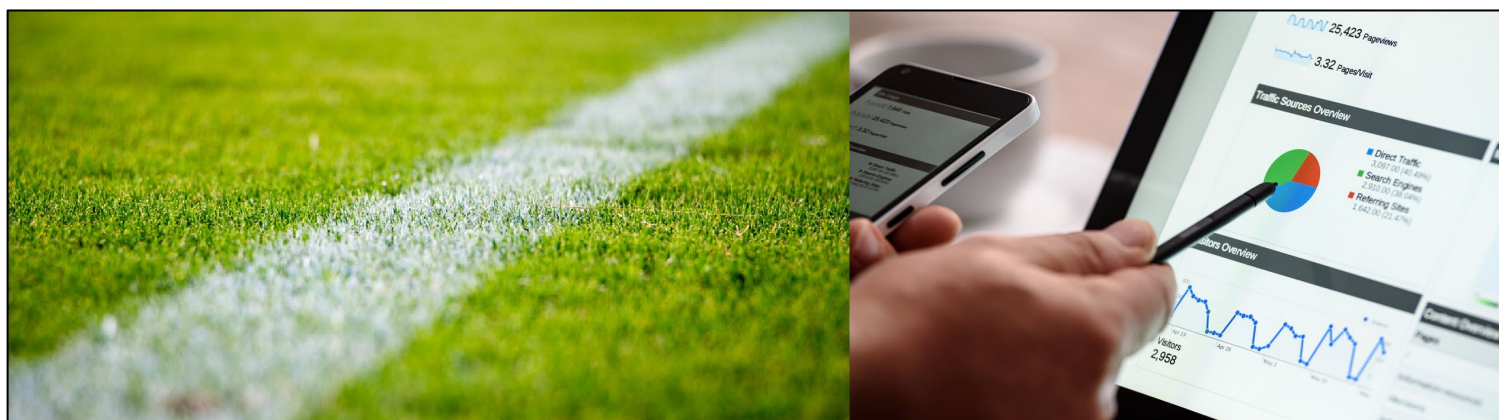
<sup>1</sup> Eime, R., Charity, M., & Westerbeek, H. (2022). The Sport Participation Pathway Model (SPPM): a conceptual model for participation and retention in community sport. *International Journal of Sport Policy and Politics*, 14(2), 291–304. <https://doi.org/10.1080/19406940.2022.2034913>





# METHODOLOGY

Registration data were provided by each of the six sports (Australian football, basketball, cricket, gymnastics, netball and football/soccer) for each year from 2015 to 2020. Participant details included a unique identifier (ID), gender (girls or boys) and age on the date defined by each sport for that year.



- **Part 1** involved aggregating the data from the six sports for each of the years to obtain total numbers, which in this report we refer to as numbers of participants or players. Although the age range of the study includes 18 year-olds, in this report we refer to female and male participants as girls and boys respectively.
- In **Part 2**, for each year in turn, and for each sport, each participant was classified as either: retained, if they also participated in that sport in the following year; or dropped out, if they did not participate in that sport in the following year. The tracking of individuals within each sport was based on the unique identification codes allocated by the sport organisation. The number retained in each sport were then aggregated. The time scope of Part 2 is five years 2015–2016 to 2019–2020. Since 2020 was the last year of data available, the retention/dropout status of players at the end of 2020 could not be determined. Aggregated retention data are presented as numbers of players retained and percentages of all players retained, broken down by gender and age.
- In **Part 3**, for each sport in turn, the cohort of participants registered in 2015 were tracked over the period 2015–2020. Again, the tracking of individuals within each sport was based on the unique identification codes allocated by the sport organisation. Each participant was categorised according to their longitudinal pattern of participation. The numbers in each category were aggregated across the six sports, and the aggregate data presented as numbers and percentages in various categories, broken down by gender and age.



# RESULTS

## Part 1: Trends in participation 2015-2020

Figure 1 shows total participation in the six sports, by gender, for the period 2015–2020. In 2015, there were almost twice as many boys as girls playing these particular sports. For both genders, the numbers rose by around 15% by 2017, remained fairly constant in 2018 and 2019, and then dropped in 2020 by around 25%.

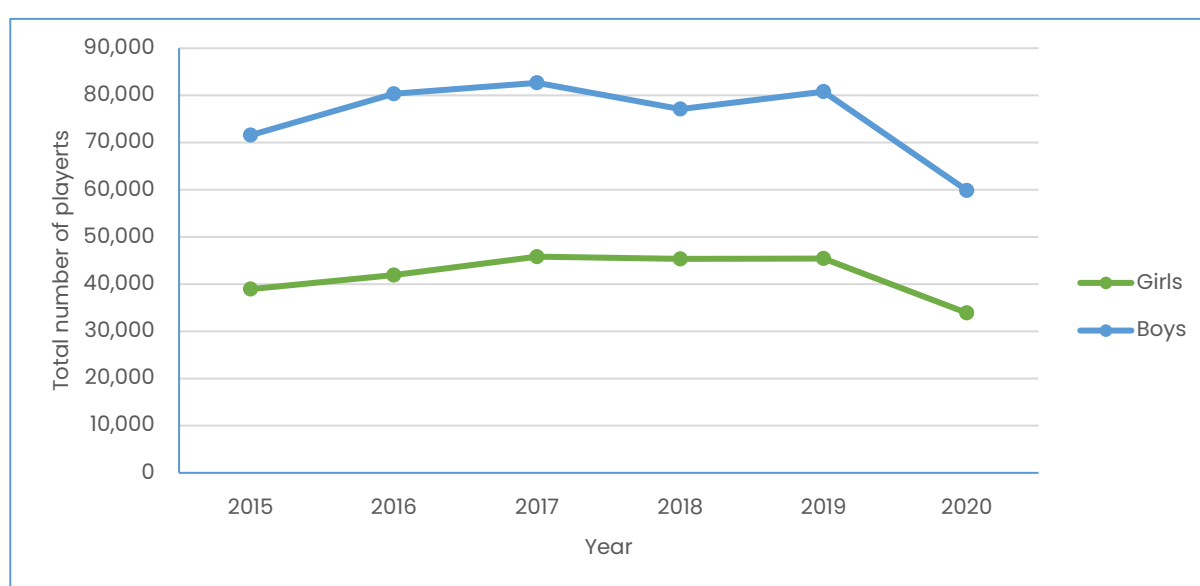


Figure 1. Total Participation in six sports 2015–2020: by gender

Figures 2 and 3 show age breakdowns of participation, for girls and boys respectively. For both genders and all age-groups, the patterns of participation were similar across the six-year period.

The age profiles remained similar across the six-year period. Each year, the number of players decreased steadily with each year of age from 14 to 17, with a smaller decrease at age 18. The percentage of players' decreases were greater for girls than boys. The decreases from age 14 to 18 were around two-thirds (67%) for girls, and around one half (50%) for boys.

In 2020, numbers in all age groups fell sharply. For girls, the magnitude of the decrease in numbers was similar for all age groups, resulting in progressively larger percentage falls with increasing age. Numbers in each age group fell by around 2,000 - representing around 15% of the 2019 counts at age 14 and around 50% at age 18.

For boys, the reduction in numbers in 2020 increased with increasing age, from around



3,000 at age 14 to around 5,000 at age 18. However, because of the countervailing effect of the larger age differences in the numbers of girls than boys, the percentage reductions for boys were similar to those of the girls – around 15% at age 14 and around 50% at age 18.

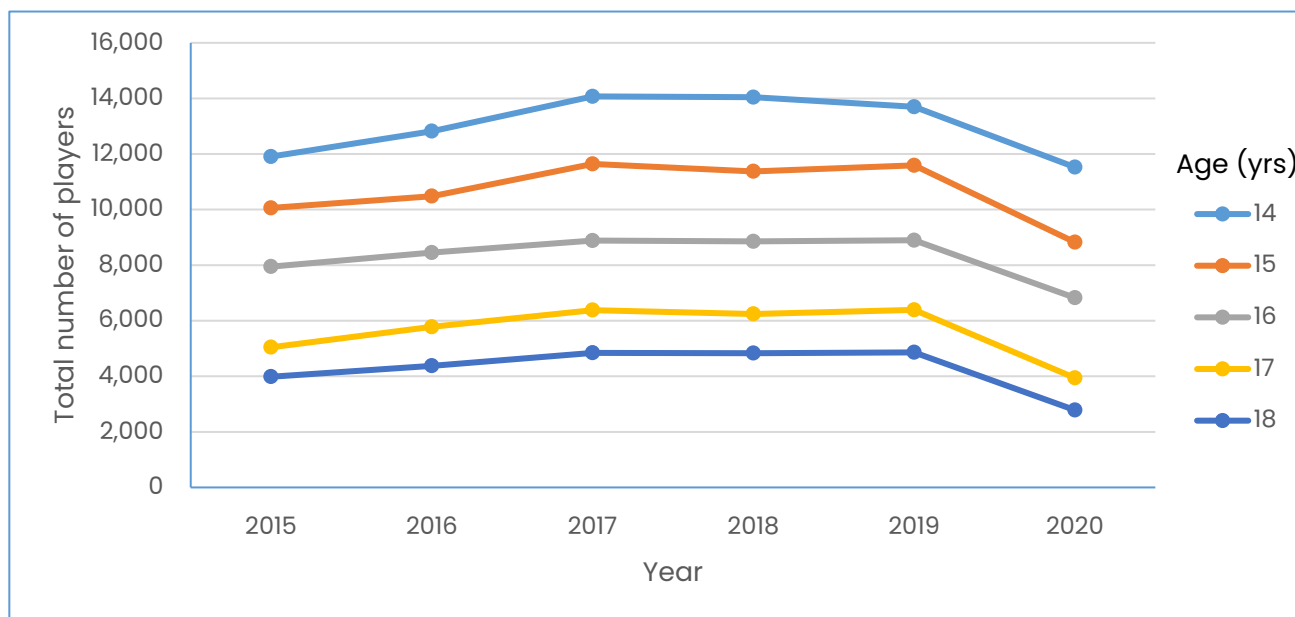


Figure 2. Girls' participation in six sports 2015–2020: by age

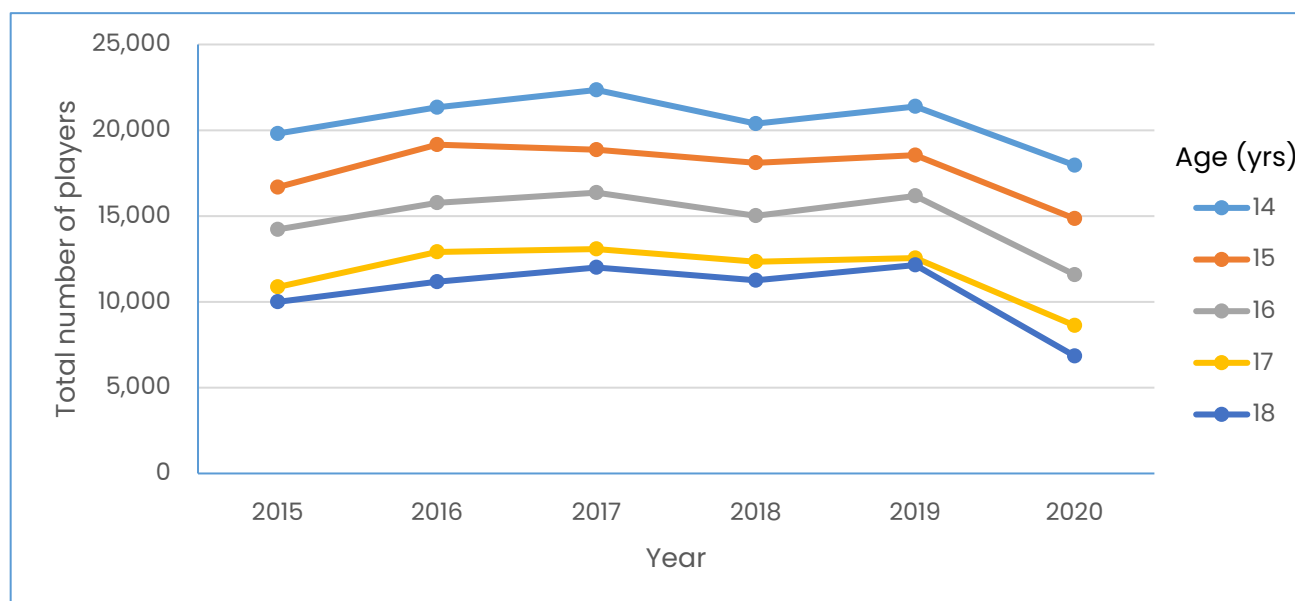


Figure 3. Boys' participation in six sports 2015–2020: by age





## Part 2: Trends in year-to-year retention 2015-2020

Figures 4, 6 and 8 show the **numbers** of participants retained from each year into the following year. Figures 5, 7 and 9 show the **percentages** of participants retained from each year into the following year. For example, the percentages in Figure 5 are the numbers retained (Figure 4) expressed as percentages of the total number of players (Figure 1).

Figure 4 shows total numbers retained into the following year in the six sports, by gender, for the 5-year period from the end of 2015 (designated 2015 -> 2016) to the end of 2019 (designated 2019 -> 2020). Among players in these particular sports in 2015, almost twice as many boys as girls were retained, commensurate with the numbers of participants (Figure 1). The numbers retained rose slightly for both genders, more consistently for girls and more erratically for boys, until 2018 -> 2019, and then dropped sharply for 2019 -> 2020, by around 40% for girls and almost 50% for boys.

From 2015 -> 16 to 2018 -> 19, the numbers retained (Figure 4) followed a similar pattern to the total numbers of participants (Figure 1). This is confirmed in Figure 5, which shows that the proportion of retained participants stayed fairly constant for both girls and boys, at around two thirds. The proportion of boys retained was consistently around 5% higher than girls until 2019 -> 2020, when the sharper fall among boys reversed this pattern.

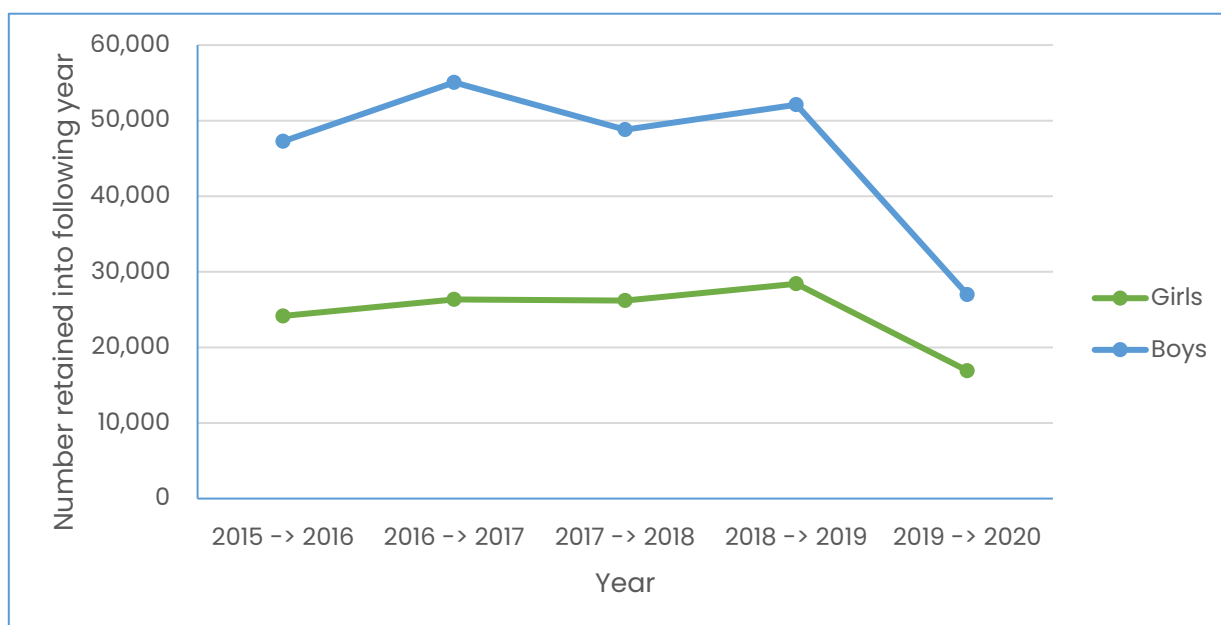


Figure 4. Numbers retained year-to-year in six sports 2015-2020: by gender

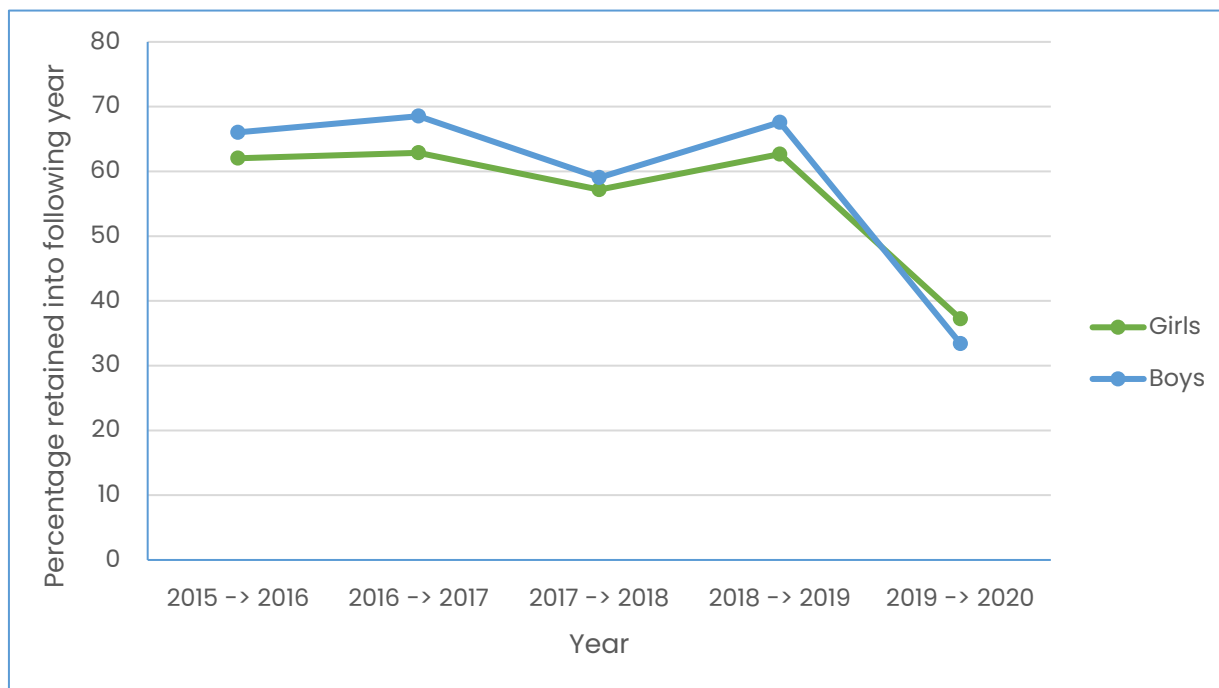


Figure 5. Percentage retained year-to-year in six sports 2015–2020: by gender

Figure 6 shows the numbers of girls retained into the following year in the six sports, by age, for the period 2015 -> 2016 to 2019 -> 2020. From 2015 to 2018, changes in the number of participants retained in each age group followed a similar pattern to changes in total numbers in each age group (Figure 2). This is confirmed in Figure 7, which shows that the percentages of retained participants in each age group retained stayed fairly constant. In 2019, the percentages retained into 2020 fell, consistent with the fall in overall numbers in 2020 (Figure 2). Figure 7 also shows that, the percentage of retained participants in of each age group that were retained decreased steadily with each year of age from 14 to 17, and then rebounded a little at age 18. Further, Figure 7 shows that the decline in the percentage retained from 2019 to 2020 was greater for ages 6-18 years than ages 14-15.

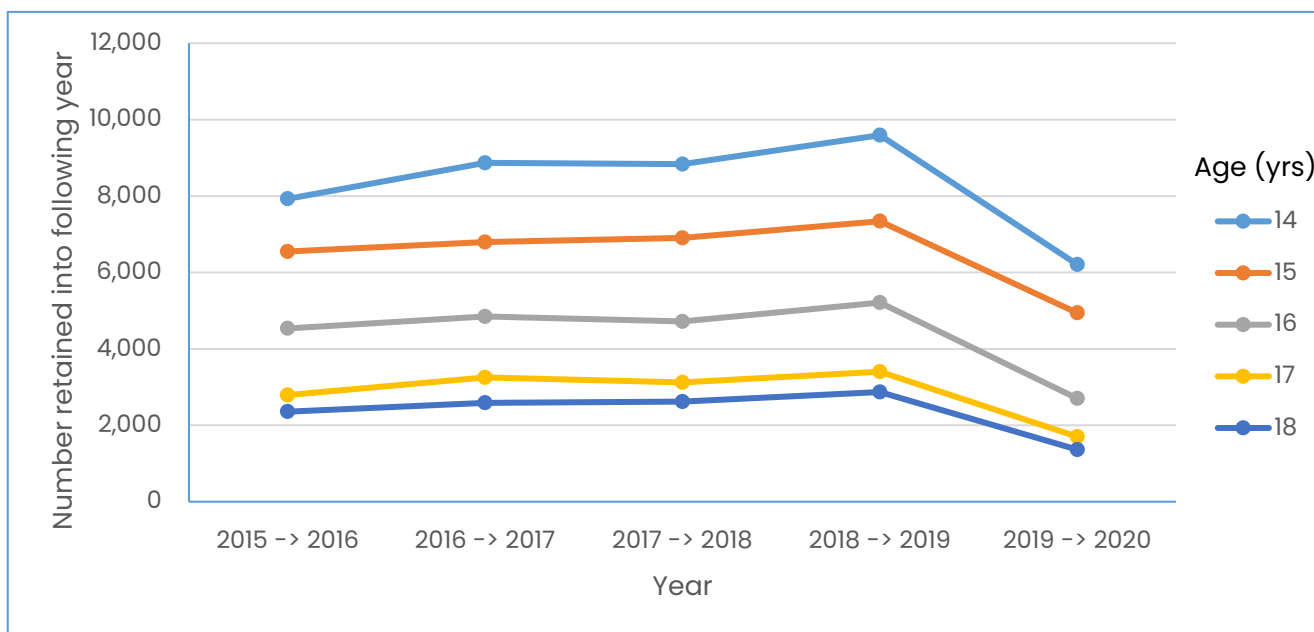


Figure 6. Number of girls retained year-to-year in six sports 2015-2020: by age

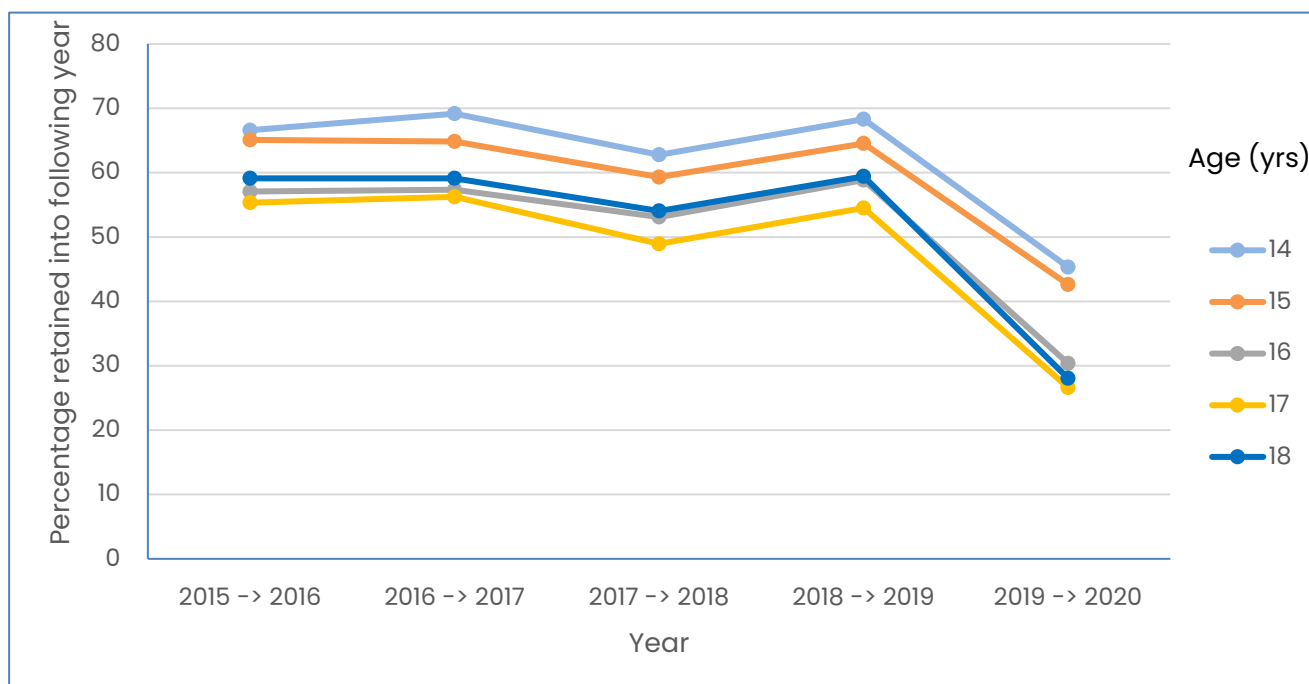


Figure 7. Percentage of girls retained year-to-year in six sports 2015-2020: by age



Figure 8 shows numbers of boys retained into the following year in the six sports, by age, for the period 2015 -> 2016 to 2019 -> 2020. From 2015 to 2018, changes in the number retained in each age group generally followed a similar pattern to changes in total numbers in each age group (Figure 3), except for 2017, when the number of retained participants fell in all age groups. This is confirmed in Figure 9, which shows that the percentages of retained participants in each age group stayed fairly constant, except for 2017 -> 2018, where it dipped for all age groups. The percentages retained from 2019 into 2020 fell, consistent with the fall in overall numbers in 2020 (Figure 2). Figure 9 also shows that up until 2018 -> 2019, the percentage of retained participants in each age group decreased with each year of age from 14 to 16, but then rebounded a little for those aged 17 and 18 years. In 2019 -> 2020, the retention rate decreased across the whole age range from 14 to 18.

Comparison of Figure 9 with Figure 7 shows that, consistently with Figure 5, the falls in the percentages retained from 2019 into 2020 were greater for boys than girls. Superimposed on this overall difference were different age-related variations for boys and girls, as has been described in the preceding paragraphs.

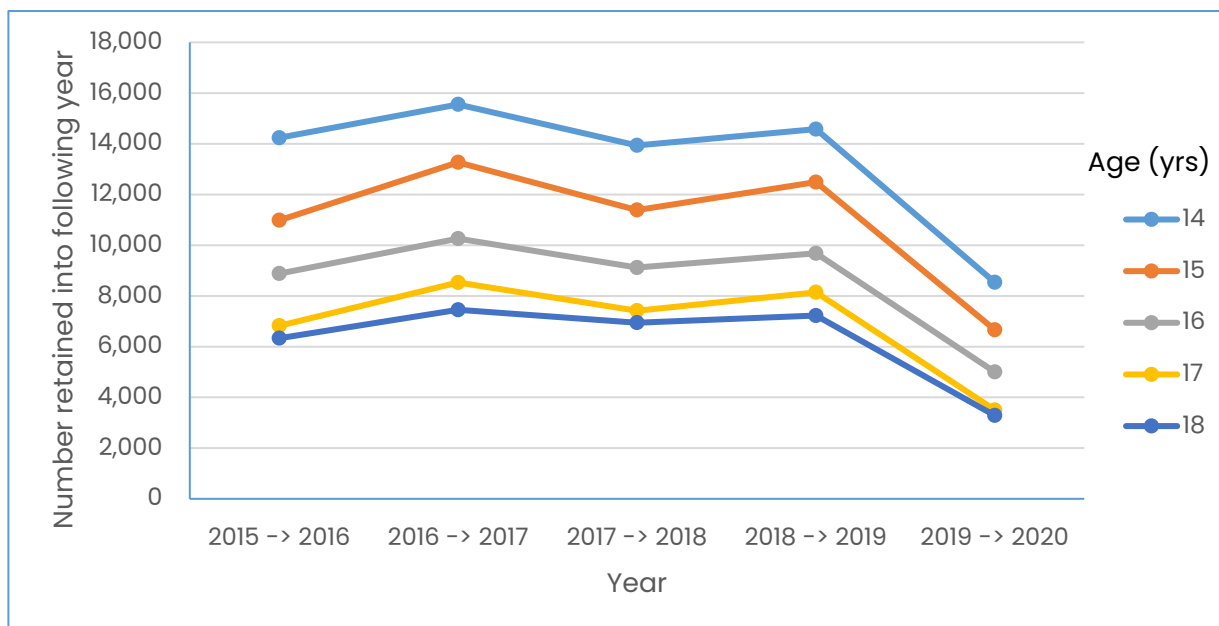


Figure 8. Number of boys retained year-to-year in six sports 2015-2020: by age

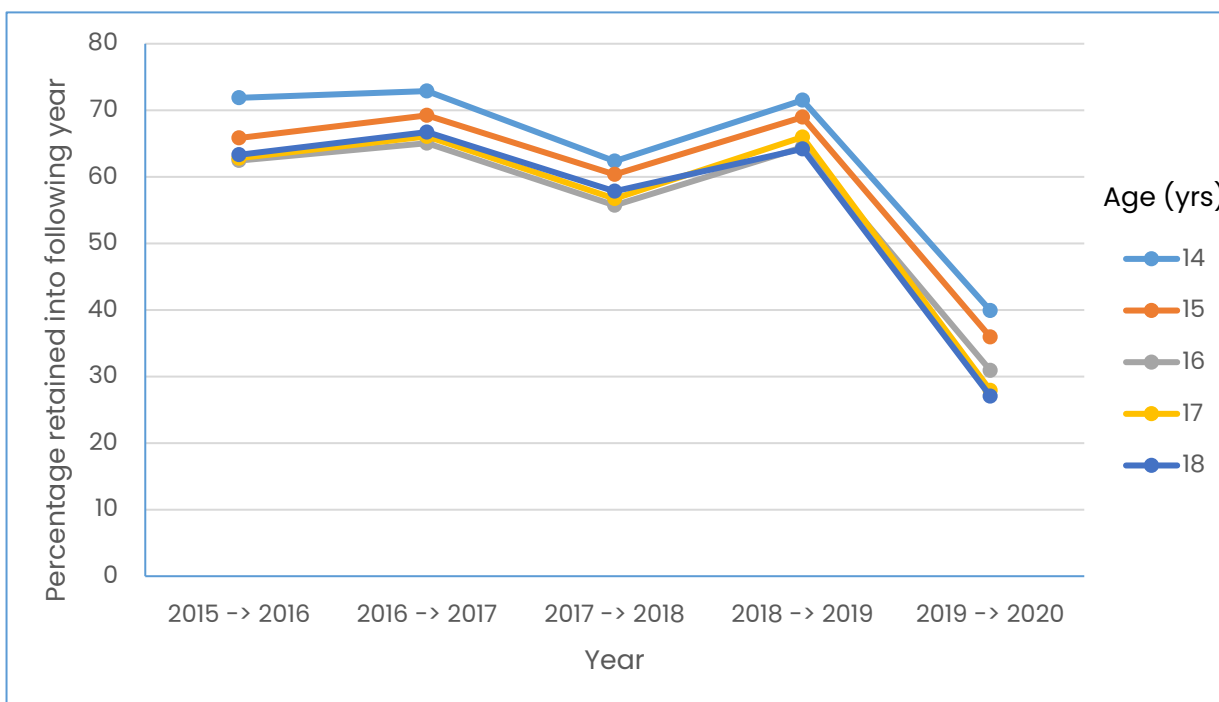


Figure 9. Percentage of boys retained year-to-year in six sports 2015-2020: by age



### Part 3: Six-year-longitudinal analysis of sport participation patterns

In this section, we tracked the participation of players registered in 2015 for the six-year period 2015–2020. Across the six sports, in the base-year 2015 there were 110,523 participants aged 14–18 years, which included 38,945 girls and 71,578 boys. Table 1 shows that during the six-year period 2015–2020, almost a third of the girls (32%) and a quarter of the boys (25%) played in only one year, i.e. the first year (2015). At the other extreme, around 1 in 16 girls (6%) and 1 in 10 boys (11%) played continuously for all six years 2015–2020. On average, girls played just under three years of the six, and boys just over three.

Table 1. Number of years played during 2015–2020 by the 2015 cohort: by gender

| Number of years | Girls<br>% | Boys<br>% |
|-----------------|------------|-----------|
| 1               | 31.9       | 25.4      |
| 2               | 20.3       | 17.1      |
| 3               | 16.4       | 15.8      |
| 4               | 11.2       | 12.9      |
| 5               | 13.8       | 18.1      |
| 6               | 6.4        | 10.7      |
| Total number    | 38,945     | 71,578    |
| Mean (years)    | 2.74       | 3.13      |

Table 2 and Figures 10–12 provide details of the patterns of participation during 2015–2020 by the 2015 cohort, by gender and age in 2015. The final column of Table 2 shows that overall, most participants dropped out at some time during the six-year period and did not return to playing. The proportion of participants not returning was higher for girls (81%) than boys (70%). Conversely, the proportion who dropped out but returned to playing within the six-year period was higher for boys (19%) than for girls (13%). The proportion of participants who played continuously for all six years was also higher for boys (11%) than girls (6%).

Notwithstanding the overall higher levels of engagement and retention among boys, Table 2 and Figures 10 and 11 show similar profiles of change across the age groups at baseline (2015) for girls and boys. The proportions of participants who played continuously or who dropped out but returned increased with age at baseline (2015), while the proportion of those who dropped out altogether decreased with age at baseline (2015).



The percentage of girls who dropped out completely at some time during the six-year period declined from 84% in those aged 14 in 2015 to 74% in those aged 18 in 2015. Conversely, the percentage of girls who dropped out and returned increased from 10% in those aged 14 in 2015 to 18% in those aged 18 in 2015. The percentage of girls who played in all six years also increased slightly, from 6% in those aged 14 in 2015 to 8% in those aged 18 in 2015.

The percentage of boys who dropped out completely at some time during the six-year period declined from 74% in those aged 14 in 2015 to 65% at age 18 in 2015. Conversely, the percentage of boys who dropped out and returned increased from 17% in those aged 14 in 2015 to 23% in those aged 18 in 2015. The percentage of boys who played in all six years also increased slightly from 10% in those aged 14 in 2015 to 13% in those aged 18 in 2015.

Table 2. Pattern of participation during 2015–2020 by the 2015 cohort: by gender and age in 2015

|         |                        | Age in 2015 (years) |        |        |        |       |        |
|---------|------------------------|---------------------|--------|--------|--------|-------|--------|
|         |                        | 14                  | 15     | 16     | 17     | 18    | 14–18  |
| Pattern |                        | %                   | %      | %      | %      | %     | %      |
| Girls   | All six years          | 6.3                 | 5.7    | 6.1    | 7.1    | 8.0   | 6.4    |
|         | Drop-out and return    | 10.0                | 11.9   | 14.8   | 16.3   | 17.6  | 13.1   |
|         | Drop-out and no return | 83.7                | 82.3   | 79.1   | 76.6   | 74.4  | 80.6   |
|         | Total number           | 11,906              | 10,059 | 7,948  | 5,045  | 3,987 | 38,945 |
| Boys    | All six years          | 9.9                 | 9.0    | 10.6   | 12.8   | 12.8  | 10.7   |
|         | Drop-out and return    | 16.5                | 18.1   | 20.2   | 21.2   | 22.5  | 19.2   |
|         | Drop-out and no return | 73.6                | 72.9   | 69.2   | 66.0   | 64.7  | 70.2   |
|         | Total number           | 19,806              | 16,683 | 14,221 | 10,869 | 9,999 | 71,578 |

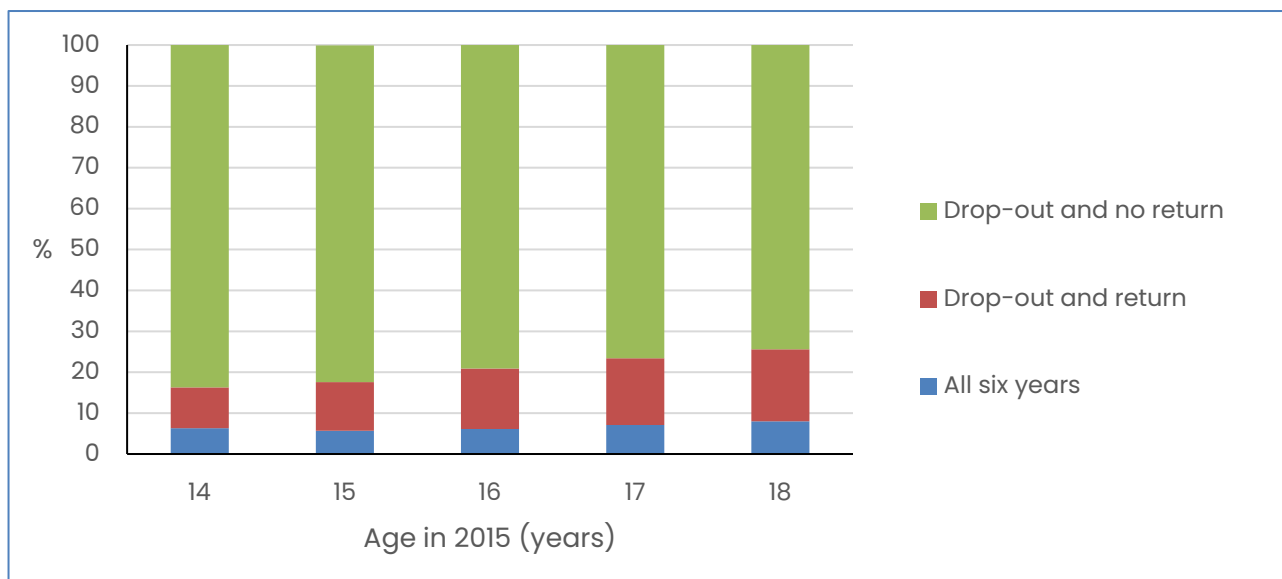


Figure 10. Girls' patterns of participation during 2015-2020: by age in 2015

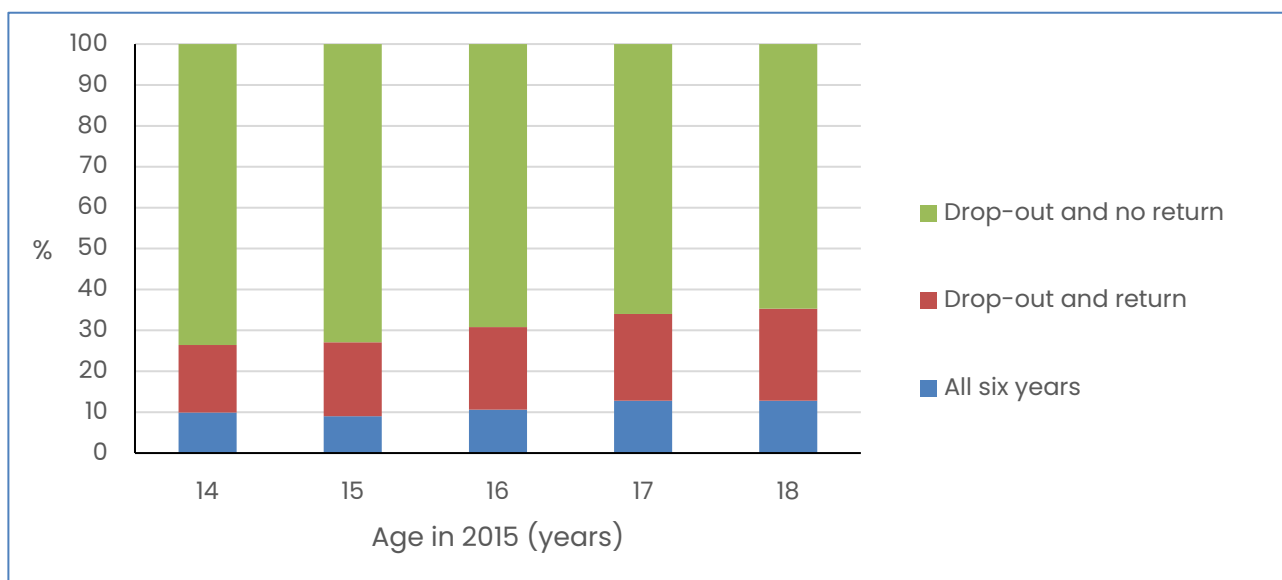


Figure 11. Boys' patterns of participation during 2015-2020: by age in 2015





For those who dropped out, the time until drop-out ranged from 1 year (drop-out after the 2015 season) to 5 years (drop-out after the 2019 season). For those who dropped out and subsequently returned, the time to return is the number of years elapsed between drop-out and return, ranging from 1 year (drop-out after the 2015 season and return in 2017, and other similar patterns) to 4 years (drop-out after the 2015 season and return in 2020). Figure 12 shows average (mean) times elapsed to drop-out and to return, by gender and age in 2015.

The mean time to drop-out was around 2.5 years. On average, girls dropped out sooner than boys, and this difference was fairly constant across all ages from 14 to 18 years. Similar age-related trends were observed for girls and boys. The mean time to drop-out was highest at ages 14 and 18, and slightly less for ages 15-17. The mean time to return after drop-out was just under 1.5 years for both girls and boys, and for all ages.

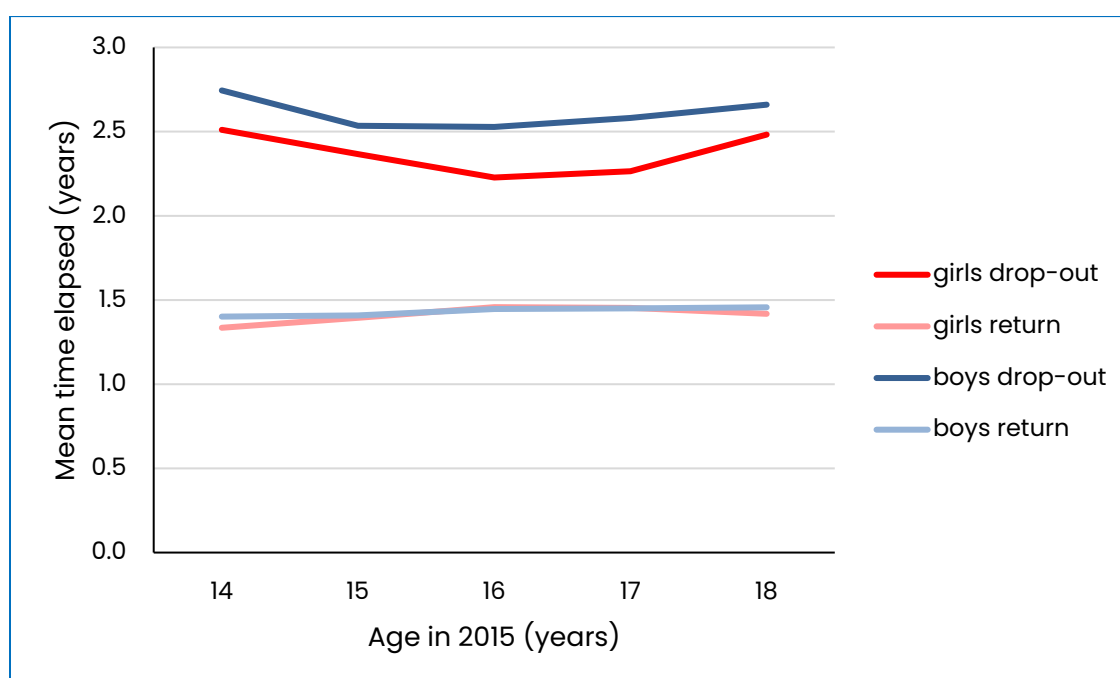


Figure 12. Mean time to drop-out and return during 2015–2020: by gender and age in 2015



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