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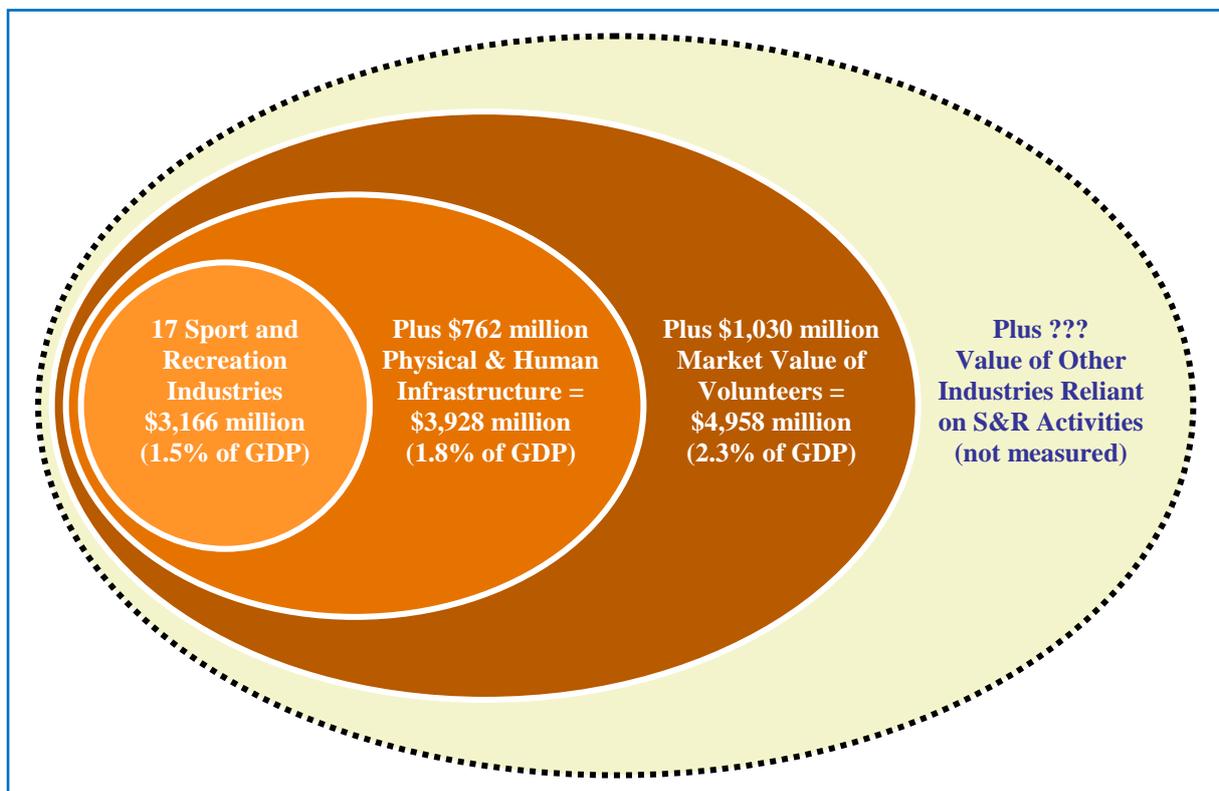
Key Points from the Report

Since the last study of the size of the contribution of the sport and recreation sector to the New Zealand national economy (2008/09), a number of important data updates have been made, including the 2013 Census and the *Active New Zealand 2013/14 Survey*. Statistics New Zealand has also published its new National Accounts (Industry Benchmarks) series data in this new series.

This report finds that the size of the sport and recreation sector has grown in employment and value added, so that its share of the economy has remained stable between 2008/09 and 2012/13. As presented in the figure below, the estimated value of sport and recreation in New Zealand in the 2012/13 financial year is as follows:

- **Based on the 17 core industries, the narrowly defined sector is estimated to have contributed 1.5 per cent to GDP that year.**
- **If the definition is broadened to include the three items of physical and human infrastructure identified in this chapter, the size expands to 1.8 per cent.**
- **If the contribution of volunteers is included, the size increases further to 2.3 per cent.**

Estimated Market Value of Sport and Recreation in New Zealand, 2012/13



The report also makes the following observations:

- Virtually all young people aged 5 to 9 years meet guidelines for physical activity, but this falls to 80 per cent at age 10-14, to 40 per cent at age 15 to 19 and to 20 per cent at age 20 to 24.
- The average time spent per week by all adults on sport and recreation activities (excluding gardening and walking) in 2013/14 was 149 minutes, which was the same time recorded in 2007/08; but the percentage of adults participating in sport and recreation activities over the previous seven days declined from 63 per cent for those aged 18-24 years to 39 per cent for those aged 65 years or older.
- The number of people recorded in the 2013 Census as employed either in sport and recreation industries or in sport and recreation occupations (or both) was **53,904**, which was **an increase of 11.5 per cent** on the same figure in the 2006 Census.
- The *Active NZ 2013/14 Survey* recorded that **28.1 per cent of adults** aged 18 years or over had **volunteered** at least once over the previous year.¹ They contributed **67.7 million hours** of volunteered time over 12 months, with an estimated market value of **\$1,030.5 million**.
- Central and local government make key investments in human and physical capital infrastructure that is vital for the sport and recreation sector. This includes physical and outdoors education in schools and the provision of public sport and recreation facilities.
- Enterprises in industries such as broadcasting, merchandising, international tourism, accommodation, hospitality and designer clothing can depend on sport and recreation for a substantial part of their business.
- In the short term (2006-2012), the Rugby World Cup was estimated to have resulted in a short-term expansion of the national economy in the order of **\$1,730 million** (measured at 2007 prices), sustaining the equivalent of **22,890 extra jobs for the duration of one year**.
- This impact was expected to be lower in the medium, but was still estimated to be “reasonably significant”, in the order of **\$573 million** (measured in 2007 prices), sustaining the equivalent of **7,840 jobs for one year**.

¹ Note that the definition of adults used in this report is people aged 18 years or over. This differs from the definition used in some other publications such as Sport New Zealand (2015), which is based on people aged 16 years or over.

Key Points from the Chapters

Chapter 1. Introduction

- Since the last study of the size of the contribution of the sport and recreation sector to the New Zealand national economy, a number of important data updates have been made, including the 2013 Census and the *Active New Zealand 2013/14 Survey*.
- Statistics New Zealand has also published its new National Accounts (Industry Benchmarks) series data in this new series. This provides several improvements on previously published data; however it also involves a downward **revision** in the size of the “Arts and Recreation Services” industry compared to the size of the previous “Cultural and Recreational Services” industry in the old series.
- This has an impact on the previously estimated total contribution to GDP of the sport and outdoor recreation sector in 2008/09.
 - The contribution of the sport and outdoor recreation sector (narrowly defined) to GDP in 2008/09 is estimated to have been **\$2.9 billion, or 1.5 per cent.**
 - The contribution of the sport and outdoor recreation sector (broadly defined) to GDP in 2008/09 is estimated to have been **\$3.6 billion, or 1.9 per cent.**
 - The contribution of sport and outdoor recreation to GDP including volunteered services in 2008/09 is estimated to have been **\$4.3 billion, or 2.2 per cent.**
- This report updates those estimates of the value of sport and recreation for the year ending March 2013 using the new datasets released since 2011. It finds that the size of the sector has grown in employment and value added, so that its share of the economy remained stable between 2008/09 and 2012/13.

Chapter 2. Participation in Sport and Recreation in New Zealand

- New Zealand has a strong reputation for high levels of participation by school pupils in sport and recreation activities.
- The *Young People’s Survey 2011* reported that around 9 out of 10 boys in Years 1-13, around 9 out of 10 girls in Years 1-10, and around 8 out of 10 girls in Years 11-13, all take part in one or more sports or activities regularly.
- Virtually all young people aged 5 to 9 years meet guidelines for physical activity, but this falls to 80 per cent at age 10-14, to 40 per cent at age 15 to 19 and to 20 per cent at age 20 to 24.
- The *Active NZ Survey 2013/14 Survey* found that the proportion of adults aged 18 to 64 participating in at least one sport and recreation activity (excluding walking and gardening) over the previous 12 months is above 80 per cent.

- The same survey found that the percentage of adults participating in sport and recreation activities over the previous seven days was 63 per cent for those aged 18-24 years, declining to 39 per cent for those aged 65 years or older.
- The survey also found that the average time spent per week by all adults on sport and recreation activities (excluding gardening and walking) was 149 minutes, which was the same time recorded in the previous *Active NZ Survey* in 2007/08.

Chapter 3. Professionals and Volunteers in the Sport and Recreation Sector

- The number of people recorded in the 2013 Census as employed in sport and recreation *industries* was **40,191**, which was 2.1 per cent of all employed people and **an increase of 9.1 per cent** on the same figure in the 2006 Census.
- The number of people recorded in the 2013 Census as employed in sport and recreation *occupations* was **29,301** which was 1.5 per cent of all employed people and **an increase of 16.0 per cent** on the same figure in the 2006 Census.
- The largest increases were the numbers of fitness instructors, swimming coaches or instructors, and other sports coaches or instructors.
- The number of people recorded in the 2013 Census as employed either in sport and recreation industries or in sport and recreation occupations (or both) was **53,904**, which was 2.8 per cent of all employed people and **an increase of 11.5 per cent** on the same figure in the 2006 Census.
- Estimated incomes in the sport and recreation occupations were slightly below the rate of inflation between the 2006 Census and 2013 Census.
- The *Active NZ 2013/14 Survey* recorded that **28.1 per cent of adults** aged 18 years or over reported they had **volunteered** at least once over the previous 12 months; the highest volunteer rate was in the 35-49 years age band, which was 39.2 per cent.
- Based on that survey, it is estimated that adults contributed **67.7 million hours** of volunteered time over 12 months, **a substantial increase** on the 51.3 million hours estimated from the 2007/08 survey.
- The market value of these volunteered services is estimated to be **\$1,030.5 million**.

Chapter 4. Producers of Sport and Recreation Goods and Services

- Using data from the 2013 Census and the 2011/12 National Accounts (Industry Benchmarks), it is estimated that **the sport and recreation sector (narrowly defined) contributed \$3,092.5 million, or 1.5 per cent, to New Zealand's gross domestic product in 2011/12.**
- This was **the same share of GDP as recalculated for 2008/09.**
- Assuming that the sector grew at the same rate as gross domestic product over the next twelve months, **this is equivalent to \$3,166.3 million in 2012/13** (the base year for this report).

- New Zealand engages in exports and imports of sport and recreation commodities, including: horses; tracksuits, ski suits and swimwear, sports footwear; bicycles and other cycles; yachts and other vessels; and sports and outdoor recreation equipment.
- Between 2010 and 2014, imports of these commodities increased from \$451.8m to \$521.5m, but exports decreased from \$455.0m to \$312.8m.

Chapter 5. Providers of Sport and Recreation Infrastructure

- The sport and recreation sector can be defined more broadly to include: (i) people employed in sport and recreation occupations outside the sport and recreation industries; (ii) the salaries of teachers attributed to physical education and outdoors education; (iii) and the value added in the construction sector for new sport and recreation facilities.
- The income of people employed in sport and recreation occupations outside the sport and recreation industries in 2012/13 is estimated to have been **\$497.8 million**.
- Central government funded programmes for sport and recreation are estimated to have involved expenditure of **\$535.4 million** in the year ending June 2014.
- Central government spending on primary and secondary school teacher salaries that might be attributed to physical education and outdoors education amounted to **\$189.2 million** in 2012/13.
- Local government operating expenditure on recreation and sport in 2012/13 is estimated to have been **\$704.8 million**.
- Local government net investment in new facilities for recreation and sport in 2012/13 is estimated to have been \$214.9 million, which implies value added in the construction sector of **\$75.2 million**.
- **The contribution of the sport and recreation sector (broadly defined) to gross domestic product in 2012/13 was \$3,928 million, or 1.8 per cent.**
- **The contribution of the sector, including the market value of volunteered services, in 2012/13 was \$4,959 million, or 2.3 per cent of gross domestic product.**

Chapter 6. Promotion of Sport and Recreation to Spectators and Supporters

- Enterprises in industries such as broadcasting, merchandising, international tourism, accommodation, hospitality and designer clothing can depend on sport and recreation for a substantial part of their business.
- There is little reliable data upon which estimates could be made of the economic value of these services, but a commissioned survey by Horizon Research (2013) found that for every \$100 spent directly on outdoor recreation, another \$36.62 was reported as being spent on travel, accommodation and other trip-related activities.
- Sport and outdoor recreation are important aspects of the experience of international tourists: In 2014, 74.2 per cent reported they had gone for a walk, hike, trek or tramp,

56.2 per cent reported they had visited a natural attractions; 44.6 per cent reported they had spent time at a beach; and 25.8 per cent had been to a national park.

- In the short term (2006-2012), the Rugby World Cup was estimated to have resulted in a short-term expansion of the national economy in the order of **\$1,730 million** (measured at 2007 prices), sustaining the equivalent of **22,890 extra jobs for the duration of one year**.
- This impact was expected to be lower in the medium, but was still estimated to be “reasonably significant”, in the order of **\$573 million** (measured in 2007 prices), sustaining the equivalent of **7,840 jobs for one year**.

1. Introduction

Key Facts and Estimates

- Since the last study of the size of the contribution of the sport and recreation sector to the New Zealand national economy, a number of important data updates have been made, including the 2013 Census and the *Active New Zealand 2013/14 Survey*.
- Statistics New Zealand has also published its new National Accounts (Industry Benchmarks) series data in this new series. This provides several improvements on previously published data; however it also involves a downward **revision** in the size of the “Arts and Recreation Services” industry compared to the size of the previous “Cultural and Recreational Services” industry in the old series.
- This has an impact on the previously estimated total contribution to GDP of the sport and outdoor recreation sector in 2008/09.
 - The contribution of the sport and outdoor recreation sector (narrowly defined) to GDP in 2008/09 is estimated to have been **\$2.9 billion**, or **1.5 per cent**.
 - The contribution of the sport and outdoor recreation sector (broadly defined) to GDP in 2008/09 is estimated to have been **\$3.6 billion**, or **1.9 per cent**.
 - The contribution of sport and outdoor recreation to GDP including volunteered services in 2008/09 is estimated to have been **\$4.3 billion**, or **2.2 per cent**.
- This report updates those estimates of the value of sport and recreation for the year ending March 2013 using the new datasets released since 2011. It finds that the size of the sector has grown in employment and value added, so that its share of the economy remained stable between 2008/09 and 2012/13.

1.1 Background to this report

Estimates of the value of the sport and outdoor recreation sector to the New Zealand economy go back at least to the study by Jensen *et al.* (1993) commissioned by the former Hillary Commission. It reported that in 1990/91 the physical leisure sector had provided a direct contribution to New Zealand’s gross domestic product (GDP) of 1.2 per cent. This was followed up by two updates (Frater *et al.*, 1998; Goodchild *et al.*, 2000), which found that the physical leisure sector had grown between 1991 and 1996, but not as fast as the economy, so that its share of GDP had fallen to one per cent.

In 2011, Sport and Recreation New Zealand (SPARC, now renamed Sport New Zealand) commissioned a new study on the economic and social value of sport and recreation in New Zealand prepared by Dalziel (2011). That study used the Australia and New Zealand Standard Industrial Classification (ANZSIC) of 2006 to identify 17 industries that have a very high component of activities devoted to sport and outdoor recreation. These 17 industries are

listed in Table 1-1. That study then combined employment ratios calculated from 2006 Census data with industry contributions to GDP drawn from Statistics New Zealand's published National Accounts for 2006/07 (the latest data then available) to estimate that the size of the sector defined in Table 1-1 in 2008/09 was 2.1 per cent of GDP.

Table 1-1: The Sport and Recreation Sector Defined by Selected ANZSIC Industries

| ANZSIC06 Code | ANZSIC06 Industry |
|----------------------|---|
| A011300 | Turf Growing |
| A019100 | Horse Farming |
| C239200 | Boatbuilding and Repair Services |
| C259200 | Toy, Sporting and Recreational Product Manufacturing |
| F373400 | Toy and Sporting Goods Wholesaling |
| G424100 | Sport and Camping Equipment Retailing |
| P821100 | Sports and Physical Recreation Instruction |
| Q853300 | Physiotherapy Services |
| R892200 | Nature Reserves and Conservation Parks Operation |
| R911100 | Health and Fitness Centres and Gymnasia Operation |
| R911200 | Sport and Physical Recreation Clubs and Sports Professionals |
| R911300 | Sports and Physical Recreation Venues, Grounds and Facilities Operation |
| R911400 | Sport and Physical Recreation Administrative Service |
| R912100 | Horse and Dog Racing Administration and Track Operation |
| R912900 | Other Horse and Dog Racing Activities |
| R913100 | Amusement Parks and Centres Operation |
| R913900 | Amusement and Other Recreation Activities (not elsewhere classified) |

Source: Dalziel (2011, p. 38).

In 2015, Sport New Zealand commissioned the Agribusiness and Economics Research Unit to update the 2011 study to take into account improved and more recently released data. This was motivated by four major events in particular.

- In November 2012, Statistics New Zealand published its first data release from its new National Accounts (Industry Benchmarks) series, which replaced its previous National Accounts series (discontinued in 2011).
- In 2012, Sport New Zealand began publishing results from its 2011 Young People's Survey; see Sport New Zealand (2012) and Ipsos and Sport New Zealand (2014).

- On 5 March 2013, the delayed New Zealand Census of Population and Dwellings took place.
- In 2013/14, Sport New Zealand undertook its latest Active New Zealand Survey; see Sport New Zealand (2015).

These new data sources have been used in this current report. It turns out that the new National Accounts (Industry Benchmarks) series makes a material difference to the estimate of the narrowly defined sport and outdoor recreation sector's contribution to gross domestic product in Dalziel (2011). This is because the Industry Benchmarks series adopts the updated industry classification system known as ANZSIC 2006, replacing the previous framework of ANZSIC 1993 that was used in the previous National Accounts series (see the Appendix to this report).

Some changes in the movement from ANZSIC 1993 to ANZSIC 2006 affected the former industry division of "Cultural and Recreational Services" in particular, which was renamed "Arts and Recreation Services". Three important examples are:

- Motion Picture, Radio and Television Services was generally moved out of the Cultural and Recreational Services division and shifted to the new industry division of Information Media and Telecommunications.
- Some services provided by central and local government (such as local government sports and physical recreation venues, grounds and facilities operations) were removed from the Government Administration division and shifted to Arts and Recreation Services.
- Similarly, sports instruction and coaching was shifted from the Cultural and Recreational Services division to the new Education and Training division.

To give a guide to the extent of these changes, Table 1.2 compares the estimated size of the Cultural and Recreational Services industry division in the discontinued series with the estimated size of the Arts and Recreation Services industry division in the new series, both for 2006/07. The latter estimate is 73.1 per cent of the former estimate.

Table 1-2: The Sport and Recreation Industries in the National Accounts (Discontinued) and the National Accounts (Industry Benchmarks), Value Added, 2006/07.

| National Accounts (Discontinued) | | National Accounts (Industry Benchmarks) | |
|------------------------------------|-------|---|-------|
| Industry Name | \$m | Industry Name | \$m |
| Cultural and Recreational Services | 3,673 | Arts and Recreation Services | 2,684 |

Source: Statistics New Zealand National Accounts data.

The new series represents a substantial improvement in data quality, but the above changes mean that the estimate in Dalziel (2011) must be recalibrated. The details are provided in the Appendix to this report. In summary, the recalculations show that the size of the sport and outdoor recreation sector in 2008/09 was smaller than originally estimated, as follows:

- *The contribution of the sport and outdoor recreation sector (narrowly defined) to GDP in 2008/09 is estimated to have been **\$2.9 billion, or 1.5 per cent.***
- *The contribution of the sport and outdoor recreation sector (broadly defined) to GDP in 2008/09 is estimated to have been **\$3.6 billion, or 1.9 per cent.***
- *The contribution of sport and outdoor recreation to GDP including volunteered services in 2008/09 is estimated to have been **\$4.3 billion, or 2.2 per cent.***

1.2 Structure of this report

The chapters of this report follow the structure set out in Dalziel (2011), presenting updated tables and figures using data made available since 2011. Chapter 2 describes participation in sport and recreation; chapter 3 describes professionals and volunteers in the sector; chapter 4 describes producers of sport and recreation services; chapter 5 describes providers of sport and recreation infrastructure; and chapter 6 discusses the promotion of sport and recreation to spectators and supporters. The updated estimates of the value of sport and recreation for the year ending March 2013 using the new datasets finds that the size of the sector has grown in employment and value added, so that its share of the economy remained stable between 2008/09 and 2012/13.

2. Participation in Sport and Recreation in New Zealand

Key Facts and Estimates

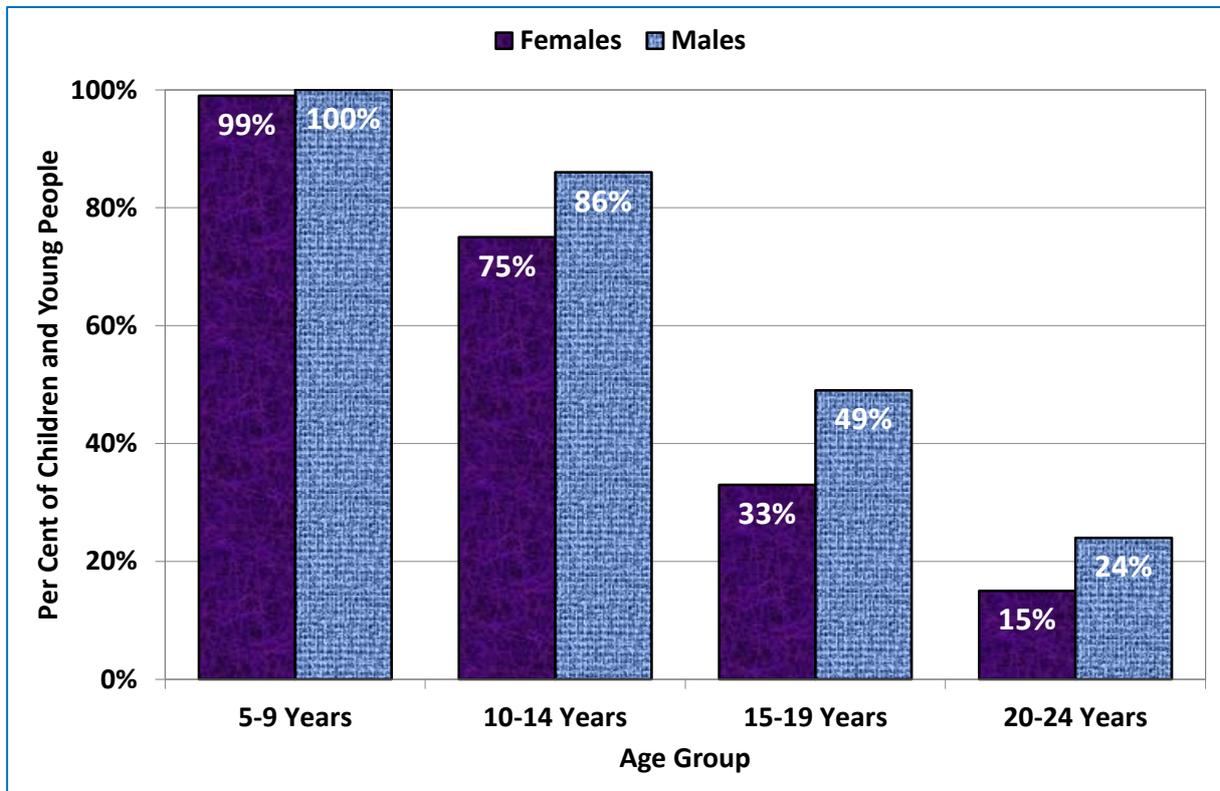
- New Zealand has a strong reputation for high levels of participation by school pupils in sport and recreation activities.
- The *Young People's Survey 2011* reported that around 9 out of 10 boys in Years 1-13, around 9 out of 10 girls in Years 1-10, and around 8 out of 10 girls in Years 11-13, all take part in one or more sports or activities regularly.
- Virtually all young people aged 5 to 9 years meet guidelines for physical activity, but this falls to 80 per cent at age 10-14, to 40 per cent at age 15 to 19 and to 20 per cent at age 20 to 24.
- The *Active NZ Survey 2013/14 Survey* found that the proportion of adults aged 18 to 64 participating in at least one sport and recreation activity (excluding walking and gardening) over the previous 12 months is above 80 per cent.
- The same survey found that the percentage of adults participating in sport and recreation activities over the previous seven days was 63 per cent for those aged 18-24 years, declining to 39 per cent for those aged 65 years or older.
- The survey also found that the average time spent per week by all adults on sport and recreation activities (excluding gardening and walking) was 149 minutes, which was the same time recorded in the previous *Active NZ Survey* in 2007/08.

Sport New Zealand conducts two major surveys of the participation of New Zealanders in sports and recreation. The *2011 Young People's Survey* focuses on the participation of those at school, generally aged between 5 and 18 years. Results from that survey, which involved more than 17,000 students (Sport New Zealand, 2012), are presented in section 2.1. The second survey is the *Active New Zealand Survey*, which involved interviews with 6,448 adults **aged 16 years and older** (Sport New Zealand, 2015). Data were collected in 2013/14 and are discussed in section 2.2, focusing for this report on adults **aged 18 years and older**.

2.1 Young people's participation in sport and recreation

New Zealand has a strong reputation for high levels of participation by school pupils in sport and recreation activities. A recent study of fifteen countries by Tremblay *et al.* (2014), for example, put New Zealand first equal for the percentage of children and youth meeting their country's physical activity guidelines (see Maddison *et al.*, 2014, for the full New Zealand results). This observation was based on data from the *National Survey of Children and Young People's Physical Activity and Dietary Behaviours in New Zealand: 2008/09* (Clinical Trials Research Unit and Synovate, 2010); the relevant graph is reproduced in Figure 2-1.

Figure 2-1: Proportion of Children and Young People Meeting Guidelines for Physical Activity (Any Day Average Method), by Age Group and Gender, 2008/09



Notes: Physical activity guideline for children and young people aged from 5 up to 18 years is based on 60 minutes per day; 18-24 years old is based on 30 minutes per day. These are survey data; the original graph shows standard errors not reproduced here.

Source: Clinical Trials Research Unit and Synovate (2010, Figure 30, p. 55).

The figure shows the proportion of respondents meeting national guidelines for physical activity at different age bands. The proportions tend to be higher for males than for females, but for both genders there is a large reduction in 15-19 years age group compared to the 10-14 years group, and a further reduction in the 20-24 years age group.

The *2011 Young People's Survey* provides a wide range of data on young people's participation in sport and recreation activities. It relies on self-reported physical activity recall which typically results in higher estimates than obtained from objective measures (such as providing participants with accelerometers as was the instrument used for the data in Figure 2-1 above).

The *2011 Young People's Survey* reported that around 9 out of 10 boys in Years 1-13, around 9 out of 10 girls in Years 1-10, and around 8 out of 10 girls in Years 11-13, all take part in one or more sports or activities regularly (Sport New Zealand, 2012, p. 36). Further, young people state that on average they are participating regularly in between three and five sports or activities (ibid; see Table 2-1 below).

Table 2-1: Regular Participation by Gender and Year Level – All Sports/Activities, 2011

| | Years 1-2 | Years 3-6 | Years 7-10 | Years 11-13 |
|---|-----------|-----------|------------|-------------|
| Boys | | | | |
| Takes part in one or more sports/activities regularly | 94.8% | 93.9% | 93.1% | 87.2% |
| Takes part in two or more sports/activities regularly | 86.6% | 84.9% | 80.4% | 66.8% |
| Average number of sports/activities taken part in regularly | 4.5 | 5.3 | 4.8 | 3.5 |
| Girls | | | | |
| Takes part in one or more sports/activities regularly | 92.7% | 93.7% | 90.8% | 83.1% |
| Takes part in two or more sports/activities regularly | 81.7% | 83.0% | 76.6% | 61.5% |
| Average number of sports/activities taken part in regularly | 4.1 | 4.8 | 4.3 | 3.2 |

Notes: Regular is defined as one or more times a week “this year”. The averages shown in the third row are calculated for those who did one or more sports/activities.

Source: Sport New Zealand (2012, p. 36).

The most popular activities are shown for the different age groups in Tables 2-2, 2-3 and 2-4. The majority of young people in the survey reported that they like playing sport a lot (Sport New Zealand, 2012, p. 22) and their involvement included volunteering in a number of roles such as coaching, officiating and helping (idem, p. 57).

Table 2-2: Top Ten Sports and Recreation Activities by Boys and Girls Aged 5-10, 2011

| Boys | Per Cent | Girls | Per Cent |
|----------------------------------|----------|------------------------------------|----------|
| Swimming | 86.2 | Swimming | 90.2 |
| Athletics (run, jump, throw) | 77.4 | Athletics (run, jump, throw) | 79.6 |
| Cycling, biking | 76.9 | Cycling, biking | 78.5 |
| Football, soccer, futsal | 73.8 | Cross-country | 73.6 |
| Cross-country | 70.0 | Gymnastics, trampoline, aerobics | 72.2 |
| Rugby, rippa rugby | 65.6 | Dance (e.g. ballet, b-boy, b-girl) | 59.9 |
| Gymnastics, trampoline, aerobics | 60.2 | Tramping, bush walks | 56.8 |
| Tramping, bush walks | 57.9 | Netball | 50.0 |
| Skateboarding | 52.9 | Football, soccer, futsal | 44.7 |
| Fishing | 47.4 | Māori activities (e.g. kappa haka) | 41.8 |

Source: Sport New Zealand (2012, p. 22).

Table 2-3: Top Ten Sports and Recreation Activities by Boys and Girls Aged 11-14, 2011

| Boys | Per Cent | Girls | Per Cent |
|-------------------------------------|----------|-------------------------------------|----------|
| Running, jogging, cross-country | 79.8 | Running, jogging, cross-country | 84.8 |
| Swimming | 79.1 | Swimming | 83.2 |
| Football, soccer, futsal | 72.0 | Walking for fitness | 72.3 |
| Rugby | 71.0 | Netball | 72.1 |
| Basketball | 68.4 | Athletics, track and field | 68.7 |
| Cycling, biking (not mountain bike) | 65.3 | Football, soccer, futsal | 65.2 |
| Athletics, track and field | 64.4 | Cycling, biking (not mountain bike) | 65.1 |
| Touch | 63.0 | Basketball | 62.5 |
| Table tennis | 58.9 | Dance (e.g. ballet, b-boy, b-girl) | 53.9 |
| Fishing | 54.3 | Touch | 51.7 |

Source: Sport New Zealand (2012, p. 23).

Table 2-4: Top Ten Sports and Recreation Activities by Boys and Girls Aged 15-18, 2011

| Boys | Per Cent | Girls | Per Cent |
|-------------------------------------|----------|-------------------------------------|----------|
| Running, jogging, cross-country | 74.1 | Running, jogging, cross-country | 78.1 |
| Swimming | 67.9 | Swimming | 76.0 |
| Athletics, track and field | 62.3 | Walking for fitness | 73.8 |
| Football, soccer, futsal | 61.9 | Athletics, track and field | 58.8 |
| Basketball | 60.9 | Cycling, biking (not mountain bike) | 52.8 |
| Rugby | 58.1 | Netball | 51.2 |
| Cycling, biking (not mountain bike) | 54.8 | Dance (e.g. ballet, b-boy, b-girl) | 50.5 |
| Table tennis | 51.7 | Basketball | 47.4 |
| Touch | 50.7 | Football, soccer, futsal | 46.9 |
| Badminton | 46.2 | Badminton | 45.7 |

Source: Sport New Zealand (2012, p. 24).

The New Zealand Secondary School Sports Council (NZSSSC) undertakes an annual census of student participation in secondary school sport. The NZSSSC defines participation as meaningful engagement in the school setting; that is: represented the school in a sport OR took part in a sport provided in-school over a period of at least 6 weeks OR played for a club arranged by the school as the school had no teams in that sport OR took part in sport that was provided through the KIWI SPORT initiative. Table 2-5 shows the results of the 2014 census for different parts of the country. The national total was 54.2 per cent, which was higher than the 51.4 per cent recorded for 2010 (Dalziel, 2011, Table 2.2, p. 14). Rugby is easily the most popular sport for boys at secondary school and netball is easily the most popular sport for girls (see Table 2-6).

Table 2-5: Secondary School Students Involved in Sport, by Region, 2014

| Region | Per Cent of Students | Per Cent of Males | Per Cent of Females |
|-----------------------|----------------------|-------------------|---------------------|
| Aoraki | 65.4 | 66.3 | 64.5 |
| Auckland (Auckland) | 54.5 | 60.9 | 48.4 |
| Auckland (Counties) | 46.9 | 52.3 | 41.1 |
| Auckland (Harbour) | 51.1 | 53.8 | 48.3 |
| Auckland (Waitakere) | 41.5 | 45.5 | 37.3 |
| Bay of Plenty | 49.4 | 52.1 | 46.6 |
| Canterbury | 55.2 | 57.7 | 52.6 |
| Eastland | 55.6 | 56.2 | 54.9 |
| Hawkes Bay | 62.4 | 66.9 | 58.0 |
| Manawatu | 52.6 | 56.9 | 48.1 |
| Northland | 49.7 | 48.8 | 50.5 |
| Otago | 67.6 | 67.0 | 68.1 |
| Southland | 62.1 | 64.2 | 59.9 |
| Taranaki | 62.3 | 67.5 | 56.9 |
| Tasman | 44.8 | 48.3 | 41.3 |
| Waikato | 56.6 | 60.3 | 52.8 |
| Wairarapa | 70.3 | 70.9 | 69.9 |
| Wanganui | 62.8 | 60.5 | 64.9 |
| Wellington | 59.9 | 62.9 | 56.7 |
| National Total | 54.2 | 57.5 | 50.8 |

Source: NZSSSC census data, downloaded 11 August 2015 at www.nzsssc.org.nz/.

Table 2-6: Top Five Sports by Secondary School Students, 2014

| Male Students | | Female Students | |
|-------------------|----------|-------------------|----------|
| | Per Cent | | Per Cent |
| Rugby Union | 32.8 | Netball (Outdoor) | 42.0 |
| Football | 19.3 | Volleyball | 15.7 |
| Basketball | 16.7 | Football | 12.9 |
| Cricket (Outdoor) | 10.4 | Basketball | 11.5 |
| Touch Rugby | 9.5 | Hockey (Outdoor) | 10.4 |

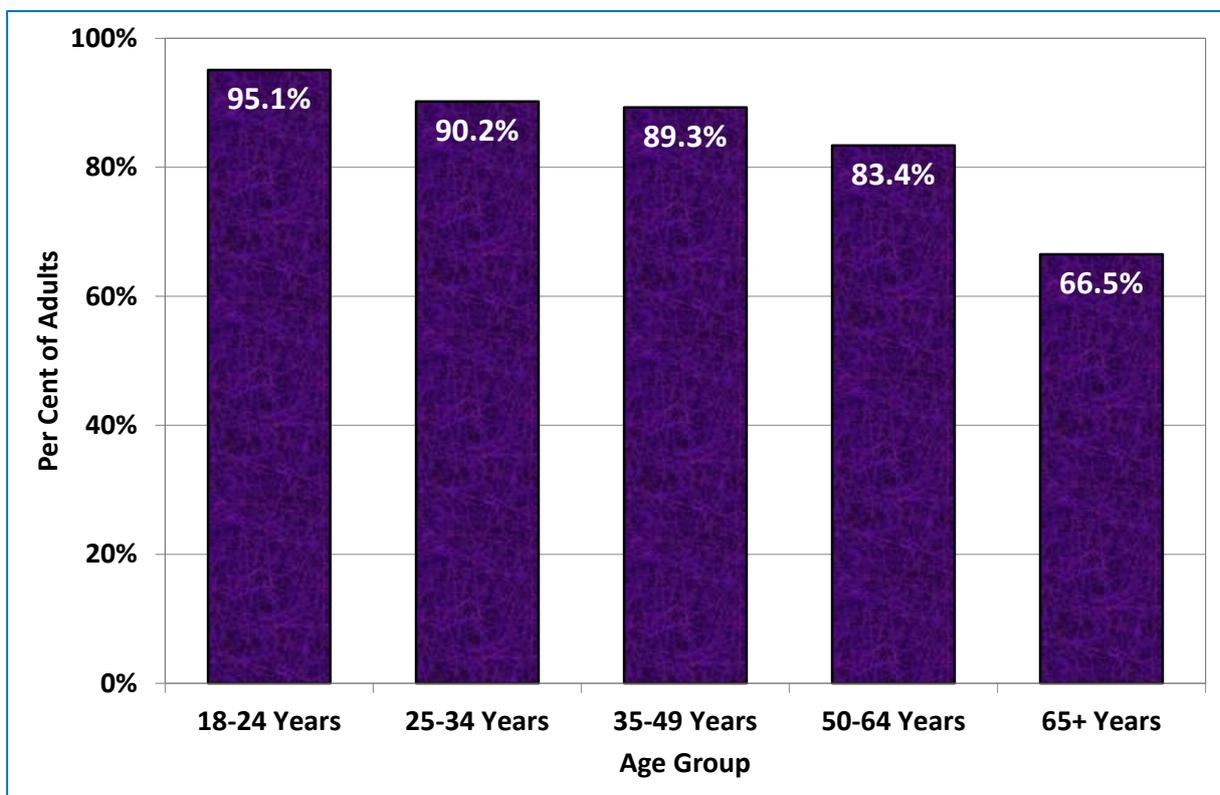
Note: Per cent is of male or female students participating in sport.

Source: NZSSSC census data, downloaded 11 August 2015 at www.nzsssc.org.nz/.

2.2 Adult participation in sport and recreation

The *Active New Zealand Survey 2013/14* provides data on the participation rates of adults aged 16 years and older (Sport New Zealand, 2015). For this study, the sample was restricted to those aged 18 and over. This covered 6,249 adults comprised of 2,694 men and 3,555 women. Respondents were asked about a range of activities, but for the purposes of this section, walking and gardening have been excluded from the analysis. The self-reported participation in at least one sport and recreation activity over the previous twelve months is high, as shown in Figure 2-2.

Figure 2-2: Proportion of Adults Participating in Sport and Recreation Activities over the Previous Twelve Months by Age Group, 2013/14

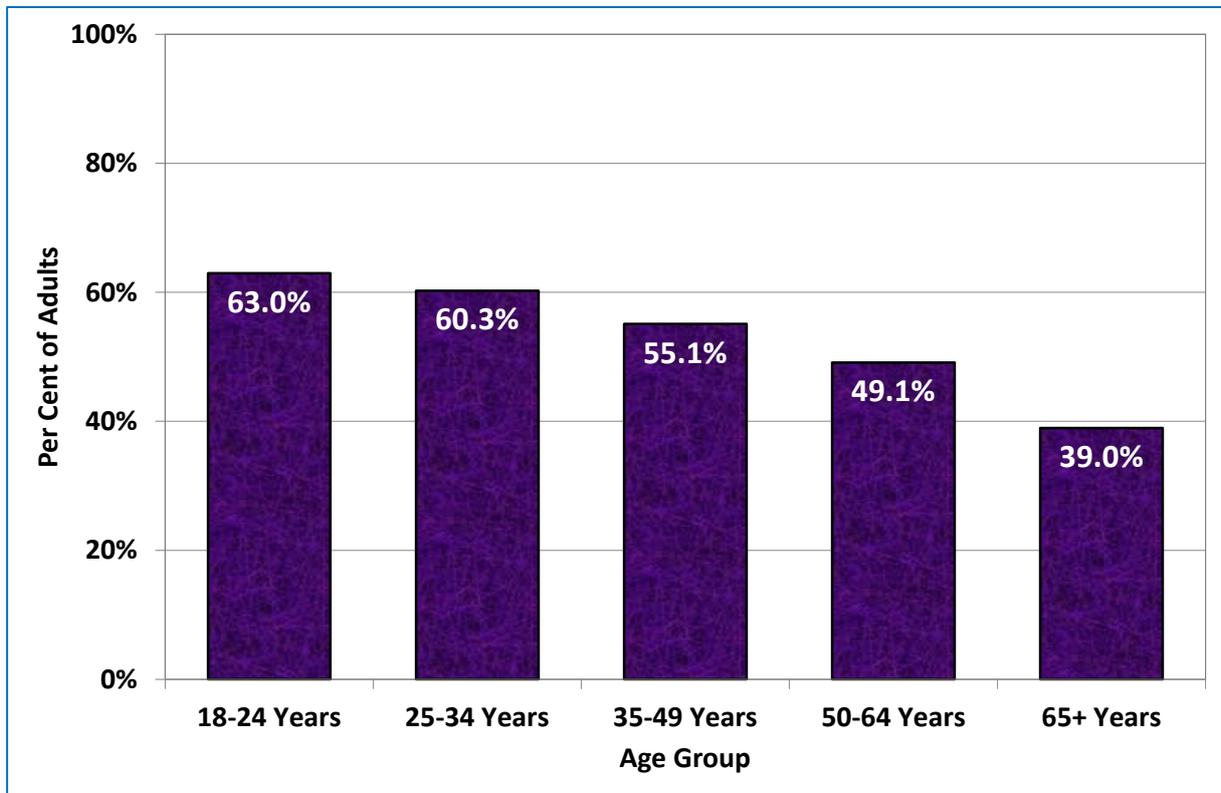


Note: Walking and gardening are excluded from these data.

Source: *Active NZ Survey 2013/14*.

These numbers decline when people were asked if they had participated in their sport and recreation activities over the previous seven days, but is still above 50 per cent until the age of 50 (see Figure 2-3).

Figure 2-3: Proportion of Adults Participating in Sport and Recreation Activities over the Previous Seven Days by Age Group, 2013/14



Note: Walking and gardening are excluded from these data.

Source: *Active NZ Survey 2013/14*.

Table 2-7 shows participation in the 25 most popular activities (excluding walking and gardening) and the average number of activities. There are some differences in the popularity of different activities among men and women shown in Table 2-8.

Of those who reported having participated in sport and recreation activities (excluding walking and gardening) at least once a month over the previous year, men (36.5 per cent) were more likely to report that they had belonged to a sport or physical activity club than women (21.1 per cent). Women, however, were more likely to have received instruction from a coach (50.7 per cent compared to 40.3 per cent for men).

Table 2-7: Sport and Recreation Participation Over 12 Months, All Adults, 2013/14

| All Adults (18 years and over) | Number (000s) | Per Cent |
|---|--------------------------|---------------------|
| Swimming | 942.3 | 29.7 |
| Cycling | 791.3 | 24.9 |
| Equipment-based exercise | 706.0 | 22.2 |
| Fishing | 631.5 | 19.9 |
| Jogging/running | 588.8 | 18.6 |
| Pilates/yoga | 340.7 | 10.7 |
| Golf | 310.6 | 9.8 |
| Tramping | 306.7 | 9.7 |
| Dance | 296.7 | 9.3 |
| Aerobics | 287.8 | 9.1 |
| Canoeing / kayaking | 255.3 | 8.0 |
| Callisthenics | 196.8 | 6.2 |
| Tennis | 193.8 | 6.1 |
| Snowsports | 179.3 | 5.6 |
| Football | 179.0 | 5.6 |
| Netball | 161.9 | 5.1 |
| Cricket | 160.2 | 5.0 |
| Hunting | 156.0 | 4.9 |
| Bowls | 140.1 | 4.4 |
| Table tennis | 136.4 | 4.3 |
| Touch rugby / football | 134.2 | 4.2 |
| Surfing / body boarding | 133.9 | 4.2 |
| Basketball | 125.2 | 3.9 |
| Diving / scuba diving | 109.3 | 3.4 |
| Shooting | 108.1 | 3.4 |
| <i>Average Number of Activities for All Adults (see note below)</i> | <i>3.3 per person</i> | |

Notes: Table shows the top 25 sport and recreation activities, excluding walking and gardening. The definitions for each sport are the same as in Sport New Zealand (2015, pp. 24-25). The average number of activities in the final row is for all adults (including those who reported that they did not take part in any activities).

Source: *Active NZ Survey 2013/14*.

Table 2-8: Sport and Recreation Participation Over 12 Months, Males and Females, 2013/14

| Male Adults | Number (000s) | Per Cent | Female Adults | Number (000s) | Per Cent |
|--|-----------------------|----------|--|-----------------------|----------|
| Fishing | 453.7 | 29.9 | Swimming | 533.4 | 32.2 |
| Cycling | 432.9 | 28.5 | Cycling | 358.4 | 21.6 |
| Swimming | 408.9 | 27.0 | Equip-based exercise | 350.8 | 21.2 |
| Equip-based exercise | 355.3 | 23.4 | Jogging/running | 286.2 | 17.3 |
| Jogging/running | 302.6 | 20.0 | Pilates/yoga | 279.6 | 16.9 |
| Golf | 231.7 | 15.3 | Aerobics | 225.2 | 13.6 |
| Tramping | 167.9 | 11.1 | Dance | 220.5 | 13.3 |
| Hunting | 143.7 | 9.5 | Fishing | 177.8 | 10.7 |
| Football | 142.5 | 9.4 | Tramping | 138.8 | 8.4 |
| Canoeing/kayaking | 142.3 | 9.4 | Callisthenics | 118.6 | 7.2 |
| Cricket | 128.9 | 8.5 | Netball | 117.9 | 7.1 |
| Snowsports | 100.3 | 6.6 | Canoeing/kayaking | 113.0 | 6.8 |
| Tennis | 96.6 | 6.4 | Tennis | 97.2 | 5.9 |
| Touch rugby/football | 96.6 | 6.4 | Aquarobics | 82.2 | 5.0 |
| Surfing/body boarding | 94.7 | 6.2 | Snowsports | 79.0 | 4.8 |
| Basketball | 93.8 | 6.2 | Golf | 78.8 | 4.8 |
| Shooting | 92.8 | 6.1 | Exercise at home (other) | 73.2 | 4.4 |
| Diving/scuba diving | 92.2 | 6.1 | Exercise classes (other) | 62.5 | 3.8 |
| Rugby | 86.0 | 5.7 | Bowls | 60.3 | 3.6 |
| Motorsports | 85.9 | 5.7 | Horse riding/equestrian | 55.3 | 3.3 |
| Table tennis | 85.0 | 5.6 | Badminton | 54.2 | 3.3 |
| Bowls | 79.8 | 5.3 | Table tennis | 51.4 | 3.1 |
| Callisthenics | 78.2 | 5.2 | Boxing | 44.2 | 2.7 |
| Dance | 76.2 | 5.0 | Surfing/body boarding | 39.1 | 2.4 |
| Aerobics | 62.5 | 4.1 | Touch rugby/football | 37.6 | 2.3 |
| <i>Average Number of Activities for All Adults</i> | <i>3.7 per person</i> | | <i>Average Number of Activities for All Adults</i> | <i>2.9 per person</i> | |

Notes: Table shows the top 25 sport and recreation activities, excluding walking and gardening. The definitions for each sport are the same as in Sport New Zealand (2015, pp. 24-25). The average number of activities in the final row is for all adults (including those who reported that they did not take part in any activities).

Source: *Active NZ Survey 2013/14*.

The Active NZ survey can be used to estimate the time spent participating sport and recreation activities. Table 2-9 compares the estimates obtained from the 2013/14 survey with those obtained from the 2007/08 survey reported in Dalziel (2011, p. 19). There was no change in the average number of minutes spent per week by all adults on sport and recreation activities; it was 149 minutes in both surveys.

Table 2-9: Time Spent Participating in Sport and Recreation Activities, Adults by Age, 2007/08 and 2013/14

| Average minutes per week spent on: | | 18-24 Years | 25-34 Years | 35-49 Years | 50-64 Years | 65+ Years | All Adults |
|------------------------------------|---------|-------------|-------------|-------------|-------------|-----------|------------|
| Total: All Activities | 2007/08 | 279 | 293 | 290 | 308 | 353 | 304 |
| | 2013/14 | 256 | 253 | 272 | 334 | 360 | 299 |
| Sport and Recreation Activities | 2007/08 | 222 | 169 | 149 | 121 | 112 | 149 |
| | 2013/14 | 200 | 167 | 150 | 139 | 116 | 149 |
| Gardening | 2007/08 | 6 | 29 | 44 | 79 | 113 | 56 |
| | 2013/14 | 7 | 28 | 47 | 96 | 142 | 69 |
| Walking | 2007/08 | 50 | 82 | 83 | 90 | 110 | 85 |
| | 2013/14 | 50 | 58 | 75 | 99 | 103 | 80 |

Note: Walking and gardening are excluded from these data.

Source: *Active NZ Survey 2007/08* and *Active NZ Survey 2013/14*.

3. Professionals and Volunteers in the Sport and Recreation Sector

Key Facts and Estimates

- The number of people recorded in the 2013 Census as employed in sport and recreation *industries* was **40,191**, which was 2.1 per cent of all employed people and **an increase of 9.1 per cent** on the same figure in the 2006 Census.
- The number of people recorded in the 2013 Census as employed in sport and recreation *occupations* was **29,301** which was 1.5 per cent of all employed people and **an increase of 16.0 per cent** on the same figure in the 2006 Census.
- The largest increases were the numbers of fitness instructors, swimming coaches or instructors, and other sports coaches or instructors.
- The number of people recorded in the 2013 Census as employed either in sport and recreation industries or in sport and recreation occupations (or both) was **53,904**, which was 2.8 per cent of all employed people and **an increase of 11.5 per cent** on the same figure in the 2006 Census.
- Estimated incomes in the sport and recreation occupations were slightly below the rate of inflation between the 2006 Census and 2013 Census.
- The *Active NZ 2013/14 Survey* recorded that **28.1 per cent of adults** aged 18 years or over reported they had **volunteered** at least once over the previous 12 months; the highest volunteer rate was in the 35-49 years age band, which was 39.2 per cent.
- Based on that survey, it is estimated that adults contributed **67.7 million hours** of volunteered time over 12 months, **a substantial increase** on the 51.3 million hours estimated from the 2007/08 survey.
- The market value of these volunteered services is estimated to be **\$1,030.5 million**.

This chapter focuses on New Zealand residents who work in the sport or recreation sector, either in paid employment or as volunteers. The former group covers those whose main source of income is employment either in a sport and outdoor recreation industry (section 3.1) or in a sport and outdoor recreation occupation (section 3.2). Section 3.3 uses Census data to estimate the personal incomes of people employed in sport and outdoor recreation occupations. Volunteers are very important for the sport and outdoor recreation sector and section 3.4 estimates the market value of their volunteered work.

3.1 Sport and recreation industries

As explained in chapter 1, the sport and recreation industries are comprised of seventeen ANZSIC06 industries listed in Table 1-1. Table 3-1 on the following page lists the number of people employed in those seventeen industries as reported in the 2013 Census. The table

also shows the number of people employed in the 2006 Census for comparison. The total number of people employed in the industries was 40,191, an increase of 9.1 per cent on the same figure in 2006. This represented 2.1 per cent of all people employed (excluding those whose responses were: don't know; refused to answer; response unidentifiable; response outside scope; or not stated), a slight increase on the share in 2006, which was 2.0 per cent.

Table 3-1: Employment in Sport and Recreation Industries, 2006 and 2013

| Industry | 2006 | 2013 |
|---|---------------|---------------|
| Amusement and Other Recreation Activities (not elsewhere classified) | 1,959 | 2,163 |
| Amusement Parks and Centres Operation | 936 | 1,002 |
| Boatbuilding and Repair Services | 3,963 | 2,547 |
| Health and Fitness Centres and Gymnasias Operation | 3,054 | 4,281 |
| Horse and Dog Racing Administration and Track Operation | 702 | 768 |
| Horse Farming | 1,404 | 1,404 |
| Nature Reserves and Conservation Parks Operation | 2,853 | 3,672 |
| Other Horse and Dog Racing Activities | 1,392 | 1,263 |
| Physiotherapy Services | 2,175 | 2,769 |
| Sport and Camping Equipment Retailing | 3,777 | 4,302 |
| Sport and Physical Recreation Administrative Service | 1,698 | 2,271 |
| Sport and Physical Recreation Clubs and Sports Professionals | 4,320 | 4,275 |
| Sports and Physical Recreation Instruction | 2,136 | 2,793 |
| Sports and Physical Recreation Venues, Grounds and Facilities Operation | 4,377 | 4,755 |
| Toy and Sporting Goods Wholesaling | 1,299 | 1,269 |
| Toy, Sporting and Recreational Product Manufacturing | 738 | 630 |
| Turf Growing | 48 | 27 |
| TOTAL | 36,831 | 40,191 |

Source: Statistics New Zealand, Census 2006 and Census 2013 data, ANZSIC06.

Table 3-2 provides an indication of the significance of the sport and recreation industries by comparing it with other similar sized industries in New Zealand, based on the 2013 Census database. The table lists the top ten industries ranked by employment including the composite 'Sport and Recreation' industry defined in Table 3.1. This composite industry is fifth in the Top Ten list, lying between the 'Cafés and Restaurants' industry (44,814) and the 'Dairy Cattle Farming' industry (35,874 employed). This was the same position it held in the 2006 Census (Dalziel, 2011, p. 27).

Table 3-2: Top Ten Industries Ranked by Employment, 2013

| Industry | Number |
|--|---------------|
| Hospitals (except Psychiatric Hospitals) | 50,637 |
| Supermarket and Grocery Stores | 47,946 |
| Primary Education | 45,978 |
| Cafés and Restaurants | 44,814 |
| <i>Sport and Recreation</i> | <i>40,191</i> |
| Dairy Cattle Farming | 35,874 |
| House Construction | 34,278 |
| Central Government Administration | 31,557 |
| Other Allied Health Services | 31,191 |
| Secondary Education | 30,759 |

Source: Statistics New Zealand, Census 2013 data, ANZSIC06 V1.0 and Table 3-2.

3.2 Sport and recreation occupations

Table 3-3 and Table 3-4 lists 42 major sport and recreation occupations listed in the 2006 Census and the 2013 Census respectively, both based on the Australian and New Zealand Standard Classification of Occupations (ANZSCO, V1.0). Note that as in the list of industries in Table 3.1 above, these 42 occupations do not include people employed for their sports and recreation expertise within a more general category (sports journalists, for example).

The total number of people recorded as employed in the 42 occupations in the 2013 Census was 29,301, which was an increase of 16.0 per cent compared to the 2006 Census. This represents 1.5 per cent of all people employed (excluding those whose responses were 'unidentifiable, outside scope or not stated') compared to 1.3 per cent in 2006.

The occupations have been grouped together into five categories. Figure 3-1 shows the values for these categories as recorded in the 2006 Census and in the 2013 Census. This shows that the large increase was produced by high growth in the number of sports coaches and instructors from 7,170 in 2006 to 10,230 in 2013. This growth was driven by 927 more fitness instructors, 669 more swimming coaches or instructors, and an increase of 1,383 people in the residual category of 'other sports coach or instructor'.

The last of the five groups is 'sport and recreation support'. In three of these occupations a large part of the work is involved in sport and recreation but there are clearly other important aspects to the occupation. The tables count only half the numbers recorded in the Census for these occupation (conference and event organisers, massage therapists and recreation coordinators). Even so, there were 8,709 people recorded in these positions, including 3,147 physiotherapists.

Table 3-3: Employment in Sport and Recreation Occupations, 2006

| Category | Occupation | Number | Number |
|--------------------------------|------------------------------------|--------|---------------|
| Sportspersons and Officials | Golfer | 228 | 1,077 |
| | Footballer | 204 | |
| | Jockey | 129 | |
| | Other Sportspersons | 249 | |
| | Sports Umpire | 159 | |
| | Dog or Horse Racing Official | 87 | |
| | Other Sports Official | 21 | |
| Sports Coaches and Instructors | Fitness Instructor | 2,457 | 7,170 |
| | Swimming Coach or Instructor | 1,152 | |
| | Horse Trainer | 870 | |
| | Tennis Coach | 264 | |
| | Gymnastics Coach or Instructor | 249 | |
| | Horse Riding Coach or Instructor | 249 | |
| | Snowsport Instructor | 72 | |
| | Other Sports Coach or Instructor | 1,857 | |
| Recreation Guides and Teachers | Lifeguard | 1,179 | 3,738 |
| | Dance Teacher (Private Tuition) | 765 | |
| | Outdoor Adventure Instructor | 423 | |
| | Fishing Guide | 147 | |
| | Whitewater Rafting Guide | 132 | |
| | Diving Instructor (Open Water) | 129 | |
| | Mountain or Glacier Guide | 99 | |
| | Trekking Guide | 72 | |
| | Bungy Jump Master | 57 | |
| | Hunting Guide | 36 | |
| Other Outdoor Adventure Guides | 699 | | |
| Administration and Facilities | Greenkeeper | 2,631 | 4,872 |
| | Sports Administrator | 1,116 | |
| | Park Ranger | 543 | |
| | Sports Centre Manager | 363 | |
| | Fitness Centre Manager | 153 | |
| | Turf Grower | 36 | |
| | Sports Development Officer | 30 | |
| Sport and Recreation Support | Physiotherapist | 2,496 | 8,394 |
| | Boat Builder and Repairer | 1,989 | |
| | Conference and Event Organiser (1) | 1,248 | |
| | Stablehand | 1,125 | |
| | Massage Therapist (1) | 636 | |
| | Horse Breeder | 402 | |
| | Bicycle Mechanic | 219 | |
| | Recreation Coordinator (1) | 150 | |
| | Sail Maker | 129 | |
| TOTAL | | | 25,251 |

Note: (1) Only half the number in this occupation is included as sports and recreation.

Source: Statistics New Zealand, Census 2006 data, ANZSCO V1.0.

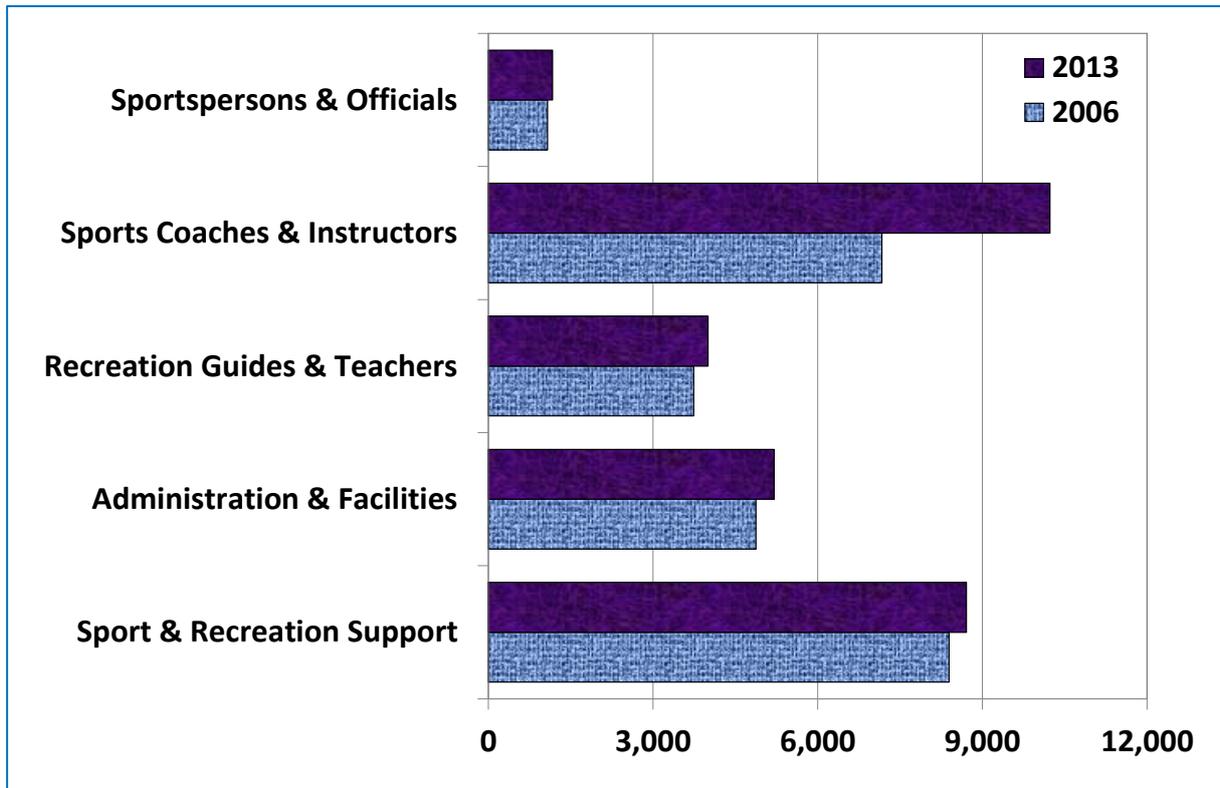
Table 3-4: Employment in Sport and Recreation Occupations, 2013

| Category | Occupation | Number | Number |
|--------------------------------|--|--------|---------------|
| Sportspersons and Officials | Golfer | 153 | 1,167 |
| | Footballer | 228 | |
| | Jockey | 87 | |
| | Other Sportspersons | 384 | |
| | Sports Umpire | 219 | |
| | Dog or Horse Racing Official | 72 | |
| | Other Sports Official | 24 | |
| Sports Coaches and Instructors | Fitness Instructor | 3,384 | 10,230 |
| | Swimming Coach or Instructor | 1,821 | |
| | Horse Trainer | 849 | |
| | Tennis Coach | 309 | |
| | Gymnastics Coach or Instructor | 357 | |
| | Horse Riding Coach or Instructor | 228 | |
| | Snowsport Instructor | 42 | |
| | Other Sports Coach or Instructor | 3,240 | |
| Recreation Guides and Teachers | Lifeguard | 1,293 | 4,002 |
| | Dance Teacher (Private Tuition) | 960 | |
| | Outdoor Adventure Instructor | 501 | |
| | Fishing Guide | 114 | |
| | Whitewater Rafting Guide | 93 | |
| | Diving Instructor (Open Water) | 117 | |
| | Mountain or Glacier Guide | 90 | |
| | Trekking Guide | 54 | |
| | Bungy Jump Master | 48 | |
| | Hunting Guide | 48 | |
| Other Outdoor Adventure Guides | 684 | | |
| Administration and Facilities | Greenkeeper | 2,649 | 5,205 |
| | Sports Administrator | 1,242 | |
| | Park Ranger | 726 | |
| | Sports Centre Manager | 345 | |
| | Fitness Centre Manager | 174 | |
| | Turf Grower | 24 | |
| | Sports Development Officer | 45 | |
| Sport and Recreation Support | Physiotherapist | 3,147 | 8,709 |
| | Boat Builder and Repairer | 1,296 | |
| | Conference and Event Organiser (1) | 1,546 | |
| | Stablehand | 1,086 | |
| | Massage Therapist (1) | 849 | |
| | Horse Breeder | 315 | |
| | Bicycle Mechanic | 258 | |
| | Recreation Coordinator (1) | 107 | |
| | Sail Maker | 105 | |
| TOTAL | Adjusted to exclude rounding errors | | 29,301 |

Note: (1) Only half the number in this occupation is included as sports and recreation.

Source: Statistics New Zealand, Census 2013 data, ANZSCO V1.0.

Figure 3-1: Employment in Sport and Recreation Occupations, 2013



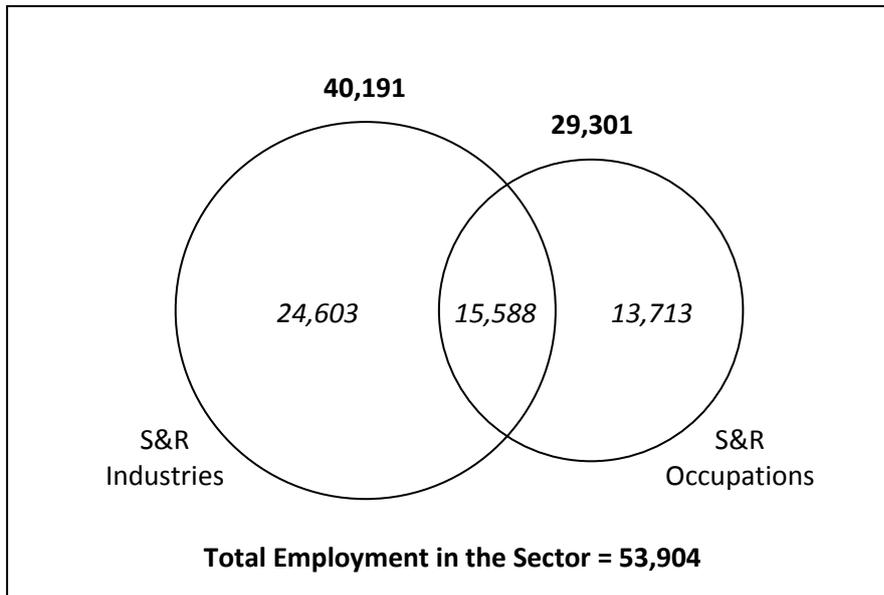
Source: Source: Tables 3-3 and 3-4.

Figure 3-2 combines the industry data with the occupation data. There is some overlap between the two groups; Statistics New Zealand advises that 15,588 people were employed in sport and recreation occupations in sport and recreation industries. As shown in Figure 3-2, this means that 24,603 people were employed in sport and recreation industries but not in sport and recreation occupations and 13,713 people were employed in sport and recreation occupations outside the sport and recreation industries. Summing these three italicised statistics in Figure 3-2, the total count of employment in the sport and recreation sector in 2013 was 53,904. The same number in the 2006 Census was 48,363, so this represents an increase of 11.5 per cent.

In the 2013 Census, there were 1,921,392 valid responses to the question about industries and 1,900,599 valid responses to the question about occupations. Consequently (using the lower figure of 1,900,599 to calculate the percentage of people employed in the total sport and recreation sector), the analysis concludes that:

- 1.5 per cent of all employed people are employed in sport and recreation occupations.
- 2.1 per cent of all employed people are employed in sport and recreation industries.
- 2.8 per cent of all employed people are employed in the sport and recreation sector (occupation or industries).

Figure 3-2: Employment in the Sport and Recreation Sector, Industries and Occupations, 2013



Source: Statistics New Zealand, Census 2013 data.

Although the Census asks New Zealand residents about their occupation in the job where they worked the most hours, this does not mean the job is necessarily full-time. This is evident when income earned in each occupation is considered, as discussed in Section 3.3.

3.3 Personal incomes earned in sport and recreation occupations

Census data can be used to provide an indication of the personal income earned by people whose main occupation is a sport and recreation occupation (as defined in the previous section). The Census asks people to state their total personal income from all the sources of income, before tax, for the 12 months ending 31 March 2013. The form provides 14 options giving bands of income as shown in Table 3-5. The table also shows the number of people from the sport and recreation occupations who reported income in each band in 2006 and in 2013.

Figure 3-3 shows the distribution of personal income in the sport and recreation occupations in 2006 and 2013. In 2006, 35.5 per cent of the incomes were \$20,000 or less, suggesting that these were not full-time positions. In 2013, this percentage had fallen to 32.2 per cent. There were sizeable increases in the number of people in the highest salary bands in 2013 compared to 2006: an extra 746 people earning between \$40,001 and \$50,000; an extra 2,220 earning between \$50,001 and \$70,000; and an extra 1,305 earning \$70,001 or more.

To provide an aggregate estimate, assumptions must be made about the average income earned in each income band category. The same assumptions as were made in Dalziel (2011) are carried over to this report. For bands with fixed endpoints the average income is assumed to be halfway. The 'loss' range has no minimum value and the highest income range (\$100,001 or more) has no maximum value. This last range will include a very small

number of sports people who earn substantial amounts in a year. Because the numbers of people in the bottom and top categories are relatively small, the assumed average in both cases is not critical; for this exercise the report assumes an average loss of \$20,000 and an average income for the highest band of \$120,000. Finally, the average income of those who did not state an income is assumed to be the average income of those who did.

Table 3-5: Distribution of Incomes in Sport and Recreation Occupations, 2006 and 2013

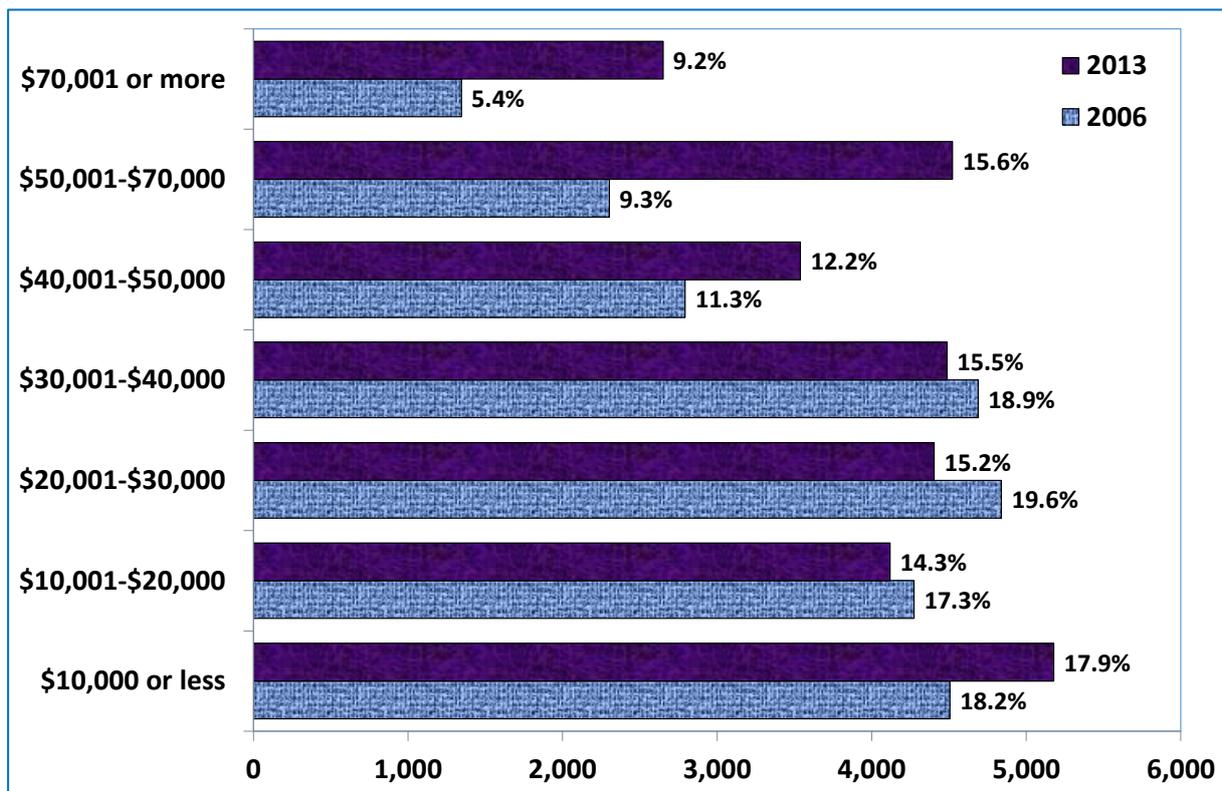
| Income Band | Assumed Average Income | 2006 | | 2013 | |
|----------------------|------------------------|------------------------------|----------------------------|------------------------------|----------------------------|
| | | Number of People in the Band | Total Income (\$ millions) | Number of People in the Band | Total Income (\$ millions) |
| Loss | -\$20,000 | 167 | -\$3.3 | 179 | -\$3.6 |
| Zero income | 0 | 138 | \$0.0 | 197 | \$0.0 |
| \$1 - \$5,000 | \$2,500 | 2,271 | \$5.7 | 2,712 | \$6.8 |
| \$5,001 - \$10,000 | \$7,500 | 1,931 | \$14.5 | 2,091 | \$15.7 |
| \$10,001 - \$15,000 | \$12,500 | 2,048 | \$25.6 | 1,980 | \$24.8 |
| \$15,001 - \$20,000 | \$17,500 | 2,226 | \$39.0 | 2,139 | \$37.4 |
| \$20,001 - \$25,000 | \$22,500 | 2,354 | \$53.0 | 2,133 | \$48.0 |
| \$25,001 - \$30,000 | \$27,500 | 2,486 | \$68.4 | 2,271 | \$62.5 |
| \$30,001 - \$35,000 | \$37,500 | 2,426 | \$91.0 | 2,162 | \$81.1 |
| \$35,001 - \$40,000 | \$37,500 | 2,264 | \$84.9 | 2,325 | \$87.2 |
| \$40,001 - \$50,000 | \$45,000 | 2,793 | \$125.7 | 3,539 | \$159.2 |
| \$50,001 - \$70,000 | \$60,000 | 2,303 | \$138.2 | 4,523 | \$271.4 |
| \$70,001 - \$100,000 | \$85,000 | 750 | \$63.8 | 1,713 | \$145.6 |
| \$100,001 or more | \$120,000 | 596 | \$71.5 | 938 | \$112.5.5 |
| Not stated | Average | 507 | \$15.1 | 396 | \$15.1 |
| TOTAL | | 25,256 | \$792.6 | 29,301 | \$1,063.6 |

Notes: The sport and recreation occupations come from Tables 3-3 and 3-4. The total number of people in these occupations may differ slightly due to rounding conventions. Assumed average incomes for each band were calculated as the midpoint of the range, except for the loss category, the unbounded upper band and the 'not stated' range (see the text for explanations). No adjustment has been made for inflation between 2006 and 2013.

Source: Statistics New Zealand, Census 2006 data, ANZSCO V1.0.

Under these assumptions, the total annual personal income for people in the sport and recreation occupations was \$792.6 million in 2006 and was \$1,063.6 million in 2013. No adjustment is made for inflation in Table 3-5, but Statistics New Zealand reports that the consumer price index increased by 19.2 per cent between March 2006 and March 2013. Thus inflation alone would have increased the value of incomes in 2013 to \$944.7 million. Total employment in the sector grew by 16.0 per cent, from 25,256 to 29,301. Multiplying \$944.7 million by 16 per cent produces a predicted income value of \$1,096.0 million, which is close to the actual value of \$1,063.6 million.

Figure 3-3: Distribution of Incomes in Sport and Recreation Occupations, 2006 and 2013



Source: Table 3-5.

Table 3.6 shows how the income reported in the 2006 Census and in the 2013 Census was distributed among the 42 occupations identified in Table 3.4. In both surveys, the largest contributing occupation is physiotherapists, which increased from \$108.7 million to \$159.9 million in 2013. There were also notable increases in the contributions of fitness instructors (from \$62.5 million to \$98.7 million) and of other sports coaches or instructors (from \$67.8 million to \$130.3 million). Table 3.6 also divides the total personal income earned in the occupation by the number of people in the occupation recorded at each Census. This shows that the average personal income from all sources of people recorded as employed in sport and recreation occupations is estimated to have increased from \$31,391 in 2006 to \$35,727 in 2013. This is an increase of 13.8 per cent, which was below the consumer price index inflation rate between March 2006 and March 2013 of 19.2 per cent.

Table 3-6: Estimated Average Incomes in Sport and Recreation Occupations, 2006 and 2013

| Occupation | 2006 | | 2013 | |
|------------------------------------|------------------------|--------------------|------------------------|--------------------|
| | Total (\$ millions) | Per Person (\$) | Total (\$ millions) | Per Person (\$) |
| Golfer | \$9.2 | \$40,333 | \$7.1 | \$46,667 |
| Footballer | \$13.3 | \$66,250 | \$16.5 | \$72,226 |
| Jockey | \$5.0 | \$39,012 | \$3.9 | \$46,607 |
| Other Sportspersons | \$13.7 | \$54,938 | \$23.9 | \$62,278 |
| Sports Umpire | \$2.4 | \$15,288 | \$2.8 | \$12,774 |
| Dog or Horse Racing Official | \$3.1 | \$36,083 | \$3.1 | \$44,688 |
| Other Sports Official | \$0.5 | \$22,000 | \$0.9 | \$39,167 |
| Fitness Instructor | \$62.5 | \$25,425 | \$98.7 | \$29,174 |
| Swimming Coach or Instructor | \$18.1 | \$15,791 | \$32.0 | \$17,575 |
| Horse Trainer | \$27.3 | \$31,354 | \$29.4 | \$34,634 |
| Tennis Coach | \$6.3 | \$23,920 | \$8.1 | \$26,078 |
| Gymnastics Coach or Instructor | \$2.7 | \$10,656 | \$4.5 | \$12,583 |
| Horse Riding Coach or Instructor | \$5.1 | \$20,406 | \$5.7 | \$25,104 |
| Snowsport Instructor | \$2.2 | \$30,217 | \$0.8 | \$18,125 |
| Other Sports Coach or Instructor | \$67.8 | \$36,495 | \$130.3 | \$40,180 |
| Lifeguard | \$15.6 | \$13,201 | \$23.2 | \$17,943 |
| Dance Teacher (Private Tuition) | \$16.2 | \$21,175 | \$21.7 | \$22,650 |
| Outdoor Adventure Instructor | \$10.5 | \$24,858 | \$15.1 | \$30,136 |
| Fishing Guide | \$4.9 | \$32,344 | \$4.2 | \$36,447 |
| Whitewater Rafting Guide | \$3.1 | \$23,372 | \$2.7 | \$29,107 |
| Diving Instructor (Open Water) | \$3.9 | \$30,988 | \$3.9 | \$33,526 |
| Mountain or Glacier Guide | \$3.4 | \$33,819 | \$3.1 | \$34,224 |
| Trekking Guide | \$2.4 | \$33,750 | \$1.6 | \$29,219 |
| Bungy Jump Master | \$1.6 | \$28,382 | \$1.5 | \$31,071 |
| Hunting Guide | \$1.2 | \$32,045 | \$1.8 | \$38,472 |
| Other Outdoor Adventure Guides | \$20.1 | \$28,816 | \$23.1 | \$33,800 |
| Greenkeeper | \$78.2 | \$29,704 | \$98.0 | \$36,998 |
| Sports Administrator | \$41.2 | \$36,880 | \$54.0 | \$43,499 |
| Park Ranger | \$20.6 | \$37,924 | \$34.0 | \$46,805 |
| Sports Centre Manager | \$16.1 | \$44,628 | \$19.3 | \$55,848 |
| Fitness Centre Manager | \$6.9 | \$44,796 | \$8.3 | \$47,864 |
| Turf Grower | \$1.2 | \$37,250 | \$1.1 | \$47,500 |
| Sports Development Officer | \$1.6 | \$48,409 | \$1.9 | \$41,346 |
| Physiotherapist | \$108.7 | \$43,512 | \$159.9 | \$50,825 |
| Boat Builder and Repairer | \$79.1 | \$39,818 | \$64.6 | \$49,822 |
| Conference and Event Organiser (1) | \$49.7 | \$39,802 | \$73.7 | \$47,627 |
| Stablehand | \$24.2 | \$21,508 | \$29.1 | \$26,766 |
| Massage Therapist (1) | \$13.8 | \$21,627 | \$20.4 | \$24,004 |
| Horse Breeder | \$15.2 | \$38,212 | \$13.0 | \$41,150 |
| Bicycle Mechanic | \$5.2 | \$23,785 | \$7.5 | \$29,524 |
| Recreation Coordinator (1) | \$4.1 | \$27,057 | \$4.0 | \$37,500 |
| Sail Maker | \$4.8 | \$36,512 | \$5.2 | \$47,895 |
| | \$792.6 | \$31,391 | \$1,063.6 | \$35,727 |

Notes to Table 3-6: (1) Only half the number in this occupation is included as sports and recreation.
Source: Statistics New Zealand, Census 2006 and Census 2013 data, ANZSCO V1.0.

There remains considerable variation for different occupations. Footballers are estimated to have earned \$77,226 on average in 2013 (and probably higher if the true average value of the top income band was known). At the other end of the scale, the average personal income of gymnastic coaches or instructors is estimated to have been \$12,583 in 2013.

3.4 Market value of sport and recreation volunteers

New Zealanders are recognised as having a strong commitment to volunteered work. A study by Sanders *et al.* (2008), for example, reported that New Zealand had the seventh largest non-profit workforce globally and then went on to comment (*idem*, p. 13):

At 67 percent, the volunteer share of the non-profit workforce in New Zealand easily outdistances the 48 percent for the Anglo-Saxon country cluster, not to mention the 41-country average of 42 percent. In fact, 90 percent of New Zealand non-profit organisations employ no paid staff, and so rely on volunteers to function.

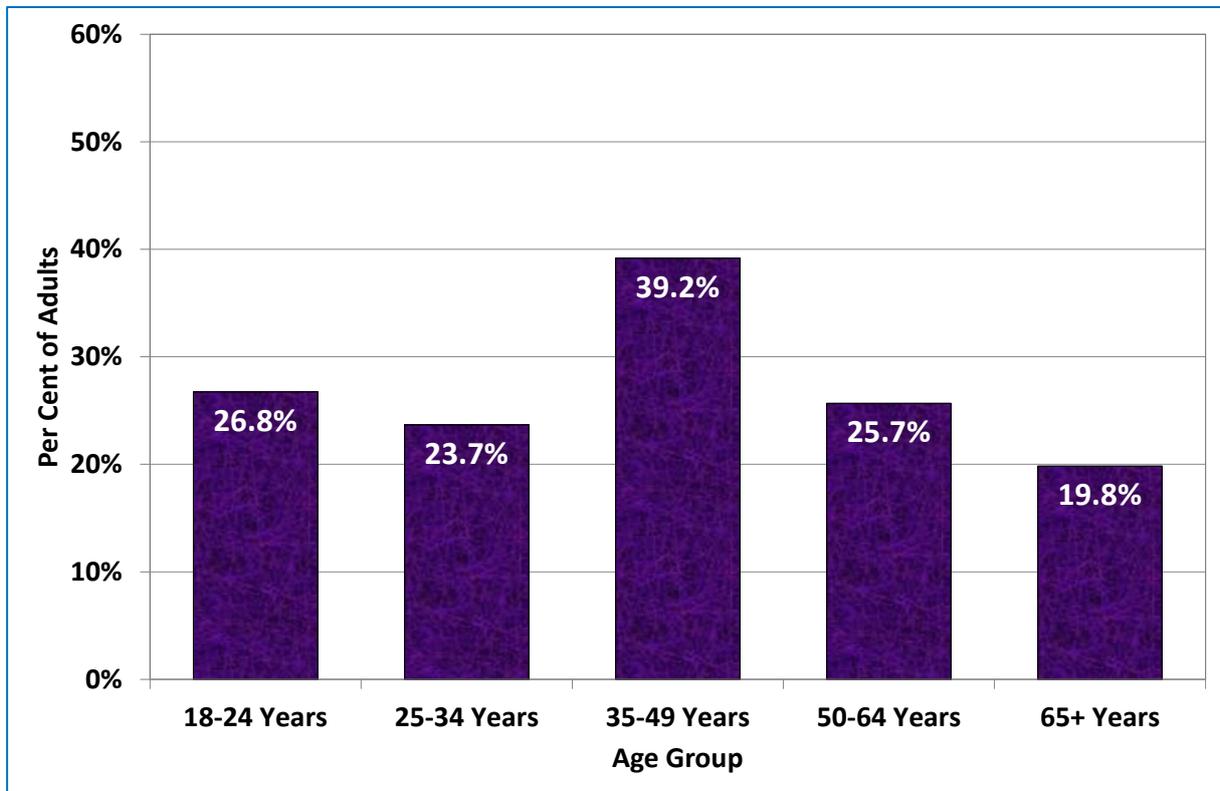
The *Non-profit Institutions Satellite Account: 2004* prepared by Statistics New Zealand (2007) recorded that culture, sport and recreation is the largest sub-sector in the non-profit sector, accounting for 44.6 per cent of all non-profit institutions. Just over one-third of the non-profit institutions in this sub-sector (34.5 per cent) are associated with sports (Statistics New Zealand, 2007, Table 8.01.02, p. 45).

The *Active NZ Survey 2013/14* asked a number of questions about volunteers in sport and recreation. Slightly more than one in four adults (18 years or older) reported that they had volunteered at least once in any role over the previous twelve months (28.1 per cent), with similar proportions of men (30.2 per cent) and women (26.1 per cent) saying yes to this question. The percentage is almost two-fifths among the 35-49 age group (39.2 per cent; see Figure 3-4 below). Table 3-7 shows the proportion of males and females volunteering for the core roles in sport and recreation.

Table 3-7: Proportion of Adults Volunteering in Core Roles at Least Once in the Previous 12 Months by Role and Gender, 2013/14

| Role | Male | Female | Total |
|--|-------|--------|-------|
| Coach/teacher/trainer/instructor | 15.4% | 8.9% | 12.0% |
| Referee/judge/official/umpire | 8.7% | 4.7% | 6.6% |
| Administrator/secretary/committee member | 6.8% | 6.1% | 6.4% |
| Parent helper | 9.6% | 13.4% | 11.6% |

Figure 3-4: Proportion of Adults Volunteering at Least Once in the Previous 12 Months by Age Group, 2013/14



Source: *Active NZ Survey 2013/14*.

The *Active NZ Survey 2013/14* estimates that around 810,000 adults had volunteered at least once in the previous twelve months for one of the core roles listed in Table 3-7, and that 890,000 adults had volunteered at least once for *any* role in sport and recreation (including roles outside the core roles; for example, lifeguard, guide, general support, organiser and others). Participants in the survey were asked to record the amount of time they had spent as volunteers in the previous four weeks, and the responses to that question were used to estimate the total number of hours of volunteered service. The results are shown in Table 3-8.

The total volunteer effort estimated from the 2013/14 survey is 67.7 million hours, which is well above the figure of 51.3 million hours estimated from the *Active NZ Survey 2007/08*. As in Dalziel (2011, p. 33), it is possible to provide an estimate of the market value of this effort using a calculation made by Statistics New Zealand (2007) that in March 2004 the average value of an hour of volunteer time was \$12.15. That calculation can be updated to March 2013 (the date of the most recent Census) by using the Labour Cost Index 'LCI: All Industries: All Salaries and Wage Rates: All Sectors'. This indicates that \$12.15 in March 2004 is equivalent to \$15.23 in March 2013.

Table 3-8: Number of Volunteer Hours in the Previous 12 Months by Role and Gender, 2013/14

| Role | Millions of Hours | | |
|--|-------------------|--------|-------|
| | Male | Female | Total |
| Coach/teacher/trainer/instructor | 13.9 | 7.4 | 21.3 |
| Referee/judge/official/umpire | 3.9 | 1.8 | 5.8 |
| Administrator/secretary/committee member | 8.7 | 7.7 | 16.4 |
| Parent helper | 7.4 | 10.7 | 18.1 |
| Other volunteer role | 2.4 | 3.8 | 6.2 |
| Totals | 36.3 | 31.4 | 67.7 |

Thus, if each of the 67.7 million hours is valued at \$15.23 per hour, then **the total value to recipients of these volunteer services at March 2013 wage rates is \$1,030.5 million.**

4. Producers of Sport and Recreation Goods and Services

Key Facts and Estimates

- Using data from the 2013 Census and the 2011/12 National Accounts (Industry Benchmarks), it is estimated that **the sport and recreation sector (narrowly defined) contributed \$3,092.5 million, or 1.5 per cent, to New Zealand's gross domestic product in 2011/12.**
- This was the **same share of GDP as recalculated for 2008/09.**
- Assuming that the sector grew at the same rate as gross domestic product over the next twelve months, **this is equivalent to \$3,166.3 million in 2012/13** (the base year for this report).
- New Zealand engages in exports and imports of sport and recreation commodities, including: horses; tracksuits, ski suits and swimwear, sports footwear; bicycles and other cycles; yachts and other vessels; and sports and outdoor recreation equipment.
- Between 2010 and 2014, imports of these commodities increased from \$451.8m to \$521.5m, but exports decreased from \$455.0m to \$312.8m.

The first section of this chapter uses the most recent Census data to update the estimate made of the contribution of the sports and recreation industries listed in Table 1-1 of the opening chapter. Section 4.2 then uses data from the 2013 Household Economic Survey to provide an indication of the importance of sport and recreation expenditure to consumers. Section 4.3 describes the main commodity imports and exports connected with the sport and recreation sector.

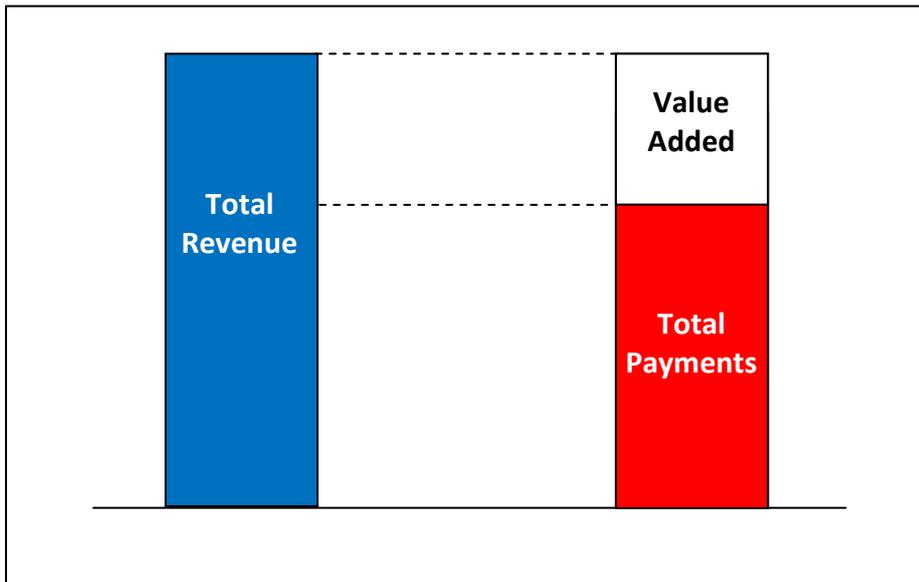
4.1 Value added by sport and recreation industries

A country's gross domestic product (GDP) measures the value that has been produced in the country's industrial sectors. The core concept is known as "value-added", which was explained in Dalziel (2011, p. 36) as follows:

Consider a single enterprise, such as a horse farm. During a year, the farm might earn revenue from horse sales of \$1,000,000 but might make payments totalling \$600,000 to suppliers of the farm's inputs for goods and services such as horse-feed, fencing posts, veterinary services and financial advice. These inputs are provided by other enterprises to the horse farm, and so economists say that the horse farm's "value added" is \$400,000. It is the difference between total revenue and total payments, and is the source for the wages and salaries paid to the farm's employees as well as the profits earned by the farm's owners.

The value added by the Horse Farming industrial sector is calculated by adding up the total revenues of all of the horse farms in the country and then subtracting their total payments, as represented in Figure 4-1. From this calculation it is possible to indicate the size of the Horse Farming sector by expressing its value added as a percentage of gross domestic product (which shows the total value added by all of the economy's industrial sectors).

Figure 4-1: Calculating a Sector's Value Added



As commented in the opening chapter, Statistics New Zealand introduced its new National Accounts (Industry Benchmarks) series in November 2012 to replace its previous National Accounts series that was discontinued in 2011. At the time of writing this report (June 2015), the most recent Industry Benchmarks data are for the year ending in March 2012. This section therefore uses Census 2013 employment data to update the employment ratios calculated in Dalziel (2011), and then uses the updated employment ratios to calculate the size of the employment and recreation sector in 2011/12.

The employment ratio for a sport and recreation sector is calculated as its share of total employment in the industry benchmark sector defined by Statistics New Zealand (further information on the methodology can be found in Dalziel, 2011, pp. 36-39). Table 4-1 shows the employment ratios calculated for the 17 sport and recreation industries using employment data from the 2013 Census.

Table 4-2 then uses the employment ratios in Table 4-1 to estimate the contribution to GDP of each of the 17 industries in 2011/12, based on the published GDP data in the Statistics New Zealand series 'National Accounts (Industry Benchmarks)'. The table also repeats the calculated figures for 2006/07, taken from Table A-4 in the Appendix.

Table 4-1: Sport and Recreation Industries and their Employment Ratios, 2013

| ANZSCO Industry | 'Contribution to GDP' Sector | Employment Ratio |
|---|---|-------------------------|
| Turf Growing | Horticulture and Fruit Growing | 0.0014 |
| Horse Farming | Poultry, Deer and Other Livestock Farming | 0.1776 |
| Boatbuilding and Repair Services | Transport Equipment Manufacturing | 0.2488 |
| Toy, Sporting and Recreational Product Manufacturing | Furniture and Other Manufacturing | 0.0677 |
| Toy and Sporting Goods Wholesaling | Wholesale Trade | 0.0131 |
| Sport and Camping Equipment Retailing | Other Store-based Retailing and Non-store Retailing | 0.0397 |
| Sports and Physical Recreation Instruction | Education and Training | 0.0174 |
| Physiotherapy Services | Health Care and Social Assistance | 0.0144 |
| Nature Reserves and Conservation Parks Operation | Arts and Recreation Services | 0.1012 |
| Health and Fitness Centres and Gymnasias Operation | Arts and Recreation Services | 0.1180 |
| Sport and Physical Recreation Clubs and Sports Professionals | Arts and Recreation Services | 0.1179 |
| Sports and Physical Recreation Venues, Grounds and Facilities Operation | Arts and Recreation Services | 0.1311 |
| Sport and Physical Recreation Administrative Service | Arts and Recreation Services | 0.0626 |
| Horse and Dog Racing Administration and Track Operation | Arts and Recreation Services | 0.0212 |
| Other Horse and Dog Racing Activities | Arts and Recreation Services | 0.0348 |
| Amusement Parks and Centres Operation | Arts and Recreation Services | 0.0276 |
| Amusement and Other Recreation Activities (not elsewhere classified) | Arts and Recreation Services | 0.0596 |

Source: Statistics New Zealand, National Accounts (Industry Benchmarks) data and Census 2013 data.

Table 4-2: Contribution to GDP of Sport and Recreation Industries, 2006/07 and 2011/12

| ANZSIC06 Industry | Contribution to GDP (\$ millions) | |
|---|--------------------------------------|----------------|
| | 2006/07 | 2011/12 |
| Turf Growing | 2.2 | 1.7 |
| Horse Farming | 45.7 | 56.5 |
| Boatbuilding and Repair Services | 303.7 | 273.9 |
| Toy, Sporting and Recreational Product Manufacturing | 37.2 | 38.9 |
| Toy and Sporting Goods Wholesaling | 113.9 | 137.9 |
| Sport and Camping Equipment Retailing | 169.4 | 189.9 |
| Sports and Physical Recreation Instruction | 113.2 | 172.6 |
| Physiotherapy Services | 127.3 | 179.0 |
| Nature Reserves and Conservation Parks Operation | 234.2 | 306.7 |
| Health and Fitness Centres and Gymnasia Operation | 250.7 | 357.5 |
| Sport and Physical Recreation Clubs and Sports Professionals | 354.7 | 357.3 |
| Sports and Physical Recreation Venues, Grounds and Facilities Operation | 359.4 | 397.1 |
| Sport and Physical Recreation Administrative Service | 139.4 | 189.7 |
| Horse and Dog Racing Administration and Track Operation | 57.6 | 64.1 |
| Other Horse and Dog Racing Activities | 114.3 | 105.5 |
| Amusement Parks and Centres Operation | 76.8 | 83.7 |
| Amusement and Other Recreation Activities (not elsewhere classified) | 160.8 | 180.7 |
| TOTAL | 2,660.7 | 3,092.5 |
| Percentage of GDP | 1.5% | 1.5% |

Source: Statistics New Zealand, National Accounts (Industry Benchmarks) data, Census 2006 data and Census 2013 data.

The estimate produced in Table 4-2 is that the sport and recreation sector (narrowly defined) contributed \$3.1 billion to New Zealand's gross domestic product in 2011/12, which was 1.5 per cent of GDP. The contribution in 2008/09 was also 1.5 per cent, but there was some notable changes within the sector. The contribution of 'Health and Fitness Centres and Gymnasia Operation', for example, increased by more than \$100 million. That expansion of the fitness industry reflects trends elsewhere (Service Skills Australia, 2014, pp. 32-41) and is consistent with the Census data trends in Tables 3-3 and 3-4.

Industry Benchmarks data are not available for the year ending March 2013 at the time of writing this report, but a provisional estimate of total nominal GDP for that financial year has been released (\$215.3 billion). If it is assumed that the total share of GDP contributed by the

sport and recreation industries in 2012/13 was the same as in 2011/12, this implies that the size of the sector in 2012/13 was \$3,166.3 million. This figure will be used in chapter 5 for the calculations based on the 2012/13 financial year.

4.2 Household spending on sport and recreation

The previous section has indicated the importance of the sport and recreation sector by focusing on producers. An alternative approach is to consider the importance to consumers, drawing on data collected by Statistics New Zealand in its Household Economic Survey. These data are collated using the New Zealand Household Expenditure Classification (NZHEC), which comprises 14 groups further divided into subgroups, classes, sections, subsections and items. Group 9 is devoted to Recreation and Culture, and subgroups 9.2-9.4 are directly related to sport and recreation. Table 4.3 presents all the subsections of these three subgroups, noting which ones are not relevant for this report.

Table 4-3: Relevant Classifications of NZHEC Group 9 Recreation and Culture

| Subgroups | Code | Subsection Name |
|---|-----------|--|
| 9.2 Major recreational and cultural equipment | 09.2.00.1 | Major durables for outdoor recreation ¹ |
| | 09.2.00.2 | Musical instruments ² |
| | 09.2.00.3 | Major durables for indoor recreation ^{1, 2} |
| | 09.2.00.4 | Maintenance and repair of other major durables for rec'n and culture |
| 9.3 Other recreational equipment and supplies | 09.3.01 | Games, toys and hobbies ² |
| | 09.3.02 | Equipment for sport, camping and outdoor recreation |
| | 09.3.03 | Plants, flowers and gardening supplies ² |
| | 09.3.04 | Pets and pet-related products ² |
| 9.4 Recreational and cultural services | 09.4.01 | Recreational and sporting services |
| | 09.4.02 | Cultural services ² |
| | 09.4.03 | Veterinary and other services for pets and domestic livestock ² |
| | 09.4.04 | Games of chance ² |

Notes: 1. Major durables for outdoor recreation include recreational vehicles, launches and yachts. Major durable for indoor recreation include Billiard/pool/snooker tables. 2. These subsections are not included in the analysis of this chapter.

Source: Statistics New Zealand, downloaded from: www.stats.govt.nz/browse_for_stats/people_and_communities/Households/household-economic-survey-classifications.aspx.

Other items in the HES are relevant, although low expenditure means some of these items do not have accessible data. Table 4.4 lists these relevant items along with a note about whether the associated data are available.

A key missing item is women's shorts, sweatshirts, leisurewear and sportswear. This is estimated in Table 4.5 using the same methodology as in Dalziel (2011, p. 42) by noting from Sport New Zealand (2015) that the female adult population is 9.3 per cent higher than the male adult population, but women participate in a lower average number of sport and recreation activity types over twelve months compared to men, excluding walking and gardening (2.9 versus 3.7; see Table 2-8).

Estimates have not been made for children's clothing or for adult or children's sporting footwear. In Dalziel (2011) an estimate was made for bicycle repairs; the data do not allow this to be repeated in this study.

Table 4-4: Other Relevant NZHEC Subsections and Items

| Code | Subsection or Item Name |
|----------------|---|
| 01.4.02.5.0.00 | Sports energy drinks, body building drinks |
| 03.1.02.0.5 | Men's shorts, sweatshirts, leisurewear, sportswear |
| 03.1.03.0.6 | Women's shorts, sweatshirts, leisurewear, sportswear ¹ |
| 03.1.04.1.5 | Boys' shorts, sweatshirts, leisurewear, sportswear ² |
| 03.1.04.2.6 | Girls' shorts, sweatshirts, leisurewear, sportswear ² |
| 03.2.02.0.0.08 | Men's sports footwear ² |
| 03.2.03.0.0.08 | Women's sports footwear ² |
| 03.2.04.0.0.08 | Children's and infants' sports footwear ² |
| 07.1.04.0.0.02 | New bicycles, BMX bikes, mountain bikes |
| 07.2.04.0.0.01 | Bicycle, all repair services ² |

Notes: 1. Data not available; estimated using the men's figure based on 2013/14 Active NZ survey data for the male and female adult populations and the male and female average participation in number of activities types per year, excluding walking and gardening (3.7 versus 2.9). 2. Data not available.

Source: Statistics New Zealand, downloaded from: www.stats.govt.nz/browse_for_stats/people_and_communities/Households/household-economic-survey-classifications.aspx.

Table 4-5 presents aggregate annual expenditure by all private households on sport and recreation for the year ending June 2013. It estimates that total spending on the selected categories was just under \$1.7 billion, which was 1.7 per cent of total expenditure by households that year. This was a slight increase on the share of 1.6 per cent calculated for 2006/07 in Dalziel (2011, p. 43). To give a point of reference, the total of \$1.7 billion lies between total household spending on education (\$1.6 billion) and on health (\$2.4 billion), which are major groups 10 and 06 respectively in the Household Economic Survey. This value can also be compared with some other important items of household discretionary spending:

- Ready-to-eat food: \$2.8 billion
- Alcoholic beverages: \$1.9 billion
- Cultural services: \$1.6 billion
- Restaurant meals: \$1.4 billion
- Newspapers, books and stationery: \$0.8 billion

Table 4-5: Household Spending on Sport and Recreation Goods and Services, 2012/13

| Categories ¹ | Aggregate Annual Expenditure by all Private Households | |
|---|--|-------------|
| | \$ million | Per Cent |
| Sports drinks | 24.1 | 1.4% |
| Sports clothing ² | 64.0 | 3.8% |
| Purchase of new bicycles, BMX bikes, mountain bikes | 34.5 | 2.0% |
| Major recreational equipment ³ | 199.1 | 11.8% |
| Sport and other recreational equipment | 384.2 | 22.7% |
| Tuition fees for sport and recreation | 189.3 | 11.2% |
| Subs and donations for sports and recreation | 333.1 | 19.7% |
| Charges for participation in sports and recreation | 384.0 | 22.7% |
| Admission charges and hire of S&R goods | 81.7 | 4.8% |
| TOTAL | 1,693.9 | 100% |

Note: 1. Data are not available for sports footwear and for children's clothing. 2. This item has been estimated as explained in the notes for Table 4.5. 3. This item has been estimated by assuming it is the same ratio of spending on major recreational and cultural equipment (subgroup 9.2) as it was in Dalziel (2011); the difference is that Dalziel (2011) could subtract spending on musical instruments, but this was not possible for the present study.

Source: Statistics New Zealand, Household Economic Survey, detailed data.

4.3 Sport and recreation imports and exports

The previous report by Dalziel (2011, pp. 44-45) identified six main categories of commodity exports and imports where the subject is clearly related to sport and recreation:

- Horses for racing and sport
- Tracksuits, ski suits and swimwear
- Sports footwear
- Bicycles and other cycles
- Yachts and other vessels; for pleasure or sports, rowing boats and canoes
- Sports and outdoor recreation equipment

Table 4-6 presents exports and import values for these six categories for 2010 and for 2014 (see also Figure 4-2). The totals are an understatement as there will be other sport and recreation commodities included under more general headings (especially apparel). Nevertheless, the table suggests that New Zealand's overall trade in sport and recreation commodities was reasonably balanced in 2010 (the value of exports was close to the value of imports), but reductions in the values of the two major exports (horses and yachts) mean that imports were considerably higher than exports in 2014.

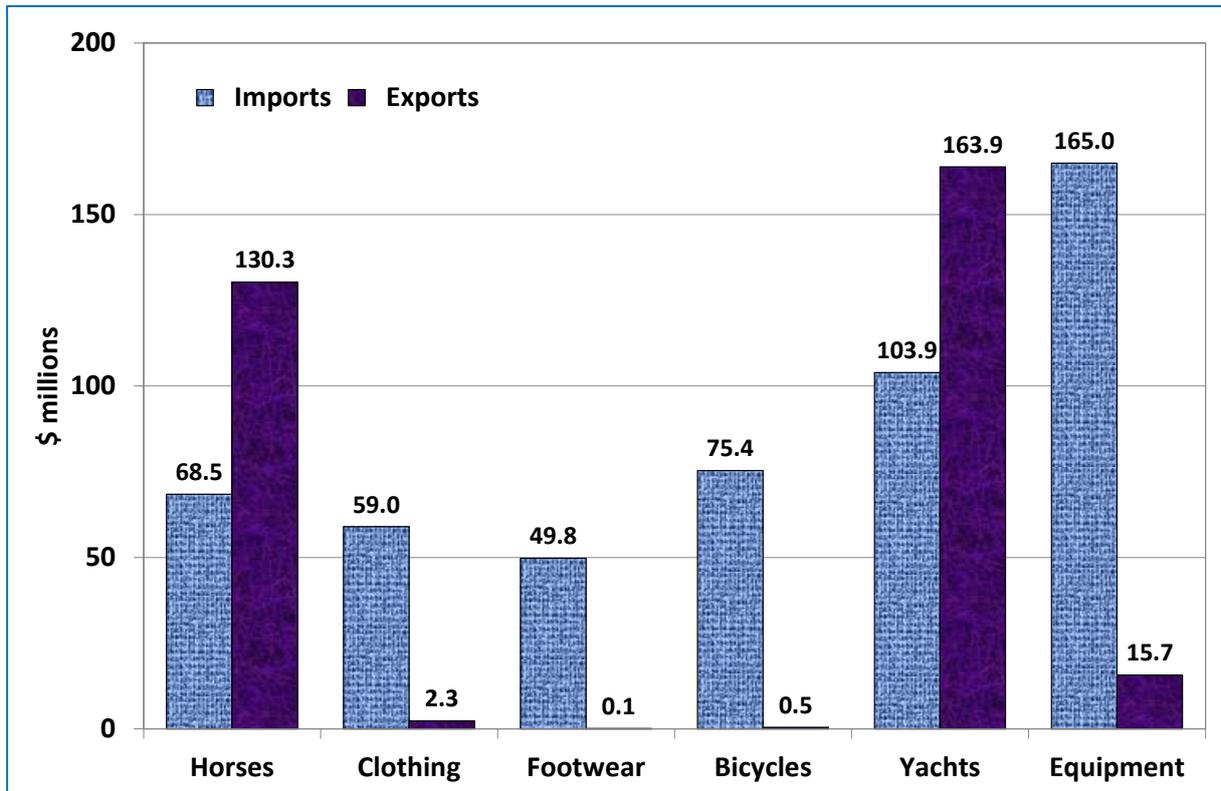
Table 4-6: Imports and Exports of Sport and Recreation Commodities, 2010 and 2014

| Industry | Imports (\$m, cif) | | Exports (\$m, fob) | |
|---|--------------------|--------------|--------------------|--------------|
| | 2010 | 2014 | 2010 | 2014 |
| Horses for racing and sport | 74.4 | 68.5 | 157.4 | 130.3 |
| Tracksuits, ski suits and swimwear | 54.0 | 59.0 | 3.2 | 2.3 |
| Sports footwear | 39.7 | 49.8 | 0.4 | 0.1 |
| Bicycles and other cycles | 54.1 | 75.4 | 0.6 | 0.5 |
| Yachts and other vessels | 86.0 | 103.9 | 270.6 | 163.9 |
| Sports and outdoor recreation equipment | 143.6 | 165.0 | 22.7 | 15.7 |
| TOTAL | 451.8 | 521.5 | 455.0 | 312.8 |

Note: cif means 'cost including insurance and freight'; fob means 'free on board' (that is, the value of goods loaded at New Zealand ports before export).

Source: Statistics New Zealand Harmonised Trade data accessed through Infoshare.

Figure 4-2: Imports and Exports of Sport and Recreation Commodities, 2014



Source: Table 4-6.

5. Providers of Sport and Recreation Infrastructure

Key Facts and Estimates

- The sport and recreation sector can be defined more broadly to include: (i) people employed in sport and recreation occupations outside the sport and recreation industries; (ii) the salaries of teachers attributed to physical education and outdoors education; and (iii) the value added in the construction sector for new sport and recreation facilities.
- The income of people employed in sport and recreation occupations *outside* the sport and recreation industries in 2012/13 is estimated to have been **\$497.8 million**.
- Central government funded programmes for sport and recreation are estimated to have involved expenditure of **\$535.4 million** in the year ending June 2014.
- Central government spending on primary and secondary school teacher salaries that might be attributed to physical education and outdoors education amounted to **\$189.2 million** in 2012/13.
- Local government operating expenditure on recreation and sport in 2012/13 is estimated to have been **\$704.8 million**.
- Local government net investment in new facilities for recreation and sport in 2012/13 is estimated to have been \$214.9 million, which implies value added in the construction sector of **\$75.2 million**.
- **The contribution of the sport and recreation sector (broadly defined) to gross domestic product in 2012/13 was \$3,928 million, or 1.8 per cent.**
- **The contribution of the sector, including the market value of volunteered services, in 2012/13 was \$4,958 million, or 2.3 per cent of gross domestic product.**

The value of sport and recreation depends ultimately on the value enjoyed by participants, but participation is not possible without investment in basic sport and recreation infrastructure. This includes sport facilities, fitness centres, community clubs, regional and national parks, wilderness areas and recreational waterways. It also includes the investment made in physical education and outdoors education in schools and the higher education and training of specialists in the sport and recreation sector. This chapter considers the providers of sport and recreation infrastructure, beginning with the people who are working in sport and recreation occupations outside the sport and recreation industries. Subsequent sections then discuss the contributions made by central and local government, as well as by private enterprise and by community clubs. The chapter then ends with an estimate of the contribution of the sport and recreation sector more widely defined to the country's gross domestic product.

5.1 Sport and recreation incomes outside the sport and recreation industries

Chapter 3 calculated the number of people who reported working either in one of 17 sport and recreation industries or in one of 42 sport and recreation occupations. This revealed that 40,191 people worked in sport and recreation industries and that a further 13,713 people worked in sport and recreation occupations outside of these 17 industries (see Figure 3-2). The income earned by the first set of people is included in the value-added calculations of chapter 4, but to be consistent with the definition of the sector adopted in this study, the income earned by the second set of people should also be included.

Table 3-6 reported this study's estimate that the total income earned by people employed in sport and recreation occupations in 2012/13 was \$1,063.6 million. From Figure 3-2, 15,588 out of 29,301 people in the sport and recreation sector were employed in sport and recreation industries, or 53.2 per cent; this income is already included in the value added calculations of the sector narrowly defined in chapter 4.

Assuming that average incomes are the same for these occupations inside and outside of the sport and recreation industries, 46.8 per cent of \$1,063.6 million should be included in a broader definition; that is, a further \$497.8 million.

5.2 Central Government

The New Zealand Government supports sport and recreation activities across a wide range of portfolios, including the specialist sport and recreation portfolio. Table 5-1 presents financial data from the *Estimates of Appropriations* on central government funded programmes for the years ending June 2010 and June 2014. This suggests total central government spending of \$535.4 million, of which three-quarters (75.8 per cent) is accounted for by the first three lines in the table: management of recreational opportunities by the Department of Conservation and an estimate of teacher salaries devoted to physical and outdoor education in primary and secondary schools.

As footnote 1 to the table indicates, the method for estimating the value of the contribution of public spending on physical and outdoor education is very approximate. *The National Curriculum* specifies eight learning areas: English, the arts, health and physical education, learning languages, mathematics and statistics, science, social sciences, and technology. Health and physical education in the curriculum covers seven key areas of learning – mental health, sexuality education, food and nutrition, body care and physical safety, physical activity, sport studies, and outdoor education – all of which must be included in teaching and learning programmes at both primary and secondary levels.

Three of these are specifically related to sport and recreation: physical activity, sport studies, and outdoor education. Recall that 'health and physical education' is one of eight learning areas; hence it can be said that three-sevenths of one-eighth, or just over five per cent, of topics in *The National Curriculum* clearly involve sport and recreation education.

Table 5-1: Central Government Spending on Sport and Recreation, 2009/10 and 2013/14

| Programme | Vote (2013/14) | Estimated Actual (\$ millions) | |
|---|----------------------|-----------------------------------|----------------|
| | | 2009/10 | 2013/14 |
| Management of Recreational Opportunities | Conservation | 123.9 | 148.6 |
| Primary Education ¹ | Education | 136.7 | 148.4 |
| Secondary Education ¹ | Education | 102.2 | 108.6 |
| High Performance Sport | Sport and Recreation | 38.3 | 68.2 |
| Sport and Recreation Programmes | Sport and Recreation | 16.7 | 26.2 |
| Major Events Development Fund | Economic Development | 7.6 | 8.2 |
| Search and Rescue and Recreational Boating Safety Activities PLA ² | Transport | - | 5.9 |
| Promotion of NZ at the America's Cup | Economic Development | 3.5 | 5.0 |
| The National Cycleway Fund – Extension | Tourism | 0.6 | 4.8 |
| Prime Minister's Sport Scholarships | Sport and Recreation | 4.3 | 4.3 |
| Sports Anti-Doping | Sport and Recreation | 2.2 | 2.2 |
| Support for Walking Access | Primary Industries | 1.8 | 1.8 |
| Search and Rescue Activities and Coordination ³ | Transport | 2.5 | 1.5 |
| Racing Safety Development Fund | Internal Affairs | 1.0 | 1.0 |
| Purchase Advice and Monitoring of Sport and Recreation Crown Entities | Sport and Recreation | 0.1 | 0.3 |
| Support of the New Zealand Cycle Trail | Tourism | 2.2 | 0.2 |
| Policy Advice – Racing | Internal Affairs | 0.3 | 0.2 |
| Negotiation and Completion of Stadium Projects | Economic Development | 34.0 | - |
| Racing Promotion and Sponsorship Scheme | Internal Affairs | 3.0 | - |
| Other Grants for Sport and Recreation | Economic Development | 1.6 | - |
| Recreational Opportunities Review | Conservation | 0.3 | - |
| Support for New Zealand, 2010 FIFA World Cup | Sport and Recreation | 0.3 | - |
| Miscellaneous Sports and Recreation Grants ⁴ | Sport and Recreation | 0.0 | 0.0 |
| TOTAL | | \$483.1 | \$535.4 |

Note: 1. The estimates for Primary Education and Secondary Education are very approximate, based on the observation that 'health and physical education' is one of eight learning areas in *The National Curriculum*, with three of its seven key areas of learning specifically related to sport and recreation.

2. This was included under Search and Rescue Activities in 2009/10 and so understated for that year (because divided by one-third). 3. One-third of spending on search and rescue is assumed as related to sport and recreation activities. 4. The total value of these grants was \$44,000 in each year.

Source: Treasury (2010) and Treasury (2014).

To provide a guide to the potential scale of the investment involved, the total public spending for curriculum delivery in 2013/14 was estimated to be \$2,769.7 million for Year 0 to Year 8 students and \$2,027.1 for Year 9 to Year 13 students (Treasury, 2014, Vol. 2, p. 6). Three-sevenths of one-eighth of the curriculum would account for government spending of \$148.4 million in primary education and \$108.6 million in secondary education. These figures are reproduced in Table 5-1, but are only a guide without more detailed information on the percentage of the total cost of delivering the sport and recreation components (which are compulsory only to Year 10) of *The National Curriculum*.

Table 5-2: Secondary School Teachers Involved in Sport, by Region, 2013

| Region | Number of Teachers | | | Per Cent of Teachers Involved in Sport | Per Cent of Teachers Involved as Coaches |
|-----------------------|--------------------|-------------------|---------------------|--|--|
| | Total Number | Involved in Sport | Involved as Coaches | | |
| Aoraki | 655 | 246 | 140 | 37.6% | 21.4% |
| Auckland (Auckland) | 2,470 | 830 | 453 | 33.6% | 18.3% |
| Auckland (Counties) | 2,822 | 899 | 494 | 31.9% | 17.5% |
| Auckland (Harbour) | 1,926 | 553 | 287 | 28.7% | 14.9% |
| Auckland (Waitakere) | 927 | 350 | 213 | 37.8% | 23.0% |
| Bay of Plenty | 1,921 | 538 | 335 | 28.0% | 17.4% |
| Canterbury | 2,891 | 1,031 | 571 | 35.7% | 19.8% |
| Eastland | 354 | 166 | 79 | 46.9% | 22.3% |
| Hawkes Bay | 1,016 | 468 | 297 | 46.1% | 29.2% |
| Manawatu | 962 | 379 | 201 | 39.4% | 20.9% |
| Northland | 1,089 | 291 | 191 | 26.7% | 17.5% |
| Otago | 974 | 391 | 252 | 40.1% | 25.9% |
| Southland | 692 | 248 | 162 | 35.8% | 23.4% |
| Taranaki | 666 | 229 | 157 | 34.4% | 23.6% |
| Tasman | 805 | 185 | 117 | 23.0% | 14.5% |
| Waikato | 2,245 | 789 | 463 | 35.1% | 20.6% |
| Wairarapa | 319 | 105 | 53 | 32.9% | 16.6% |
| Wanganui | 410 | 161 | 120 | 39.3% | 29.3% |
| Wellington | 2,469 | 713 | 346 | 28.9% | 14.0% |
| National Total | 25,613 | 8,572 | 4,931 | 33.5% | 19.3% |

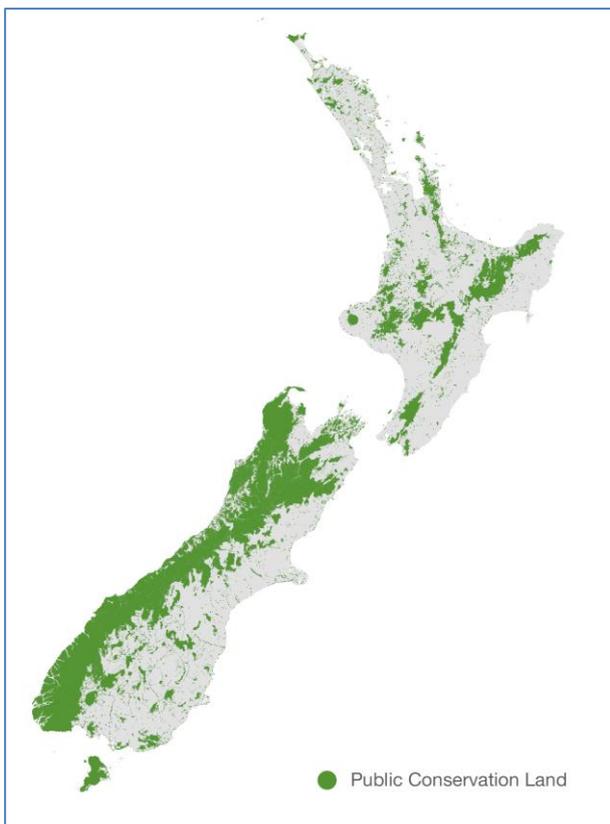
Source: NZSSSC census data, downloaded 19 February 2015 at www.nzsssc.org.nz/.

Another indication of the involvement of the education investment is provided by the New Zealand Secondary Schools Sport Council (NZSSSC), which undertake an annual census of engagement with sport in secondary school in 2013 along with the involvement of staff (see

www.nzsssc.org.nz). Table 5.2 above presents the results of the census, analysed by region. It records that nationally, 33.5 per cent of teaching staff have a ‘meaningful involvement’ with a school sports programme, which is slightly lower than the figure recorded for 2010 (34.8 per cent). This does not count those who are involved only in inter-form or inter-house sport; nor does it allow for the fact that some teachers are involved in more than one sports programme in their school. The table also shows that more than half of those involved in sport are acting as coaches (57.5 per cent).

The Department of Conservation (DOC) is responsible for the management of about thirty per cent of New Zealand’s total land area; see Figure 5-1. The total value of capital assets under its management is \$6 billion, predominantly Crown-owned public conservation land (\$5.4 billion) and a smaller value of DOC-owned visitor and historic assets such as tracks, huts and structures (\$369.3 million; see DOC, 2014, pp. 82-83). Table 5-3 records trends in visitor numbers to six national parks between 2008 and 2012.

Figure 5-1: Public Conservation Land Administered by DOC, 2014



Source: DOC (2014, p. 82).

The Department’s budget for management of recreational opportunities in the 2013/14 financial year was \$148.6 million. This figure is reproduced in the first line of Table 5-1. Note that this spending will already have been counted in Chapter 4 (under ‘Nature Reserves and Conservation Parks Operation’ in Table 4-2, for example) and so will not be counted again in this chapter’s calculations in Section 5-5.

Table 5-3: Visitor Numbers to Selected National Parks, 2008-2012

| | 2008 | 2009 | 2010 | 2011 | 2012 |
|-------------------------|---------|---------|---------|---------|---------|
| Abel Tasman | 119,300 | 106,800 | 120,800 | 110,500 | 95,300 |
| Fiordland | 441,200 | 385,700 | 392,700 | 371,400 | 338,700 |
| Westland | 379,300 | 341,400 | 357,300 | 312,100 | 288,800 |
| Aoraki / Mt Cook | 201,800 | 170,400 | 186,600 | 146,900 | 155,700 |
| Tongariro | 83,200 | 102,100 | 110,000 | 141,500 | 114,000 |
| Paparoa | 121,200 | 130,800 | 165,800 | 127,500 | 114,200 |

Source: Department of Conservation website, www.doc.govt.nz/about-doc/role/visitor-statistics-and-research/national-parks-visitor-statistics/.

The lead central government agency for the sport and recreation sector is Sport New Zealand (see www.sportnz.org.nz/). This agency was established on 1 January 2001 as a Crown entity under the Sport and Recreation New Zealand Act 2002. It has three priority outcomes: more young people engaging in more sport and recreation; more adults engaging in more sport and recreation; and more winners on the world stage. High Performance Sport New Zealand (HPSNZ) leads the high performance system in New Zealand (see www.hpsnz.org.nz/).

For the most part, the spending by central government recorded in Table 5-1 will be counted in the industry statistics considered in chapter 4. Department of Conservation spending on 'management of recreational opportunities', for example, will have been recorded under the heading of 'Nature Reserves and Conservation Parks Operation' in Table 4-2. A significant exception, however, is the spending on Vote: Education, since the primary education and the secondary education subsectors were not included in the analysis of Table 4-2.

To be consistent with the national income accounting framework used in this study, these two expenditure items must be converted to value-added measures. This is achieved by including only the salary component of the expenditure. Further, to be consistent with the other data sources available at the time of writing, the data should be for the 2012/13 financial year.

Treasury (2013, Vol. 2, p. 75 and p. 86) advises that salaries funding in 2012/13 was estimated to be \$2,053.1 million for primary education and \$1,478.9 million for secondary education. Multiplying these salaries by 3/56 for an estimate of the share for delivery of the sport and recreation components of the national curriculum produces figures of \$110.0 million and \$79.2 million respectively, or \$189.2 million in total. This figure is used in the summary section 5-5 of this chapter.

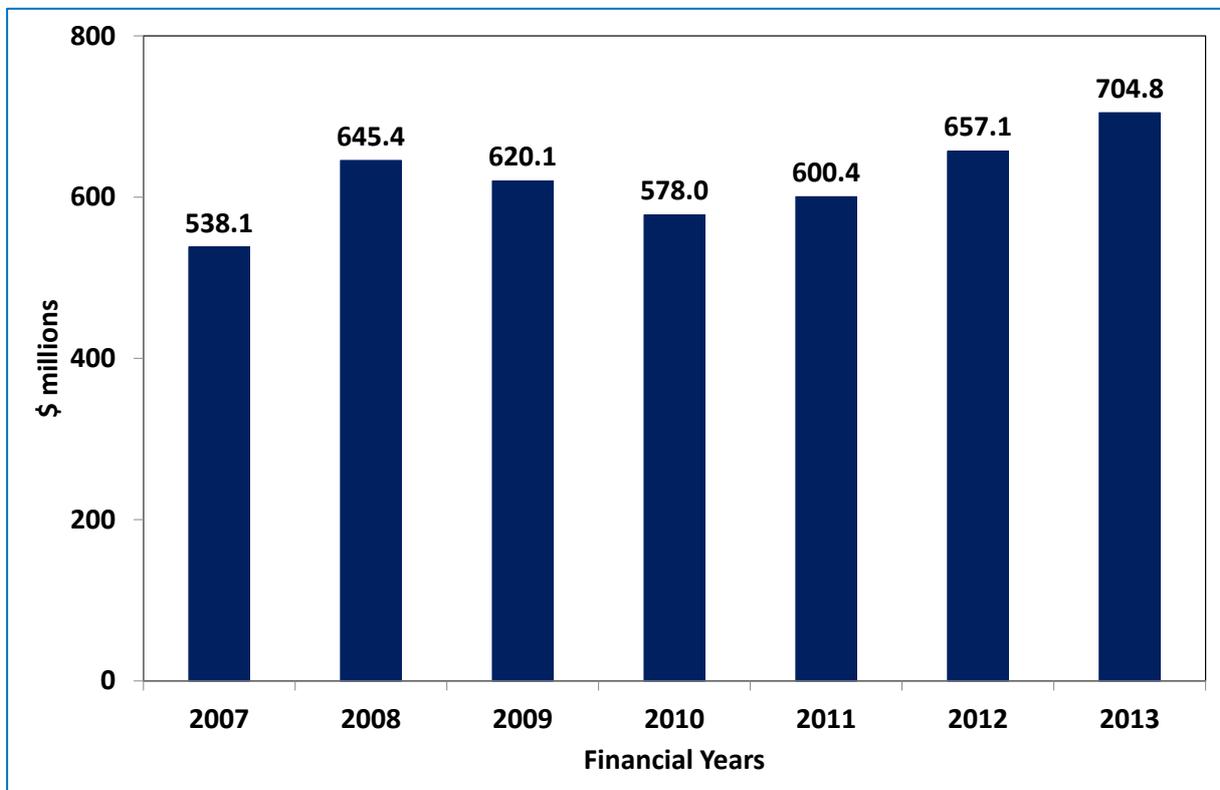
5.3 Local Government

Local government in New Zealand is made up of 11 regional councils and 67 territorial authorities (city councils, district councils and the Auckland Council, created by a merger of 8 former councils on 1 November 2010). Local government provide facilities for the sport and recreation of their communities. They manage and maintain lakes, rivers, beaches, parks, camping grounds, sports fields, stadiums, swimming pools, recreation centres, gymnasiums, cycle-ways, walkways, playgrounds, picnic areas and botanic gardens.

Statistics New Zealand undertakes an annual Local Authority Census to collect financial information on the activities of all New Zealand’s regional councils and territorial authorities (including the Auckland Regional Transport Authority). The published tables from the Local Authority Census include an analysis of total operating income and expenditure by sixteen activities. One of the activities is ‘recreation and sport’, which includes aquatic and sports facilities, zoological and botanical gardens, parks, reserves and playgrounds (such as bike and walking tracks, and parks and trails), and marine recreational facilities (such as berths, moorings, and access ways to water for sport and recreation activities).

Figure 5.2 shows total local government operating expenditure on recreation and sport for the financial years 2007 to 2013. Note that these data are not adjusted for inflation. In the last financial year, the amount was \$704.8 million.

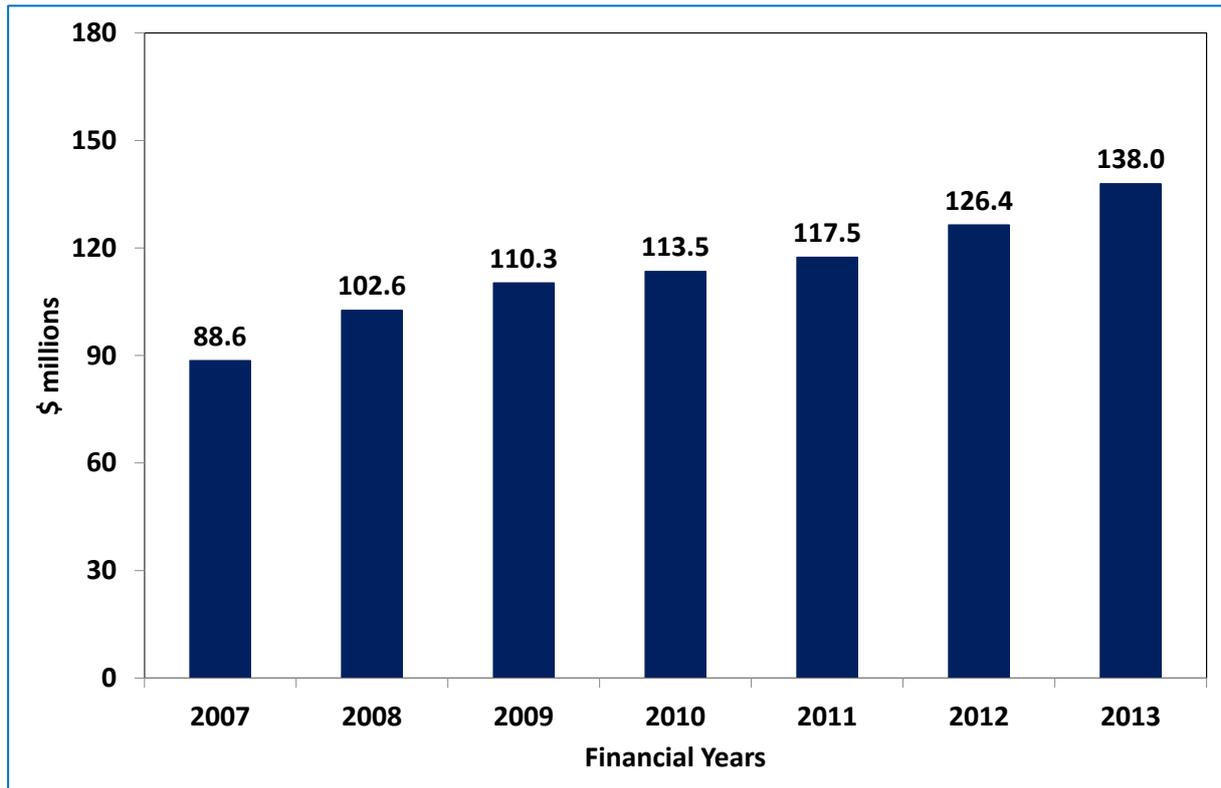
Figure 5-2: Local Government Operating Expenditure on Recreation and Sport, 2007-2013



Source: Statistics New Zealand Local Authority Census.

The published data do not provide information on the value of the physical capital devoted to sport and recreation facilities, but there is information on depreciation and amortisation allocated to sport and recreation activities.² Figure 5-3 shows the upward trend in this category between 2007 and 2013. These values are around 7 to 8 per cent of the total spending on depreciation and amortisation by the local government sector.

Figure 5-3: Local Government Operating Expenditure on Recreation and Sport: Depreciation and Amortisation, 2007-2013

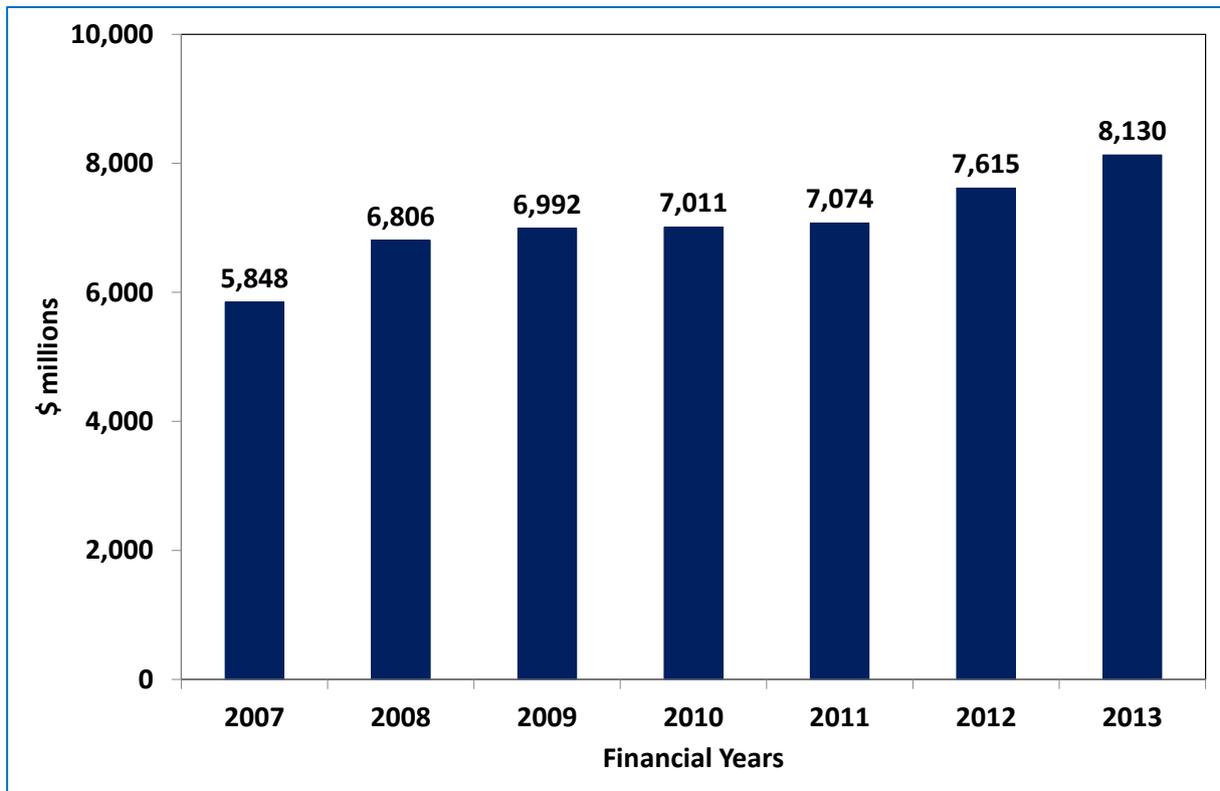


Source: Statistics New Zealand Local Authority Census.

Based on this ratio for each year, Figure 5-4 offers estimates of the value of local government fixed assets devoted to sport and recreation. These estimates are calculated by multiplying total fixed assets by the recreation and sport share of depreciation and amortisation expenses.

² Depreciation on fixed assets (such as sports stadiums) and amortisation of intangible assets (such as computer software) refers to accounting rules for recording in financial accounts the loss of value of these assets over time. This value is therefore proportionate to the total value of the assets and so can be used to provide a guide to the total share of assets in different categories.

Figure 5-4: Local Government Assets Devoted to Recreation and Sport Based on Share of Depreciation and Amortisation, 2007-2013



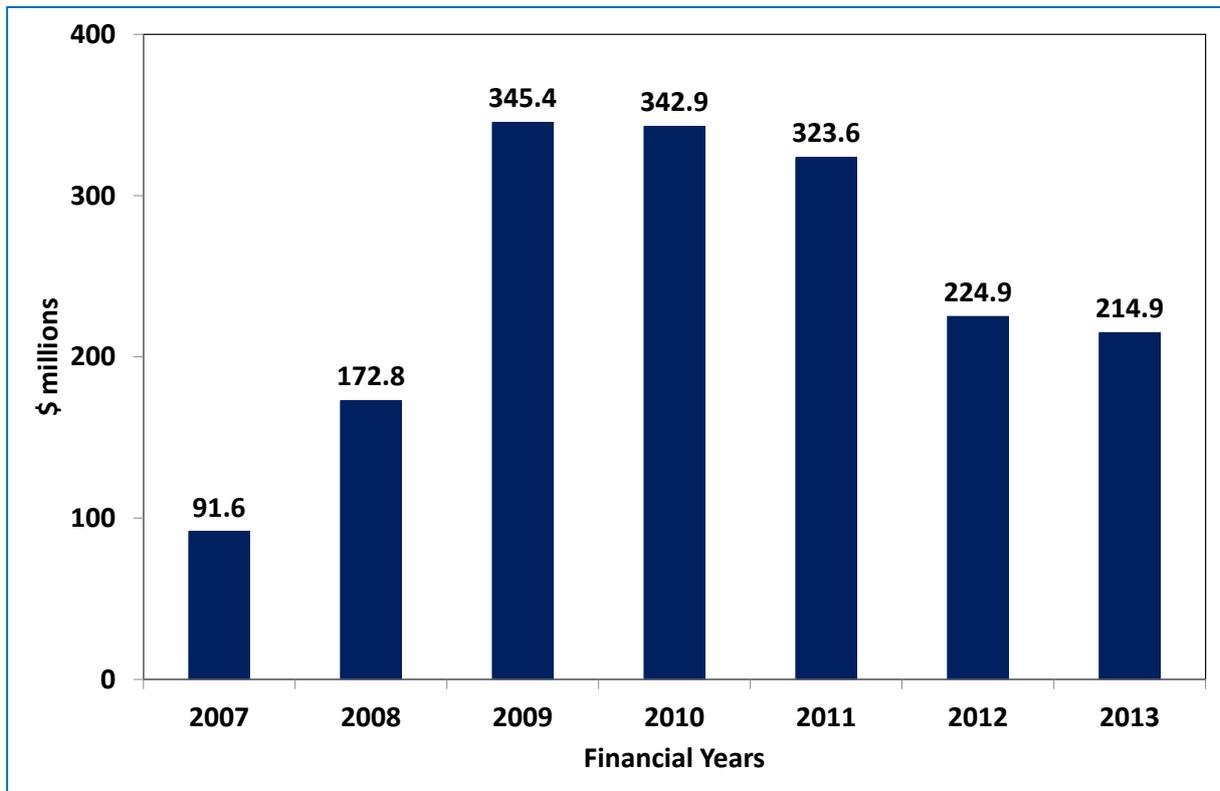
Note: The estimates are based on total fixed assets multiplied by the recreation and sport share of depreciation and amortisation expenses.

Figure 5-5 presents data on the net additions to local government fixed assets for recreation and sport. These data were provided by Statistics New Zealand for this report, drawing on the Local Authority Census. That source recorded no value for additions to fixed assets for recreation and sport for the Auckland Council in 2012/13, but further inquiries revealed that this was inaccurate. Sport New Zealand made a direct enquiry to the Auckland Council, who provided an estimate of the relevant net additions to assets for 2011/12 and 2012/13. Those estimates are included in Figure 5-5.

In the 2012/13 financial year, the total local government net additions to fixed assets for recreation and sport is estimated to have been \$214.9 million. The time series shows there was a significant peak in investment in 2008/09 to 2010/11, associated with New Zealand's hosting of the Rugby World Cup in September and October 2011.

The analysis of these financial accounts confirms the substantial scale of investment by local government in sport and recreation infrastructure. Further, building and construction were not included in the industry analysis of chapter 4, so the investment in new sports and recreation facilities is another item that should be included in a broad definition of the sector. Again to be consistent with the national income accounting framework used in this study, the gross expenditure on building and construction needs to be converted to 'value-added'.

Figure 5-5: Local Government Net Additions to Fixed Assets for Recreation and Sport, 2007-2013



Source: Statistics New Zealand Local Authority Census (and Auckland Council for 2012/13).

Statistics New Zealand provides supply and use tables to produce ratios at the sector level for this purpose. The ratio of value added to gross output for the non-building construction sector is 0.35 (meaning that for every \$1 of expenditure on construction, \$0.35 is value-added by the sector). Multiplying \$214.9 million by 0.35 produces a value-added estimate of \$75.2 million. Thus section 5-5 of this chapter will include this figure in its estimate of the contribution to GDP of the sport and recreations sector (broadly defined).

5.4 Private enterprise and community clubs

The previous two sections have presented official data on the investment by central and local government in sport and recreation infrastructure. There are no official data on similar investments by private enterprise and community clubs, but these should not be overlooked. The fitness industry in New Zealand is a large and growing sector. As well as providing physical recreation opportunities directly, these fitness centres provide training facilities that are used by athletes preparing for their participation in sport and outdoor recreation.

There are literally thousands of sport and recreation clubs in New Zealand. Each club may own, lease or rent facilities necessary for their activity, and may be managed by professional staff or volunteer members. Sport and Recreation New Zealand has developed specific resources to assist the successful running of sport and recreation clubs, including its Club Kit (see www.sportnz.org.nz/managing-sport/search?c=18).

Table 5-4: Gaming Funding for Sport and Recreation According to Purpose, 2012

| | \$(000) | Per Cent of Total |
|------------------------------------|-----------------|--------------------------|
| Administration | 363.1 | 0.5% |
| Advertising | 258.6 | 0.3% |
| Athlete Development | 2,150.4 | 2.8% |
| Coach Development | 589.8 | 0.8% |
| Coaching | 1,302.3 | 1.7% |
| Equipment Hire | 198.2 | 0.3% |
| Event/Tournament/Camp | 12,961.2 | 16.6% |
| Facility – Building/Asset Purchase | 3,319.1 | 4.2% |
| Facility – Equipment | 3,779.1 | 4.8% |
| Facility – Vehicle | 883.7 | 1.1% |
| Grounds/Facility | 2,934.1 | 3.8% |
| Information Technology | 407.6 | 0.5% |
| Maintenance – Building | 2,966.8 | 3.8% |
| Maintenance – Equipment | 1,284.2 | 1.6% |
| Maintenance – Grounds | 3,491.1 | 4.5% |
| Medical | 557.6 | 0.7% |
| Operating Costs | 3,336.3 | 4.3% |
| Physical Activity Equipment | 942.9 | 1.2% |
| Race Stake Money | 1410 | 1.8% |
| Recreation Equipment | 167 | 0.2% |
| Salaries | 20,719.7 | 26.5% |
| Sports Equipment | 9,521.5 | 12.2% |
| Training | 32.5 | 0.0% |
| Vehicle Hire | 833.7 | 1.1% |
| Venue/Grounds/Facility Hire | 3,648.4 | 4.7% |
| Unspecified | 64.8 | 0.1% |
| TOTAL | 78,123.7 | 100% |

Source: Litmus (2014, p. 58 and p. 59).

The 2013/14 *Active NZ Survey* included questions on involvement in a sport or recreation club or centre. This recorded that just under one-half (48.5 per cent) of people who participated in sport and recreation, excluding gardening and walking, belonged to a club or centre.

Sport New Zealand has provided three reports on gaming funding for sport and recreation activities, with the latest prepared by Litmus (2014). These reports focus on four of the major societies that distribute the majority of grants into the sport and recreation sector – the New Zealand Community Trust, Southern Trust, Pub Charity, and the Lion Foundation. Table 5-4 on the previous page presents an analysis of grants made in 2012 by purpose. The key findings summary of the report notes (Litmus, 2014, p. iii):

Salaries remain the highest funded purpose for sport grants. The proportion of total funding going to this purpose has increased, up from 18.5% in 2007 to 28% in 2012 (\$19,888,533). As noted in the 2010 report, sports organisations appear to becoming more reliant on these funds for salaries, particularly at the regional level. In 2010, salaries were the highest funded purpose for six of the top 20 funded sports, by 2012 this has increased to 12.

5.5 Summary

The investment in human and physical infrastructure described in this chapter is an important part of the broadly defined sport and recreation sector. Table 5-5 therefore begins with the estimate from chapter 4 that the contribution of the narrowly defined sport and recreation sector in 2012/13 was \$3,166 million and adds three items: (i) the incomes of people employed in sport and recreation occupations outside the sport and recreation industries; (ii) an estimate of the share of teacher salaries paid for the share of sport and recreation in *The National Curriculum*; and (iii) the value added in the construction sector to build new sport and recreation facilities owned by local government.

Table 5-5: Contribution to GDP of the Broad Sport and Recreation Sector, 2012/13

| Industry | Contribution to GDP (\$ millions) |
|--|--------------------------------------|
| Contribution of the Narrow Sport and Recreation Sector | 3,166.3 |
| Sport and Recreation Incomes outside the Sport and Recreation Industries | 497.8 |
| Central Government Investment in Sport and Recreation Education | 189.2 |
| Local Government Construction of New Sport and Recreation Facilities | 75.2 |
| TOTAL (\$ millions) | 3,928.5 |
| Gross Domestic Production (2012/13) | 215,315 |
| TOTAL (percentage of GDP) | 1.8% |

Source: Previous tables and figures as explained in the text.

The estimate of incomes of people employed in sport and recreation occupations outside the sport and recreation industries comes directly from section 5.1, which produced the figure of \$497.8 million. The estimate of the share of teacher salaries paid for the share of sport and recreation in *The National Curriculum* is based on the discussion in section 5.2. Salaries funding in 2012/13 for primary education was estimated to be \$2,053 million and for secondary education was estimated to be \$1,479 million (Treasury, 2013, p. 75 and p. 80). Multiplying the sum of these two amounts by the share of the curriculum involving sport and recreation (3/56) produces an estimate of \$189.2 million, as shown in the table. Finally, the table recognises the value-added in the construction industries by local government spending on new sport and recreation facilities (see section 5.3).

Including these three additional items, the contribution to GDP in 2012/13 of the broad sport and recreation sector was \$3,928 million. Nominal gross domestic product that year is estimated to have been \$215,315 million. Based on that estimate, **the share of the broad sport and recreation sector in 2012/13 was 1.8 per cent of gross domestic product.**

Recall from chapter 3 that it is possible to estimate the market value of the services provided to the sport and recreation sector by volunteers (\$1,030 million). Because these services are not marketed, they are not included in a country's standard set of national accounts. Nevertheless, countries are able to create satellite accounts for items such as these, which are complementary tables showing how inclusion of volunteered services would affect core measures such as gross domestic product. This has been done by Statistics New Zealand (2007), which estimated that the market value of unpaid work to the non-profit sector in 2003/04 was \$3,312 million.

Table 5-6 presents the implications of including the contribution of volunteers. Starting with the contribution of the broad sport and recreation sector (\$3,928 million from Table 5-5), the addition of volunteered services brings this value to \$4,958 million. To calculate this as a percentage of GDP, the analysis needs to include in GDP the estimated contribution of all volunteers. In 2004, the estimated contribution of all volunteers was \$3,312 million when GDP was \$144,682 million. Assuming that this ratio has unchanged, the contribution of all volunteers in 2012/13 would be \$4,929 million.

Thus the extended definition of GDP (including volunteered services) was \$220,244 million in 2012/13. This implies **the sport and recreation sector was 2.3 per cent of gross domestic product (including volunteered services).**

Table 5-6: GDP Including the Value of Volunteered Services, 2012/13

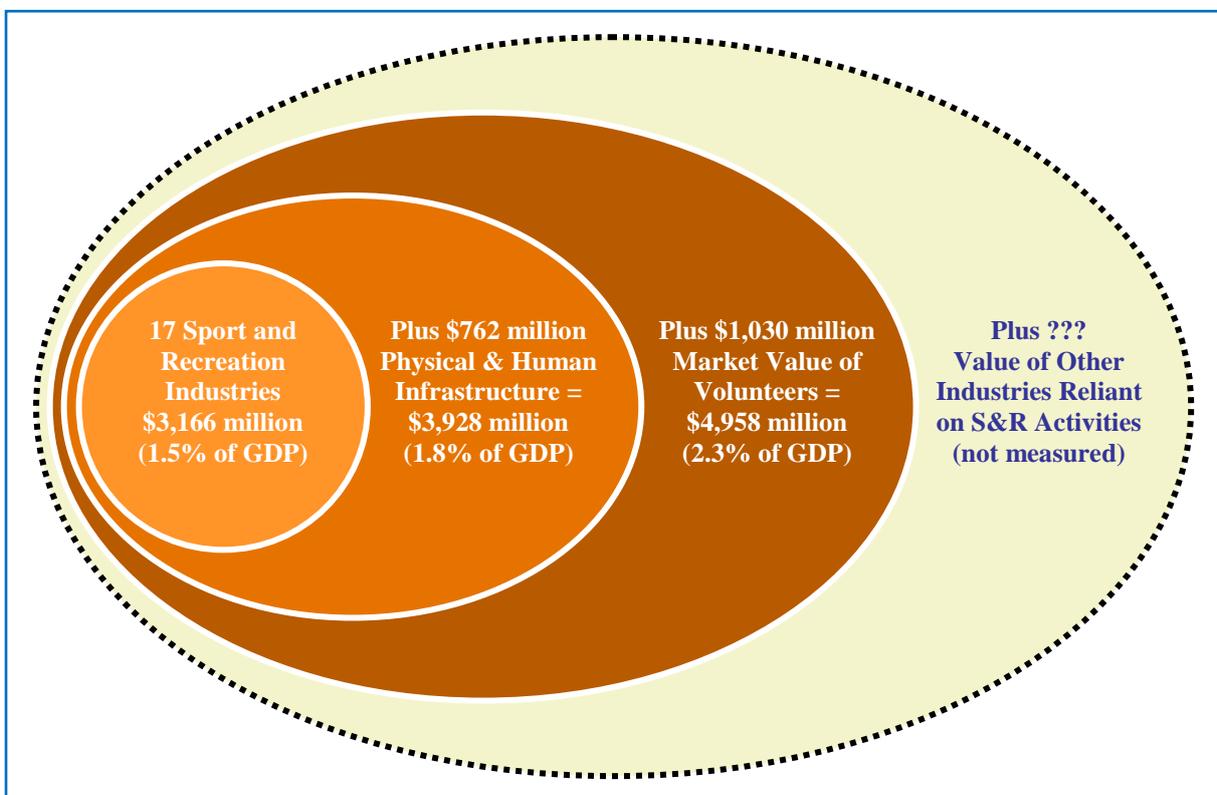
| | Gross Domestic Product | Volunteered Services | Extended GDP |
|----------------------------|------------------------|----------------------|--------------|
| Sport and Recreation (\$m) | 3,928 | 1,030 | 4,958 |
| Totals (\$m) | 215,315 | 4,929 | 220,244 |
| Per Cent | 1.8% | 20.9% | 2.3% |

Source: Section 3.4, Table 5-10 and Statistics New Zealand (2007).

Figure 5-6 presents the estimated market value of sport and recreation in New Zealand in the 2012/13 financial year.

- Based on the 17 core industries, the narrowly defined sector is estimated to have contributed 1.5 per cent to GDP that year.
- If the definition is broadened to include the three items of physical and human infrastructure identified in this chapter, the size expands to 1.8 per cent.
- If the contribution of volunteers is included, the size increases further to 2.3 per cent.

Figure 5-6: Estimated Market Value of Sport and Recreation in New Zealand, 2012/13



Note: This figure is based on a concept developed by Grant McLean at Sport NZ.

Source: Table 4-2, Table 5-5 and Table 5-6.

6. Promotion of Sport and Recreation to Spectators and Supporters

Key Facts and Estimates

- Enterprises in industries such as broadcasting, merchandising, international tourism, accommodation, hospitality and designer clothing can depend on sport and recreation for a substantial part of their business.
- There is little reliable data upon which estimates could be made of the economic value of these services, but a commissioned survey by Horizon Research (2013) found that for every \$100 spent directly on outdoor recreation, another \$36.62 was reported as being spent on travel, accommodation and other trip-related activities.
- Sport and outdoor recreation are important aspects of the experience of international tourists: In 2014, 74.2 per cent reported they had gone for a walk, hike, trek or tramp, 56.2 per cent reported they had visited a natural attractions; 44.6 per cent reported they had spent time at a beach; and 25.8 per cent had been to a national park.
- In the short term (2006-2012), the Rugby World Cup was estimated to have resulted in a short-term expansion of the national economy in the order of **\$1,730 million** (measured at 2007 prices), sustaining the equivalent of **22,890 extra jobs for the duration of one year**.
- This impact was expected to be lower in the medium, but was still estimated to be “reasonably significant”, in the order of **\$573 million** (measured in 2007 prices), sustaining the equivalent of **7,840 jobs for one year**.

Previous chapters of this report have focused on industries that are directly involved in production for sport and recreation activities, including the provision of essential infrastructure. Other industries, however, depend on sport and recreation for a substantial part of their business. The report by Dalziel (2011) considered the following examples:

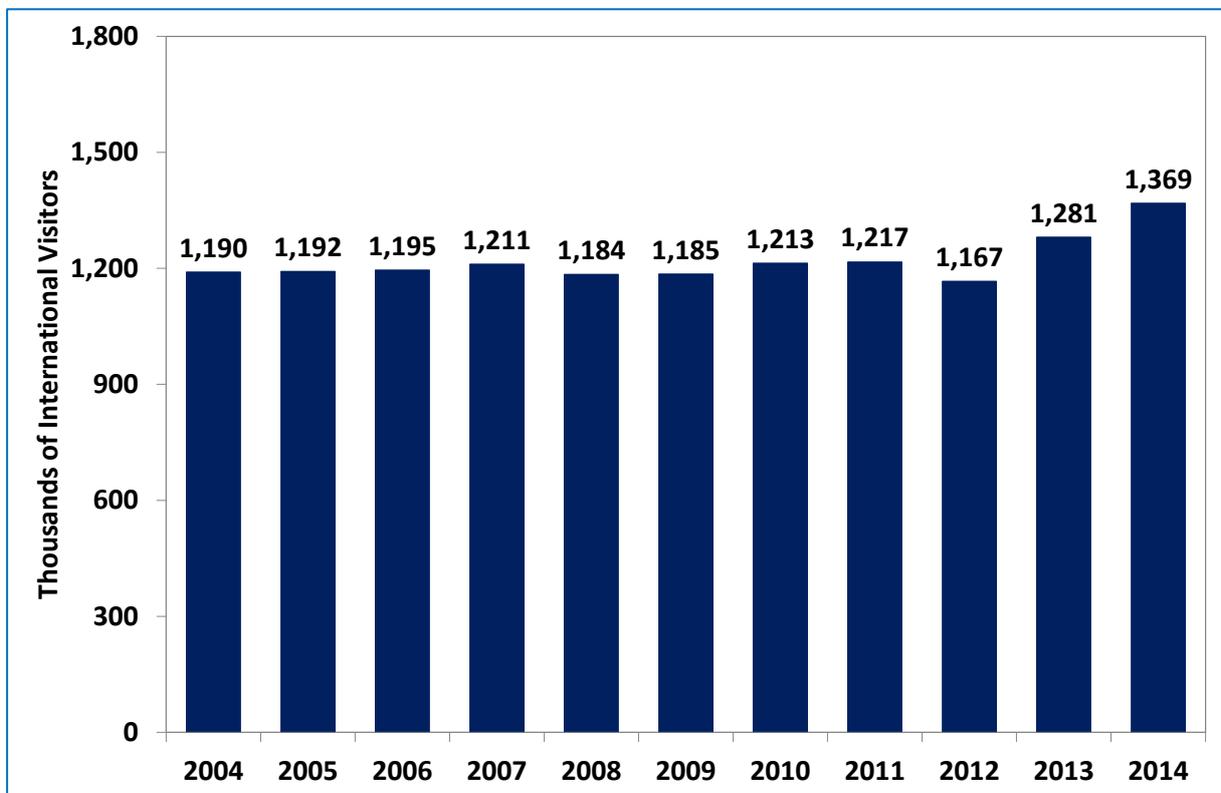
- broadcasting;
- merchandising to spectators and supporters;
- international tourism;
- accommodation and hospitality; and
- designer clothing.

That report was unable to provide robust estimates of the overall size of these activities, and it remains the case that there is little reliable data upon which such estimates could be made. This report therefore does not repeat the material in Dalziel (2011), but the importance of

this aspect of sport and recreation can be illustrated by noting a result from recent research commissioned from Horizon Research (2013). This organisation surveyed its National Panel in February 2013 for information on outdoor recreation. The National Panel is not a random sample of the adult population, but its participants reported that for every \$100 they spent directly on outdoor recreation, another \$36.62 was spent on travel, accommodation and other trip-related activities.

After years of general stability in the number of international visitors to New Zealand whose main purpose is holiday and vacation, there has been indications of growth since the trough in 2012 (see Figure 6-1). The number of such visitors in 2014 was 1,369,000 tourists, and increase of 6.9 on the previous year.

Figure 6-1: International Visitors, Main Purpose is Holiday/Vacation, 2004 - 2014



Source: www.tourismresearch.govt.nz/Data--Analysis/International-tourism/International-Visitor-Arrivals/.

Sport and outdoor recreation are important aspects of the experience of international tourists. This is shown in Table 6-1: 74.2 per cent reported they had gone for a walk, hike, trek or tramp, 56.2 per cent reported they had visited a natural attractions; 44.6 per cent reported they had spent time at a beach; and 25.8 per cent had been to a national park.

Table 6-1: Sport and Recreation Activities of International Visitors on Holiday, 2013

| Activities | International Visitors | |
|--|------------------------|----------|
| | Number | Per Cent |
| Go for a walk, hike, trek or tramp | 950,277 | 74.2% |
| Other natural attraction (e.g. mountain, lake, river etc.) | 719,263 | 56.2% |
| A beach | 570,871 | 44.6% |
| A national park | 330,843 | 25.8% |
| Swimming / surfing | 204,360 | 16.0% |
| Jet-boating | 174,304 | 13.6% |
| Extreme ride e.g. Luge, fly-by-wire | 148,806 | 11.6% |
| Rafting, canoeing, kayaking | 115,294 | 9.0% |
| Other boating | 99,923 | 7.8% |
| A marine park or marine reserve | 92,868 | 7.3% |
| Watching or playing other sport | 92,571 | 7.2% |
| Cycling | 88,372 | 6.9% |
| Skiing, snowboarding or other snow sport | 83,176 | 6.5% |
| Air activities such as paragliding, skydiving, etc. | 81,066 | 6.3% |
| Fishing or hunting | 74,183 | 5.8% |
| Bungy jumping | 67,718 | 5.3% |
| Mountain climbing, rock climbing, abseiling, caving | 46,140 | 3.6% |
| Horse riding / horse trekking | 40,188 | 3.1% |
| Playing golf | 32,935 | 2.6% |
| Quad biking, 4WD vehicle tour | 28,461 | 2.2% |
| Other water activity such as water-skiing | 24,182 | 1.9% |
| Scuba diving or snorkelling | 21,653 | 1.7% |
| Rugby (watching or playing) | 20,830 | 1.6% |

Note: The percentage is of all international visitors who reported that their main purpose for visit was holiday/vacation.

Source: Statistics New Zealand, International Visitor Survey: Activities.

6.1 The Rugby World Cup 2011

The previous report by Dalziel (2011) reported on the study by Vuletich and Trent (2009) that analysed the importance of sports and recreation events (among other types of events) for the Auckland economy. It also noted the increase in local government expenditure on sport and recreation facilities leading up to the Rugby World Cup in September and October 2011 (see also Figure 5-5 in this report). Since then, there have been a number of reviews of the economic impacts of that event, all of which illustrate how sport and recreation can have spin-off effects throughout the local or national economy.

In April 2012, Statistics New Zealand issued a press release examining the “Impact of the Rugby World Cup in New Zealand’s macro-economic statistics” (see www.stats.govt.nz/browse_for_stats/economic_indicators/NationalAccounts/impact-of-rugby-world-cup.aspx). While recognising the difficulty of separately identifying the impact of the Rugby World Cup (RWC), the press release noted that international visitor numbers, accommodation bookings, overall spending and gross domestic product all rose in the September and December quarters of 2011. The following paragraphs from the press release are particularly relevant to this chapter:

Everyone arriving in New Zealand fills out an arrival card, which asks about the purpose for their visit (holiday, business, visiting family). Leading up to the RWC, visitors were also asked whether they were for the RWC. Those who said that they were here for the RWC were classified as ‘RWC visitor arrivals’ in our statistics.

International travel and migration statistics showed that there were 74,400 RWC visitor arrivals in September 2011, and 53,200 in October 2011. In total, there were 133,200 RWC arrivals between July 2011 and October 2011.

All of these visitors needed somewhere to stay. Statistics from the Accommodation Survey show that total international guest nights rose 21 percent in the September 2011 month compared with September 2010. Guest nights also rose 7.1 percent in the October 2011 month compared with October 2010.

...

The RWC was also reflected in the production measure of GDP. This effect was mainly seen in increased activity in the retail, accommodation, and restaurants industries. Household consumption expenditure showed that it wasn't just visitors to New Zealand that spent more during the RWC. New Zealand resident households also contributed to this increase in spending on goods and services.

The Auckland Council (2011) published an evaluation report on Rugby World Cup drawing on expertise from Sapere Research Group, Market Economics and Gravitass. It reported on a survey of Auckland businesses after the event, which found that 8.9 per cent indicated the RWC had been beneficial to their businesses, but this rose to 18.2 per cent for enterprises in the hospitality sector (idem, p. 42).

The Ministry of Business, Innovation and Employment commissioned an independent economic impacts analysis from Market Economics in conjunction with Gravitas and Sapere Research Group (MBIE, 2012, pp. 96-101). This found that in the short term (2006-2012), the RWC had resulted in a short-term expansion of the national economy in the order of \$1,730 million (measured at 2007 prices), sustaining the equivalent of 22,890 extra jobs for the duration of one year. This impact was expected to be lower in the medium term (allowing for substitution effects and resource constraints), but was still estimated to be “reasonably significant”, in the order of \$573 million (measured in 2007 prices), sustaining the equivalent of 7,840 jobs for one year.

A similar study was commissioned in Australia (URS Finance and Economics, 2004). It reported that 65,000 international visitors had been estimated to have visited Australia as result of Australia hosting the RWC. The study estimated that the short term impact of the RWC on national GDP had been in the order of \$289 million. It warned against attempting to estimate the long term impacts, but did conclude (*idem*, p. 4-11):

In terms of tourism impacts post event, there appears little doubt as to the positive effect a large event can have on a destination, state or country. This appears to be driven from two key factors:

- The impact of the increased media exposure and the associated “brand recognition” of a location as a results of hosting an event; and
- The potential impact of repeat visitors to the host – i.e. visitors who came for the event returning at a later date.

It was considered that these factors might generate a reasonably significant impact on the Australian economy (*idem*, p. 4-18).

Appendix: Recalibration of the Size of the Sport and Recreation Sector Using Industry Benchmarks Data

The Australia and New Zealand Standard Industrial Classification (ANZSIC) was originally developed in 1993 by the Australian Bureau of Statistics and Statistics New Zealand (Galbraith, 2005). A slightly adapted version was released by Statistics New Zealand in 1996, which was the basis of production data in the national accounts for the following decade. A new ANZSIC framework was developed for publication in 2006 motivated by the need for: (i) relevance; (ii) better meeting the needs of users; and (iii) alignment with international classifications (*idem*). ANZSIC 2006 (or ANZSIC06 as it is often written) resulted in several important improvements, including the following (Statistics New Zealand, 2008 and 2011):

- A new industry division was created for Information Media and Telecommunications.
- The former Property and Business Services division was rearranged into three new divisions: Rental, Hiring and Real Estate Services; Professional, Scientific and Technical Services; and Administrative and Support Services.
- Some industries were reallocated based on similarities in production processes rather than on similarities in providers. Thus, services provided by central and local government (such as local government sports and physical recreation venues, grounds and facilities operations) were removed from the Government Administration division and shifted to a division based on their production category (in this case Arts and Recreation Services). Similarly, sports instruction and coaching was shifted from the old Cultural and Recreational Services division to the new Education and Training division.

The ANZSIC 2006 framework is organised into four levels. At the highest level, there are 19 divisions, which are in turn divided into sub-divisions, and then into groups and finally into classes. There are 506 classes, which can be considered as the building blocks of any industry analysis using these data.

The advantage of ANZSIC 2006 is that it harmonises statistics published in Australia and in New Zealand and it is also consistent with the International Standard Industrial Classification of all Economic Activities (abbreviated as ISIC). A disadvantage is that it does not always reflect important features of economic activity in New Zealand, such as the importance of the country's primary sector industries and associated food manufacturing industries for export growth.

Consequently, Statistics New Zealand has used the 506 ANZSIC06 classes to create a complementary framework known as the New Zealand Standard Industry Output Categories (NZSIOC). This is also organised into four levels, with Level 3 defining the industries published in the National Accounts (Industry Benchmarks) series. There are 55 of these Level 3 industries, compared to 47 industries published in the previous National Accounts series.

The move from 47 industries to 55 industries is a significant improvement in data quality. There was also a further improvement that is more technical; in short, the previous National Accounts included a negative adjustment item termed the Finance Service Charge, which has now been replaced by the incorporation of Financial Intermediation Services Indirectly Measured (FISIM) into each industry; see Statistics New Zealand (2012). This improvement had an impact of slightly increasing measured GDP each year.

In the analysis of Dalziel (2011), there were nine industries in the National Accounts series that were relevant for the sport and outdoor recreation sector defined in Table A-1. These industries are listed on the left-hand side of Table A-1 along with their contribution to GDP for the year ending March 2007. The right-hand-side of Table A-1 lists the relevant industries in the new National Accounts (Industry Benchmarks) series.

Table A-1: The Sport and Recreation Industries in the National Accounts (Discontinued) and the National Accounts (Industry Benchmarks), Value Added 2006/07

| National Accounts (Discontinued) | | National Accounts (Industry Benchmarks) | |
|---|------------|--|------------|
| Industry Name | \$m | Industry Name | \$m |
| Horticulture and Fruit Growing | 1,120 | Horticulture and Fruit Growing | 1,088 |
| Livestock and Cropping Farming | 2,146 | Poultry, Deer and Other Livestock Farming | 267 |
| Transport Equipment Manufacturing | 898 | Transport Equipment Manufacturing | 916 |
| Furniture and Other Manufacturing | 787 | Furniture and Other Manufacturing | 629 |
| Wholesale Trade | 10,969 | Wholesale Trade | 8,623 |
| Retail Trade | 9,583 | Retail Trade | 4,996 |
| Education | 6,885 | Education and Training | 7,532 |
| Health and Community Services | 9,550 | Health Care and Social Assistance | 9,382 |
| Cultural and Recreational Services | 3,673 | Arts and Recreation Services | 2,684 |

Source: Statistics New Zealand National Accounts data.

For four of the nine industries, there is a name change that reflects a significant change in composition. Generally the measures of value-added on the right-hand side of Table A-1 are less than the measures on the left-hand side. These two aspects are particularly noticeable for the final row, which is the most important for estimating the contribution of sport and outdoor recreation to GDP. The name was changed from Cultural and Recreational Services to Arts and Recreation Services, and the measured value-added was reduced from \$3.7 billion to \$2.7 billion. These changes mean that the estimate in Dalziel (2011) must be recalibrated.

The analysis begins with Census data showing employment in each of the industries in Table A-1. These data are unchanged from Table 3.2 in Dalziel (2011, p. 26) reproduced here as Table A-2. The table also shows the percentage share of each industry in the total sport and outdoor recreation sector.

Table A-2: Employment in Sport and Recreation Industries 2006

| ANZSIC06 Industry | Number Employed | Per Cent of Sector |
|---|------------------------|---------------------------|
| Turf Growing | 48 | 0.1% |
| Horse Farming | 1,404 | 3.8% |
| Boatbuilding and Repair Services | 3,963 | 10.8% |
| Toy, Sporting and Recreational Product Manufacturing | 738 | 2.0% |
| Toy and Sporting Goods Wholesaling | 1,299 | 3.5% |
| Sport and Camping Equipment Retailing | 3,777 | 10.3% |
| Sports and Physical Recreation Instruction | 2,136 | 5.8% |
| Physiotherapy Services | 2,175 | 5.9% |
| Nature Reserves and Conservation Parks Operation | 2,853 | 7.7% |
| Health and Fitness Centres and Gymnasias Operation | 3,054 | 8.3% |
| Sport and Physical Recreation Clubs and Sports Professionals | 4,320 | 11.7% |
| Sports and Physical Recreation Venues, Grounds and Facilities Operation | 4,377 | 11.9% |
| Sport and Physical Recreation Administrative Service | 1,698 | 4.6% |
| Horse and Dog Racing Administration and Track Operation | 702 | 1.9% |
| Other Horse and Dog Racing Activities | 1,392 | 3.8% |
| Amusement Parks and Centres Operation | 936 | 2.5% |
| Amusement and Other Recreation Activities (not elsewhere classified) | 1,959 | 5.3% |

Source: Dalziel (2011, p. 26).

Each of the industries in Table A-2 can be assigned to a Level 3 NZSIOC industry using tables of definitions provided by Statistics New Zealand. This is shown in the first two columns of Table A-3. From this, the employment ratio can be calculated (shown in the third column) which is defined as the each industry's employment divided by the total employment in the relevant Level 3 NZSIOC industry.

Table A-3: Sport and Recreation Industries and their Employment Ratio, 2006

| ANZSCO Industry | 'Contribution to GDP' Sector | Employment Ratio |
|---|---|-------------------------|
| Turf Growing | Horticulture and Fruit Growing | 0.0020 |
| Horse Farming | Poultry, Deer and Other Livestock Farming | 0.1711 |
| Boatbuilding and Repair Services | Transport Equipment Manufacturing | 0.3316 |
| Toy, Sporting and Recreational Product Manufacturing | Furniture and Other Manufacturing | 0.0592 |
| Toy and Sporting Goods Wholesaling | Wholesale Trade | 0.0132 |
| Sport and Camping Equipment Retailing | Other Store-based Retailing and Non-store Retailing | 0.0339 |
| Sports and Physical Recreation Instruction | Education and Training | 0.0150 |
| Physiotherapy Services | Health Care and Social Assistance | 0.0136 |
| Nature Reserves and Conservation Parks Operation | Arts and Recreation Services | 0.0873 |
| Health and Fitness Centres and Gymnasias Operation | Arts and Recreation Services | 0.0934 |
| Sport and Physical Recreation Clubs and Sports Professionals | Arts and Recreation Services | 0.1321 |
| Sports and Physical Recreation Venues, Grounds and Facilities Operation | Arts and Recreation Services | 0.1339 |
| Sport and Physical Recreation Administrative Service | Arts and Recreation Services | 0.0519 |
| Horse and Dog Racing Administration and Track Operation | Arts and Recreation Services | 0.0215 |
| Other Horse and Dog Racing Activities | Arts and Recreation Services | 0.0426 |
| Amusement Parks and Centres Operation | Arts and Recreation Services | 0.0286 |
| Amusement and Other Recreation Activities (not elsewhere classified) | Arts and Recreation Services | 0.0599 |

Source: Statistics New Zealand, National Accounts (Industry Benchmarks) data and Census 2006 data.

To illustrate, the 2006 Census recorded 1,404 people employed in the horse farming sector, which was 17.11 per cent of the total people who were recorded as employed in the Poultry, Deer and Other Livestock Farming Level 3 NZSIOC industry.

The final step is to multiply each industry's employment ratio in Table A-3 with the value-added for the relevant Level 3 NZSIOC industry shown in the final column of Table A-1. Assuming that there are no material differences in productivity across a Level 3 industry, then this is the industry's contribution to GDP as shown in Table A-4.

Table A-4: Contribution to GDP of Sport and Recreation Industries, 2006/07

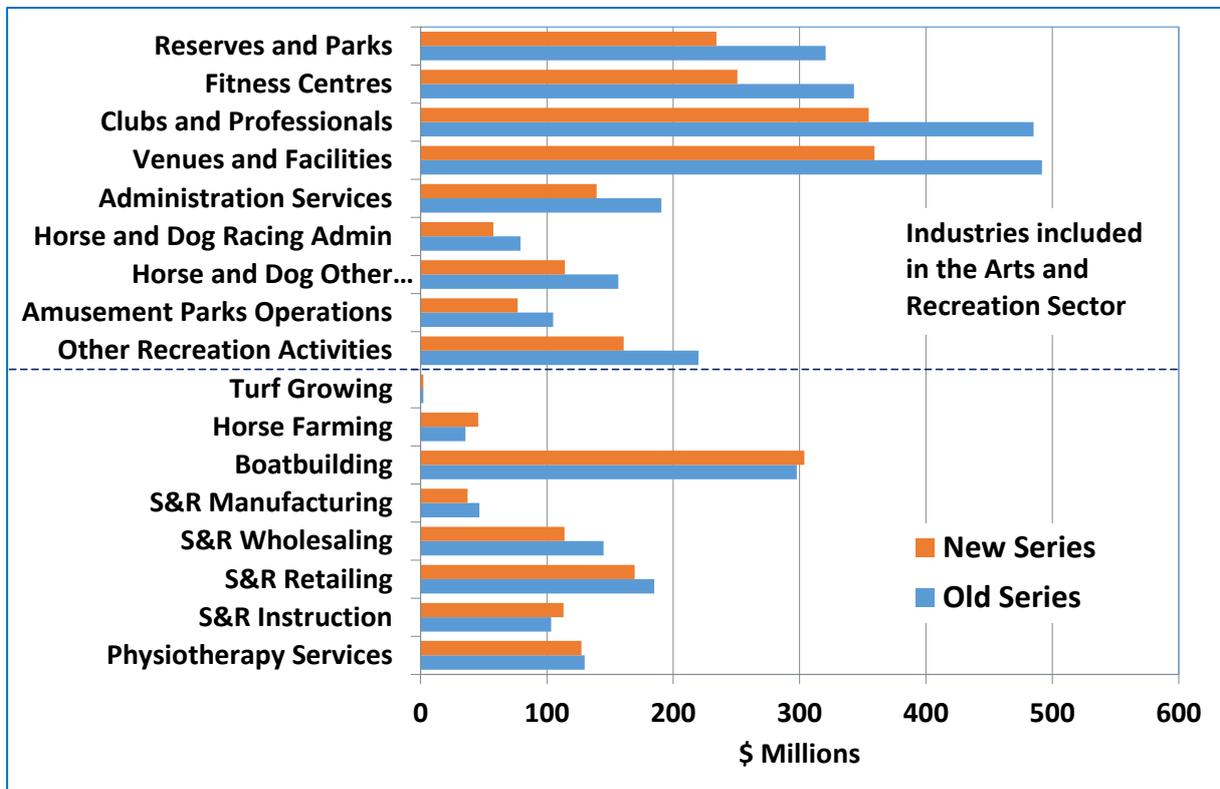
| ANZSIC06 Industry | Contribution to GDP (\$ millions) |
|---|--|
| Turf Growing | 2.2 |
| Horse Farming | 45.7 |
| Boatbuilding and Repair Services | 303.7 |
| Toy, Sporting and Recreational Product Manufacturing | 37.2 |
| Toy and Sporting Goods Wholesaling | 113.9 |
| Sport and Camping Equipment Retailing | 169.4 |
| Sports and Physical Recreation Instruction | 113.2 |
| Physiotherapy Services | 127.3 |
| Nature Reserves and Conservation Parks Operation | 234.2 |
| Health and Fitness Centres and Gymnasias Operation | 250.7 |
| Sport and Physical Recreation Clubs and Sports Professionals | 354.7 |
| Sports and Physical Recreation Venues, Grounds and Facilities Operation | 359.4 |
| Sport and Physical Recreation Administrative Service | 139.4 |
| Horse and Dog Racing Administration and Track Operation | 57.6 |
| Other Horse and Dog Racing Activities | 114.3 |
| Amusement Parks and Centres Operation | 76.8 |
| Amusement and Other Recreation Activities (not elsewhere classified) | 160.8 |
| TOTAL | 2,660.7 |

Source: Statistics New Zealand, National Accounts (Industry Benchmarks) data and Census 2006 data.

Figure A-1 compares the contributions to GDP calculated in Table A-4 with the equivalent calculations from Table 4.2 of Dalziel (2011, p. 39). The greater detail made possible from the new National Accounts (Industry Benchmarks) data series reveals that in most cases the industries are smaller than previously estimated, particularly the nine industries that are

part of the new Arts and Recreation Services Level 3 NZSIOC industry (that is, the nine pairs of bars above the dotted line in the chart).

Figure A-1: Comparison of Contributions to GDP by the Sport and Recreation Industries Using the Old Series and the New Series, 2006/07



Source: Dalziel (2011, Table 4.2, p. 39) and Table A-4.

This has an impact on the estimated total contribution to GDP of the sport and outdoor recreation sector, narrowly defined. In Dalziel (2011), this was reported as \$3,337.0 million; in the new calculations of Table A-5, it is \$2,660.7 million. Total GDP recorded for 2006/07 in the National Accounts (Industry Benchmarks) database was \$171.848 million. This means that the new benchmark figure for the contribution to GDP of the sport and outdoor recreation sector is **1.5 per cent** to replace the 2.1 per cent reported in Dalziel (2011).

The two other major calculations in Dalziel (2011, Tables 5.10 and 5.11, pp. 70-71) were of the contributions of the broadly defined sector and of the broadly defined sector including volunteered services. These must be similarly adjusted downwards, but the methodology remains the same as in the earlier report. These adjustments are shown in Tables A-5 and A-6.

Table A-5: Contribution to GDP of the Broad Sport and Recreation Sector, 2008/09

| Industry | Contribution to GDP (\$ millions) |
|--|-----------------------------------|
| Contribution of the Narrow Sport and Recreation Sector (2008/09) | 2,906 |
| Sport and Recreation Incomes outside the Sport and Recreation Industries | 400 |
| Central Government Investment in Sport and Recreation Education | 172 |
| Local Government Construction of New Sport and Recreation Facilities | 100 |
| TOTAL (\$ millions) | 3,578 |
| Gross Domestic Production (2008/09) | 187,704 |
| TOTAL (percentage of GDP) | 1.9% |

Notes: The value in the first row comes from scaling up the estimate in Table A-5 (\$2,660.7 million, recorded in 2006/07 values) to 2008/09 values by multiplying it by the ratio of GDP in 2008/09 (\$187,704m) to GDP in 2006/07 (171,848m). The remaining three values in the top half of the table come from the original study.

Source: Table A-4 and Dalziel (2011, Table 5.10, p. 70).

Table A-6: Contribution to GDP Including Volunteered Services, 2008/09

| | Gross Domestic Product | Volunteered Services | Extended GDP |
|----------------------------|------------------------|----------------------|--------------|
| Sport and Recreation (\$m) | 3,578 | 728 | 4,306 |
| Totals (\$m) | 187,704 | 3,867 | 191,571 |
| Per Cent | 1.9% | 18.8% | 2.2% |

Source: Table A-4 and Dalziel (2011, Table 5.11, p. 71).

Thus the **recalibrated** calculations for the size of the sport and outdoor recreation sector are as follows:

- *The contribution of the sport and outdoor recreation sector (narrowly defined) to GDP in 2008/09 is estimated to have been **\$2.9 billion**, or **1.5 per cent**.*
- *The contribution of the sport and outdoor recreation sector (broadly defined) to GDP in 2008/09 is estimated to have been **\$3.6 billion**, or **1.9 per cent**.*
- *The contribution of sport and outdoor recreation to GDP including volunteered services in 2008/09 is estimated to have been **\$4.3 billion**, or **2.2 per cent**.*

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