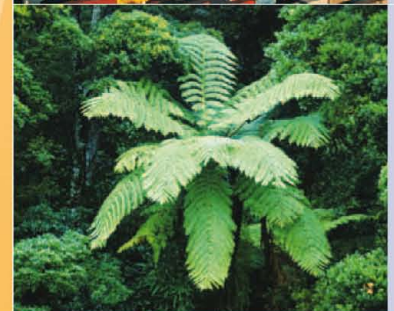
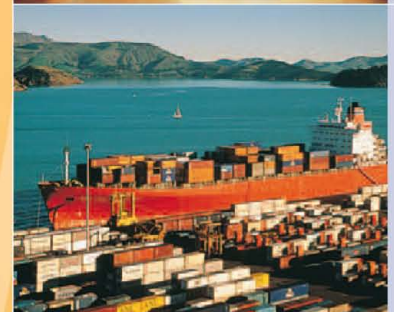


VALUE
of Sport & Recreation Series

The Economic Value of Sport and Recreation to the **Manawatu-Wanganui Region**

Authors: Paul Dalziel
and Patrick O'Neill

December 2011



CHRISTCHURCH
NEW ZEALAND
www.lincoln.ac.nz



**Lincoln
University**
Te Whare Wānaka o Aoraki

Acknowledgements

This publication is one of a series of thirteen regional analyses of sport and recreational data prepared for SPARC by the AERU at Lincoln University. We are pleased to acknowledge the AERU research team: Professor Paul Dalziel, Professor Caroline Saunders, Dr Peter Tait, Patrick O'Neill and Meike Guenther. We also thank Andrew McLaren and Nalin Patel from Statistics New Zealand, who provided employment data for these reports from the 2006 Census. Within SPARC, the project was led by Grant McLean and Dr Sue Walker, with data analysis assisted by Dr Maea Hohepa.

Authors

This report was written by Professor Paul Dalziel and Patrick O'Neill with editorial assistance by SPARC.

Copies of the other reports in SPARC's *Value of Sport and Recreation Series* can be downloaded from SPARC's website: www.sparc.org.nz.

Citation:

SPARC, 2011. *The Economic Value of Sport and Recreation to the Manawatu-Wanganui Region*. Wellington: SPARC.

Contents

Acknowledgements	ii
List of Tables	v
List of Figures	vi
Summary	vii
1. Introduction	1
The importance of valuing the benefits of sport and recreation	1
People in the the Manawatu-Wanganui value sport and recreation	1
Valuing the benefits of sport and recreation at the national level	3
Valuing the benefits of sport and recreation at the regional level	3
Defining the sport and recreation sector	4
Estimating the contribution to regional GDP	5
Report content	5
2. Value of Sport and Recreation in Manawatu-Wanganui	6
How is economic activity valued?	6
The market value of sport and recreation to the regional economy	7
The contributions of Palmerston North	8
3. The Sport and Recreation Sector – Narrowly Defined	9
The contribution to regional GDP of the narrowly defined sector	9
4. The Sport and Recreation Sector – Broadly Defined	12
Employment in sport and recreation	12
The contribution of the wider employment sector	14
The contribution of spending on sport and recreation education	15
The contribution of local government	15
The contribution to regional GDP from the sport and recreation sector – broadly defined	17
The contribution of volunteers	18
5. Conclusion	20
Appendix 1: Regions in the SPARC Study	21

Appendix 2: Details of the Report's Calculations	23
Calculating share of regional GDP	23
Calculating occupation incomes	24
Appendix 3: Sport and Recreation Data Tables	26

List of Tables

Table 1: Contribution of Sport and Recreation Sector, Palmerston North, 2008/09	8
Table 2: Contribution to GDP of Sport and Recreation Industries, Manawatu-Wanganui, 2006/07	10
Table 3: Contribution to GDP of Sport and Recreation Industries, Palmerston North, 2006/07	11
Table 4: Income Earned Outside the Sport and Recreation Industries, Manawatu-Wanganui, 2009	14
Table 5: Investment in School Sport and Recreation Investment, Manawatu-Wanganui, 2008/09	15
Table 6: Value Added in the Construction Sector from Local Authority Net Additions to Recreation and Sport Fixed Assets, Manawatu-Wanganui Region, 2008/09	17
Table 7: Contribution to the Manawatu-Wanganui Economy of the Sport and Recreation Sector – Broadly Defined, 2008/09	18
Table 8: Contribution to the Manawatu-Wanganui Economy of the Broad Sport and Recreation Sector – Broadly Defined, Palmerston North, 2008/09	18
Table 9: GDP Including the Value of Volunteered Services, Manawatu-Wanganui, 2008/09	19
Appendix	
Table A1: Regions and Urban Areas Analysed in the SPARC Reports	21
Table A2: Distribution of Employment in the Sport and Recreation Sector, 2006	22
Table A3: Distribution of Regional GDP at 2002/03 Prices, 2002/03	24
Table A4: Employment in Sport and Recreation Industries, Manawatu-Wanganui, 2006	26
Table A5: Employment in Sport and Recreation Occupations, Manawatu-Wanganui, 2006	27
Table A6: Contribution to GDP of Sport and Recreation Industries, Palmerston North, 2006/07	28
Table A7: Estimated Incomes in Sport and Recreation Occupations, Manawatu-Wanganui, 2006	29
Table A8: Sport Participation by Male and Female Students and by Teachers at Secondary Schools, 2010	30
Table A9: Local Authority Spending on Recreation and Sport, Manawatu-Wanganui Region, 2008/09	31
Table A10: Local Authority Net Additions to Recreation and Sport Fixed Assets, Manawatu-Wanganui Region, 2008/09	31

List of Figures

Figure 1: Calculating a Sector's Value Added	6
Figure 2: Estimated Value of Sport and Recreation, Manawatu-Wanganui, 2008/09	7
Figure 3: Employment in Sport and Recreation Occupations, Manawatu-Wanganui, 2006	12
Figure 4: Employment in the Sport and Recreation Sector, Manawatu-Wanganui, 2006	13
Figure 5: Employment in the Sport and Recreation Sector, Palmerston North, 2006	14
Figure 6: Local Government Operating Expenditure on Recreation and Sport, Manawatu-Wanganui, 2002/03-2008/09	16
Figure 7: Local Authority Net Additions to Recreation and Sport Fixed Assets, Manawatu-Wanganui, 2002/03-2008/09	17
Appendix	
Figure A1: Distribution of Employment in the Sport and Recreation Sector, 2006	22

Summary

Sport and recreation activities are highly valued by people in Manawatu-Wanganui

- Almost 9 out of 10 (88%) young people (5-17 years) take part in at least one sport or recreation activity over a year.
- Over 9 out of 10 (97%) adults take part in at least one sport or recreation activity over a year.
- These are supported by over 42,000 (42,681) volunteers.

Sport and recreation industries provide employment for people in Manawatu-Wanganui

- Over 1,500 people (1,671) work in sport and recreation industries (based on the 2006 Census).
- Including people working in sport and recreation occupations outside these sport and recreation industries, the total increases to more than 2,000 people (2,249) – this is 2.1 per cent of all those in employment.

Sport and recreation industries contribute to the Manawatu-Wanganui economy

- The sport and recreation sector (narrowly defined) is estimated to have contributed \$175 million to regional GDP in 2008/09, or 2.2 per cent.

Sport and recreation occupations provide income to people in Manawatu-Wanganui

- Over 1,000 (1,235) people work in sport and recreations occupations.
- The total annual personal income for people in sport and recreation occupations in Manawatu-Wanganui is estimated to have been \$36.6 million (measured in 2006 values).

Sport and recreation education is important in Manawatu-Wanganui schools

- Just over five per cent of *The National Curriculum* is related to sport and recreation.
- This same share of teacher salaries in 2008/09 adds up to \$9.1 million.

Sport and recreation facilities are a large investment by Manawatu-Wanganui local governments

- Councils in the Manawatu-Wanganui region spent \$7.8 million on new sport and recreation facilities in 2008/09.
- This contributed \$2.3 million to the value of the construction sector that year.

Sport and recreation volunteers contribute valuable services to Manawatu-Wanganui

- Volunteers contributed 2.7 million hours to sport and recreation in 2007/08.
- The estimated market value of these volunteered services is \$38.7 million at 2009 values.

Sport and recreation are an important economic sector in Manawatu-Wanganui

- The contribution of sport and recreation to GDP (including volunteered services) in 2008/09 is estimated to have been \$243.9 million, or 3.0 per cent.

1. Introduction

The importance of valuing the benefits of sport and recreation

Sport and recreation are highly valued in New Zealand. Individuals and communities invest considerable amounts of time and money in sport and recreation. There are more than 15,000 sport and recreation clubs at a local level, supported by approximately 776,000 volunteers. A number of government agencies invest in sport and recreation and local councils invest billions of dollars in sport and recreation facilities. Community clubs and private businesses complement these public facilities by providing their own goods and services to New Zealanders engaged in sport and recreation.

Given this high level of public and private investment, it is important to understand the benefits (minus any costs) resulting from participation in sport and recreation.

Consequently, SPARC commissioned Professor Paul Dalziel to prepare a comprehensive framework to value the benefits of sport and recreation for New Zealand as a whole and for thirteen regions.

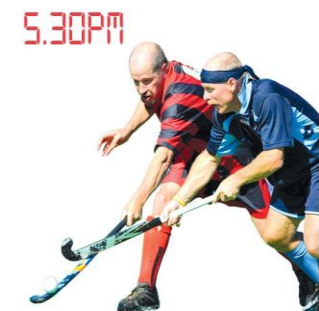
This report presents the results for **Manawatu-Wanganui** region. This introduction begins by summarising what is known about participation and volunteering in sport and recreation in the region. The rest of this section explains in more detail the reasons for valuing sport and recreation, how the sport and recreation sector is defined for this work, how the contribution to regional gross domestic product (GDP) is estimated, and the content of the report.

People in the the Manawatu-Wanganui value sport and recreation

Like people throughout New Zealand, people in Manawatu-Wanganui enjoy sport and recreation 24/7. The key facts from surveys ¹ of **young people** show that:

- almost 9 out of 10 (88%) young people (5-17 years) take part in at least one sport or recreation activity;
- almost 6 out of 10 (57%) take part at school, during school hours;
- over a fifth (22%) take part before and/or after school;

¹ This information is from the combined 1997, 1998 and 2000 New Zealand Sport and Physical Activity Surveys, available at: www.activenzsurvey.org.nz/Results/NZ-Sport-and-Physical-Surveys-9701/SPARC-Facts-97-01/Part-6/Regional-Sports-Trust-profiles/Taranaki-Manawatu-Wanganui. The figures are based on the sport and recreation activities that young people's parents/caregivers said they did in the two weeks before the interview. Up-to-date information on young people's participation in sport and recreation will be available in 2012 from SPARC's 2011 Young People's Survey.



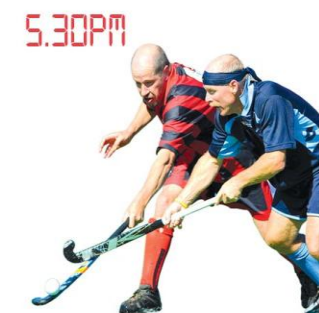
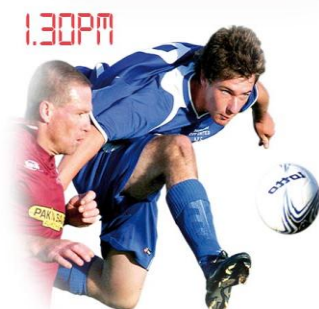
- almost a third (31%) take part with a club;
- 7 out of 10 (70%) take part with family and friends; and
- over 6 out of 10 (65%) young people received some coaching.

The New Zealand Secondary School Sports Council Census (NZSSSC) also provides information about secondary school students' engagement in sport. The data for Manawatu-Wanganui suggest that participation rates by secondary school students (Manawatu: 55.2% in total; Wanganui: 56.7% in total) and teachers (Manawatu: 44%; Wanganui: 35.9%) in the region overall are above the national averages of 51.8% and 35.3%, respectively (see Table A8 in Appendix 3).

The key facts from a survey² of **adults** (18+ years) show that:

- over 9 out of 10 (97%) adults take part in at least one sport or recreation activity over a year – this provides a measure of total participation;
- three quarters (75%) adults take part in at least one sport or recreation activity over a year (excluding walking and gardening);
- on average, adults take part in around 4 activities per year (4.4) or three (3.1) activities if walking and gardening are excluded;
- almost 3 out of 10 (26%) adults belong to a club or gym/fitness centre to take part in sport and recreation activities (this includes sport and physical activity clubs, social clubs and other types of club);
- over 1 out of 10 (12%) belonged to sport or physical activity club;
- almost 3 out of 10 (28%) participated in at least one organised competition or event;
- almost a third (31%) received some instruction or coaching from a coach, instructor, teacher or trainer for one or more of the activities they take part in; and
- over 2 out of 10 (23%) of adults volunteer for sport and recreation.

People also engage in sport and recreation as spectators and supporters – ranging from the interested to the fanatics. This engagement is expressed through attending live matches and events and viewing, listening to and reading about sport and recreation in the media. The extent of this engagement in Manawatu-Wanganui is not known.



² This information is from SPARC's 2007/08 Active NZ Survey, available at: www.activenzsurvey.org.nz.

Valuing the benefits of sport and recreation at the national level

The previous page illustrates the high value that people in Manawatu-Wanganui place on sport and recreation activities. This love of sport and recreation is shared by people throughout New Zealand and is made possible by a high level of public and private investment in a sport and recreation sector that delivers facilities, products and services to allow people to participate in sport and recreation. This sector, in turn, contributes a significant sum to the New Zealand economy.

A recently completed national study of the value of sport and recreation³ found that:

- The contribution of sport and recreation (including volunteered services) to gross domestic product (GDP) in 2008/09 was more than **\$5.2 billion, or 2.8 per cent**. This is a measure of the *market* value.
- Including the value of social and personal benefits (the so-called *non-market* benefits) more than doubles the total value of sport and recreation to New Zealanders to around **\$12.2 billion**.

Valuing the benefits of sport and recreation at the regional level

The analysis in the national report confirmed the well-known belief that sport and recreation are important for all regions in New Zealand. Local councils invest substantial resources in providing facilities, programmes and services for sport and recreation activities in their communities⁴. Councils are responsible for caring for and maintaining lakes, rivers, beaches, parks, camping grounds, sports fields, stadiums, swimming pools, recreation centres, gymnasiums, cycle-ways, walkways, playgrounds, picnic areas and botanic gardens.

Given this high level of investment, it is important to have some shared understanding of the net benefits of participation in sport and recreation at the regional level. This is recognised internationally, where it is now commonplace for provinces and regions around the world to commission studies on the contribution of sport and recreation to their local economies.

Consequently, SPARC commissioned thirteen reports from the AERU, extending the national analysis down to the regional level, along with some supplementary analysis of major urban areas (see Table A1 in Appendix 1). These reports concentrate on the market value of sport and recreation in each region, since data on the social and personal benefits are not available at the regional level.

³ Completed for SPARC by Professor Dalziel, the national report is available at www.sparc.org.nz.

⁴ Section 10 of the Local Government Act 2002, for example, requires regional, district and city councils “to promote the social, economic, environmental, and cultural well-being of communities, in the present and for the future”. Under this general statutory duty, local councils play a key role in providing sport and recreation opportunities for their communities.

This report covers the **Manawatu-Wanganui** region, which includes all of the territories of Horowhenua District, Manawatu District, Palmerston North City, Ruapehu District and Wanganui District, most of the territories of Rangitikei District and Tararua District, as well as parts of Stratford District, Taupo District and Waitomo District. The report also provides information on the main urban territory in the region – Palmerston North.⁵

Defining the sport and recreation sector

The sector narrowly defined

Statistics New Zealand distinguishes 508 industry categories in the industry classification system (known as ANZSIC06) it has developed with the Australian Bureau of Statistics. The research team and SPARC identified 17 of these categories that depend *significantly* on sport and recreation activities in New Zealand. These categories are listed in Table A4 in Appendix 3, along with the number of people in Manawatu-Wanganui recorded in the 2006 Census as employed in the 17 industries.

The selection of the 17 categories acknowledges that some of these industries are not involved exclusively with sport and recreation. Physiotherapists, for example, provide a range of health services, but the physiotherapy services category was included because of the significance to this industry of ACC-funded treatments for sport and recreation injuries. To balance this approach, the selection process excluded some industries that have a large sport and recreation component. A good example is the exclusion of journalism and broadcasting despite the importance of sport in the media. This sector is excluded because the data to identify the sport and recreation component of journalism and broadcasting are not available.

The 17 industries make up what the study calls the *narrow* definition of the sport and recreation sector. It covers industries providing goods and services directly to people so that they can participate in sport and recreation, including facilities, equipment, racing animals and physiotherapy services.

The sector broadly defined

The study also adopts a *broader* definition of the sector to include three economic activities that are a core part of New Zealand's sport and recreation institutional landscape:

1. Employment of people in sport and recreation *occupations* outside the 17 sport and recreation industries (section 4 explains how these occupations were selected).
2. Time spent by teachers in schools delivering sport and recreation components of *The National Curriculum* (and so a proportion of teachers' salaries).
3. Construction of new sport and recreation facilities by local government.

⁵ Note that the participation and volunteer figures are based on regional sports trust boundaries, which may differ slightly from the territorial authority boundaries.

This definition of the sector allows the *market* benefits of sport and recreation to be calculated. Additionally, the economic value of volunteered services can be calculated and added to give a total figure for the Manawatu-Wanganui region.

Estimating the contribution to regional GDP

The market value (including volunteer services) of sport and recreation in Manawatu-Wanganui is shown in the next section as a percentage of the region's GDP. New Zealand does not have official regional GDP data, but Statistics New Zealand completed a feasibility study on producing regional GDP data that resulted in estimates at the regional level for the four years 1999/2000 to 2002/03. This study uses this information and makes the assumption that Manawatu-Wanganui's share of national GDP in 2008/09 was the same as in the latest year for which official data are available, ie. 2002/03.

More details about the calculation of GDP and regional GDP are provided in Appendix 2.

Report content

Following this introduction are four sections:

- Section 2 presents the study's main results for the Manawatu-Wanganui region.
- Section 3 explains how the sport and recreation sector's contribution to the region's GDP in 2008/09 is calculated when the sector is *narrowly* defined.
- Section 4 explains how the sport and recreation sector's contribution to the region's GDP in 2008/09 is calculated when the sector is *broadly* defined. It also explains how volunteer services are valued and shows the result of adding this sum to give a total value for sport and recreation in the Manawatu-Wanganui region.
- Section 5 summarises the key findings and discusses further steps that would enhance our knowledge of the value of the sport and recreation sector to Manawatu-Wanganui.

The report finishes with three appendices that provide additional information and further explanation about the approaches used:

- Appendix 1 lists the thirteen regions analysed in this study and shows the distribution of sport and recreation employment in these thirteen regions (using 2006 Census data).
- Appendix 2 explains how regional GDP contributions were calculated.
- Appendix 3 provides tables of regional data for the sport and recreation sector in Manawatu-Wanganui.

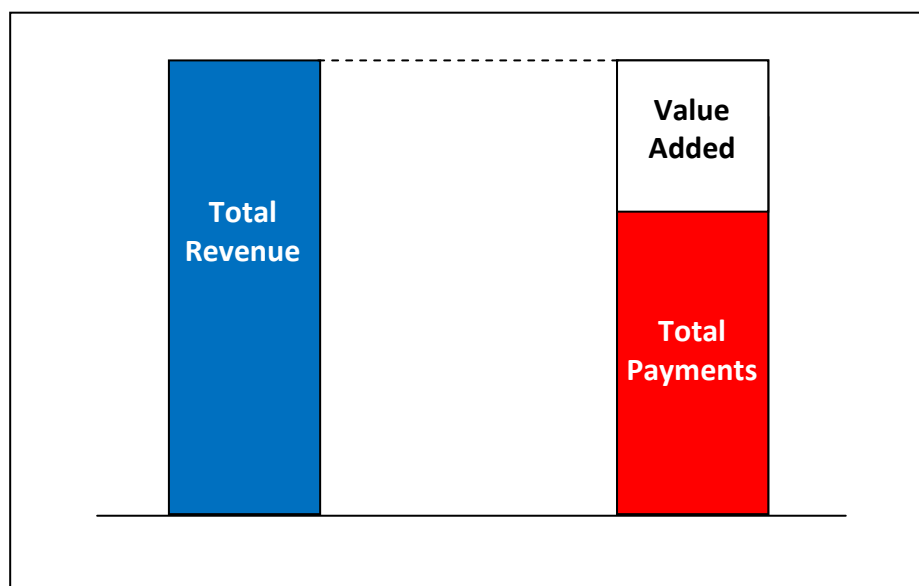
2. Value of Sport and Recreation in Manawatu-Wanganui

How is economic activity valued?

When national statisticians estimate the value of an economic activity, they use a technique known as *value added*. Consider a single enterprise, such as a farm. During a year, the farm might earn revenue from sales of livestock of \$1,000,000 but might make payments totalling \$600,000 to suppliers of goods and services used by the farm, such as feed, fencing posts, veterinary services and financial advice. These “inputs” are provided by other enterprises, and so the farm’s “value added” is \$400,000. It is the difference between total revenue and total payments, and is the source of the wages and salaries paid to the farm’s employees, as well as the profits earned by the farm’s owners.

This same approach can be applied to an industry or sector of the economy (see Figure 1). The value added by the farming sector is calculated by adding up the total revenues of all the farms in the country and then subtracting all the total payments made by the farms. If we add up the *value added* in all the economy’s sectors, this produces the statistic called gross domestic product (better known as GDP). The most common measure of a sector’s size is the amount of its *value added* expressed as a percentage of GDP, since this is the sector’s share of the total *value added* in the national economy. The same method is used here to estimate the regional GDP for Manawatu-Wanganui and the sport and recreation sector’s contribution to regional GDP.

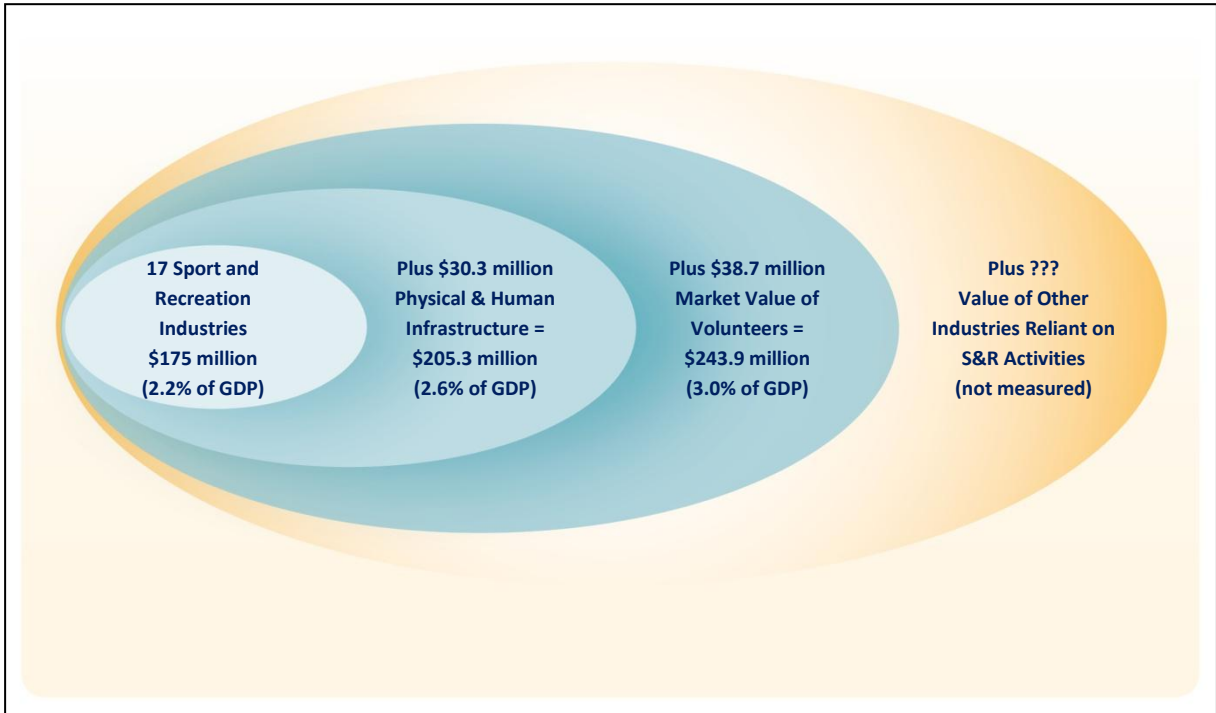
Figure 1: Calculating a Sector’s Value Added



The market value of sport and recreation to the regional economy

The sport and recreation sector accounts for **\$243.9 million or 3.0% of the region's GDP**. This is the market value using a broad definition of the sector. How this estimate is calculated is explained below and illustrated in Figure 2.

Figure 2: Estimated Value of Sport and Recreation, Manawatu-Wanganui, 2008/09



The inner oval in Figure 2 shows the value added by 17 industries that produce goods and services necessary for sport and recreation (see Table 2 in Section 3). This is the narrowest definition of the sport and recreation sector. In 2008/09, these industries contributed **\$175 million or 2.2 per cent to Manawatu-Wanganui's regional GDP**.

The second oval includes an additional \$30 million from:

- (i) incomes of people working in sport and recreation occupations outside of the 17 industries (for example, a recreation guide employed by a hotel (hospitality industry));
- (ii) investment by central government in sport and recreation education in schools; and
- (iii) local councils' expenditure on new sport and recreation facilities.

This begins to broaden the definition of the sector and takes the contribution to **\$205 million or 2.6 per cent of regional GDP**.

The third oval takes into account volunteered services, which are particularly important in the sport and recreation sector. The additional \$38.7 million comes from assigning a volunteer wage rate of \$14.19 per hour to the 2.7 million hours volunteers spend supporting sport and recreation over a year. This takes the contribution of the sport and recreation sector to **\$244 million or 3.0 per cent of regional GDP** (including volunteered services).

These are conservative estimates because the study was not able to find data to measure everything that the sport and recreation sector contributes to the economy (for example, from economic activities such as: sports broadcasting; merchandising to sports spectators and supporters; and sport and recreation activities associated with international tourism). This feature of the study is reflected in the figure’s final oval, for which there are no measured values at present.

The contributions of Palmerston North

Table 1 repeats the analysis for the major urban territory of Palmerston North City. These estimates are further constrained since data are not available at the District or City Council level to estimate the contribution of volunteers. The total of \$74.7 million in Palmerston North City represents 36.4 per cent of the region’s sport and recreation contribution to national GDP (excluding the estimated market value of volunteers).

Table 1: Contribution of Sport and Recreation Sector, Palmerston North, 2008/09

Industry	Contribution to GDP (\$ millions)
Contribution of the sport and recreation sector – narrowly defined	63.7
Sport and recreation incomes outside the sport and recreation industries	6.6
Central government investment in sport and recreation education	3.2
Local government construction of new sport and recreation facilities	1.2
TOTAL (\$ millions)	74.7

Source: See Table 3 in Section 3 and Table 8 in Section 4.

Sections 3 and 4 explain in more detail how the estimates for Manawatu-Wanganui and Palmerston North have been calculated.

3. The Sport and Recreation Sector – Narrowly Defined

Viewed in economic terms, businesses producing goods and services directly for sport and recreation are at the heart of the sector. These businesses include manufacturers and retailers of sports and recreation equipment, as well as individuals involved in sports coaching, recreation guiding and related activities. Taking this economic view of the sector, we have identified 17 industries that cater in some way for sport and recreation. This is a narrow definition of the sector and we begin by estimating the *value added* by these 17 industries.

The contribution to regional GDP of the narrowly defined sector

The national study estimated that the 17 sport and recreation industries contributed \$3.8 billion to New Zealand's GDP in 2008/09, or 2.1 per cent, which was larger than the accommodation, restaurants and bars sector (\$3.6 billion).

Using the same method as the national study, the contribution of these 17 industries to the economy of Manawatu-Wanganui has been estimated (Table 2).

Table 2 shows the contribution to GDP in 2006/07 was \$151.9 million.⁶ At 2008/09 values, the figure is **\$175.0 million**, or **2.2 per cent** of regional GDP. This is close to the national figure for the narrowly defined sector (2.1 per cent).

The national study estimates that the contribution to GDP of the country's narrowly defined sport and recreation sector in 2008/09 was \$3,844.4 million. Thus the Manawatu-Wanganui region's share of the sector (\$175.0 million) is 4.6 per cent.

The figures for Palmerston North are shown in Table 3. Table A6 in Appendix 3 shows how these estimates are calculated.

⁶ This and other figures are based on the most recent official data available.

Table 2: Contribution to GDP of Sport and Recreation Industries, Manawatu-Wanganui, 2006/07

Industry	Contribution to GDP (\$ millions)
Amusement and Other Recreation Activities (not elsewhere classified)	8.4
Amusement Parks and Centres Operation	2.4
Boatbuilding and Repair Services	6.5
Health and Fitness Centres and Gymnasias Operation	13.5
Horse and Dog Racing Administration and Track Operation	6.7
Horse Farming	2.4
Nature Reserves and Conservation Parks Operation	17.9
Other Horse and Dog Racing Activities	15.5
Physiotherapy Services	4.3
Sport and Camping Equipment Retailing	10.6
Sport and Physical Recreation Administrative Service	7.1
Sport and Physical Recreation Clubs and Sports Professionals	22.9
Sports and Physical Recreation Instruction	3.9
Sports and Physical Recreation Venues, Grounds and Facilities Operation	24.6
Toy and Sporting Goods Wholesaling	3.7
Toy, Sporting and Recreational Product Manufacturing	1.3
Turf Growing	0.1
TOTAL (measured in 2006/07 values)	151.9
TOTAL (measured in 2008/09 values)¹	175.0
Share of the National Sport and Recreation Sector (per cent)	4.6%
Contribution to Regional GDP (per cent)	2.2%

Note 1: The 2006/07 figure is updated as follows: for the country as a whole, GDP was \$160,573 million in 2006/07 and \$184,987 million in 2008/09. Multiplying \$151.9 million by the ratio 184,987/160,573 provides an updated figure of \$175.0 million.

Source: Statistics New Zealand, National Accounts data and Census 2006 data.

Table 3: Contribution to GDP of Sport and Recreation Industries, Palmerston North, 2006/07

	Contribution to GDP (millions)
TOTAL (measured in 2006/07 values)	55.3
TOTAL (measured in 2008/09 values)¹	63.7
Share of the Regional Sport and Recreation Sector (per cent)	36.4%
Contribution to Regional GDP (per cent)	0.8%

Note 1: The 2006/07 figure is updated as in Table 2.

Source: Statistics New Zealand, National Accounts data and Census 2006 data.

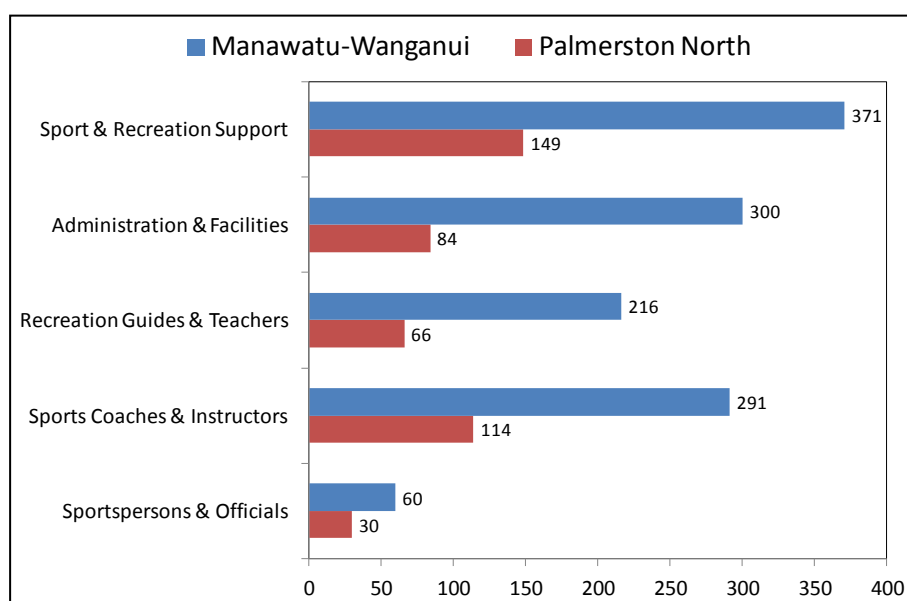
4. The Sport and Recreation Sector – Broadly Defined

The sport and recreation sector can be defined more broadly than the 17 industries considered in the previous section. First, the 2006 Census recorded that, for the Manawatu-Wanganui region, 46.8 per cent of people employed in sport and recreation *occupations* were employed outside the 17 sport and recreation *industries* considered in the previous section. Second, previous studies have emphasised the importance of central government spending on sport and recreation education in schools. Third, local councils spend millions of dollars constructing new sport and recreation facilities. Fourth, consideration must also be given to the market value of the substantial contributions made by volunteers in the sport and recreation sector. This section explains how these four contributions were valued.

Employment in sport and recreation

Data on sport and recreation employment can be obtained from the New Zealand Census of Population and Dwellings. Normally held every five years, the Census includes questions asking New Zealand adults about their occupation in the job where they worked the most hours. For this study, 42 occupations were identified that depend *significantly* on sport and recreation activities in New Zealand. Figure 3 shows the number of people in Manawatu-Wanganui recorded in the 2006 Census as employed in these 42 occupations, classified into five groups (see Table A5 in Appendix 3 for the underlying data). The overall number of people in Manawatu-Wanganui engaged in sport and recreation occupations is significant. The total of 1,235 represents 1.1 per cent of all people employed in the region.

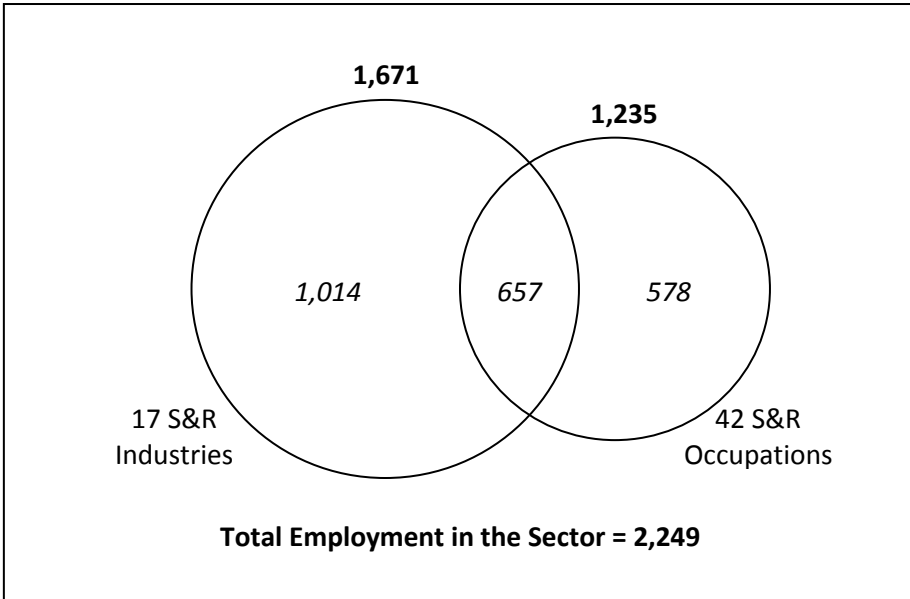
Figure 3: Employment in Sport and Recreation Occupations, Manawatu-Wanganui, 2006



Source: Table A5 in Appendix 3.

The people employed in sport and recreation occupations were not necessarily employed in one of the 17 sport and recreation industries identified in the study. This is shown in Figure 4 (for the Manawatu-Wanganui region) and in Figure 5 (for Palmerston North). As well as the 1,235 people employed in sport and recreation *occupations*, the 2006 Census analysis counted 1,671 people employed in sport and recreation *industries* in the Manawatu-Wanganui region. This number of 1,671 represents 1.5 per cent of all people employed in the region.

Figure 4: Employment in the Sport and Recreation Sector, Manawatu-Wanganui, 2006

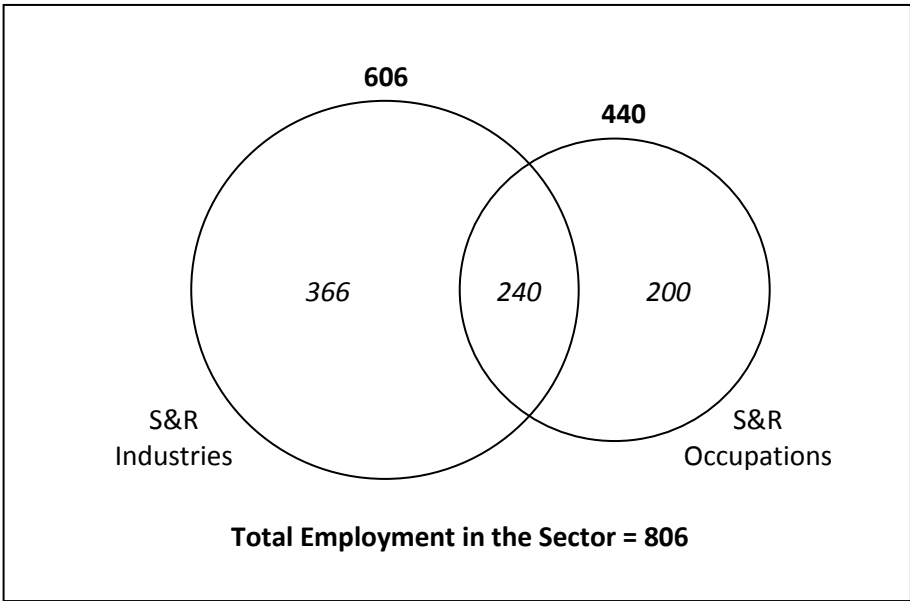


Source: Statistics New Zealand, Census 2006 data.

Statistics New Zealand advises that 657 people in Manawatu-Wanganui in these sport and recreation occupations were employed in sport and recreation industries. As shown in Figure 4, this means that 1,014 people were employed in sport and recreation industries but not in sport and recreation occupations and 578 people were employed in sport and recreation occupations outside the sport and recreation industries. Summing the three italicised statistics in Figure 4, the total count of employment in the sport and recreation sector in 2006 in Manawatu-Wanganui was 2,249. This represents 2.1 per cent of all people employed in the region.

Figure 5 presents a similar analysis for Palmerston North. Palmerston North had just over 800 people employed in the sport and recreation sector in the 2006 Census. Table A4 in Appendix 3 shows the distribution of the industry employment data for Manawatu-Wanganui and Palmerston North. For the Manawatu-Wanganui region, this shows the importance of the horse racing industry in the sector. Horse farming accounts for 96 people in the 2006 Census Horse and Dog Racing Administration and Track Operation 60 people and ‘Other Horse and Dog Racing Activities’ accounts for a further 138 people.

Figure 5: Employment in the Sport and Recreation Sector, Palmerston North, 2006



Source: Statistics New Zealand, Census 2006 data.

The contribution of the wider employment sector

Census data record the personal income earned by people employed in sport and recreation occupations. Using these data, the study estimated that the total annual personal income for people in the sport and recreation occupations in the Manawatu-Wanganui region was \$36.6 million, which is 4.6 per cent of the income earned nationally in the 42 occupations (2006 values). For those employed in sport and recreation industries, these incomes are already counted in section 3. However, 46.8 per cent of people were employed outside the 17 industries, and so their income share, \$17.1 million (or **\$18.9 million** in 2009 values), must be added in a broader definition of the sector. This calculation is shown in Table 4.

Table 4: Income Earned Outside the Sport and Recreation Industries, Manawatu-Wanganui, 2009

	Manawatu-Wanganui (\$000s)	Palmerston North (\$000s)
Estimated Incomes from Census 2006	36,600.4	13,211.3
LESS Incomes earned in S&R Industries	19,478.7	7,214.4
Incomes earned outside S&R Industries (2006)	17,121.7	5,996.9
Incomes earned outside S&R Industries (2009)	18,902.8	6,620.8

Source: Explained in Appendix 2.

The contribution of spending on sport and recreation education

The New Zealand Government makes a substantial investment in sport and recreation education in schools. *The National Curriculum* specifies eight learning areas: English, the arts, health and physical education, learning languages, mathematics and statistics, science, social sciences, and technology. The third of these areas, 'health and physical education', includes seven items of which the last three are physical activity, sport studies and outdoor education. Hence, based on a count of these items, just over five per cent (ie. three-sevenths of one-eighth) of *The National Curriculum* is related to sport and recreation.

Using Ministry of Education roll returns it is possible to estimate the share of this investment that occurs within the Manawatu-Wanganui region, shown in Table 5. In 2009, 5.3 per cent of the country's students below Year 9 were in the Manawatu-Wanganui and 5.3 per cent of the country's students in Year 9 and above. Based on these ratios, the 2008/09 share of salaries for the sport and recreation components of *The National Curriculum* in Manawatu-Wanganui was **\$9.1 million**. Similarly, the share in Palmerston North was \$3.2 million.

Table 5: Investment in School Sport and Recreation Investment, Manawatu-Wanganui, 2008/09

	Manawatu-Wanganui (\$000s)	Palmerston North (\$000s)
Year 8 and below students (number)	25,283	8,359
Year 9 and above students (number)	15,082	5,680
Year 8 and below students (per cent of national)	5.3%	1.8%
Year 9 and above students (per cent of national)	5.3%	2.0%
Year 8 and below students (investment, \$000)	\$5,303	\$1,753
Year 9 and above students (investment, \$000)	\$3,822	\$1,439
Total investment (\$000)	\$9,125	\$3,193

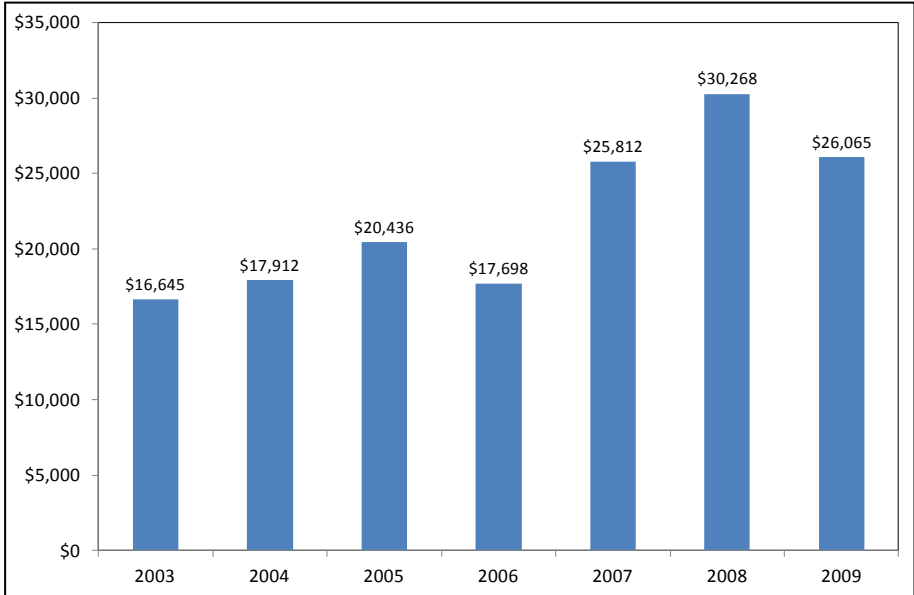
Source: Ministry of Education roll returns and authors' calculations.

The contribution of local government

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 (see the national report for more details). Its tables include an analysis of total operating income and expenditure by sixteen activities, one of which is 'recreation and sport'. Figure 6 shows total local government operating expenditure on recreation and sport within the Manawatu-Wanganui region for the financial years 2003 to 2009 (excluding the Districts of Stratford, Taupo and Waitomo, which are included in other regional reports for this part of the analysis). These data have not been adjusted for inflation, but even allowing for rising prices there was a significant increase after 2005/06. Table A9 in Appendix 3 shows that the

spending on recreation and sport within the region in 2008/09 was 7.5 per cent of total operating spending by the local authorities. This was lower than the national average that year of 9.4 per cent.

Figure 6: Local Government Operating Expenditure on Recreation and Sport, Manawatu-Wanganui, 2002/03-2008/09



Source: Statistics New Zealand Local Authority Census.

The Local Authority Census also collects information of net additions to local government fixed assets for recreation and sport. In the 2008/09 financial year for the country as a whole, this net investment was \$345.4 million. It should be noted that the 2008/09 figure was a substantial increase on the previous year (\$172.8 million). A similar trend can be shown for the Manawatu-Wanganui Region; see Figure 7. After low levels of investment in new recreation and sport facilities between 2004/05 and 2007/08, there was spending of \$7.8 million in 2008/09. Table A10 in Appendix 3 shows that this spending was concentrated in Palmerston North (\$4.1 million) and Horowhenua District Council (\$2.0 million).

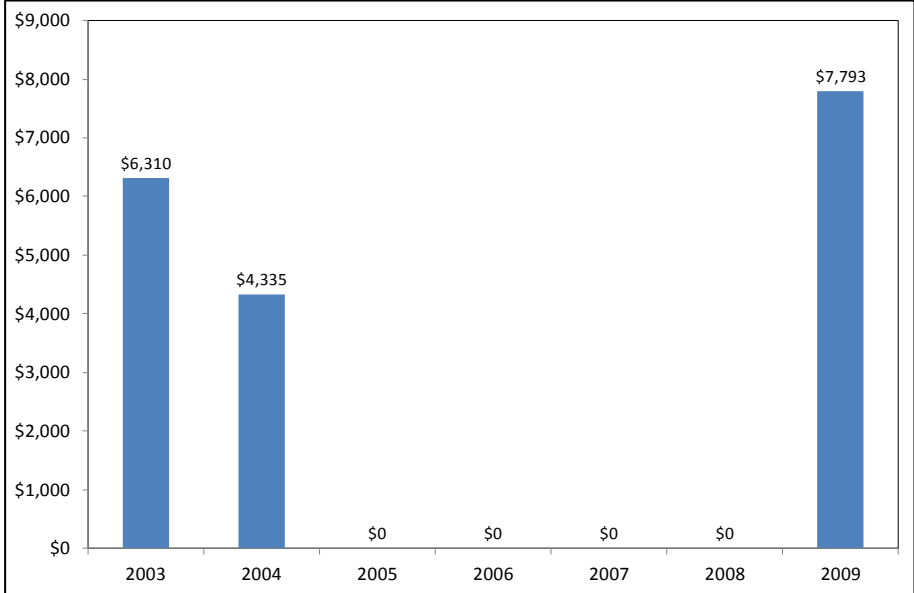
This level of spending has implications for the construction sector. Using national input-output data tables, spending of \$7.8 million on new facilities implies value added in the construction sector of **\$2.3 million**. Table 6 records the value-added in the construction sector by this activity for the Manawatu-Wanganui region and for Palmerston North.

Table 6: Value Added in the Construction Sector from Local Authority Net Additions to Recreation and Sport Fixed Assets, Manawatu-Wanganui Region, 2008/09

	Manawatu-Wanganui (\$000s)	Palmerston North (\$000s)
Net Expenditure on New Facilities	\$7,793	\$4,170
Value Added in the Construction Sector	\$2,260	\$1,209

Source: Explained in the text.

Figure 7: Local Authority Net Additions to Recreation and Sport Fixed Assets, Manawatu-Wanganui, 2002/03-2008/09



Source: Statistics New Zealand Local Authority Census.

The contribution to regional GDP from the sport and recreation sector – broadly defined

Table 7 shows that including these three additional amounts increases the contribution to GDP in 2008/09 of the sport and recreation sector (broadly defined) in the Manawatu-Wanganui region to **\$205.3 million**. Thus, the share of the sector broadly defined is **2.6 per cent of GDP**, as shown in the bottom half of Table 7.

Table 7: Contribution to the Manawatu-Wanganui Economy of the Sport and Recreation Sector – Broadly Defined, 2008/09

Industry	Contribution to GDP (\$ millions)
Contribution of the sport and recreation sector – narrowly defined (see section 3)	175.0
Sport and recreation incomes outside the sport and recreation industries	18.9
Central government investment in sport and recreation education	9.1
Local government construction of new sport and recreation facilities	2.3
TOTAL (\$ millions)	205.3
Estimated regional Gross Domestic Product (2008/09)	7,954.4
TOTAL (percentage of regional GDP)	2.6%

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

Table 8 repeats the analysis for Palmerston North, which provides over one third of the region’s contribution to GDP from sport and recreation (36.4 per cent).

Table 8: Contribution to the Manawatu-Wanganui Economy of the Broad Sport and Recreation Sector – Broadly Defined, Palmerston North, 2008/09

Industry	Contribution to GDP (\$ millions)
Contribution of the narrow sport and recreation sector	63.7
Sport and recreation incomes outside the sport and recreation industries	6.6
Central government investment in sport and recreation education	3.2
Local government construction of new sport and recreation facilities	1.2
TOTAL (\$ millions)	74.7

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

The contribution of volunteers

Analysis of SPARC’s 2007/08 Active New Zealand Survey estimates that at the national level volunteers contributed over 50 (51.3) million hours to sport and recreation in 2007/08. The services produced by these volunteers are valuable to participants in sport and recreation and so it is possible to estimate the market cost if these services had been provided by employees instead of volunteers (see the national report for more details).

SPARC data estimates that the total amount of volunteered time contributed to sport and recreation in 2007/08 study in the Manawatu-Wanganui region was 2.7 million hours, or 5.3

per cent of the national total. Based on the same methodology used in the national report, the estimated market value of these regional services in 2009 was **\$38.7 million**.

Including the market value of volunteer services in the calculations increases sport and recreation's contribution to GDP to **\$243.9 million**. If it is assumed that the region's amount of time spent on *all* volunteered activities was the same percentage share of the national level, then Table 9 shows that the sport and recreation sector's share of regional GDP (including volunteered services) was **3.0 per cent**.

Table 9: GDP Including the Value of Volunteered Services, Manawatu-Wanganui, 2008/09

	Regional Gross Domestic Product	Volunteered Services	Extended Regional GDP
Sport and recreation (\$m)	205.3	38.7	243.9
Totals (\$m)	7,954.4	205.5	8,160.0
Per cent	2.6%	18.8%	3.0%

Source: Statistics New Zealand and SPARC data.

5. Conclusion

This report has estimated the contribution of the sport and recreation sector to the regional economy of Manawatu-Wanganui. Three major results have been estimated:

- The contribution of the sport and recreation sector (narrowly defined) to regional GDP in 2008/09 is estimated to have been **\$175 million, or 2.2 per cent.**
- The contribution of the sport and recreation sector (broadly defined) to regional GDP in 2008/09 is estimated to have been **\$205.3 million, or 2.6 per cent.**
- The contribution of sport and recreation to GDP including volunteered services in 2008/09 is estimated to have been **\$243.9 million, or 3.0 per cent.**

Estimates also are provided for Palmerston North and show that:

- The contribution of the sport and recreation sector (broadly defined) in Palmerston North to the Manawatu-Wanganui economy in 2008/09 is estimated to have been **\$74.7 million.**
- Over one-third (**36.4 per cent**) of the sport and recreation sector (excluding volunteers) in the region is located in Palmerston North.

All of these estimates are **conservative** because information is not available for all the industries that provide products and services for sport and recreation and regional information is not available to allow the direct personal and social benefits (such as increased work productivity and health benefits that result from active lifestyles) from participation in sport and recreation to be estimated. In addition, at the district/city level, it is not possible to estimate the value of volunteer services.

Future work to allow more comprehensive estimates will require more detailed survey information on participation and volunteer rates at the regional level, as well as information linking sport and recreation participation with labour productivity and improved health outcomes.

Given the conservative approach taken to produce the estimates in this report, and given the significant items that have not been included in the analysis, future work is likely to show that the value of sport and recreation to the Manawatu-Wanganui region is considerable higher than estimated here.

Appendix 1: Regions in the SPARC Study

The reports commissioned by SPARC for this study cover the thirteen regions listed in Table A1. Where appropriate, each regional report includes an analysis of the main urban territorial authority within its boundaries. The exceptions are Auckland (which has one unitary council since 1 November 2010; in this case estimates are provided for the four areas that approximate to the boundaries of the four regional sports trusts), Gisborne (one unitary council) and the Bay of Plenty (which includes two urban territorial authorities in its analysis).

Table A1: Regions and Urban Areas Analysed in the SPARC Reports

	Regions	Smaller Urban Areas
1	Northland	Whangarei District
2	Auckland	Harbour Sport, Sport Waitakere, Sport Auckland and Counties Manukau Sport
3	Waikato	Hamilton City
4	Bay of Plenty	Tauranga City
		Rotorua District
5	Gisborne	
6	Hawke's Bay	Napier City plus Hastings District
7	Taranaki	New Plymouth District
8	Manawatu-Wanganui	Palmerston North City
9	Wellington	Wellington City
10	Tasman/Nelson/Marlborough	Nelson City
11	Canterbury/West Coast	Christchurch City
12	Otago	Dunedin City
13	Southland	Invercargill City

The New Zealand Census of Population and Dwellings collects information on the primary occupation of New Zealand adults, as well as the industry of that primary occupation. For the purposes of the analysis in this study, 42 occupations and 17 industries were identified as part of the sport and recreation sector. Table 2 shows the number of people employed in the sport and recreation sector in the thirteen regions used in the study. Figure A1 shows the distribution of employment in Auckland, other urban areas (defined as the urban areas in Table 1 excluding the Auckland region) and the rest of New Zealand.

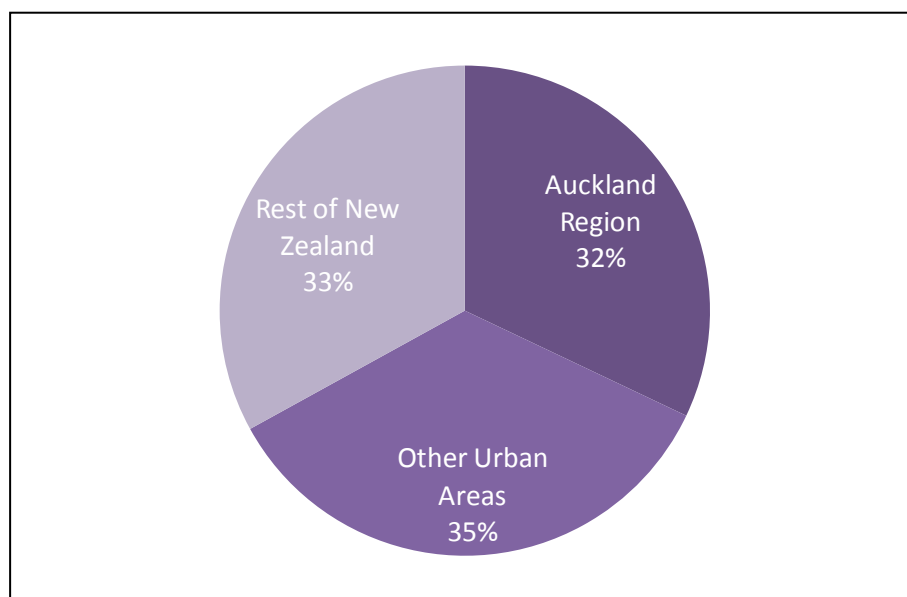
Table A2: Distribution of Employment in the Sport and Recreation Sector, 2006

Region	Number	Per Cent
Northland	1,770	3.7%
Auckland	15,495	32.1%
Waikato	5,202	10.8%
Bay of Plenty	3,179	6.6%
Gisborne	398	0.8%
Hawke's Bay	1,395	2.9%
Taranaki	1,061	2.2%
Manawatu-Wanganui	2,249	4.7%
Wellington	4,689	9.7%
Tasman/Nelson/Marlborough	1,821	3.8%
Canterbury/West Coast	7,011	14.5%
Otago	2,951	6.1%
Southland	1,125	2.3%
TOTAL	48,344	100.0%

Note: Data based on 42 occupations (including three occupations give a weighting of 0.5 – see note on Table A5) and 17 industries after allowing for the overlap between the two counts.

Source: Statistics New Zealand, Census 2006 data.

Figure A1: Distribution of Employment in the Sport and Recreation Sector, 2006



Source: Statistics New Zealand, Census 2006 data.

Appendix 2: Details of the Report's Calculations

Calculating share of regional GDP

Statistics New Zealand publishes estimates of GDP on a quarterly basis, but it takes time to complete an analysis of contributions to gross domestic product by industry. Thus, the latest available analysis at the time of writing the national report was for the year ending March 2007. The published data are at a reasonably aggregated level, so that the lowest level for the main sport and recreation industries is termed 'Cultural and Recreational Services'. Only some of this category belongs in an analysis of sport and recreation, and so the standard approach (which was used for the national report) is to use Census employment data to estimate the share of smaller segments. This is best illustrated by a worked example.

The contribution to gross domestic product (GDP) in 2006/07 of the entire 'Cultural and Recreation Services' sector is estimated to have been \$3,673 million. In the 2006 Census, total employment in this sector was recorded at 32,691. Within the sector, the number of people employed in the 'Sport and Physical Recreation Clubs and Sports Professionals' industry was 4,320. Hence the employment ratio for this industry is $4,320/32,691 = 0.1321$. Based on this ratio, the contribution to GDP by the 'Sport and Physical Recreation Clubs and Sports Professionals' industry is estimated as 0.1321 times \$3,673 million = \$485 million.

Similarly, it is possible to produce estimates for a region by calculating the region's employment ratio for each industry included in the sector. Thus, for example the number of people employed in the 'Sport and Physical Recreation Clubs and Sports Professionals' industry in the Bay of Plenty in 2006 was 294. Hence the Bay of Plenty employment ratio for this industry is $294/32,691 = 0.0090$ and its contribution to New Zealand's GDP is 0.0090 times \$3,673 million = \$33 million. Similar calculations were made for every industry in each region for this study.

This figure estimates the 'value added' by the industry; that is, it estimates the income (gross of taxes) generated within the industry, excluding the value of goods and services provided by other industries as inputs. The delay in producing the sector analysis of GDP, and the need to use 2006 Census employment figures, mean that these data are not as up-to-date as other analyses in this report. Nevertheless, the contribution to GDP is typically taken as the most important indicator of a sector's size in the national economy.

New Zealand does not have official regional GDP data, but Statistics New Zealand completed a feasibility study on producing regional GDP data that resulted in estimates at the regional level for the four years 1999/2000 to 2002/03. Table A3 shows that the share of each region's contribution to national GDP in the last year of that feasibility study, 2002/03. In the absence of more recent official data, the study assumed that these percentage shares were unchanged in 2009/09.

Table A3: Distribution of Regional GDP at 2002/03 Prices, 2002/03

Region	\$millions	Per Cent
Northland	3,243	2.5%
Auckland	47,689	36.5%
Waikato	10,598	8.1%
Bay of Plenty	6,689	5.1%
Gisborne	1,031	0.8%
Hawke's Bay	4,318	3.3%
Taranaki	4,414	3.4%
Manawatu-Wanganui	5,594	4.3%
Wellington	19,286	14.8%
Tasman/Nelson/Marlborough	3,536	2.7%
Canterbury/West Coast	15,853	12.1%
Otago	5,411	4.1%
Southland	3,023	2.3%
TOTAL	130,687	100.0%

Source: Statistics New Zealand, Regional GDP Feasibility Study data.

Calculating occupation incomes

The New Zealand census form asks people to state their total personal income from all sources, before tax, for the 12 months ending 31 March 2006. This study used the average salary for each occupation estimated in the national study to estimate the income earned by people in sport and recreation occupations in the Manawatu-Wanganui region. Regional income data could not be used because of confidentiality concerns (the number of people earning within a certain income band in a certain occupation in a certain range can be very small). It is likely that this will tend to understate the incomes earned in Auckland and overstate the incomes earned in other parts of the country.

Table A7 in Appendix 3 shows how the income reported in the 2006 Census was distributed among the 42 occupations in Manawatu-Wanganui. The largest contributing occupation was greenkeepers (\$5.7 million), followed by physiotherapists (\$4.0 million) and stablehands (\$2.5 million). The total income earned in the 42 occupations is estimated to have been \$36.6 million, which is 4.6 per cent of the income earned nationally in the 42 occupations.

Table A7 repeats the analysis for the major urban area of Palmerston North City. The total income in the 42 occupations for Palmerston North is estimated to have been \$13.2 million,

which was 36.1 per cent of the estimated income in these occupations in the Manawatu-Wanganui region.

It is important to note that there is some overlap between the incomes recorded in Table A7 and the contributions to GDP recorded in Table 2 of the Section 2. In particular, the incomes earned in the sport and recreation industries of Table 2 by people employed in the sport and recreation occupations of Table A7 are included in both tables.

Thus to provide an estimate of the contribution of the sport and recreation sector broadly defined that includes the incomes of people in sport and recreation occupations outside the sport and recreation industries (narrowly defined), two adjustments must be made to the above figures.

First, the proportion of income earned by people in the sport and recreation occupations within the sport and recreation industries must be removed to avoid double-counting. This is achieved using the data in Figures 4 and 5. Second, the total values must be updated from 2006 to 2009, which can be done using the Statistics New Zealand Labour Cost Index (all industries: all salary and wage rates: all sectors). The value of this index for the year ending March 2006 was 894 and for the year ending March 2009 was 987.

Appendix 3: Sport and Recreation Data Tables

Table A4: Employment in Sport and Recreation Industries, Manawatu-Wanganui, 2006

Industry	Manawatu- Wanganui	Palmerston North
Amusement and Other Recreation Activities (n.e.c.)	75	9
Amusement Parks and Centres Operation	21	12
Boatbuilding and Repair Services	87	30
Health and Fitness Centres and Gymnasias Operation	120	36
Horse and Dog Racing Administration and Track Operation	60	27
Horse Farming	96	18
Nature Reserves and Conservation Parks Operation	159	30
Other Horse and Dog Racing Activities	138	45
Physiotherapy Services	72	39
Sport and Camping Equipment Retailing	216	87
Sport and Physical Recreation Administrative Service	63	30
Sport and Physical Recreation Clubs and Sports Professionals	204	69
Sports and Physical Recreation Instruction	81	33
Sports and Physical Recreation Venues, Grounds and Facilities Operation	219	108
Toy and Sporting Goods Wholesaling	33	18
Toy, Sporting and Recreational Product Manufacturing	21	18
Turf Growing	3	3
TOTAL	1,671	606

Notes: (1) n.e.c. is not elsewhere classified. (2) The list in Table A4 is conservative. Although some industries include activities that are not within the scope of this study (for example, some people employed in some amusement parks), this is balanced by the exclusion of other industries that have a large sport and recreation component (such as sports journalists or people employed in the broadcasting industry that broadcast and present sport events and commentary on free-to-air or subscription television). (3) These data have been randomly rounded to protect confidentiality; individual figures may not add up to totals.

Source: Statistics New Zealand, Census 2006 data, ANZSIC06 V1.0.

Table A5: Employment in Sport and Recreation Occupations, Manawatu-Wanganui, 2006

Category	Occupation	Manawatu-Wanganui	Palmerston North
Sportspersons and Officials	Golfer	9	6
	Footballer	6	3
	Jockey	21	6
	Other Sportspersons	6	3
	Sports Umpire	3	3
	Dog or Horse Racing Official	15	9
	Other Sports Official	0	0
Sports Coaches and Instructors	Fitness Instructor	87	36
	Swimming Coach or Instructor	51	24
	Horse Trainer	72	12
	Tennis Coach	9	3
	Gymnastics Coach or Instructor	6	3
	Horse Riding Coach or Instructor	9	6
	Snowsport Instructor	3	0
	Other Sports Coach or Instructor	54	30
Recreation Guides and Teachers	Lifeguard	90	36
	Dance Teacher (Private Tuition)	42	18
	Outdoor Adventure Instructor	36	3
	Fishing Guide	6	0
	Whitewater Rafting Guide	12	3
	Diving Instructor (Open Water)	6	6
	Mountain or Glacier Guide	0	0
	Trekking Guide	3	0
	Bungy Jump Master	3	0
	Hunting Guide	3	0
	Other Outdoor Adventure Guides	15	0
Administration and Facilities	Greenkeeper	192	48
	Sports Administrator	66	27
	Park Ranger	18	3
	Sports Centre Manager	12	3
	Fitness Centre Manager	6	0
	Turf Grower	3	0
	Sports Development Officer	3	3
Sport and Recreation Support	Physiotherapist	93	51
	Boat Builder and Repairer	33	6
	Conference and Event Organiser (1)	53	27
	Stablehand	117	42
	Massage Therapist (1)	26	8
	Horse Breeder	24	3
	Bicycle Mechanic	15	9
	Recreation Coordinator (1)	11	3
Sail Maker	0	0	
TOTAL		1,235	440

Notes: (1) Only half the number in this occupation is included as sports and recreation because some of this employment is not sport and recreation related and/or is linked to inactive leisure pursuits. (2) These data have been randomly rounded to protect confidentiality; individual figures may not add up to totals. Source: Statistics New Zealand, Census 2006 data, ANZSCO V1.0.

Table A6: Contribution to GDP of Sport and Recreation Industries, Palmerston North, 2006/07

Industry	Contribution to GDP (\$ millions)
Amusement and Other Recreation Activities (not elsewhere classified)	1.0
Amusement Parks and Centres Operation	1.3
Boatbuilding and Repair Services	2.3
Health and Fitness Centres and Gymnasias Operation	4.0
Horse and Dog Racing Administration and Track Operation	3.0
Horse Farming	0.5
Nature Reserves and Conservation Parks Operation	3.4
Other Horse and Dog Racing Activities	5.1
Physiotherapy Services	2.3
Sport and Camping Equipment Retailing	4.3
Sport and Physical Recreation Administrative Service	3.4
Sport and Physical Recreation Clubs and Sports Professionals	7.8
Sports and Physical Recreation Instruction	1.6
Sports and Physical Recreation Venues, Grounds and Facilities Operation	12.1
Toy and Sporting Goods Wholesaling	2.0
Toy, Sporting and Recreational Product Manufacturing	1.1
Turf Growing	0.1
TOTAL (measured in 2006/07 values)	55.3
TOTAL (measured in 2008/09 values)	63.7
Share of the Regional Sport and Recreation Sector (per cent)	36.4%
Contribution to Regional GDP (per cent)	0.8%

Source: Statistics New Zealand, National Accounts data and Census 2006 data.

Table A7: Estimated Incomes in Sport and Recreation Occupations, Manawatu-Wanganui, 2006

Category	Occupation	Manawatu-Wanganui (\$000s)	Palmerston North (\$000s)
Sportspersons and Officials	Golfer	\$363.0	\$242.0
	Footballer	\$397.5	\$198.8
	Jockey	\$819.3	\$234.1
	Other Sportspersons	\$329.6	\$164.8
	Sports Umpire	\$45.9	\$45.9
	Dog or Horse Racing Official	\$541.2	\$324.7
	Other Sports Official	\$0.0	\$0.0
Sports Coaches and Instructors	Fitness Instructor	\$2,212.0	\$915.3
	Swimming Coach or Instructor	\$805.3	\$379.0
	Horse Trainer	\$2,257.5	\$376.2
	Tennis Coach	\$215.3	\$71.8
	Gymnastics Coach or Instructor	\$63.9	\$32.0
	Horse Riding Coach or Instructor	\$183.7	\$122.4
	Snowsport Instructor	\$90.7	\$0.0
	Other Sports Coach or Instructor	\$1,970.7	\$1,094.9
Recreation Guides and Teachers	Lifeguard	\$1,188.1	\$475.2
	Dance Teacher (Private Tuition)	\$889.4	\$381.2
	Outdoor Adventure Instructor	\$894.9	\$74.6
	Fishing Guide	\$194.1	\$0.0
	Whitewater Rafting Guide	\$280.5	\$70.1
	Diving Instructor (Open Water)	\$185.9	\$185.9
	Mountain or Glacier Guide	\$0.0	\$0.0
	Trekking Guide	\$101.3	\$0.0
	Bungy Jump Master	\$85.1	\$0.0
	Hunting Guide	\$96.1	\$0.0
	Other Outdoor Adventure Guides	\$432.2	\$0.0
Administration and Facilities	Greenkeeper	\$5,703.2	\$1,425.8
	Sports Administrator	\$2,434.1	\$995.8
	Park Ranger	\$682.6	\$113.8
	Sports Centre Manager	\$535.5	\$133.9
	Fitness Centre Manager	\$268.8	\$0.0
	Turf Grower	\$111.8	\$0.0
	Sports Development Officer	\$145.2	\$145.2
Sport and Recreation Support	Physiotherapist	\$4,046.6	\$2,219.1
	Boat Builder and Repairer	\$1,314.0	\$238.9
	Conference and Event Organiser (1)	\$2,089.6	\$1,074.7
	Stablehand	\$2,516.4	\$903.3
	Massage Therapist (1)	\$551.5	\$162.2
	Horse Breeder	\$917.1	\$114.6
	Bicycle Mechanic	\$356.8	\$214.1
	Recreation Coordinator (1)	\$284.1	\$81.2
	Sail Maker	\$0.0	\$0.0
TOTAL		\$36,600.4	\$13,211.3

Notes: (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 A8: Sport Participation by Male and Female Students and by Teachers at Secondary Schools, 2010

Region	Roll	Per Cent Participating in Sport			
		Males	Females	Total	Teachers
Northland	10,238	51.2%	36.8%	42.6%	22.9%
Auckland (Auckland)	29,507	59.1%	46.2%	52.4%	34.8%
Auckland (Counties)	31,069	46.5%	34.4%	40.7%	28.2%
Auckland (Harbour)	21,856	54.0%	45.3%	49.8%	32.9%
Auckland (Waitakere)	12,867	42.5%	34.7%	38.6%	35.8%
Waikato	23,896	56.6%	49.5%	53.2%	34.2%
Bay of Plenty	20,008	49.3%	44.7%	47.0%	29.4%
Eastland	3,191	45.7%	39.2%	42.4%	25.4%
Hawkes Bay	10,920	61.1%	54.7%	57.9%	45.0%
Taranaki	7,298	70.4%	56.2%	63.2%	37.0%
Manawatu	10,259	60.6%	49.1%	55.2%	44.0%
Wanganui	4,529	56.7%	56.8%	56.7%	35.9%
Wellington	26,823	58.5%	55.0%	56.8%	32.3%
Wairarapa	2,796	71.4%	71.1%	71.2%	46.3%
Tasman	8,801	43.0%	46.1%	44.5%	20.9%
Canterbury	30,898	54.1%	51.6%	52.8%	42.1%
Aoraki	6,546	65.1%	65.0%	65.1%	45.0%
Otago	9,696	67.2%	65.2%	66.2%	45.8%
Southland	6,373	58.0%	55.4%	56.7%	36.7%
NATIONAL TOTAL	277,571	55.0%	48.4%	51.8%	35.3%

Source: NZSSSC census data, downloaded 21 February 2011 at

www.nzsssc.org.nz/secondary_schools_sports_data.

Table A9: Local Authority Spending on Recreation and Sport, Manawatu-Wanganui Region, 2008/09

	Recreation and Sport (\$000s)	Total Operating Expenditure (\$000s)	Ratio of Column 1 to Column 2 (Per Cent)
Manawatu-Wanganui Regional Council	2687	39053	6.9%
Horowhenua District Council	2,998	35,826	8.4%
Manawatu District Council	3,413	31,903	10.7%
Palmerston North City Council	7,065	99,348	7.1%
Rangitikei District Council	1,052	27,817	3.8%
Ruapehu District Council	1,500	29,892	5.0%
Tararua District Council	1,043	27,553	3.8%
Wanganui District Council	6,307	56,791	11.1%
Manawatu-Wanganui Total	26,065	348,183	7.5%

Source: Statistics New Zealand Local Authority Census.

Table A10: Local Authority Net Additions to Recreation and Sport Fixed Assets, Manawatu-Wanganui Region, 2008/09

	Net Additions to Recreation and Sport Fixed Assets (\$000s)
Manawatu-Wanganui Regional Council	0
Horowhenua District Council	1,988
Manawatu District Council	791
Palmerston North City Council	4,170
Rangitikei District Council	26
Ruapehu District Council	0
Tararua District Council	9
Wanganui District Council	809
Manawatu-Wanganui Total	7,793

Source: Statistics New Zealand Local Authority Census.