Adept Economics

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Economic, Social and Health Impacts of Sport and Active Recreation in Queensland

Final Report prepared for the QFSR Skills Alliance

Adept Economics

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Abbreviations

ABS	Average weekly earnings
ASC	Australian Sports Commission
CPI	Consumer Price Index
FTE	Full-time equivalent
GDP	Gross Domestic Product
GSP	Gross State Product
nfd	Not further defined
PCYC	Police Citizens Youth Clubs
TEQ	Tourism and Events Queensland
TRA	Tourism Research Australia

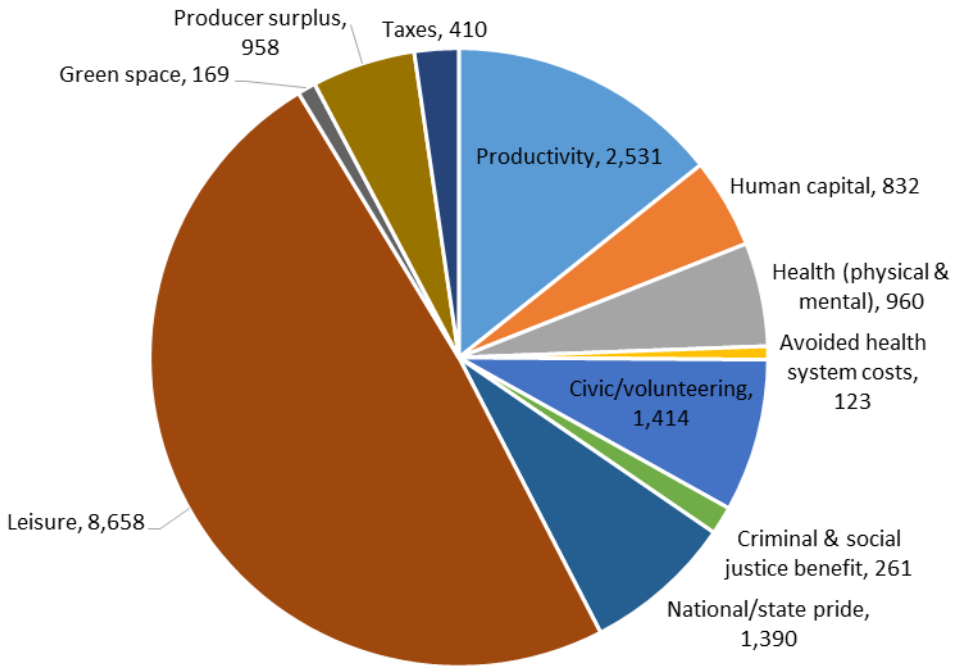
Glossary

Industry value added	The ABS defines industry value added as "the total value of goods and services produced by an industry, after deducting the cost of goods and services used in the process of production." It measures an industry's contribution to the economy.
Gross Domestic Product (GDP) / Gross State Product (GSP)	The value of all final goods and services produced in the domestic (national or state) economy. GDP is the sum of industry value added across sectors (plus indirect taxes and minus subsidies). GSP is the state-level version of GDP and is calculated on the same basis.

Summary

Sport and active recreation provide large benefits to Queenslanders, through various economic and social channels. Total economic and social benefits are estimated to be in the order of $18 billion, an amount equivalent to around 5% of Gross State Product (GSP) (Figure 1).

Figure 1. Benefits of sport and active recreation in Queensland, 2018-19, $ million



Source: Adept Economics estimates, 2019.

The sport and active recreation sector directly and indirectly supports economic activity and jobs across Queensland. Sport and active recreation are estimated to make an economic contribution of around $5 billion per annum, or nearly 1½ % of GSP (Table 1).

Table 1. Economic contribution of sport and active recreation in Queensland

Category	*Direct industry value added ($M)**	*Total industry value added ($M)*	*Share of GSP (%)*	*Direct employment*	*Total employment*	*Share of total employment (%)*
Sports & active recreation	1,891.2	4,665.4	1.30	30,343	61,869	2.44
Sports & active recreation-related tourism	168.1	334.3	0.09	3,616	5,590	0.22
Total	**2,059.3**	**4,999.7**	**1.39**	**33,959**	**67,459**	**2.66**

Source: Adept Economics estimates as detailed in this report. Note: Direct refers to value added and employment directly attributable to sport and active recreation and does not include indirect (flow-on or multiplier) contributions. The "Total" columns include both direct and indirect contributions.

The sport and active recreation sector directly supports the employment of around 34,000 Queenslanders and, directly and indirectly, of over 67,000 Queenslanders, or 2½% of all employed people.

It is evident that sport and active recreation make a substantial contribution to the Queensland economy and provide immense benefits to Queenslanders through a wide range of channels, including health, civic benefits, green space, leisure and national and state pride, among others.

Comparisons with other sectors

Directly, sport and active recreation (and related tourism) employ around 34,000 Queenslanders, or around 25,100 in full-time equivalent (FTE) terms. This contribution can be compared with, say:

- 19,300 people employed as baristas or bar attendants (or 12,300 FTEs)[1];
- 9,100 FTEs directly employed in sugar manufacturing[2]; or
- around 4,200 FTEs directly employed in the Queensland racing industry, according to figures published by Racing Queensland.[3]

So the sector makes a substantial contribution to Queensland employment and the economy and hence warrants attention from policy advisers and decision makers.

Benefits and contributions by sub-sector

The sport and active recreation sector is made up of four distinct sub-sectors, notably:

- **Sport**—i.e. organised sporting activities, both professional and amateur, including e.g. netball, cricket, the different football codes, athletics, basketball, lawn bowls, etc.;
- **Fitness**—i.e. gyms, personal trainers, yoga studios, etc.;
- **Outdoor recreation**—i.e. bushwalking, hiking, camping and other outdoor activities, including the growing activity of adventure tourism; and
- **Community recreation**—i.e. community recreational activities organised by community groups such as PCYC and YMCA.

Economic data are not available specifically for these categories, but the relative benefits of these sub-sectors to the total benefits of sport and active recreation have been estimated using reasonable assumptions based on available data (Table 2). All sub-sectors provide annual benefits to Queenslanders valued in the billions, with sport leading the way with an annual benefit of $9 billion.

[1] ABS, 2016 Census of Population and Housing.
[2] Lawrence Consulting, 2019, p. 6.
[3] Racing Queensland, 2017.

Table 2. Economic benefits of sport and active recreation in Queensland, by sub-sector

Sub-sector	*Benefit ($M)*	*% of GSP*
Sport	9,001	2.51
Fitness	3,364	0.94
Outdoor recreation	3,541	0.99
Community recreation	1,800	0.50
Total	**17,706**	**4.93**

Source: Adept Economics estimates as detailed in this report.

In a similar way to how the economic benefits by sub-sector were estimated, the economic contributions associated with the different sub-sectors have been calculated using reasonable assumptions (Table 3). The sport sub-sector makes the largest economic contribution to Queensland, followed by outdoor recreation, fitness and community recreation.

Table 3. Economic contribution of sport and active recreation in Queensland, by sub-sector

Sub-sector	*Industry value added ($M)*	*Share of GSP (%)*	*Employment*	*Share of total employment (%)*
Sport	2,538.7	0.71	34,245	1.35
Fitness	886.4	0.25	11,755	0.46
Outdoor recreation	1,100.2	0.31	15,169	0.60
Community recreation	474.3	0.13	6,290	0.25
Total	**4,999.7**	**1.39**	**67,459**	**2.66**

Source: Adept Economics estimates as detailed in this report.

1. Introduction

It is universally acknowledged that sport and recreation has value. We know that individuals are healthier if they participate in sport and recreation. We also know that communities are well connected and people within them socially included where participation rates in sport and recreation are high. It is also increasingly accepted that these communities are attractive places to live and work.
Michelle O'Byrne MP, Tasmanian Minister for Sport and Recreation, 2011

We know that participating in sport and physical activity helps achieve a healthy weight, which can lead to other health benefits. More and more Queenslanders are becoming aware of the benefit to their own health as well as Queensland's health system…Sport and active recreation have the power to bring people together, help develop new skills, promote physical prowess, and create a sense of well-being, enjoyment, relaxation and friendships.
Mick de Brenni MP, Queensland Minister for Sport, 2018

1.1 Scope of the study

The Queensland Fitness, Sport and Recreation (QFSR) Skills Alliance has commissioned Adept Economics to assess and report on the economic, social and health impacts of sport and active recreation in Queensland. The study is highly relevant given the state government is currently developing the *Queensland Sport and Active Recreation Strategy 2019-2029*.

For this study, the sport and active recreation sector is defined to include:

- **Sport**—i.e. organised sporting activities, both professional and amateur, including e.g. netball, cricket, the different football codes, athletics, basketball, lawn bowls, etc.;
- **Fitness**—i.e. gyms, personal trainers, yoga studios, etc.;
- **Outdoor recreation**—i.e. bushwalking, hiking, camping and other outdoor activities, including the growing activity of adventure tourism; and
- **Community recreation**—i.e. community recreational activities organised by community groups such as PCYC and YMCA.

The study is informed by desktop research and data analysis—e.g. of Australian Sports Commission (ASC), Australian Bureau of Statistics (ABS), Tourism Research Australia (TRA), and IBISWorld industry data—as well as stakeholder consultations. It draws on existing economic impact reports such as those by Boston Consulting Group and KPMG.

1.2 Structure of the report

The report is structured as follows:

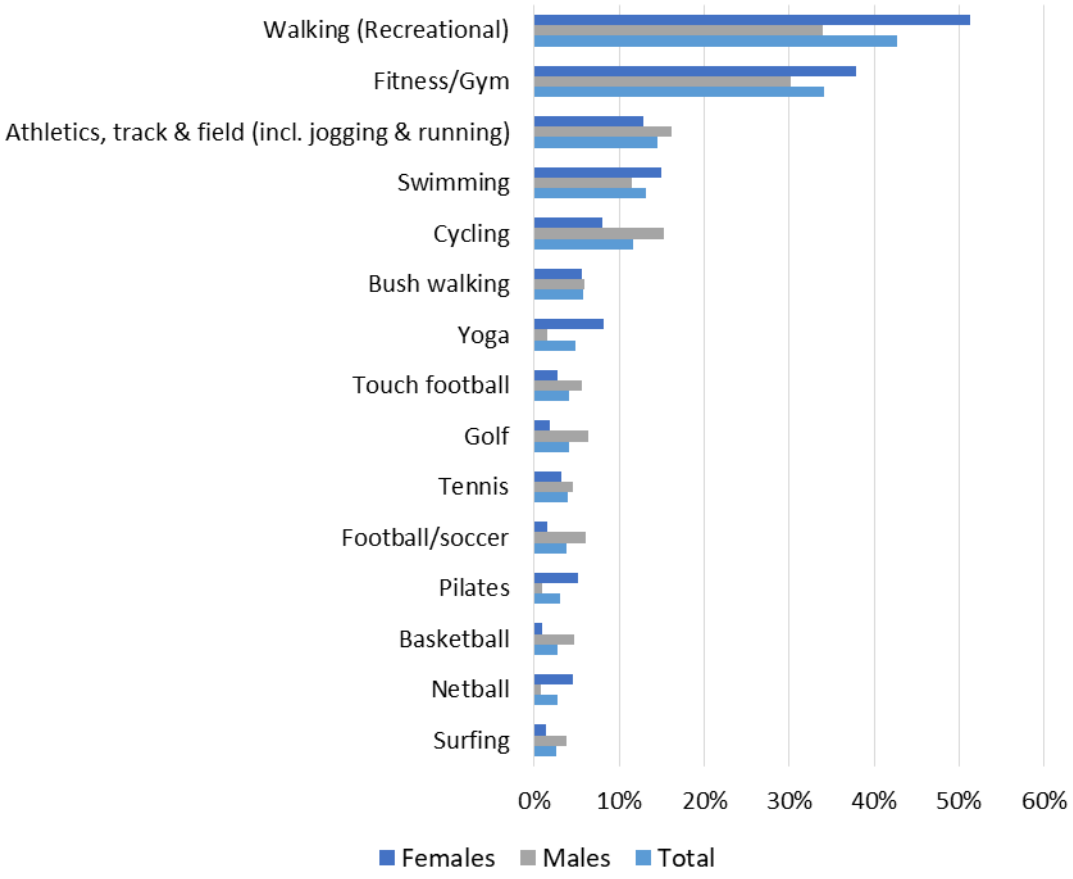
- Section 2 provides an overview of sport and active recreation in Queensland;
- Section 3 presents the analytical framework and literature review;
- Section 4 presents estimates of the economic and social benefits of sport and active recreation in Queensland;
- Section 5 presents estimates of the economic contribution of sport and active recreation; and
- Section 6 concludes the report.

2. Overview of sport and active recreation in Queensland

2.1 Community participation

Large numbers of Queenslanders regularly participate in sport and active recreation. According to the Australian Sports Commission (ASC) 2018 AusPlay data, 89% of Queenslanders participate in sport or active recreation at least once per year, and 81% participate at least once per week. Queenslanders enjoy a wide range of activities, with walking for recreation the most popular (Figure 2).

Figure 2. Participation by activity—top 15 activities, Queensland adult population, 2018

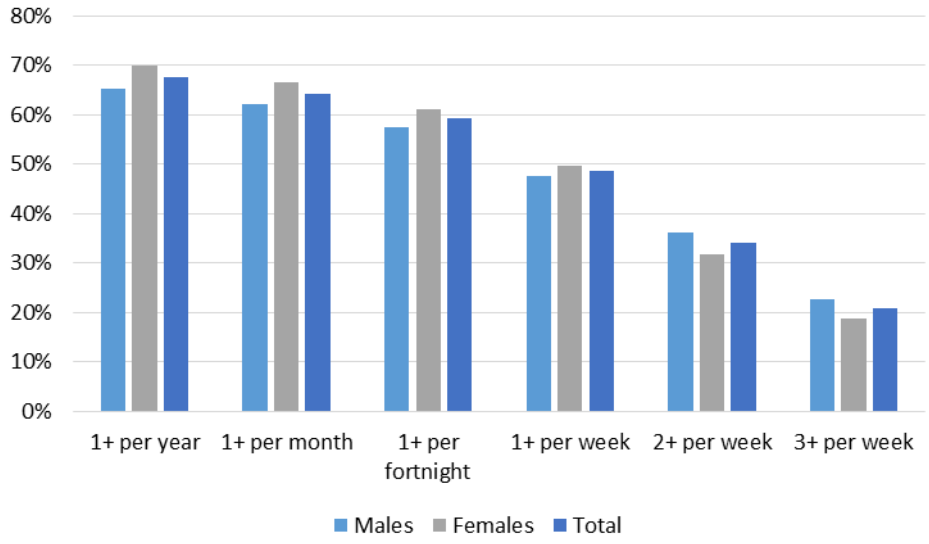


Source: ASC, Ausplay data, 2019.

A large majority of children participate in sport and recreation activities, including at home, at school, and in the wider community, with 64% of children participating in sport at least once per month, and with 59% participating in sport at least once per fortnight (Figure 3). The AFL's school program, widely known as Aus Kick, has been hugely successful. This was a major contributor to AFL Queensland reporting in 2017 a record level of participation of over 252,600 people in the Queensland and Northern Rivers region.[4]

[4] AFL Queensland, 2018.

Figure 3. Participation of Queensland Children in sport, 2018

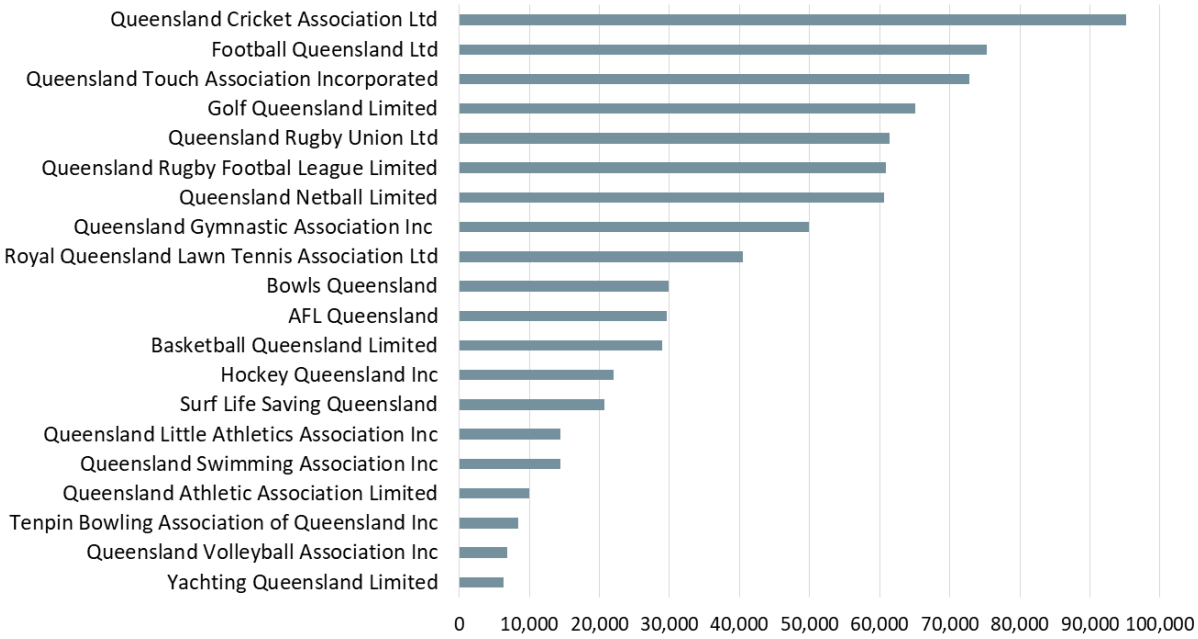


Source: ASC, Ausplay data, 2019.

2.2 Clubs and associations

Around 870,000 Queenslanders—or around one-in-six Queenslanders—were full active members of a sporting club or association in 2017, according to state government estimates (Figure 4). Note the top 20 state sporting associations account for close to 90% of all full active members in 2017.

Figure 4. Full active members of state sporting associations, top 20

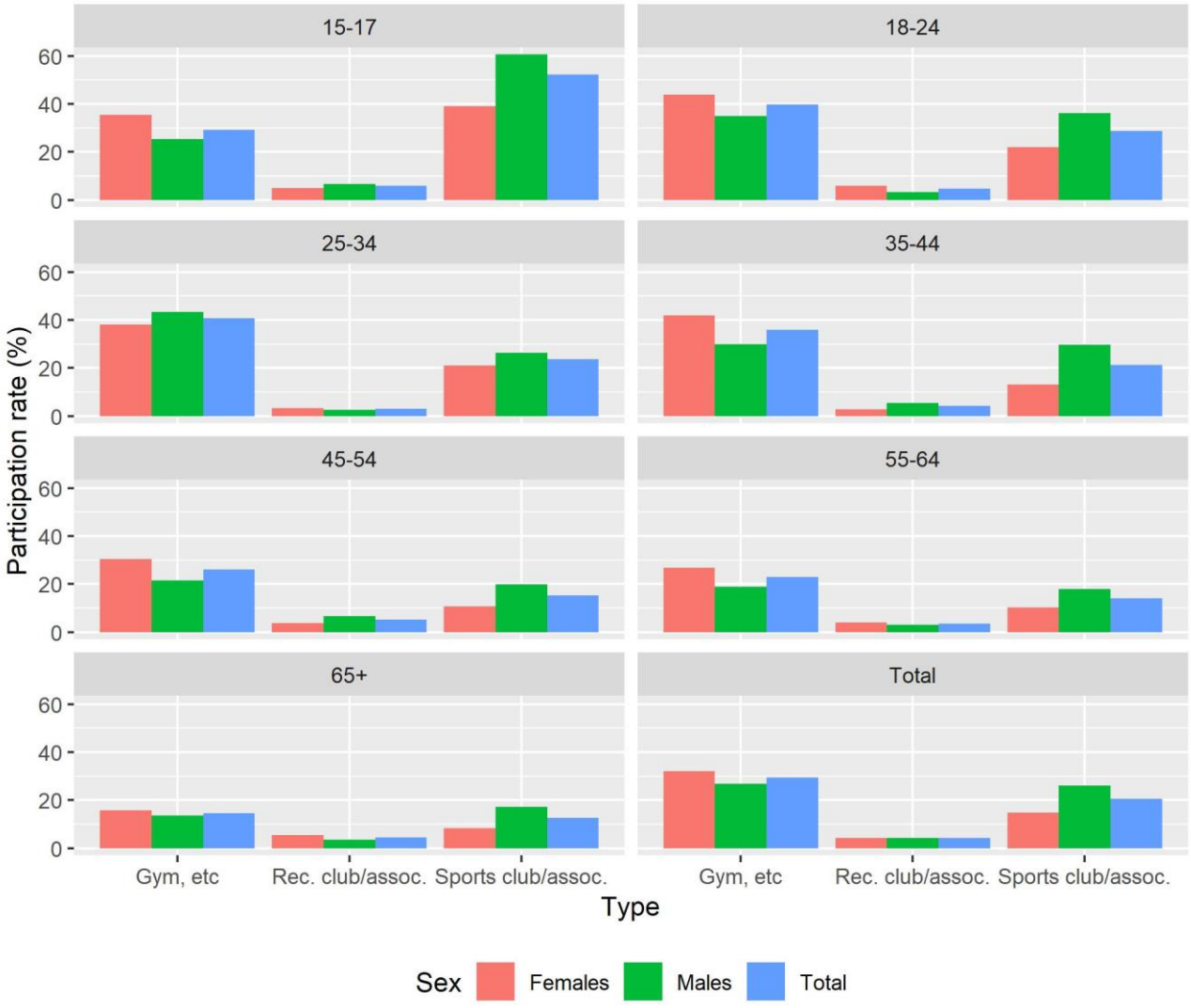


Source: State government data, 2018. N.B. Full active members are defined as members who have access to the full range of programs and services offered by the organisation or their affiliated club or association, as a participant, coach or official. This type of member typically pays a full registration fee and participates actively in programs and services.

In addition to involvement in club sport, many Queenslanders are members of gyms and fitness or leisure centres (Figure 5). As people move from their teenage years to adulthood, participation rates

in sports clubs and associations decline, and participation in gyms, fitness centres and studios becomes the predominant form of participation for people in their prime years.

Figure 5. Participation rates by age by organization/venues used, Queensland, 2018



Source: ASC, Ausplay data, 2019.

There are also many community organisations in addition to dedicated sporting clubs that offer recreational opportunities, including such organisations as Police Citizen Youth Clubs (PCYC), bushwalking clubs, cycling and running clubs, and scouts and girl guides, which have substantial membership among young Queenslanders. According to their most recent annual reports:

- Girl Guides Queensland and Scouts Queensland had approximately 5,600 and 13,000 members respectively;
- PCYC had 73,000 members across 54 clubs, and it employed 1,634 staff and received assistance from 2,991 volunteers; and
- YMCA Brisbane had 7,269 members visit its four fitness clubs and it hosted 13,568 campers on its three camp sites, among other achievements.

These figures should give a strong indication of the importance of community recreation to Queenslanders.

3. Analytical framework and literature review

3.1 Introduction to the analytical framework

In this study, we are estimating two distinct economic values for sport and active recreation, specifically the sector's:

- **economic and social benefits**: the value to the Queensland community of the benefits of sport and active recreation, including leisure, health and civic benefits not necessarily counted in Gross State Product (GSP); and
- **economic contribution**: its dollar contribution to Queensland's GSP, both directly and indirectly through the supply chain and related economic activity (e.g. people travelling for sporting events).

The timeframe for calculating the sector's economic contribution is the current year, but the timeframe for calculating net economic benefits is decades-long, because we need to recognise the long-lived benefits that sport and active recreation can have in improving health and well-being.

Estimating the sector's economic contribution is much more straightforward and less speculative than calculating the sector's economic and social benefits, and this difference in precision should be taken into consideration by readers of this report in any conclusions they draw from the report.

3.2 Overview of literature on sport and recreation

There are a large number of studies of the economic contribution and value of sport and active recreation. For example, see the range of studies reviewed in Appendix 1. These studies provide a wide range of estimates for different countries and regions, various sports and activities, and different measures of economic contribution and value. In this section, we review the most relevant studies for this study for the QFSR Skills Alliance and discuss their implications for the methodology that will be applied in this study.

3.2.1 Australian studies

Australian studies typically provide relatively high estimates of the economic contribution and benefits of sport and active recreation. Studies however differ in their methodologies, scope and the specific contributions or benefits they estimate (Table 4).

Table 4. Australian studies on sport and recreation economic contribution and benefits, selected examples

Study	*Region*	*Scope*	*Economic contribution or benefits*
PKF, 2012	Queensland	Sport	$7.9 billion or 3% of GSP; 11,800 jobs (direct)
Synergies Economic Consulting, 2012	Queensland	Outdoor rec.	$.8.8 billion or 3.5% of GSP
Boston Consulting Group, 2017	Australia	Sport & active rec.	$83 billion in benefits annually or 5% of GDP
WA Dep't of Sport & Recreation	WA	Sport & active rec.	$6.51 in eco. activity per $ of state capital expenditure
Frontier Economics, 2010	Australia	Sport	Productivity gains through health could be $12 billion or 1% of GDP

Source: Adept Economics analysis, 2019. For further information and additional studies see Appendix 1.

3.2.2 International studies

The same observations for domestic studies apply to the international studies reviewed (Table 5).

Table 5. International studies on sport and recreation economic contribution and benefits, selected examples

Study	*Country / Region*	*Scope*	*Economic contribution or benefits*
European Commission, 2012	EU	Sport	295 billion EUR or 3% of Euro GDP
National Bureau of Economic Research, 2002	USA	Sport	152 billion USD or > 2% of GDP
Deloitte UK, 2015	Dubai, UAE	Sport	1.763 billion USD or 1.7% of GDP
BBC Research & Consulting, 2010	California, USA	Outdoor recreation in state park system	Up to 2.8 billion USD or 0.15% of GSP

Source: Adept Economics analysis, 2019. For further information and additional studies see Appendix 1.

3.3 Implications for this study

As we have seen, the best studies available estimate a range of economic benefits of sport and recreation. A summary of the benefits each study estimates is included in Table 6. As can be seen, the 2011 Tasmanian sport and recreation study (Muller et al., 2010) is the most comprehensive and indeed the most rigorous as it is based on a sound and comprehensive cost-benefit analysis model.

Table 6. Economic benefits estimated in leading studies of economic benefits of sport and recreation

Benefit	*Muller et al. (2010)*	*PKF (2012)*	*Synergies (2012)*	*KPMG (2018)*	*SBP (2018)*
Economic contribution	✓	✓	✓	✓	✓
Productivity	✓	✓			
Human capital	✓		✓	✓	
Health (physical)	✓	✓	✓	✓	✓
Health (mental)	✓	✓	✓	✓	✓
Avoided health system costs	✓	✓	✓	✓	✓
Civic/volunteering	✓	✓	✓		
Criminal & social justice		✓			
National/state pride		✓			
Leisure	✓				
Green space			✓	✓	
Producer surplus	✓				
Taxes	✓				

Source: Adept Economics analysis of studies listed in column headings, 2019.

Briefly, the economic benefit items listed in Table 6 are as follows:

- **economic contribution**—this is the readily measured contribution to the economy in terms of value added, income (broadly, speaking split between wages and profits), and employment;
- **productivity**—the economic benefit that comes from sport and recreation, in net terms, improving workplace productivity through contributing to healthier and happier individuals less prone to workplace absenteeism and so-called presenteeism, when a worker is present but not fully engaged in work;
- **human capital**—the economic benefit that arises due to the positive association between sport and physical recreation and educational outcomes, as described in the expression "healthy body, healthy mind";
- **health**—the value of savings in quality/disability-adjusted life years (QALYs or DALYs) due to health improvements from sport and active recreation;
- **avoided health system costs**—savings in health system costs due to healthier individuals;
- **civic/volunteering**—broadly speaking, the value that arises from large numbers of people cooperating and enjoying sport and active recreation activities;
- **criminal and social justice benefit**—a spin-off of the civic/volunteering benefit as a more harmonious society leads to lower crime;
- **national/state pride**—the satisfaction people derive from sporting achievements of elite sports people, such as that described in *Green and Gold Malaria* by Rupert McCall, who

observed “It flattened me when Bertrand raised the boxing kangaroo, And when Perkins smashed the record, well, the rashes were true blue”;

- **leisure/consumer surplus**—the satisfaction people derive from participating in and watching sport and active recreation, which encompasses national/state pride as defined above but which is much broader and more readily estimated;
- **green space**—the value to the community of all the green space (e.g. ovals, golf courses, national parks) provided or supported by sport and active recreation activities, which often shows up in boosts to property prices for properties located near these green spaces;
- **producer surplus**—broadly speaking, profits earned by businesses directly or indirectly serving sport and active recreation; and
- **taxes**—federal, state, and local governments receive revenue from rates, taxation and charges associated with sport and active recreation.

All the studies estimate the economic contribution of sport and recreation, in terms of its contribution to GDP. But as noted above this is not the same thing as the net benefit provided by sport and recreation. The studies vary significantly in the range of benefits they estimate for sport and recreation, although all studies attempt to estimate or acknowledge the health (both physical and mental) benefits, including savings in the health system.

4. Economic and social benefits of sport and active recreation

In this section, estimates of the economic benefits arising from sport and active recreation in Queensland are presented (Table 7).

Table 7. Indicative estimates of economic and social benefits of sport and active recreation in Queensland, 2018-19

Benefit	*$ million*	*% of GSP*	*Notes on estimation techniques*
Productivity	2,531	0.71	Updating of PKF (2012) estimate to account for wage inflation and population growth (ABS estimates)
Human capital	832	0.23	Based on KPMG (2018) $4.2 billion estimate for Australia, allocated to Queensland proportionately according to the share of total sports and active recreation participation in AusPlay data
Health (physical & mental)	960	0.27	Updating of PKF (2012) estimate to account for CPI inflation and population growth (ABS estimates)
Avoided health system costs	123	0.03	Updating of PKF (2012) estimate to account for CPI (Health) inflation and population growth (ABS estimates)
Civic/volunteering	1,414	0.39	Based on updated PFK (2012) Queensland volunteers in sport and recreation estimate of around 17,600 FTEs valued at average weekly ordinary time earnings*
Criminal & social justice benefit	261	0.07	Updating of PKF (2012) estimate to account for CPI inflation and population growth (ABS estimates)
National/state pride	1,390	0.39	Updating of PKF (2012) estimate to account for CPI inflation and population growth (ABS estimates)
Leisure	8,658	2.41	Based on AusPlay data on Queenslanders who participate in sport and active recreation at least once per week (3.33 million) and on Muller et al. (2010), but conservatively assuming a much lower willingness to pay per week of $50 per person for sport and recreation
Green space	169	0.05	20.1% (i.e. Queensland's population share) of KPMG (2018) estimate for Australia of $844 million
Producer surplus (net of taxes)	958	0.27	70% (i.e. 1 *minus* company tax rate) of total gross operating surplus estimate for Queensland sport and active recreation sector**
Taxes	410	0.11	30% (i.e. company tax rate) of total gross operating surplus estimate
TOTAL	**17,706**	**4.93**	

Source: Adept Economics analysis of studies listed in column headings, 2019.
** This is a plausible estimate given there are at least 440,000 volunteers in the sector, according to QFSR Skills Alliance (2018, p. 6). This level of FTEs would require the 440,000 volunteers to volunteer around 1.5 hours each week, on average, over the year.*
***Gross operating surplus is calculated as industry value added minus wages, using the data in Table 9.*

Total economic benefits are estimated to be in the order of $18 billion, an amount equivalent to around 5% of GSP. As the scope of this study did not allow for new primary research, estimates are based on readily available data and via re-scaling and updating existing estimates for inflation and population growth.

An allocation of the total estimated benefits of sport and active recreation by sub-sector, based on reasonable assumptions for the benefits related to different sub-sectors, is presented in Table 8. [5]

Table 8. Economic benefits of sport and active recreation in Queensland, by sub-sector

Sub-sector	*Benefit ($M)*	*% of GSP*
Sport	9,001	2.51
Fitness	3,364	0.94
Outdoor recreation	3,541	0.99
Community recreation	1,800	0.50
Total	**17,706**	**4.93**

Source: Adept Economics estimates.

Surfers in the ocean, the Gold Coast, Queensland

[5] IBISWorld estimates revealed the fitness industry was around 19% of the total sport and active recreation sector and this was used as the assumed share of total benefits. Outdoor recreation was assumed to be around 20% of the economic benefit, community recreation 10%, and sport the remaining 51%.

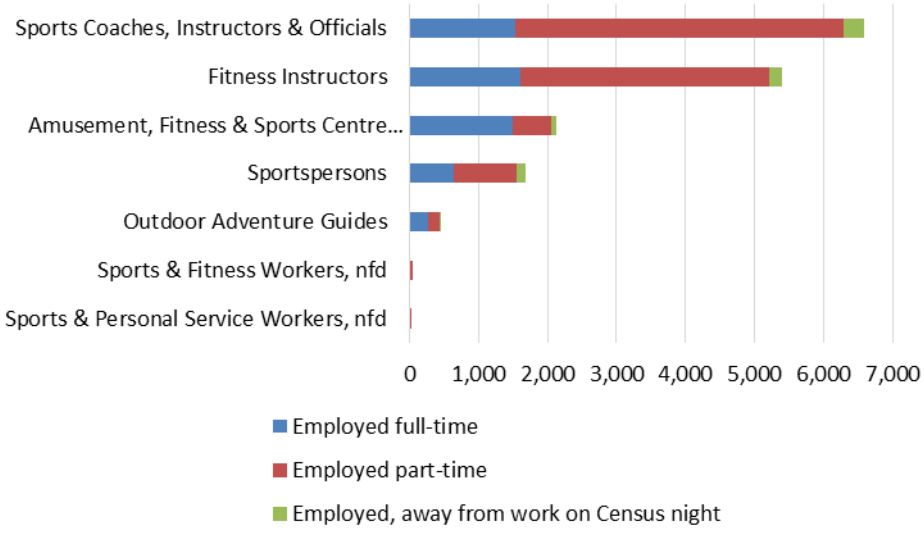
5. Economic contribution of sport and active recreation

5.1 Sports-related industries

In assessing sport and active recreation's economic contribution we first need to define the broad range of industries involved in the sport and active recreation sector. These range from the sport and recreation associations and clubs, gyms and yoga and Pilates studios, through to retailers and wholesalers of sporting and recreation equipment, as well as manufacturers. These sectors account for billions of dollars of revenue and tens of thousands of jobs across Australia.

At the time of the 2016 Census, there were at least 16,300 Queenslanders employed in identifiable sports and outdoor recreation-related occupations (Figure 6). These occupations accounted for around nine out of every thousand employed people in Queensland (or 0.9%). However, we expect that the total number of employed people related to sport and recreation is much higher than employment in occupations that are obviously in the sector, as it includes many people in sports administration and working in sports and recreation clubs in hospitality or administrative roles. This requires the analysis of data by specific industries rather than for occupations as is done in Figure 6 below.

Figure 6. Employment in sport and recreation-related occupations, 2016 ABS Census estimates for Queensland, 4-digit ANZSCO level



Source: ABS, 2016 Census of Population and Housing data, accessed via Table Builder Basic.

Estimates of the economic contribution for Australia and Queensland based on IBISWorld estimates are presented in Table 9 below. 2016 Census figures for sport and active recreation-related industries for Queensland—as best as they can be identified at the 4-digit ANZSIC level—are presented in Appendix 2. They are of a similar order of magnitude, though around 20% lower, than the estimates presented in Table 9 which makes sense given growth that would have occurred since then and due to inadequately stated industry of employment data in the Census. Additionally, it should be recognised there are likely to be many employees (e.g. physical education teachers) classified in other industries (e.g. education). As the QFSR Skills Alliance (2018) noted employment estimates in sport and active recreation are:

...believed to be conservative due to the national ANZSIC classification of sport and recreation activities across other industry sectors including Education and Training, Healthcare and Social Assistance, Accommodation and Food Services, Public Administration and Safety, and Tourism.

So the estimates in Table 9 should be considered as lower-bound estimates of the actual contributions of industries associated with the sport and active recreation sector.

Table 9. Economic contribution of sport and active recreation-related industries, 2018-19

Industry	*Revenue ($M)*	*Industry value added ($M)*	*Employment (headcount)*	*Wages ($M)*
Sporting clubs & associations				
Sports & recreation facilities operation	352.6	154.5	3,726	110.8
Sports administrative services	1,001.8	223.4	1,426	150.7
Sports & physical recreation clubs	823.7	339.4	4,108	282.6
Sports instructors	178.5	134.4	5,419	111.5
Nature reserves & conservation parks	310.6	163.1	2,365	108.5
Gyms & studios				
Gyms & fitness centres	589.5	264.4	3,917	179.8
Pilates & yoga studios	130.7	95.8	2,155	81.0
Sport & camping equipment retailing/wholesaling				
Bicycle retailing & repair in Australia	141.8	40.7	724	30.9
Hiking & outdoor equipment stores	251.4	68.9	1,002	43.5
Other sport & equipment retailing	623.8	159.0	2,839	99.6
Toy & sporting goods wholesaling*	401.0	72.7	746	48.7
Fitness & athletic clothing stores	567.3	126.4	1,412	84.6
Online sporting & physical recreation good sales	110.4	22.0	109	6.3
Online sporting apparel	26.6	7.0	90	5.0
Toy & sporting goods manufacturing*	84.1	19.6	303	13.2
Total	**5,593.8**	**1,891.2**	**30,343**	**1,356.6**

*Source: IbisWorld and Adept Economics, 2019. *Adept Economics has assumed 2/3's of these industries are devoted to sports and active recreation as opposed to toys.*

The above are the direct economic contributions of sports and recreation broadly defined. In total, they amount to around 0.5% of Queensland's gross state product (GSP). But there are other contributions to consider, including:

- sports-related tourism; and
- supply-chain for sport and active recreation-related industries.

These are considered in turn.

5.2 Supply chain

Sport and active recreation make an indirect contribution to the economy, additional to the direct contributions set out in Table 9 above. The indirect impact comes through the supply-chain, as industries directly involved in sport and recreation purchase inputs from other industries (e.g. professional, scientific and technical services, accommodation and food services, etc.), and these industries in turn purchase goods and services from other industries. Technically, such indirect or multiplier impacts are known as Type I multipliers. It is possible also to estimate Type II multipliers which take into account the additional economic activity associated with household consumption spending out of income earned in sport and active recreation directly and indirectly.

Estimates of the indirect contribution of sport and active recreation industries in Queensland are presented in Table 10. Indirect contributions are substantial and in total around 1.3% of Queensland's economy as measured by gross state product is associated with the sport and active recreation-related industries listed in Table 10. Note the employment share of these industries is higher than the value-added share because of the labour-intensive nature of sport and active recreation relative to other industries.

Table 10. Indirect contributions of sport and active recreation industries in Queensland, 2018-19

Contribution	*Industry value added ($M)*	*Share of GSP (%)*	*Employment*	*Share of total employment (%)*
Direct	1,891.2	0.53	30,343	1.19
Indirect (supply-chain)	1,303.0	0.36	16,051	0.63
Indirect (consumption induced)	1,471.4	0.41	15,475	0.61
Total (direct & supply chain)	3,194.2	0.89	46,394	1.83
Total (direct and indirect)	**4665.4**	**1.30**	**61,869**	**2.44**

Source: Adept Economics estimates based on IBISWorld data and Queensland Government Office of the Government Statistician (2002). Reported value added and employment multipliers reported by the Office of the Government Statistician for the cultural and recreational services industry were used. ABS data and Queensland Treasury 2019 MYFER forecasts have been used to estimated 2018-19 GSP and employed persons. Note values in columns will not necessarily add up precisely to column totals due to rounding.

All this, of course, is merely a reflection of the inter-connected nature of industries within an economy, and estimates of indirect contributions should be interpreted cautiously.[6] That said, they do give an indication of the penetration of sport and active recreation throughout the economy. It is an approach which has been widely adopted by industry peak bodies, including the Queensland Resources Council (Lawrence Consulting, 2018) and the Australian Sugar Millers Council (Lawrence Consulting, 2019).

[6] See for example Gretton (2013).

5.3 Sports-related tourism

Sports-related tourism, such as people travelling interstate for State of Origin games, is a growing phenomenon in Australia. It encompasses participants and spectators, as well as family members, partners and friends. As set out in Appendix 3, there are a large number of sporting and active recreation events in Queensland that could stimulate inter-regional and interstate travel.

There are both domestic and international tourists. Domestic overnight tourism related to organised sporting events is substantial according to TRA estimates. Over the four financial years to 2017-18, domestic overnight visitors to attend a sporting event in Queensland averaged 750,000 for an average of 2,628 visitor nights, and $551 million of expenditure yearly (Table 11). Of course, it should be noted that the Gold Coast Commonwealth Games would have boosted the 2017-18 figures.

Table 11. Interstate and intrastate domestic tourism data for people attending an organised sporting event*

	2014-15	*2015-16*	*2016-17*	*2017-18*	*Average*
Visitors					
Interstate	241,000	235,000	225,000	278,000	245,000
Intrastate	491,000	463,000	455,000	602,000	503,000
Total	*731,000*	*699,000*	*690,000*	*880,000*	*750,000*
Nights					
Interstate	1,021,000	1,040,000	1,212,000	1,583,000	1,214,000
Intrastate	1,262,000	1,338,000	1,270,000	1786,000	1,414,000
Total	*2,283,000*	*2,378,000*	*2,482,000*	*3,369,000*	*2,628,000*
Expenditure ($M)					
Interstate	269	254	275	349	287
Intrastate	242	285	213	369	277
Total	*512*	*538*	*488*	*718*	*564*

*Source: TRA, 2019. *Note figures column totals do not necessarily equal the sum of the elements due to rounding.*

Interstate visitors are staying five to six nights on average and collectively spending on average $208 million (or around $1,140 per visitor) each financial year. It should be noted that not all of the trips in Table 11 above were explicitly for the reason of attending an organised sporting event (Table 12).

Table 12. Domestic overnight trips in Queensland to attend a sporting or cultural event or festival

	2014-15	*2015-16*	*2016-17*	*2017-18*	*Average*
Trips	453,000	483,000	406,000	463,000	451,250
Nights (million)	1.145	1.167	0.972	1.311	1.1488
Average nights per trip	2.5	2.4	2.4	2.8	2.5

Source: TRA, 2019.

There is also a sizeable amount of day trips for organised sporting events in Queensland, with around one million people each year travelling for day trips involving around $115 million in expenditure in total (Table 13).

Table 13. Domestic day trips in Queensland for people attending an organised sporting event

	2014-15	*2015-16*	*2016-17*	*2017-18*	*Average*
Visitors	934,000	1,130,000	861,000	1,132,000	1,014,250
Expenditure ($M)	131	126	85	118	115
Average per visitor ($)	140	112	98	104	113

Source: TRA, 2019.

There are also large numbers of international visitors who attend organised sporting events in Queensland. The data however are less clear than for domestic tourists, as TRA does not ask where the sporting event occurred. Instead, it can be said that around 157,000 international visitors to Queensland have attended an organised sporting event somewhere in Australia during their trip (Table 14). This represents around 6% of all international visitors to Queensland.

Table 14. International visitors to Australia who visit Queensland and who have attended an organized sporting event somewhere in Australia

	2014-15	*2015-16*	*2016-17*	*2017-18*	*Average*
Visitors	142,000	141,000	155,000	189,000	156,750
Nights (million)	5.697	4.582	4.915	5.021	5.054
Average visitor nights	40	32	32	27	33
Expenditure ($M)	481	394	449	451	444
Average per visitor ($)	3,387	2,797	2,899	2,386	2,832

Source: TRA, 2019.

Smaller but still substantial numbers of international visitors who travelled to Queensland on their trip visited Australia specifically to participate or watch organized sport (Table 15).

Table 15. International visitors to Australia who visit Queensland and who have travelled specifically to participate in or watch organised sport

	2014	*2015*	*2016*	*2017*	*Average*
Visitors	17,000	21,000	20,000	23,000	20,250
Nights	112,000	211,000	198,000	176,000	174,250
Average visitor nights	7	10	10	8	9
Expenditure ($M)*	10	18	17	15	15

*Source: TRA, 2019. *Adept Economics estimates of visitor expenditure based on visitor estimates and estimated average expenditure per visitor for international visitors who attend an organised sporting event in Australia in Table 14.*

Tourism and Events Queensland (TEQ) has recently reported on research on fitness tourism in Queensland.[7] Based on a survey of participants in major endurance events, consultants Strategic Facts received around 4,000 responses and found that around 38% of participants lived interstate or overseas.

5.4 Total direct and indirect economic contribution

In this sub-section we add sports and recreation-related tourism to the economic contribution estimates for sports and recreation-related industries presented in Table 10. Estimates of the direct and indirect economic contributions in terms of value added/GSP for sports-related tourism in Queensland are presented in Table 16.

Table 16. Economic contribution of sports-related tourism in Queensland, average over four years to 2017-18

Category	*Expenditure ($ million)*	*Value added ($ million)*	*Total direct & indirect value added ($ million)*	*Share of GSP (%)*	*Direct jobs*	*Total jobs*
Domestic overnight trips	282.0	115.0	228.8	0.06%	2,475	3,827
Domestic day trips	114.8	46.9	93.2	0.03%	1,008	1,559
International overnight trips	15.1	6.2	12.2	0.00%	132	205
Total	411.9	168.1	334.3	0.09%	3,616	5,590

Source: Adept Economics calculations based on TRA data on sports-related tourism and TRA (2018). NB. The expenditure on domestic overnight trips is assumed to be 50% of that estimated in Table 11. This assumption is intended to adjust for the fact that not all intrastate and interstate trips would have been for the main purpose of attending a sporting event and also for the fact the total expenditure would include any expenditure for tickets to sporting events which would already be included in the economic contribution estimates in Table 10.

[7] TEQ, 2018.

Taking the economic contribution for sports and recreation-related industry estimates in Table 10 and adding them to the estimates for sports and recreation-related tourism in Australia in Table 16, we obtain the estimates for the total economic contribution of sport and active recreation in Queensland in Table 17. We see that sport and active recreation accounts for nearly 1½% of the state economy and over 2½% of the state workforce. As noted above, this is just the readily measured economic contribution in terms of GSP and employment. We need to consider the broader range of benefits, as was done in section 4.

Table 17. Total economic contribution of sport and active recreation in Queensland

Category	*Industry value added ($M)*	*Share of GSP (%)*	*Employment*	*Share of total employment (%)*
Sports & active recreation-related industries	4,665.4	1.30	61,869	2.44
Sports & active recreation-related tourism	334.3	0.09	5,590	0.22
Total	**4,999.7**	**1.39**	**67,459**	**2.66**

Source: Adept Economics estimates as detailed in this report.

5.5 Contributions by sub-sector

Economic data are not available specifically for the four sub-sectors (i.e. sport, fitness, outdoor recreation, and community recreation), but the relative contributions of these sub-sectors to the total economic contribution of sport and active recreation have been estimated using reasonable assumptions based on available data (Table 18).[8] The sport sub-sector makes the largest economic contribution to Queensland, followed by outdoor recreation, fitness and community recreation.

Table 18. Economic contribution of sport and active recreation in Queensland, by sub-sector

Sub-sector	*Industry value added ($M)*	*Share of GSP (%)*	*Employment*	*Share of total employment (%)*
Sport	2,538.7	0.71	34,245	1.35
Fitness	886.4	0.25	11,755	0.46
Outdoor recreation	1,100.2	0.31	15,169	0.60
Community recreation	474.3	0.13	6,290	0.25
Total	**4,999.7**	**1.39**	**67,459**	**2.66**

Source: Adept Economics estimates as detailed in this report.

[8] The same assumptions as in footnote 2 apply here for the sport and active recreation-recreation related industries. Sport and active recreation-related tourism was assumed to be 50% related to sport and 50% related to outdoor recreation.

6. Conclusion

It is evident that sport and active recreation make a substantial contribution to the Queensland economy and provide immense benefits to Queenslanders through a wide range of channels, including health, civic benefits, green space, leisure and national and state pride, among others. Sport and active recreation can act to protect our population from the adverse impacts of chronic diseases associated with inactivity and obesity, and from anxiety associated with growing work pressures and social media use, for example. In total, these benefits are valued at nearly $18 billion annually, or around 5% of GSP.

Sport and active recreation (and related tourism) contributes in a substantial way to the economy, supporting around 34,000 jobs directly, and up to another 33,500 jobs through supply chain impacts and induced economic activity (as associated income with the sector and its supply chain is spent).

All sub-sectors of sport and active recreation make a substantial impact on the economy and yield billions of dollars of benefits (Table 19). Given its major significance to the wellbeing of Queenslanders, the sport and active recreation sector warrants close attention by policy advisers and decision makers.

Table 19. Summary of economic contributions (direct + indirect) and benefits of sport and active recreation in Queensland, by sub-sector, 2018-19

Sub-sector	*Value added ($M)*	*% of GSP*	*Employment*	*% of total employed*	*Benefit ($M)*	*% of GSP*
Sport	2,538.7	0.71	34,245	1.35	9,001	2.51
Fitness	886.4	0.25	11,755	0.46	3,364	0.94
Outdoor recreation	1,100.2	0.31	15,169	0.60	3,541	0.99
Community recreation	474.3	0.13	6,290	0.25	1,800	0.50
Total	**4,999.7**	**1.39**	**67,459**	**2.66**	**17,706**	**4.93**

Source: Adept Economics estimates.

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Appendix 1. Literature review

Table A1. Summaries of sport and active recreation economic contribution studies

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
Access Economics - "Let's get physical: The economic contribution of fitness centres in Australia"	2009	Australia	The industry comprises a wide range of businesses, from small gyms and personal training studios to large, multi-national fitness chains and franchises, with the services offered by the industry being similarly diverse and include a broad range of exercise and physical activity services across age groups, as well as the more traditional gym-type activities	Economic contribution approach taken accounting for both direct economic impacts (e.g. industry size and employment, industry value added and multiplier effects on other industries) and wider economic impacts (e.g. enhancing workforce participation, enhancing workforce productivity and avoided health care costs)	Australia's fitness centres contributed a total of $872.9 million to the Australian economy in 2007-08, comprising a direct value-added contribution of $486.5 million (with $374.2 million being paid in wages and $112.3 million returned to capital owners as operational profits) along with an indirect component of the value added of $386.4 million
Australian Bureau of Statistics - "Value of Sport, Australia"	2013	Australia	Sport services, manufacturers and distributors of sporting equipment, professional sports people, and other people who are involved in paid employment or voluntary work within the sector	Survey of dollars and quantities regarding household expenditures, employment, volunteers, attendance, industries and products	In 2011-12, sport and recreation industries generated $12.8 billion in income, exported over $358 million in sport and recreation goods as well as employed around 134,000 Australians

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
Australian Sports Commission - "AusPlay: Participation data for the sport sector"	2016 and onward (with six-monthly regular data updates based on ongoing survey)	Australia	Captures a wide variety of activities which allow for a distinction to be made between sport-related activities (e.g. team sports, athletics, golf) and non-sport related physical activities (e.g. gym activities, bushwalking)	Continuous survey with fieldwork happening throughout the year, with first results publicly released in December 2016	More than $10.7 billion was spent by Australians on fees for participation in sport or physical activity over the past year, along with $2.3 billion for children and $8.4 billion for adults. Spend estimates for individual sports (e.g. cricket) are updated on a six-monthly basis.
BBC Research & Consulting - "California Outdoor Recreation Economic Study: State Park System Contributions and Benefits"	2010	California USA	The study defined 10 park types, of State Park (SP), State Beach (SB), State Historical Park (SHP), State Recreation Area (SRA), State Natural Reserve (SNR), State Vehicular Recreation Area (SVRA), State Historical Monument (SHM), State Seashore (SS), Wayside Campground (WC) and Park Property (unclassified), as well as 7 state regions of Central Coast, Central Valley, Los Angeles, Northern California, San Francisco Bay Area, Sierra and Southern California	Quantified the economic contribution from visitation to (and operation of) the State Park System (SPS) and the economic benefits that California-residents obtain from their visits to the SPS, broken down by type of park unit and by region of the state, as well as quantified the fiscal contributions to the State of California and local government revenues	Over the FY06-FY08 period, the study estimated the annual economic benefits to California visitors to the SPS to be between $433 million and $2.8 billion, with an average estimate of almost $1.4 billion per year, which generated about $410 million in state government revenues and $140 million in local government revenues (returning over two dollars to the State Treasury for each dollar spent on operating and maintaining the SPS)

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
Boston Consulting Group - "Intergenerational Review of Australian Sport"	2017	Australia	The definition of "sport" used is consistent with that in the *Australian Sports Commission's Act* (1989) including traditional sport (e.g. high-performance organised sport and participation self-organised sport), physical recreation (e.g. organised and self-organised exercise and dancing) and broader activity (e.g. certain types of outdoor activities, commuting and employment)	Primary and secondary sources were used to pull together a holistic view of the value of sport, including using ABS input-output tables and a series of multipliers, in the areas of economy, health, children, social binding and national pride	Sport provides combined economic, health and education benefits of $83 billion to Australia annually noting that the direct economic, productivity and volunteering benefits from sport create a total economic value of approximately $50 billion annually
Canadian Sport Tourism Alliance - "Economic Impact Assessment: 2018 Alberta Summer Games"	2018	Alberta Canada	Aggregate visitor revenues (from 3,000 athletes, coaches, and officials as well as 4,500 friends and family members) were projected to be $1.4 million from accommodations, restaurants and groceries, recreation and entertainment, retail shopping as well as transportation and vehicle expenses	Calculates the amount of new money being spent in the host community as a direct result of hosting the event and then the impact these new monies have on the regional, provincial and national economy as a whole (using economic multipliers) in terms of Gross Domestic Product (GDP), wages and salaries, employment, taxes and industry output	The total net economic activity (GDP) that was expected to be generated is $3.2 million for Canada as a whole, $3.0 million for the province of Alberta and $2.1 million for the city of Grande Prairie, along with tax revenues totalling $793,341 million across Canada

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
Deloitte UK - "Football Money League"	2018	UK & EU	The top 20 professional soccer clubs in the world (but all from the UK and Europe)	Ranks these top 20 clubs based on the total of revenues for each club from match day, broadcast and commercial	Total revenue of the top 20 Money League clubs was €7.9 billion, with Manchester United of England in the UK finishing first at €676.3m (= €125.2m match day + €225.9m broadcast + €325.2m commercial)
Deloitte UK - "Economic impact of sport in Dubai"	2015	Dubai UAE	The economic impact of sport in Dubai has been split into three components of events, facilities and people	Quantifies the 'gross expenditure' of sport in Dubai, i.e. the economic 'footprint' of sport in the emirate, comprised of all expenditure related to sport in the emirate and the 'ripple effect' as this expenditure is recycled through the economy (known as 'indirect and induced impacts') as well as quantifies the 'total economic impact' of sport on the economy of Dubai which measures the expenditure and associated ripple effect that are additional to the Dubai economy because they originate from outside the emirate (e.g. sports-related spending by visitors to Dubai)	The respective gross expenditure and direct economic impact of the three components, together with the indirect and induced estimates, are gross economic expenditure of $1,763 million (= events $709 m + facilities $255 m + people $172 m + indirect & induced $627 m) and economic impact of $670 million (= events $359 m + facilities $54 m + people $8 m + indirect & induced $249 m)

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
Econtech - “The cost of physical inactivity: What is the lack of participation in physical activity costing Australia?”	2007	Australia	Sport and physical activity are not defined but mentions are made of marathons, fun runs, open water swims, strength training, sprint distance triathlons, cycling and skiing as well as risks of coronary heart disease (CHD), stroke, type 2 diabetes, breast and colon cancers, depression and falls	Population Attributable Risk (PAR) is calculated by looking at the prevalence of inactivity among Australian adults and the relative risk of the seven medical conditions, particularly dividing the rate of the disease among inactive people by the rate of disease among active people, and thus measuring the increased risk of suffering from one of the conditions for physically inactive people in comparison to physically active people	The research revealed 17% of the total health cost of treating these seven conditions can be attributed to physical inactivity amongst Australian adults 2 – equating to $1.5 billion in direct healthcare costs – broken down into direct costs of $831.4 million and indirect costs of $668.6 million, noting that the former refers to direct health expenditure, in the public and private sectors, for the prevention, diagnosis and treatment of medical conditions attributable to physical inactivity whilst the latter refers to the expenses associated with participation in physical activity including sports injuries and fitness-related expenses

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
Emsi Economic Modeling - “Not Just a Game: The Impact of Sports on US Economy”	2013	USA	There isn’t a ready-made sports sector, it has to be constructed from 15 industries (NAICS) that capture the majority of sports jobs (e.g. athletes and sports competitors, coaches and scouts, umpires and referees, entertainers and performers, gaming- and sports-book writers and runners, agents and business managers, and all other related workers	A web-based labour market analysis tool (based on Input-Output Analysis) is used starting with the number of sports jobs contained by each industry to determine the effect on earnings in terms of initial, direct and indirect (using job multipliers)	The American sports sector accounts for 371,816 initial jobs, 55,348 direct jobs and 27,382 indirect jobs as well as $10,284,591,093 initial earnings, $2,582,253,327 direct earnings and $1,395,994,375 indirect earnings thus for a total impact of $14.3 billion

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
European Commission - "Study on the Contribution of Sport to Economic Growth and Employment in the EU"	2012	EU	The sport economy as a whole is not a separate statistically measured sector but is part of various other industries and economic sectors such as goods and services conditional on doing sport (e.g. veterinarian, dietary supplements, sport bets, health services, sport tourism, TV broadcasts), doing sport according to the statistical definition (e.g. stadiums, swimming pools and professional sports) and goods and services necessary to do sport (e.g. racing horses, sport shoes and clothes, sport weapons, school education, sport cars and motorbikes, fitness centres, watches and clocks, sailing equipment, and dancing schools)	Specialised Input-Output Tables were developed called a "sport satellite account system" to measure (in a consistent form) all direct and indirect economic effects (gross domestic production, value-added and employment) due to any sport-related activity including multiplier effects, changes in the capital stock and income effects	Sport-related Gross Value Added (GVA) or direct effects amounted to 112.18 bn Euro according to the narrow definition, 28.16 bn Euro for the statistical definition of sport and 173.86 bn Euro with respect to the broad definition, and thus combining this with its multiplier or indirect and induced effects added up to 2.98% or 294.36 bn Euro of overall GVA in the EU

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
Frontier Economics - "The economic contribution of sport to Australia"	2010	Australia	Sport in Australia consists of a range of inter-related activities, ranging from those organised at the community level to those involving elite sportspeople at the national and international levels	Social utility approach taken accounting for both private goods (e.g. increased consumption, production, GDP and productivity as well as decreased health costs and increased physical activity) and public goods (e.g. social cohesion, success at elite level and volunteers)	Health costs could be reduced, in gross terms, by $1.49 billion per year and that productivity gains by making the workforce healthier through increased physical activity could be as much as 1% of GDP (or $12 billion) per year, along with labour input of volunteers being valued at around $4 billion

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
National Bureau of Economic Research - “The Olympic Effect”	2009	World	The economic benefits from international trade of hosting and bidding for “mega-events” such as the Olympic Games or the World Cup	Econometric modelling employing a “gravity” model of international trade, subject to sensitivity analysis and robustness checks, and supported by a literature review	There is a large economic benefit associated with mega-events (justifying the public’s enthusiasm), despite the fact that much of the requisite new infrastructure is a net cost (explaining the skepticism of economists) driven by the host country having exports some 30% higher (ceteris paribus) noting that one study showed that the city of Atlanta and the state of Georgia spent $1.58 billion on the 1996 Olympics which created 24,742 permanent jobs under the most optimistic scenario or $63,860 per job

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
National Bureau of Economic Research - "The Business of Sports: Where's the Money?"	2002	USA	Sports industry decomposed in three ways 1) fans and participants 2) entertainment, advertising and products/services 3) sports medicine, participation fees, admissions, pari-mutuel, concessions, publications, advertising, sports equipment and footwear	As well as industry-wide statistics on GDP, amateur participation was examined as well as the revenues (e.g. gate receipts, media rights, venue revenues and miscellaneous) and expenses (e.g. player salaries and the rest) of the Big 4 professional sports	The Sports industry is the 11th largest of 25 industries, reflecting around $152 billion of output or just over 2% of GDP
PKF Corporate Advisory - "The Value of Sport to Queensland"	2012	Queensland	Queenslanders with a direct or indirect job in a sport-related occupation, participation rates in sport and recreation as well as volunteers, social cohesion and elite sport satisfaction	Based upon existing research into the value of sport, this report seeks to provide a qualitative and quantitative assessment of the value of sport to Queensland in terms of the economic, productivity, health and civic benefits as well as the benefits of elite sport	Sports total contribution to Queensland's GSP is $7.9 billion pa, total health benefits due to physical activity are $775 million pa, and productivity benefits and costs due to physical activity and inactivity are $1.6 and $1.9 billion pa respectively as well as the cost to replace Queensland's volunteers in sport is $866 million pa, criminal and social justice benefits of sport are $177 million pa, and the value of elite sport to Queensland is $944 million pa

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
Productivity Commission - “Productivity Update”	2016	Australia	Arts and recreation services productivity is a subset of this analysis of Australia's productivity performance based on the latest Australian Bureau of Statistics (ABS) annual estimates of multifactor productivity (MFP) and labour productivity (LP) growth for both the 12 industry market sector as a whole and for each of its 12 individual industries	Productivity growth is a key source of long-term economic growth, business competitiveness and real per capita income growth, noting that 1) productivity is defined as the ratio of output produced to inputs used 2) LP is defined as the output produced per unit of labour input 3) MFP is defined as the output produced per unit of combined inputs of labour and capital	Arts and recreation services accounted for 1.0% of industry gross value added (IGVA) for the 12-industry market sector (which in turn accounted for 64.2% of total IGVA) with MFP growth in arts and recreation services being negative (-0.5%) over the whole period (1989-90 to 2014-15)
Productivity Commission - “Gambling Inquiry”	2010	Australia	Sports betting or wagering is a subset of the overall Australian legal gambling industry that also includes electronic gaming machines (EGMs), lotteries, keno, table games and race wagering (thoroughbred, harness and greyhounds)	Gambling consumption expenditure is measured as the net losses of gamblers or the gross profits of gambling operators (prior to fees and taxes)	Around $19 billion was spent by Australian consumers on gambling products in 2008-09 or 3.1% of household consumption expenditure, with sports betting accounting for $0.2 billion or 1% but noting the explosive growth of sports betting from less than $25 million in the mid-1990s to over $170 million by the mid-2000s

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
Productivity Commission - “Assistance to Tourism: Exploratory Estimates”	2005	Australia	Definitions of tourism are generally based on one particular type of consumer - the ‘tourist’ – who purchases a range of products, including transport, accommodation, food, clothing, and cultural, leisure and entertainment services, thus, the production consumed by tourists comprises all or part of the output of many different industries as defined in ANZSIC	The Australian tourism industry mainly gets government assistance from tourism promotion agencies, although up to 11% of multi-purpose outlays are for heritage, the arts, cultural institutions, national parks, recreational services, sporting events and stadiums, and this industry nowadays has Tourism Satellite Account (TSA) seeking to 1) identify the goods and services consumed by tourists 2) estimate the value that Australian producers add in supplying these products 3) calculate the share of GDP and employment associated with this activity	Overall visitor-related gross value added and gross product in 2001-02 was $25,229 million, with sport-related values forming some part (perhaps not large) of such categories as 1) clubs, pubs, taverns and bars of $1,279 million 2) other retail trade of $2,145 million 3) casinos and other gambling services of $173 million 4) other entertainment services of $693 million 5) travel and transport of $9,410 million 6) food and beverage of $3,776 million

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
Productivity Commission - “Broadcasting Inquiry”	2000	Australia	Professional and amateur sport broadcasting is a subset of the overall Australian radio and television broadcasting industry including national, commercial, community and subscription broadcasting as well as narrowcasting and datacasting	A chapter of the final report is devoted to television broadcasting of sport including an overview, relationship between broadcasting and sport, sport and media mergers, exclusive rights, barriers to entry, conversion to digital television, anti-siphoning provisions and migration between free-to-air and subscription	The 20 most watched sports, listed in order of highest-to-lowest popularity, were at that time cricket, Australian rules football, tennis, motor car racing, rugby league, soccer, swimming, golf, basketball, motorcycle racing, gymnastics, rugby union, athletics, iron/ocean man, ice skating, snow skiing, surfing, horse racing, netball and board diving, noting that 1) television program production was valued at $1,140 million in 1996-97 2) advertisement production valued at $234 million in 1996-97 3) commercial television licences valued at over $3 billion in 1997-98
Queensland Fitness, Sport and Recreation, Skills Alliance - “Queensland Fitness, Sport and Recreation Industry Skills and Workforce Development Report”	2013	Queensland	Key occupations by sector in Queensland include sport, fitness, outdoor recreation, community recreation and volunteers	Extensive industry engagement process with a range of industry, community and government stakeholders including an online survey and a conference as well as targeted meetings and workshops	$7.9 billion contribution of sport (or 3% of GSP) to the Queensland economy through direct and indirect economic activity, along with 97,633 direct and indirect jobs created by sport (11,763 direct)

Bibliography	*Period*	*Location*	*Scope*	*Method/s*	*Number/s*
Synergies Economic Consulting - "Measuring the contribution of the Outdoor Recreation Sector in Queensland"	2012	Queensland	Outdoor recreation incorporates non-competitive activities conducted outside buildings in the natural environment, on 'simulated' surfaces or in purpose-built facilities, but typically excludes organised competitions with formal rules yet includes the competitive aspects of some activities, especially those dependent on the natural environment	Total economic value is derived using a 'building blocks' approach using direct and indirect values as well as the summation of activities and a satellite account, noting that a key determinant of the methodology is the available data	The proportion of Gross State Product (GSP) accounted for by the Outdoor Recreation sector is $8.8 billion, i.e. 3.5% of GSP, broken down into the total value of demand from outdoor recreation for 10 industries

Source: Various sources found via Adept Economics research, 2019.

Appendix 2. ABS 2016 Census estimates of employment in sport and active recreation-related 4-digit ANZSIC industries

Industry	*Employed, worked full-time*	*Employed, worked part-time*	*Employed, away from work*	*Employed (headcount)*	*FTEs*
Sports & Physical Recreation Instruction	1,705	3,372	250	5,327	3,558.0
Health & Fitness Centres & Gymnasia Operation	1,489	2,402	118	4,009	2,771.6
Sport & Camping Equipment Retailing	2,100	1,506	124	3,730	2,951.1
Sports & Physical Recreation Venues, Grounds & Facilities Operation	1,452	1,855	187	3,494	2,514.1
Sports & Physical Recreation Clubs & Sports Professionals	1,336	1,668	136	3,140	2,268.2
Nature Reserves & Conservation Parks Operation	1,385	413	122	1,920	1,699.5
Sports & Physical Recreation Administrative Service	639	434	48	1,121	894.3
Zoological & Botanical Gardens Operation	399	255	32	686	552.3
Sports & Physical Recreation Activities, nfd	257	235	23	515	392.0
Sports & Recreation Activities, nfd	227	202	25	454	347.1
Toy & Sporting Goods Wholesaling	309	102	12	423	370.5
Toy, Sporting & Recreational Product Manufacturing	221	98	9	328	277.6
Parks & Gardens Operations, nfd	33	23	0	56	44.5
Total	**11,552**	**12,565**	**1,086**	**25,203**	**18,640.8**

Source: ABS Census of Population and Housing data accessed via ABS Table Builder and Adept Economics, 2019.

Appendix 3. Major Queensland sporting & active recreation events

Table A3. Major Queensland sporting and active recreation events

Organisation	*Type*	*Frequency*	*Location/s*	*Date/s*	*Number/s*
A-League	Football (Professional Men)	Annual Season (Brisbane Roar)	Brisbane (Suncorp Stadium)	October to April	Queensland attendance for all "Soccer (outdoor)" in 2009-10 was 144,700 persons
Australian Baseball League (ABL)	Baseball (Professional Men)	Annual Season (Brisbane Bandits)	Brisbane (Wild Moose Stadium)	November to January	NA
Australian Football League (AFL)	Football (Professional Men)	Annual Season (Brisbane Lions & Gold Coast Suns)	Brisbane (Gabba) & Gold Coast (Metricon Stadium)	March to September	Queensland attendance for all "Australian Rules football" in 2009-10 was 212,700 persons
Australian Football League Women's (AFLW)	Football (Professional Women)	Annual Season (Brisbane Lions)	Brisbane (Moreton Bay Central Sports Complex)	February to March	Queensland attendance for all "Australian Rules football" in 2009-10 was 212,700 persons
Australian Ladies Professional Golf (ALPG)	Golf (Professional Women)	Annual Tour (Aveo Brisbane Invitational 2019)	Brisbane (McLeod Country Golf Club)	March	NA
Australian Rugby Union (ARU)	Football (Professional Men)	Annual Matches (Australian Wallabies & Sevens)	Brisbane (Suncorp Stadium)	Winter (plus Late Autumn & Early Spring)	Queensland attendance for all "Rugby union" in 2009-10 was 139,600 persons

Organisation	*Type*	*Frequency*	*Location/s*	*Date/s*	*Number/s*
Big Bash League (BBL)	Cricket (Professional Men)	Annual Season (Brisbane Heat)	Brisbane (Gabba & Carrara Oval)	December to February	Queensland attendance for all "Cricket (outdoor)" in 2009-10 was 77,400 persons
Brisbane International	Tennis (Professional Men & Women)	Annual Tournament	Brisbane (Queensland Tennis Centre)	December to January	Queensland attendance for all "Tennis (indoor and outdoor)" in 2009-10 was 27,900 persons
Cricket Australia	Cricket (Professional Men & Women)	Annual Matches (International & Interstate Tests, One-Days & Twenty-20s)	Brisbane (Gabba)	Summer	Queensland attendance for all "Cricket (outdoor)" in 2009-10 was 77,400 persons
Cycling Australia	Athletics (Professional Men & Women)	Annual Meet (Six Day Brisbane)	Brisbane (Anna Meares Velodrome)	April	NA
Football Australia (FA)	Football (Professional Men & Women)	Annual Matches (Australian Socceroos & Matildas)	Brisbane (Suncorp Stadium)	Winter (plus Late Autumn & Early Spring)	Queensland attendance for all "Soccer (outdoor)" in 2009-10 was 144,700 persons
IndyCar Series	Motor Racing (Professional Men)	Annual Race (Gold Coast 300)	Gold Coast (Streets)	1991 to 2008 (Possible return from 2020)	Queensland attendance for all "Motorsports" in 2009-10 was 353,400 persons

Organisation	*Type*	*Frequency*	*Location/s*	*Date/s*	*Number/s*
International Association of Athletics Federations (IAAF)	Athletics / Endurance (Pro-Am Men & Women Individual)	Annual Meet (Gold Coast Marathon)	Gold Coast (Southport)	July	NA
National Basketball League (NBL)	Basketball (Professional Men)	Annual Season (Brisbane Bullets & Cairns Taipans)	Brisbane (Entert. Centre) & Cairns (Conven. Centre)	October to February	Queensland attendance for all "Basketball (indoor and outdoor)" in 2009-10 was 32,600 persons
National Rugby League (NRL)	Football (Professional Men)	Annual Season (Brisbane Broncos, Gold Coast Titans & North Queensland Cowboys)	Brisbane (Suncorp), Gold Coast (Cbus Super) & Townsville (1300Smiles)	March to September	Queensland attendance for all "Rugby league" in 2009-10 was 598,000 persons
Netball Australia	Netball (Professional Women)	Annual Matches (Australian Diamonds)	Brisbane (State Netball Centre)	Year Around	Queensland attendance for all "Netball (indoor and outdoor)" in 2009-10 was 19,000 persons

Organisation	*Type*	*Frequency*	*Location/s*	*Date/s*	*Number/s*
Queensland Triathlons	Athletics / Endurance (Pro-Am Men & Women Individual)	Annual Events (Waste Hell of the West Triathlon, Mooloolaba Triathlon Festival, Yungaburra Triathlon, Townsville Triathlon Festival & Ironman Sunshine Coast)	Multiple (Goondiwindi, Sunshine Coast, Yungaburra, Townsville & Sunshine Coast)	February, March, April, August & September	NA
Professional Golfers Association (PGA) Australia	Golf (Professional Men)	Annual Tour (Queensland PGA Championship & Australian PGA Championship)	Toowoomba (City Golf Club) & Gold Coast (Royal Pines Resort)	February & November to December	NA
Rugby League International Federation (RLIF)	Football (Professional Men)	Annual Matches (Australian Kangaroos)	Brisbane (Suncorp)	Winter (plus Late Autumn & Early Spring)	Queensland attendance for all "Rugby league" in 2009-10 was 598,000 persons
Super Netball	Netball (Professional Women)	Annual Season (Queensland Firebirds)	Brisbane (State Netball Centre)	April to September	Queensland attendance for all "Netball (indoor and outdoor)" in 2009-10 was 19,000 persons
Super Rugby	Football (Professional Men)	Annual Season (Queensland Reds)	Brisbane (Suncorp)	February to July	Queensland attendance for all "Rugby union" in 2009-10 was 139,600 persons

Organisation	*Type*	*Frequency*	*Location/s*	*Date/s*	*Number/s*
Supercars Championship	Motor Racing (Professional Men)	Bi-Annual Races (Watpac Townsville 400, Ipswich SuperSprint & Vodafone Gold Coast 600)	Townsville (Streets), Ipswich (Queensland Raceway) & Gold Coast (Streets)	July & October	Queensland attendance for all "Motorsports" in 2009-10 was 353,400 persons
Surf Life Saving Australia (SLSA)	Athletics / Endurance (Pro-Am Men & Women Individual & Team)	Annual Meets (Australian Championships & Coolangatta Gold)	Gold Coast (Broadbeach & Coolangatta Beach)	March to April & October	NA
Surfing Australia	Athletics (Professional Men & Women)	Multi-Annual	Multiple	Summer	NA
Swimming Australia	Athletics (Professional Men & Women)	Annual Meet (Australian Swimming Trials)	Brisbane (Brisbane Aquatic Centre)	June	NA
Tough Mudder	Athletics / Endurance (Amateur Men & Women Individual)	Annual Event	SE Queensland (Woodford)	May	NA
W-League	Football (Professional Women)	Annual Season (Brisbane Roar)	Brisbane (Suncorp)	October to February	Queensland attendance for all "Soccer (outdoor)" in 2009-10 was 144,700 persons

Source: Various sources found via Adept Economics research, 2019.

About the author

Gene Tunny is the Founder and Director of Adept Economics, a Brisbane-based consultancy which specialises in economic modelling and cost-benefit analysis. He is a former Australian Treasury official with experience in domestic and international issues.

In recent years, Gene has been a course leader and expert presenter for several short courses delivered by the University of Queensland's International Development unit. These courses have covered topics such as cost-benefit analysis and natural resource economics for officials from Indonesia's Ministries of Finance and Economic Planning.

In his consulting practice, Gene regularly consults with a range of private and public sector clients, including Commonwealth and state government agencies, including most recently the Asbestos Safety and Eradication Agency (Commonwealth) and the Office of Industrial Relations (Queensland Government). Other recent clients have included VicHealth, Resource Industry Network, the Beenleigh Housing Development Company, and Urban Turf Solutions.

Gene is a regular public speaker and participant in panel discussions. He has spoken at conferences organised by CPA Australia and the Western Australia Local Government Association, among others. Gene is the author of the blog *Queensland Economy Watch*, and appears frequently in state and national media commenting on economic issues.

Gene has a first class honours degree in economics from the University of Queensland and was a University Medallist.