SPÓRT ÉIREANN
SPORT IRELAND

Sheffield Hallam University | Sport Industry Research Centre

Researching the Value of Sport in Ireland

14th June 2021

THE VALUE OF SPORT IN IRELAND

CONSUMER EXPENDITURE

€3.3bn
Spent by people in Ireland on sport-related goods and services in 2018.

Sport made up **3.1%** of all consumer expenditure in Ireland in 2018 (up from 2% in 2008).

The sport economy has grown faster than the economy as a whole over the last 10 years.

GROSS VALUE ADDED

€3.7bn
(GVA) Total value of sport to the Irish economy in 2018.

The sport economy is driven by the participation elements of sport.

Sport's economic contribution was **1.4%** of total GVA in 2018 (up from 1.1% in 2008).

A small change in participation rates would have a strong **positive impact** on the economy.

Any investment aiming to increase sport participation is likely to be **self-financing**.

EMPLOYMENT

64,080
people were employed in sport in Ireland in 2018.

Sport-related jobs account for 2.8% of all Irish employment, up from 2.1% in 2008.

VOLUNTEERING

€1.5bn
Estimated economic value of volunteering in sport and physical activity in Ireland in 2018.

HEALTH

97,000
Cases of disease in Ireland in 2019 were prevented by participation in sport and physical activity.

The net value of health care and wider costs savings achieved was €0.4bn in 2019.

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The National Sports Policy 2018-2027 has identified the need to gain a deeper understanding of the value of sport in Ireland and the returns that Government investment in sport provides across relevant policy areas such as physical and mental health, education, community development, economic activity, tourism, crime, sport club membership, volunteering, etc. Against this national backdrop, Sport Ireland commissioned Sheffield Hallam University's Sport Industry Research Centre (SIRC) to conduct a programme of research for assessing the value of sport in Ireland. There are two main parts to this research.

- Part 1 provides fresh estimates of the **economic impact** of sport in Ireland. It also provides an economic valuation of sport volunteering in Ireland.
- Part 2 is concerned with valuing the **health impact** of participation in sport and physical activity in Ireland.

Economic impact of sport

The economic impact of sport in Ireland was measured using the National Income Accounting (NIA) methodology. The NIA methodology enables the sport economy to be disaggregated into seven sectors: consumers; commercial sport; commercial non-sport; community/non-profit sports sector; local government; central government; and, international trade. The income and expenditure accounts for these sectors are used to derive three key economic indicators: **consumer expenditure on sport; sport-related Gross Value Added (GVA); and, sport-related employment**.

The economic impact estimates in this report relate to the year 2018 and update previous research conducted using a similar methodology for the year 2008. The headline economic impact figures for 2018 alongside the corresponding statistics from 2008 are presented in the table overleaf.

Consumer expenditure

Consumer expenditure on sport-related goods and services in Ireland in 2018 was €3,341.6m, or 3.1% of total consumers' expenditure. Since 2008, sport-related expenditure has grown both in absolute terms and as a percentage of the Irish overall consumer spending. The latter increased from 2.0% in 2008 to 3.1% in 2018.

A large part of consumer spending on sport is directed towards participation. For example, the biggest spending categories are 'subscription to sport clubs' (€622.9m), followed by 'sport clothing and footwear' (€568.8m), 'subscriptions to fitness and dance' (€490.9m) 'admissions related to participation' (€427.2m), and 'sport goods and bicycles' (€345.2m).

GVA

Sport-related value added to the Irish economy in 2018 was €3,671.8m, or 1.4% of total output in Ireland. Sport-related economic activity has grown from €1,830.3 (1.1%) of Irish GVA in 2008. As in the case of consumer expenditure, this represents a growth in both absolute terms and as a percentage of the whole economy.

Employment

Employment in sport was 64,080 in 2018, or 2.8% of all employment in Ireland. Sport-related employment has grown from the original position of 2.1% of Irish employment in 2008. This represents a growth in absolute and percentage terms. The sport share in employment (2.8%) is greater than the sport-related share in GVA (1.4%). This is consistent with the European experience, showing that sport is an effective policy tool for generating employment. This is likely to be particularly effective during periods of recession.

The largest sector of sport-related employment in 2018 was the community sector, supporting 20,690 jobs or 32% of all sport-related employment in Ireland. The commercial sport, commercial non-sport and public sectors support 24%, 23% and 21% of Ireland's sport-related jobs respectively.

Sport-related economic indicators for Ireland

	2008	2018
Consumer expenditure on sport (€million)	**1,885.6**	**3,341.6**
Total consumer expenditure in Ireland (€million)	93,863	106,977
Percentage of Ireland's total consumer expenditure	2.0%	3.1%
Sport-related GVA (€million)	**1,830.3**	**3,671.8**
Total GNP in Ireland (€million)	160,903	256,322
Percentage of Ireland total GVA	1.1%	1.4%
Sport-related employment (000s)	**38.22**	**64.08**
Total employment in Ireland (000s)	1,803	2,255
Percentage of Ireland total employment figures	2.1%	2.8%

Economic value of volunteering

Volunteering represents both a non-financial input to support sport and physical activity and an outcome in terms of the non-market value generated for sports organisations using volunteers. The economic value of sport volunteering in Ireland in 2018 is estimated at €1.5 billion, which represents a substantial increase from 2008 (€0.3-€0.6 billion).

Health impact of sport

It is estimated that over 97,000 cases of disease were prevented in Ireland in 2019 from sport and physical activity participation, which is equivalent to nearly €0.5 billion in health care and wider costs savings. The notional cost of sports injuries was estimated to be around €93 million and therefore the net gain in health was worth closer to €0.4 billion. It is projected that the value of the health benefits can increase even further to more than €0.5 billion if the proportion of Irish adults undertaking the recommended level of activity increases from 34% to 45%.

Sport and physical activity has a measurable impact on the physical and mental health of participants in Ireland who achieve the National Physical Activity Guidelines (150+ minutes per week).

Beyond these monetised estimates, there is emerging scientific evidence that highlights the health benefits associated with being physically active during the Covid-19 pandemic. While it has not been possible to value these health benefits in the same way as non-communicable diseases, they provide further evidence of the importance of promoting regular physical activity among the general population and incorporating it into routine medical care to mitigate the impact of pandemics.

The headline estimates for the physical and mental health impacts of sport and physical activity in Ireland in 2019 are summarised in the table below.

Health impact summary for Ireland

Condition	Cases Prevented	Cost savings (€m)
CHD/stroke	9,429	105.98
Breast cancer	213	13.46
Colon cancer	116	7.34
Type 2 diabetes	22,306	122.25
Hip fractures	776	12.91
Back pain	32,133	8.44
Physical Health Total	**64,973**	**270.38**
Dementia	5,342	97.72
Depression	26,996	130.25
Mental Health Total	**32,338**	**227.97**
OVERALL	**97,311**	**498.35**
Less: Sports injuries		*(93.07)*
NET VALUE		**405.28**

Conclusion

The results of this research demonstrate the importance of sport and physical activity to the Irish economy. This report shows that sport and physical activity generated significant consumer expenditure, GVA and employment for Ireland in 2018. The importance of these indicators has increased in real terms since 2008. Furthermore, sport-related employment has grown at a faster rate than overall employment growth in Ireland, and, since 2008, at a faster rate than sport GVA, underlining the role of sport and physical activity in generating and sustaining jobs and output. This report also demonstrates that sport and physical activity has a measurable and substantial impact on the physical and mental health of participants in Ireland who achieve the National Physical Activity Guidelines (150+ minutes per week). The health benefits provide further evidence of the importance of promoting regular physical activity among the general population and incorporating it into routine medical care to mitigate the impact of pandemics.

1 INTRODUCTION

The *National Sports Policy 2018-2027*[1] has identified the need to gain a deeper understanding of the value of sport in Ireland and the returns that Government investment in sport provides across relevant policy areas such as physical and mental health, education, community development, economic activity, tourism, crime, sport club membership, volunteering, etc. Against this national backdrop, Sport Ireland commissioned Sheffield Hallam University's Sport Industry Research Centre (SIRC) to conduct a programme of research for assessing the value of sport in Ireland. There are two main parts to this research.

- Part 1 provides fresh estimates of the **economic impact** of sport in Ireland using the National Income Accounting (NIA) methodology. It also provides an economic valuation of sport volunteering in Ireland.
- Part 2 is concerned with valuing the **health impact** of participation in sport and physical activity in Ireland.

The SIRC team and the authors of this report have a proven track record in devising approaches to measure the value of sport in relation its economic, health and broader outcomes. SIRC provided the methodological framework and data analysis skills in the first examination of the economic value of sport in Ireland (2010). We have conducted similar research in the UK for bodies such as the Department for Digital, Culture, Media and Sport (DCMS); UK Sport, Sport England, Sport Wales and Sport Northern Ireland and internationally for countries such as Lithuania, Belgium, Malaysia, Japan, Australia and Turkey. SIRC has been at the heart of the two European Sport Satellite Accounts commissioned by the European Commission in 2012 and 2018. Moreover, SIRC staff are experienced in undertaking wider assessments of the value of sport using Social Return on Investment (SROI) analysis.

[1] https://assets.gov.ie/15979/04e0f52cee5f47ee9c01003cf559e98d.pdf

OVERVIEW OF SPORT IN IRELAND 2

Sport Ireland is the statutory agency responsible for the promotion and development of sport in Ireland. This includes participation in sport, high performance sport, anti-doping, coaching and the development of the Sport Ireland Campus. Sport Ireland works with 66 National Governing Bodies of sport (NGBs), their clubs and their 400,000 volunteer coaches and administrators to develop an effective sports structure. These NGBs, clubs and volunteers are the cornerstone of sport in Ireland. Sport Ireland also works with community sport providers, primarily via its network of 29 Local Sports Partnerships (LSPs). The LSP network is also central to the provision of sport in Ireland. In 2019, over half a million people from communities across Ireland took part in sport and physical activity opportunities organised by LSPs. The private/commercial sector and professional coaches have an increasing role in some aspects of sport provision. Sport Ireland has a long standing collaboration with Sport Northern Ireland to build a healthy all-island sports system.

Ireland has adopted, and adapted, the Council of Europe's definition[2] where "sport means all forms of physical activity which, through casual or organised participation, aims at expressing or improving physical fitness and mental wellbeing, forming social relationships or obtaining results in competition at all levels." The adaptation has resulted in two separate strands, namely 'recreational sport' and 'competitive sport', which are defined in the Sport Ireland Act 2015[3] as follows:

- 'recreational sport' means "all forms of physical activity which, through casual or regular participation, aim at — (a) expressing or improving physical fitness and mental wellbeing, and (b) forming social relationships;"
- 'competitive sport' means "all forms of physical activity which, through organised participation, aim at — (a) expressing or improving physical fitness, and (b) obtaining improved results in competition at all levels".

The main survey used to monitor sport and physical activity in Ireland is the Irish Sports Monitor (ISM). The ISM is a representative survey of the Irish population aged 16 and over. It asks respondents about their activity over the past seven days in terms of sport, recreational walking, and walking or cycling for transport. They are also asked about membership of clubs, attendance at sporting events and any volunteering roles that they may be involved in. Table 2.1 presents the data for the different types of engagement with sport and physical activity in Ireland from the 2019 wave of the ISM and compares them with the 2008 wave.

Table 2.1: Sport and physical activity in Ireland 2008 v 2019

Type of engagement	2008[4]	2019[5]	Change
Playing sport regularly	31%	46%	+15%
Recreational walking	58%	66%	+8%
Walking for transport	50%	45%	-5%
Cycling for transport	14%	10%	-4%
Regular volunteering for sport	8%	12%	+4%
Club membership	32%	36%	+4%
Attending a sports event	15%	19%	+4%

Some 46% of the population aged 16+ regularly participated in sport in 2019 (equivalent to 1.7 million people), an increase from 31% in 2008. In addition to sport, 66% regularly walked for recreation, 45% walked for transport and 10% cycled for transport. The proportion of recreational walkers has increased by around 8 percentage points since 2008 whereas walking/cycling for transport has declined. As with active sports participation, the percentage of people engaging in a social form of sports participation (attending sporting events, club membership or volunteering) also grew between 2008 and 2019.

[2] https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016804c9dbb
[3] https://www.oireachtas.ie/en/bills/bill/2014/85/
[4] https://www.esri.ie/system/files/media/file-uploads/2015-07/BKMNEXT155.pdf
[5] https://www.sportireland.ie/sites/default/files/media/document/2020-09/irish-sports-monitor-2019-report-lower-res.pdf

Table 2.2 shows how the most popular forms of sporting activity in Ireland have changed over time. Increased participation in personal exercise (which primarily consists of gym-based activities) is the key factor driving increased activity levels overall. Participation in this activity increased from 6% in 2008 to 16% in 2019. Participation in running/jogging (+4 percentage points), swimming (+3 percentage points), cycling (+2 percentage points) and dance (+2 percentage points) also increased. By contrast, golf (-3 percentage points) and soccer (-2 percentage points) participation declined. There is a movement towards individual sports with a relative reduction in participation in team-based sports.

Table 2.2: Most popular sporting activities in Ireland 2008 v 2019

2008 [6]		2019 [7]	
Activity	**%**	**Activity**	**%**
Swimming	6	Personal exercise	16
Personal exercise	6	Swimming	9
Soccer	5	Running	7
Golf	5	Cycling	4
Jogging	3	Soccer	3
Gaelic Football	2	Yoga	3
Cycling	2	Dancing	3
Hurling	2	Golf	2
Rugby	2	Gaelic football	2
Dancing	1	Weights	2

The most comprehensive information in relation to physical activity behaviours in school-going children in Ireland is available from and the Children's Sport Participation and Physical Activity (CSPPA) study. The CSPPA 2018 was a follow up to CSPPA 2010 looking at participation in sport, physical activity and physical education among children aged 10 to 18 on the island of Ireland. The headline findings for the Republic of Ireland are summarised below.

- 13% of children met the National Physical Activity Guidelines of at least 60 minutes of moderate-to-vigorous physical activity every day (17% primary school pupils and 10% post primary school pupils). These figures are lower than the 19% and 12% recorded in primary and post primary schools respectively in 2010.
- 80% of primary and 58% of post primary school pupils participated in community sport at least once a week compared to 79% and 64% respectively in 2010.
- 70% of primary and 63% of post primary school pupils participated in school sport at least once a week. This represented an increase of 7% for primary school pupils but a decrease of 10% for post primary school pupils since 2010.
- 18% of primary pupils reported receiving 30 minutes or less of Physical Education per week in 2018 compared to 22% in 2010. 23% of post primary pupils reported meeting the Department of Education and Skills' (DES) Physical Education recommended minimum of 120 minutes per week in post primary. Compared to 2010, these figures represent an increase at post primary school level from 10%.
- 4 in 10 pupils actively commute to school. In the case of primary school pupils, this represents a significant improvement on the 3 in 10 who did so in 2010.

[6] https://www.esri.ie/system/files/media/file-uploads/2015-07/BKMNEXT155.pdf
[7] https://www.sportireland.ie/sites/default/files/media/document/2020-09/irish-sports-monitor-2019-report-lower-res.pdf

POLICY CONTEXT

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The National Sports Policy (NSP) published by the Department of Transport, Tourism and Sport in 2018 sets out the public policy framework for the development of sport and physical activity in Ireland and is underpinned by the following vision for Irish sport in 2027 (p. 18):

> *People will be inspired, their lives enriched, their enjoyment enhanced, and their quality of life improved as a result of their own active or social participation in sport, and as a result of success by our top sports people in competition. All entities in our sporting community will be highly regarded for the quality of their staff and volunteers, their standards of governance, ethics and accountability, and their spirit of collaboration including with partners beyond the sporting sector.*

The NSP identifies 57 actions seeking to achieve its three stated high level goals of '*Increased Participation*'; '*More Excellence*'; and, '*Improved Capacity*'. The '*Increased Participation*' goal of the NSP calls for a significantly higher proportion of Irish children and adults from all sectors of society to be regularly involved in all forms of active and social participation in sport. The key performance indicators linked to this goal and associated targets for 2027 are outlined below.

1. Increased number of adults regularly playing sport (excluding recreational walking) to 60%.
2. Elimination of active sport participation gradient between men and women to 0%.
3. Reduced levels of adult sedentarism (not engaging regularly in either sport or recreational walking) to 15%.
4. Increased number of children regularly playing sport (target to be agreed).
5. Increased number of adults regularly involved socially in sport through volunteering, club membership and/or attendance to 55%.

This research contributes to the actions 35 and 37 set out in the NSP:

> No. 35: Sport Ireland will develop a research strategy for sport engaging with all key organisations operating within the sector. The strategy should help to create more formal and structured relationships between the practice, policy system and research communities to ensure that the limited resources available in all domains are prioritised towards developing a better understanding of the key policy questions around sport, thereby developing better solutions to the challenges we seek to address. We will ensure that research and evaluation information is more widely disseminated throughout the sports system. To this end, Sport Ireland will develop an online sports research and data repository.
>
> No. 37: In order to understand better the impact of Government investment in sport we will develop, in consultation with the representative sporting organisations, more coordinated information systems throughout the sector which will allow the Department, Sport Ireland, NGBs, Local Authorities and LSPs the opportunity to understand fully the impact of their investments.

There is analytical and strategic consistency between the NSP and *Sport Ireland's Statement of Strategy 2018 to 2022*[8]. The Sport Ireland strategy document lists 16 objectives linked to the pillars of '*participation*' (objectives 1-4), '*performance*' (5-8), '*high performance*' (9-12) and '*governance*' (13-16). This research is aligned with objectives 2 and 15 of Sport Ireland's strategy:

> Objective 2: Promote the Value of Sport to include greater population awareness of the benefits of participation in sport through active and social participation, including volunteering.
>
> Objective 15: Expand the Research & Evaluation Programmes as a vital resource in the progressive development of sport and physical activity.

[8] https://www.sportireland.ie/sites/default/files/2019-10/sport-ireland-statement-of-strategy-2018-2022_0.pdf

The *Sport Ireland Participation Plan 2021-2024*[9] identifies how Sport Ireland will deliver on the ambition of both the new Sport Ireland Strategy and the NSP. It also takes into consideration *Healthy Ireland 2013-2025*[10] – the national framework to improve the health and wellbeing of people living in Ireland – as well as *The National Physical Activity Plan for Ireland*[11]. The overarching target of National Physical Activity Plan is to: *increase the proportion of the population across each life stage undertaking regular physical activity by 1% per annum across the lifetime of Healthy Ireland* (p. 13). This Plan sets out eight thematic action areas and a set of 60 actions for encouraging greater participation in physical activity.

Part 2 of this research contributes to point 55 listed under the action area 7 theme of *'Research, Monitoring and Evaluation'*:

> Ref 55: Conduct research into the economic costs of inactivity in Ireland/benefits of investment in physical activity as a preventative strategy.

[9] https://www.sportireland.ie/sites/default/files/media/document/2021-05/plan_final_eng-000001.pdf
[10] https://www.gov.ie/en/publication/e8f9b1-healthy-ireland-framework-2019-2025/
[11] https://assets.gov.ie/7563/23f51643fd1d4ad7abf529e58c8d8041.pdf

ECONOMIC IMPACT OF SPORT IN IRELAND 4

4.1 Research overview and section structure

The research presented in this section explains the economic role and significance of sport and physical activity in Ireland in 2018. The research describes the key indicators for the economic impact of sport and physical activity in Ireland, which are: consumer spending, Gross Value Added (GVA); and employment. The sources of this economic impact are primarily the consumer sector, the community/non-profit sector, the public sector, and the commercial sector. The findings presented in this report identify the contribution of sport and physical activity to Ireland's economic development.

Previous studies have measured the value of sport in Ireland in a similar way, through consumer spending, GVA and employment. The first study to do this was the Indecon-SIRC report, which investigated the value of sport in Ireland in 2008[12]. A more recent report by Investec[13] also investigated these economic indicators, showing that the share of consumer expenditure on sport as a percentage of total consumer expenditure had increased since 2008. This report utilises the same methodology as the Indecon-SIRC report and will provide some comparative analysis with the 2008 results to illustrate the change in the importance of sport in the Irish economy over a span of ten years.

The economic impact section is structured as follows:

- Section 4.2 outlines the methodology;
- Section 4.3 presents the key indicators of GVA, employment, and consumer spending on the sport sector;
- Section 4.4 presents the key investment in sport during 2018 and the implication for government finance;
- Section 4.5 presents the main results of the community non-profit sector;
- Section 4.6 includes a monetary evaluation of sport volunteering; and,
- Section 4.7 compares economic significance of sport and physical activity in Ireland to other industrial sectors.
- Section 4.8 summarises the key findings.

Throughout the report 'sport' and 'sport economy' are used as overarching terms to include sport and physical activity. The core of the definition of the sport economy is consistent with the 2010 Indecon-SIRC report; where there are additional items under consideration, these are stated in the relevant sections of the report.

4.2 Methodology

The SIRC model of economic impact assessment uses economic variables from official statistics as its basic input. Hence, with the sole exception of the community/non-profit sector, there is no need for collection of primary data. The National Income Accounting (NIA) methodology provides the framework for this model, which is consistent with the Irish National Accounts.

National Income Accounting

The concepts of National Income Accounting were developed for macro-economic analysis in the 20th century. The basic principle is that there is accounting equality between total output, total income and total expenditure. The most common definitions of total output in the economy as a whole are the Gross Domestic Product (GDP) and Gross Value Added (GVA). For example, assume that the total output in a factory producing football boots is €100m. This is equivalent to the expenditure on wages (say €60m), flows to the companies selling inputs (€30m) required in the production and profits (say €10m). In this example, GVA is the sum of wages and profits. Further, total income will also be identical to total expenditure because output that is not sold in the current financial year is treated as investment expenditure.

[12] https://www.sportireland.ie/sites/default/files/2019-10/assessment-of-the-economic-impact-of-sport-in-ireland-2010_0.pdf
[13] https://www.irishsport.ie/wp-content/uploads/2019/10/Investec_ONLINE.pdf

The NIA methodology enables the sport economy to be disaggregated into seven sectors as outlined below.

- **Consumers**, includes the personal or household sector. This sector shows sport-related expenditure by households, e.g., spending on sports club membership, sporting equipment as well as sports clothing and footwear.
- **Commercial sport**, includes sport manufacturers and retailers. In this section, we include sport companies such as O'Neills; we also include the section of the media associated with sport TV, sport publications, and gyms under private ownership.
- **Commercial non-sport**, includes other suppliers involved in the production of sport-related goods and services. This sector includes commercial companies that do not provide a sport product, but which assist through the supply of inputs or revenue in its production. Examples include: a business sponsoring a team or club (including volunteer teams); the demand in raw materials generated by the construction projects of sport clubs; utility requirements; legal; financial; IT services; etc. In the case of sponsorship, the revenue received by the club represents a flow from the commercial non-sport sector to the community/non-profit sports sector below.
- **Community/non-profit sports sector**[14], includes sport organisations such as amateur sports clubs run by their participants, but also the wider club sector under the aegis of Sport Ireland. Government grants are a part of the income in this sector. Consumer expenditure items such as club membership become income in the community sector accounts. In this report any employment associated with the community sector is paid employment. It is true that this employment is supported by non-paid labour, however, the latter is not part of the economic analysis leading to GVA and employment. An estimate of the 'value' of non-paid labour is provided separately from the main indicators.
- **Local government**, includes income from sport facilities, sport-related grants from central government and rates from the commercial and community sector. The sector has expenses such as wages for labour (a flow towards consumers) and capital investment.
- **Central government**, includes taxes, grants and wages on sport-related activities. For example, buying a ticket for a football match is recorded as two flows: one towards the government sector as Value Added Tax (VAT), and another towards the commercial sport sector for the remainder of the price. Central Government includes the financing of sport education, including primary and secondary schools.
- **International trade sector**, includes all transactions with economies outside Ireland (e.g. inbound tourism).

We record income and expenditure flows between the seven sectors above. As a result, we can draw up a set of income and expenditure accounts for each sector. The 'double entry' accounting principle is applied, so every expenditure flow from sector A to sector B is also an income flow in the sector B accounts. To illustrate this point Figure 4.1 shows the broad nature of the interactions between the seven sectors of the sport economy.

Figure 4.1 Nature of income and expenditure flows in the sport economy - NIA framework

		INCOME TO						
		Consumer	Commercial sport	Commercial non-sport	Community sport	Local government	Central government	International trade
EXPENDITURE FROM	Consumer		Sport goods	Events travel	Admissions	Subscriptions	Taxes	Imports
	Commercial sport	Wages		Raw materials	Sponsorship	Rates	Taxes	Imports
	Commercial non-sport	Wages	Advertising		Sponsorship	Rates	Taxes	Imports
	Community sport	Wages	Equipment	Construction		Hire and rents	Taxes	Imports
	Local government	Wages	Equipment	Construction	Grants		Taxes	
	Central government	Wages		Capital spending	Grants	Transfers		
	International trade	Prize income	Admissions				Taxes	

[14] This is the equivalent of the 'voluntary sector' in the 2010 Indecon-SIRC report.

Taking the first line of Figure 4.1 as an example, Consumers spend money on:

- Commercial sport when they buy sport shoes;
- Commercial non-sport when they travel to sport events (e.g. on air tickets);
- Community sport, as admissions to events;
- Local government when they pay subscriptions to public sport facilities;
- Central government as taxes (from wages generated in the sport sector); and,
- International trade as imports.

Each time a transaction is recorded it becomes income to another sector generating new spending. There are three noticeable features in the pattern illustrated in Figure 4.1. First, the funds directed towards the consumers are usually in the form of wages and salaries. This is done because an association is formed with income generated from a sport activity and the spending of it, including on wages, which then is directed towards consumers. However, consumers may also receive income from sport betting, as illustrated under the heading prize income from the international trade sector (through offshore or international betting companies).

Second, the Central Government receives its revenue primarily from taxes on profits and incomes. For example, a company selling sports equipment, would generate both sport-related profits and wages, generating tax revenues for the Government. It is obvious that the Government revenues are not directly related to sport investment and grants, although they may increase indirectly through rises in the participation rates of sport and physical activity.
Third, the international trade sector receives its main income through imports of sport-related goods and services. Such data are not easily identified. For example, using the UN Comtrade dataset we can establish the international trade in sport footwear but not in sport clothing. In most cases, research using the NIA framework uses foreign trade as the balancing item of the double entry system, and from this point of view the results of the international trade sector should be treated with caution.

The income and expenditure accounts are then used to derive estimates for three economic indicators of the sport economy: sport-related consumer expenditure; sport-related value added; and sport-related employment. Sport-related consumer expenditure refers to the spending of households on sport. It does not include any spending by government, sport clubs or commercial companies. Examples of sport-related consumer expenditure include spending on sport equipment, admission fees for sporting events, membership fees, spending on sport or leisure clubs, sport clothing and footwear (bought by households), bicycles etc. It does not include spending on sport advertising or investment in sport infrastructure by central or local government.

Sport-related value added is the most comprehensive statistic of economic value as it corresponds to the Gross Value Added (GVA) in the economy as a whole. GVA is the difference between the value of sport-related goods and services produced and the costs involved in producing them. It shows the contribution of the sport industry to the economy.

Gross Value Added (GVA)

GVA is the difference between total output and the cost of inputs used in the production process (raw materials and services). Alternatively, it can be expressed as:

GVA = GDP - taxes on products + subsidies on products.

GVA shows the contribution of the sports sector to the economy as a whole. Its basis is the sum of wages and profits in the economy. Note that GVA is different to consumer spending and total turnover; the latter, is defined as:

Total turnover ≈ (Wages & salaries) + (Profits) + (Purchases of goods materials and services)

In other words, GVA is equivalent to turnover minus any purchases of goods and services required in the production process. Typically, all sport related economic activity considered in this report would be associated with the generation of sport value added, either in the form of wages or profits.

The NIA method used is consistent with the datasets provided by the Central Statistics Office (CSO)[15]. For example, the main source of consumer spending is the Household Budget Survey, downloaded from the CSO website. Inflation adjustment has been used for comparisons of the year 2018 with past data. The sport-related GVA, as percentage of the total product, is an important statistic to consider as it relates directly to the headline Gross Domestic Product (GDP) figure of the economy and to sport-related employment. The greater the wage part embedded within GVA, the greater the association between GVA and employment.

The research was supported by a survey of sport clubs in Ireland. A questionnaire was sent to clubs through Sport Ireland, National Governing Bodies and Local Sport Partnerships. A total of 266 clubs completed the questionnaire. The clubs were asked questions about the sport practiced, participants, membership, volunteering, as well as income and expenditure. This information complemented the Irish Sports Monitor and a dataset of total income and expenditure among a selection of clubs provided by Sport Ireland. A list of the questions asked is available in Appendix A. Using the data from the sample and the wider datasets, appropriate grossing up procedures were applied to estimate the income and expenditure characteristics of all clubs in the community sector. Further details on the data sources used for deriving sport-related estimates are provided in Appendix B.

4.3 Key economic indicators

This section presents the estimates derived for sport-related consumer spending, GVA and employment in Ireland. These form the key indicators that illustrate the significance of the sport economy in a country. They are presented, in the case of expenditure and GVA, in both current and constant prices. Where possible, we make comparisons with the sport economy of Ireland in 2008 and with the national economy as a whole. Employment is presented as full-time equivalents.

4.3.1 Consumer expenditure on sport

The estimates for total consumer expenditure in Ireland were derived using the latest CSO Household Budget Survey (2015), together with other surveys and information, such as the UN international trade database for commodities (Comtrade), CSO's travel survey and annual reports that informed of the importance of sport in various markets. The Household Budget Survey estimates were updated according to the general trend in the CSO consumer expenditure to bring the statistics in line with 2018.

Table 4.1 indicates the major elements of consumers' expenditure on sport-related goods and services for 2018. The total value of sport-related consumer spending was €3,341.6m, or 3.1% of total spending in 2018, representing an increase of 77% relative to the consumer spending of 2008.

Table 4.1: Sport-related consumer spending in Ireland (2008, 2018)

	(€million)	(€million)
	2008	2018
Subscriptions to clubs	390.4	622.9
Subscription to fitness clubs and dance	141.5	490.9
Sport clothing and footwear	338.4	568.8
Admissions: participation	180.3	427.2
Sports equipment and bicycles	143.4	340.5
Domestic sport event travel	40.8	60.3
International Sport event travel	164.2	167.6
Sport-related gambling	98.4[16]	227.7
TV/video rental, cable and satellite subscriptions	94.5	147.1
Admissions to events	113.8	109.9
Other sport-related spending	179.9	178.7
Total	1,885.6	3,341.6

[15] https://data.cso.ie/https://data.cso.ie/

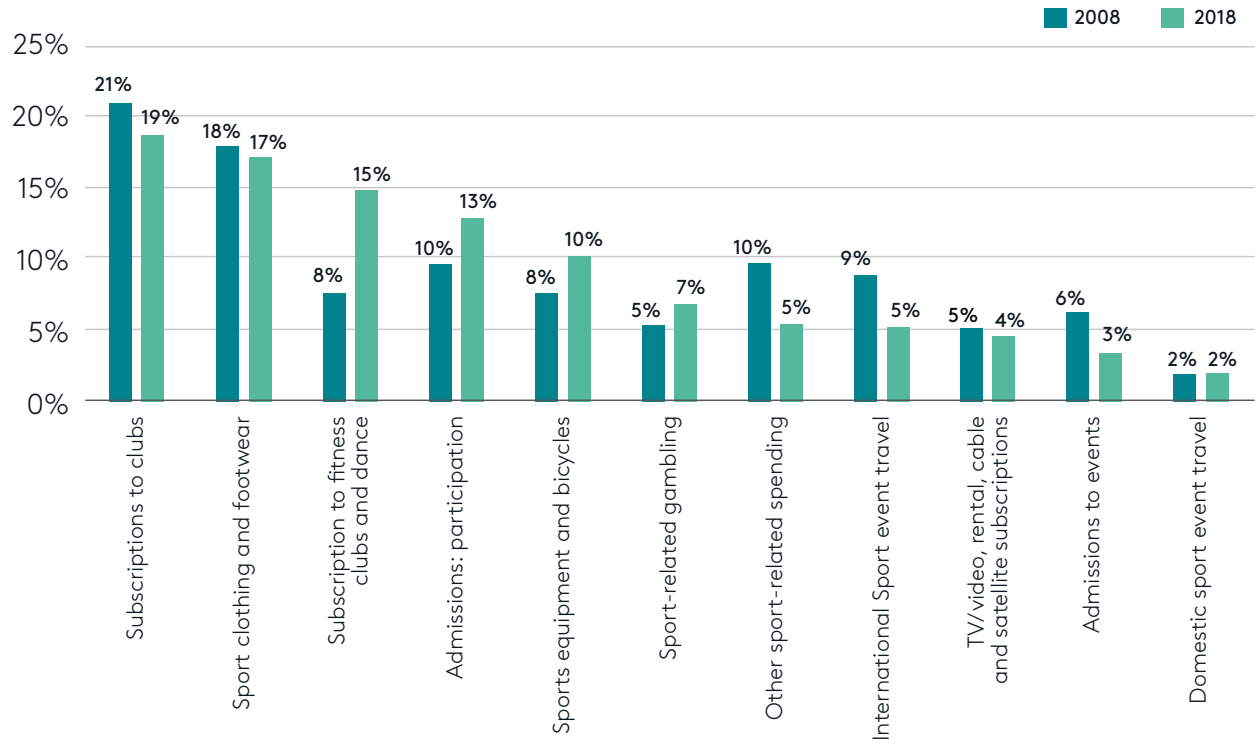
[16] Sport gambling outside the context of the sport clubs was excluded in the 2010 report (2008 data).

A large part of consumer spending on sport is directed towards participation subscription and fees to sport clubs (€622.9m) and fitness and dance (€490.9m). Given that the economy in terms of GNP increased in the period 2008-18 by 60%, the rise of spending on sport is above the general trend. Significant growth has been happening in the fitness and dance sector, which replicates trends that have been observed in the EU during this period. This is followed by spending on sport clothing and footwear (€568.8m), admissions connected with participation (€427.2m) and sport goods and bicycles (€340.5m).

With the exception of sport gambling, spectating and broadcasting, the market is driven by the participation elements of sport, showing that a small change in participation rates would have a strong impact on the economy. Based on the Household Budgets Survey, admissions for participation (e.g., to stadia or leisure facilities for participation) are differentiated from admissions to watch sport events. 'Other sport-related spending' includes categories such as spending of sport related books and newspapers, sport-related school and tuition fees, and sport lessons. In most cases, there is a substantial increase in 2018 compared to 2008. Although there are elements of inflation in individual markets, overall, this rise is real reflecting a decade with no average increase in prices.

Figure 4.2 shows the distribution of sport-related consumer spending in Ireland in the years 2008 and 2018. Among the categories presented, the greatest share is attributed to subscriptions to sport clubs (19%), followed by sport clothing and footwear (17%), subscriptions to fitness and dance (15%), admissions related to participation (13%) and sport equipment and bicycles (10%). When comparing the percentage shares of consumer expenditure between 2008 and 2018, the categories that have increased correspond to the participation changes highlighted previously in section 2. 'Subscriptions to fitness classes and dance' increased from a share of 8% in 2008 to 15% in 2018. Similarly, 'admissions for participation' increased from a share of 10% in 2008 to 13% in 2018, reflecting the boom in indoor leisure centres. We generally expect the participation element, which clearly drives consumer spending, to have sport as an output, while on the other side sport gambling or sport TV use sport as an input. For example, one needs sport equipment, sport subscriptions or sport footwear to participate in sport (sport as output); on the other hand, sport is required to produce sport TV broadcasting or to bet on sport outcomes (sport as input).

Figure 4.2: Sport consumer expenditure in Ireland (2008, 2018), % shares



4.3.2 Sport-related GVA

The value added to the Irish economy through the production of sports-related goods and services has significant implications for sport-related employment. Table 4.2 shows the figures for GVA in the different sectors of the sports economy in current prices for the year 2018 and the corresponding statistics from 2008. In 2018, sport-related economic activity added €3,671.8m to the Irish economy, which represents an increase of 101% since 2008. Most of this economic activity is generated by the commercial non-sport sector (€1,352.1m, 37%). The next largest sector is community sport (€925.4m, 25%).

The commercial sport sector generated €749.3m in GVA, or 20% of the total sport GVA. More than half of the value added in this sector is attributable to spectating sport and retailing. The latter includes sport-related clothing and footwear, equipment and publications. In each case, the ratios of wages and profits out of total turnover are calculated using the Irish Input-Output tables, as they appear on the CSO website; hence, they correspond to the most detailed NACE categories available.

Table 4.2: Sport-related GVA in Ireland (2008, 2018)

	(€million)	(€million)
	2008	**2018**
Commercial sport	353.1	749.3
of which		
Spectating sport	122.1	265.7
Retailing	98.0	225.4
Commercial non-sport	824.2	1,352.1
Community/non-profit sector	456.6	925.4
Public sector	196.4	645.0[17]
Total	**1,830.3**	**3,671.8**
Including:		
International sport tourism	**124.0**	**213.9**
Health care		**93.0**

Sports clubs and leisure centres are distributed among the community sector, the local government sector and the commercial sector. Generally, the participation-related categories of sport expenditure would lead to participation-related GVA. However, both GVA and employment include elements that are not related directly to consumer spending, such as sport construction, that connect the community sector with the commercial non-sport sector. Most GVA generated in the public sector is associated either with sport education or with the administration of sport, which is essential for the sport participation element. The Public sector is instrumental in providing funds for construction projects, although the associated GVA is often generated within the Community sector. The Public sector also includes the GVA generated by sport-related health care (€93m). This element connects with hospital activities, specialist medical practices, and dental practices.

International sport tourism influences the sport economy, ranging from the community sector to the commercial and public sector. It is estimated that it generated a GVA of €213.9m, corresponding to a total spending of approximately €345m. This is a conservative estimate based mainly on golf tourism[18] and international events. As described in the section on consumer spending, additional value from tourism is generated by domestic travel.

Finally, all economic activity around sport clubs in the community sector is associated with participation and spectating. It is important to acknowledge that the GVA generated by the commercial non-sport sector represents an indirect impact of sport on the economy that results from the links of sport to the non-sport economy, through the production network.

[17] In 2018, the public sector includes a GVA associated with health care (€93m) which was not part of the estimates in 2008.
[18] According to Fáilte Ireland, international tourists spend annually €240m on golf. ESRI have established that 8% of tourists engage in sport activity; we have not used this percentage as it does not relate to main motivations of tourism (such as visiting a sport event).

4.3.3 Sport-related employment

Sport-related employment estimates are derived from calculations based on wage payments and average weekly salaries per sector, as reported on the CSO website. From weekly average earnings, we calculate the annual average earnings and then by using the latter in combination with total sport wages per sector, we calculate the associated sport employment. The figures that were used on the CSO website do not specify full time employment earnings, and because of that employment was adjusted to reflect full time equivalents. Given that the overall output in the period 2008-2018 increased by 60% (GNP) without having inflation in the economy, a similar pattern is expected to be followed in the case of employment.

Table 4.3 provides estimates for sport-related employment in Ireland. Sport-related employment grew from 37,940 in 2008 to 64,080 in 2018; both employment figures represent full time equivalents (FTEs). The 2018 level of employment in sport is the highest recorded in Ireland, both in absolute terms and relative to sport's share of total employment. As a percentage of total employment, sport-related employment increased from 2.1% in 2008, to 2.8% in 2018.

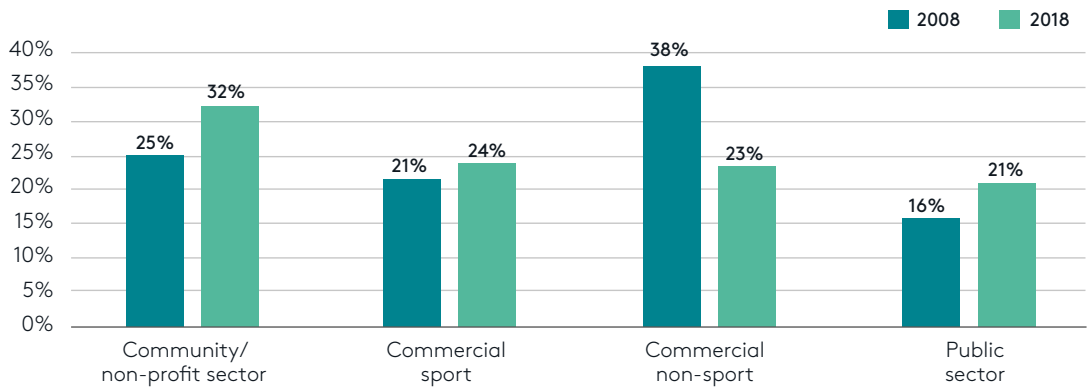
Table 4.3: Sport-related employment in Ireland (2008, 2018), fte

	(000s)	(000s)
	2008	2018
Commercial sport	8.13	15.20
of which		
Spectating sport	3.14	6.29
Retailing	2.08	4.47
Commercial non-sport	15.08	14.89
Community/non-profit sector	8.83	20.69
Public sector	6.18	13.31
Total	38.22	64.08

The high number of jobs in the Public sector can be explained mainly on the grounds of education and administration. The sport educational sector often is the largest generator of employment in the Pan-European SSAs (among the categories presented in the Input Output Tables).

Figure 4.3 shows the distribution of sport employment among the major sectors in the years 2018 and 2008. The largest sector is the community/non-profit sector, supporting 20,690 jobs or 32% of all sport-related employment in Ireland. When comparing the percentage distributions between 2008 and 2018, the shares of the community sector increased substantially from 25% in 2008 to 32% in 2018. Similarly, there has been an increase in the share of the public sector, from 16% in 2008 to 21% in 2018. Conversely, there has been a decline in the share of the commercial non-sport sector, which is due to the fact that the composition of GVA in the latest Input Output Tables includes more profits than before, compared to the wages paid. Consequently, the rises in GVA in this instance do not lead to strong gains in employment, as in other sectors.

Figure 4.3: Sport employment in Ireland (2008, 2018), % shares



Overall, sport employment has also increased its share of the national economy, from 2.1% in 2008 to 2.8% in 2018. In this sense, over the long term, the sport industry has increased its influence on the economy as a whole. This shift is attributed to four factors: the passing of the recession, giving way to growth, which meant that the economy in terms of GVA almost doubled in the period 2008-18 and sport had a fertile ground for development; a continuous investment in sport by the Irish Government and Sport Ireland; higher levels of sport participation; and an increase in the number of volunteers that enable the operation of clubs both as sport and commercial units.

Since the percentage of sport-related jobs in the economy as a whole (2.8%) is higher than the equivalent GVA share (1.4%), sport can be considered to be a very efficient employment generator. This may become a very useful tool in times of economic recession when the focus shifts into efficient and effective job generation. In other words, investing in sport can become a quick way to counter unemployment. This, of course is partially due to the labour-intensive nature of sport employment, based on human contact, the general low level of wages in some sectors of the sport economy, but also the genuine care of communities to support the sport economy and sport activity through volunteering. These results show that the main engine for spending on sport and physical activity is people (consumers) rather than institutions. This has two implications: first, sport and physical activity provides significant benefit to government finances through VAT; and, second, it links to sport and physical activity participation and sport attendance as two important elements of growth in the sport economy.

4.3.4 Summary of key indicators

Table 4.4 summarises the key sport-related indicators for Ireland, namely consumer expenditure, GVA and employment for the years 2008 and 2018[19].

Table 4.4: Main sport-related economic indicators for Ireland

	2008	2018
Consumer expenditure on sport (€million)	1,885.6	3,341.6
Total consumer expenditure in Ireland[20] (€million)	93,863	106,977
percentage of Ireland's total consumer expenditure	2.0%	3.1%
Sport-related GVA (€million)	1,830.3	3,671.8
Total GNP in Ireland (€million)[21]	160,903	256,322
percentage of Ireland total GVA	1.1%	1.4%
Sport-related employment (000s)	38.22	64.08
Total employment in Ireland (000s)[22]	1,803	2,255
percentage of Ireland total employment figures	2.1%	2.8%

Key points:

- Consumer expenditure on sport-related goods and services in Ireland in 2018 was €3,341.6m, or 3.1% of total consumers' expenditure. The table illustrates that since 2008, sport-related expenditure has grown both in absolute terms and as a percentage of the Irish overall consumer spending. The latter increased from 2.0% in 2008 to 3.1% in 2018.
- Sport-related value added to the Irish economy in 2018 was €3,671.8m, or 1.4% of total output in Ireland. Sport-related economic activity has grown from €1,830.3 (1.1%) of Irish GVA in 2008. As in the case of consumer expenditure, this represents a growth in both absolute terms and as a percentage of the whole economy.

[19] In the Table 3.4 the 2008 values come from the Indecon-SIRC report, but the associated percentages have been recalculated on the basis of the latest values of GVA, Employment and Consumer spending for the year 2008.
[20] The overall consumer spending is at current prices, and it is taken from the National Income and Expenditure Accounts of Ireland. It includes final consumption of households, NPISHs and government.
[21] The overall GNP for Ireland is taken from the National Income and Expenditure Accounts. It is in current market prices.
[22] Employment is taken from the Labour Force Survey (as reported in the CSO website). In the year 2008 it was measured in terms of full-time equivalent jobs (fte).

- Employment in sport was 64,080 in 2018, or 2.8% of all employment in Ireland. Sport-related employment has grown from the original position of 2.1% of Irish employment in 2008. This represents a growth in absolute and percentage terms.

Overall Table 4.4 indicates that, over the years 2008-2018, the sport economy overachieved in all the major indicators compared to the economy as a whole. By comparing GVA and employment, the strongest growth has been in employment, which is consistent with the European experience[23]. Employment generation in sport happens mainly through the network of sport clubs and from the commercial sector, which has a very high multiplier associated with sport services and construction. For example, in the latest analytical input output tables[24] of Ireland in 2015, the output multiplier of construction (a sector important because of its relationship to sport investment) is 1.582, one of the highest in the economy. As has been observed in most EU countries, the percentage of sport employment as a proportion of total employment is greater than the equivalent share of sport GVA. This reflects two things. First, the sports industry provides lower value jobs than average; and, second, jobs in sport are more people based (they cannot easily be substituted by technology).

4.3.5 Summary using constant 2016 prices

To understand the changes in sport-related consumer spending and GVA without the influence of inflation we re-estimated the numerical values of Table 4.4 using 2016 prices. The presentation of consumer expenditure and GVA in this way, in Table 4.5 below, enables spending and value added to be compared on a like-for-like basis without being influenced by inflation. The choice of the base year is consistent with the latest index used in the National Accounts (CSO, year 2016). The price index used is equivalent to the ratio of consumption in current prices over consumption in constant 2016 prices. Overall, there has not been a great price variation between 2008 and 2018. The overall price index for the economy as a whole is identical in those two years in terms of 2016 prices. However, in the details of the sport industry there has been a large price change in two markets: clothing and footwear, where prices declined from an index of 144.7 in 2008 to 100 in 2016 and 94.2 in 2018; and education where the prices increased from an index of 67.5 in 2008 to 100 in 2016 and to 102 in 2018.

Table 4.5 shows that, by applying the overall consumer price index for the Irish economy, from 2008 to 2018, under constant 2016 prices, sport-related consumer spending, increased by 77%. This compares favourablly to the equivalent rise in total consumer spending in Ireland, which over the period 2008-18 increased by 14%. Similarly, sport-related GVA increased by 101%, over the period 2008-18 (2016 prices), which is almost twice the rate of increase in the Irish economy over the same period (59%). It can be seen that in real terms, during the period 2008-2018, the sport economy grew considerably both in terms of consumer spending and GVA.

Table 4.5: Consumer spending and GVA in constant 2016 prices: CPI of 2016=100

	2008	2018	% change
Consumer expenditure on sport (€million)	1,863.2	3,302.0	77%
Total consumer expenditure(€million)	92,850.0	105,708.5	14%
Sport-related GVA (€million)	1,808.6	3,628.3	101%
Total GNP (€million)	158,995.1	253,282.6	59%

[23] SIRC and SportsEconAustria (2018). Study on the economic impact of sport through sport satellite accounts. [online]. https://publications.europa.eu/en/publication-detail/-/publication/865ef44c-5ca1-11e8-ab41-01aa75ed71a1/language-en/format-PDF/source-71256399

[24] https://www.cso.ie/en/releasesandpublications/ep/p-sauio/supplyanduseandinput-outputtablesforireland2015/

4.4. The effect on public finances

The main involvement of the government with the sport sector is through designing of a national policy and the allocation of grants for both current and capital expenses. A detailed list of sport grants distributed in the year 2018 can be found in Sport Ireland's Annual Report[25]; further information is available from the Annual Report of the Department of Transport, Tourism and Sport (DTTS). Table 4.6 presents some of those grants grouped in categories. It also presents some grants that are going to influence sport activity but are not distributed through Sport Ireland such as grants for the improvement of cycle and walk paths.

Table 4.6: Sport Ireland and Department of Transport, Tourism and Sport (DTTS) investment in sport (2018)[26]

	€m
Sport Ireland Investments	
Core Grants	46.7
Dormant Account Grants	4.5
Healthy Ireland Grants	0.7
Other Programmes	5.6
Administration and Staff	5.2
DTTS Investments	
Sustainable transport grants (for walking and cycling), DTSS	37.5
Capital grants (to 856 grantees, DTTS)	34.0
Kerry Sports Academy	6.5
Local Authority Swimming Pool Programme	1.4
Total	**142.0**

A large share of the grants (€23.8m) is distributed through the National Governing Bodies (NGBs). According to Sport Ireland, in 2018, €14.9m was invested in high performance sport. Some grants target specific construction projects, such as the €6.5m paid for the Kerry Sports Academy[27].

The network of 29 Local Sports Partnerships (LSPs) received grants of €6.0m to promote the development of sport at local level and increase levels of participation in sport and physical activity. According to Sport Ireland, in 2018, the core work of LSPs included Strategic Community Sports Development, the delivery of National Programmes, Education & Training initiatives, the Sports Inclusion Disability Programme, Women in Sport Programmes, Safeguarding and general participation programmes. In 2018, Sport Ireland secured €4.5m in Dormant Accounts Funding, €2.3m of which supported LSPs, and €0.7m of Healthy Ireland funding for LSP and NGB initiatives. The National Sports Policy 2018-2027 aims to double funding for sport, from €112m in 2018 to €220m in 2027.

The current research does not restrain its scope on the government spending that is represented by sport grants and capital expenditure, as expressed by the National Policy, but also considers other dimensions such as spending on education and local governance. Taking all these into account, the Central Government spent in 2018 in excess of €667m. Table 4.7 below shows the expenditure and income of the Central Government, associated with sport.

[25] https://www.sportireland.ie/sites/default/files/media/document/2020-06/annual-report-2018_final.pdf
[26] The data sources here are the Annual Reports of Sport Ireland and the Department of Transport Tourism and Sport.
[27] Home - Kerry Sports Academy

Table 4.7: Government spending and income from sport (2018)

	€m		€m
Expenditure		**Income**	
Sport Ireland and DTTS investments (From Table 4.6)	142.0	Taxes on expenditure	581.0
LA Leisure Facilities net	25.5		
LA Outdoor leisure net	120.1	**Taxes from incomes in:**	
LA Community sport net	41.1	Commercial Sport	185.3
Sport Education	265.1	Community Sport	167.1
Sport Ireland: wages and capital spending	32.2	Commercial Non sport	303.2
Waterways	33.0	Local Government	158.9
Other	8.5		
Total	667.5		1,395.5

Following the logic of the model in this research, it is demonstrated that for the present demand for sport goods and sport participation, the incomes of Central Government from sport in 2018 were approximately €1.4bn. These incomes are collected through taxes on sport goods sold (VAT) and on incomes generated in the economy. The implication, which has been verified throughout the EU countries[28], is that the investment in sport, in its wider sense is self-financed. Further, the objective of raising sports participation to 60%, given that the sport economy is currently driven by participation, will increase consumer spending to new levels, increasing further the revenues to the central government and the associated 'surplus'.

4.5. The economic impact of the community non-profit sector

The Community non-profit sector consists mainly of the club sectors under the aegis of Sport Ireland. This is complemented and administered through the network of National Governing Bodies and Local Sports Partnerships. We have identified a total number of 12,347 clubs, among 63 NGBs. Table 4.8 provides information about clubs and their membership.

Table 4.8: NGBs, clubs and membership in Ireland (2018)

Number of NGBs	Number of clubs	Number of members	Average club size (members)
63	12,347	1,768,928	143

Source: Sport Ireland, SIRC

The total membership among the 12,347 clubs equals 1,768,928. Accordingly, the average club size is 143 members. The clubs of the Golfing Union of Ireland attract most members, having an average size of 593. Furthermore, the network of LSPs across Ireland undertakes a wide range of actions aiming to increase sport participation, which can be classified into four categories[29]:

- Developing clubs, coaches and volunteers and supporting partnerships between local sports clubs, community-based organisations and agencies.
- Creating opportunities for training and education in relation to sports and physical activity provision.
- Provision of targeted programmes, events and initiatives to increase physical activity and sport participation.
- Providing information about sport and physical activity to create awareness and access.

Figure 4.4 illustrates the ten most important associations according to their membership. The three largest NGBs are the Gaelic Athletic Association, the Football Association of Ireland and the Golfing Union of Ireland.

[28] https://publications.europa.eu/en/publication-detail/-/publication/865ef44c-5ca1-11e8-ab41-01aa75ed71a1/language-en/format-PDF/source-71256399
[29] https://www.sportireland.ie/participation/local-sports-partnerships

Figure 4.4: Top 10 NGBs by membership (2018)

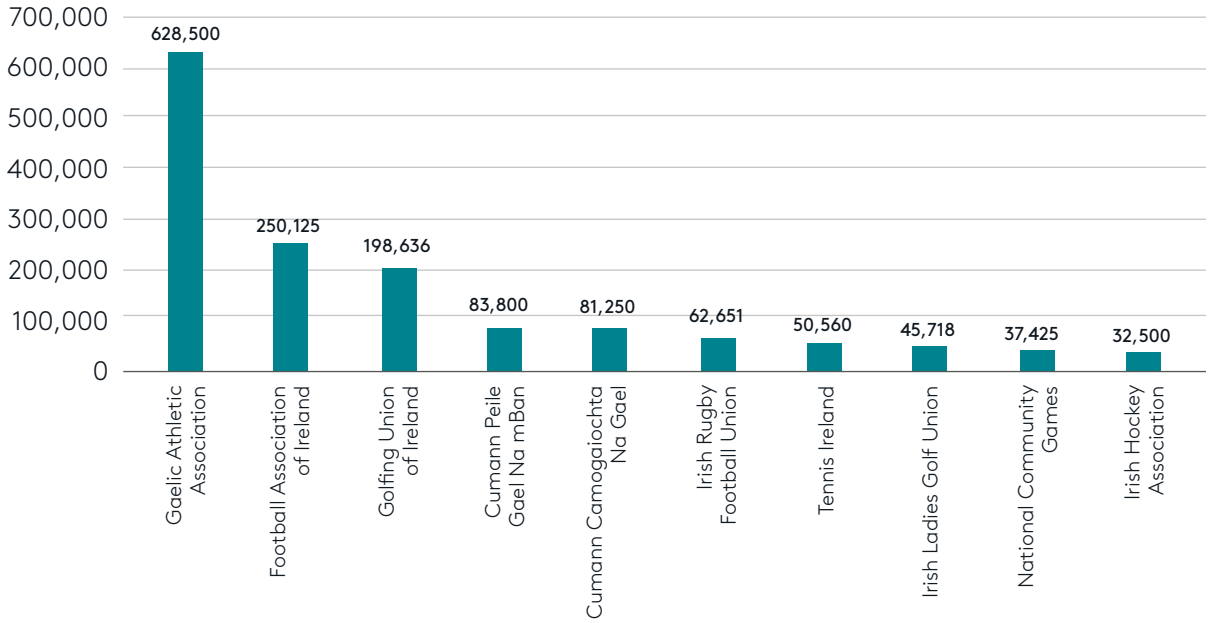
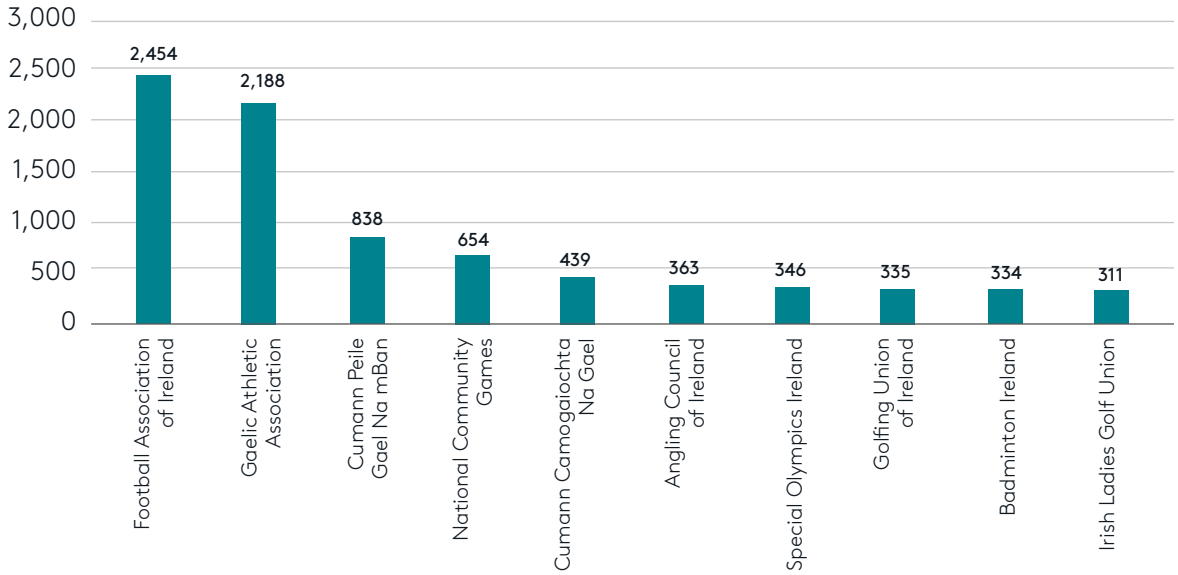


Figure 4.5 shows the top 10 NGBs by number of clubs. Around 36% of all clubs belong to two only associations: the Gaelic Athletic Association and the Football Association of Ireland.

Figure 4.5: Top 10 NGBs by number of clubs (2018)



Primary data collected from 266 sports clubs about their income, expenditure and composition became a part of the evidence to help us shape a picture of the economic characteristics of the Community sector. For example, we compared the clubs' survey data to the incomes and expenditure of clubs from an extensive dataset provided from Sport Ireland for the year 2018, in order to moderate the results.

An important finding is that there is no significant generation of surpluses. Most GVA is directed towards wages, boosting employment. This can be contrasted with developments in the economy as whole (influencing the commercial non-sport sector) where the share of wages and salaries within GVA has declined which constrains the generation of employment.

Table 4.9 below shows the main economic characteristics of the clubs. The biggest share of the clubs' income comes for subscriptions and participation fees (of members and players), followed by commercial operations in the form of bars and restaurants and admissions. In the case of current expenses, wages and salaries is the main parameter, showing that the clubs do employ people for their operations, and they do not rely exclusively on voluntary labour.

Table 4.9: Community sport clubs' income and expenditure (2018)

	€m		€m
Club Expenditure		**Club Income**	
Wages and Salaries	422	Players'/Members subscriptions and match fees	622
Ground hire and rents	44	Hiring of equipment to members/players	37
LA rates	11	Admissions	124
Hire of sport equipment	33	Gambling	111
Utilities	67	Bar and Restaurant	
Bar supplies	67	Grants	185
Other	466	Advertising-Sponsorship	69
Total	**1,110**	**Total**	**1,259**

4.6. Economic value of sport volunteering

The Community non-profit sector is consistent with the National Accounts and measurable in terms of its contribution to GVA and employment. It is supported by unpaid volunteers that help to sustain the clubs and maintain their operations. In economic terms, volunteers act as an input into the activities of amateur community sport and elite professional sport. Without them, there would be fewer sports activities and they would be more expensive to produce. In this section, the time contribution of volunteers is valued, in terms of what it would cost to employ them at the average hourly wage. This non-market value to sports organisations using volunteers should not be added up to the actual GVA produced when comparing sport to other sectors of the economy. The main data sources used for the economic valuation of volunteering in sport are population projections by age, Earnings and Labour Costs Quarterly, and the Irish Sport Monitor for the years 2017 and 2019.

Table 4.10 illustrates the approach used to derive the economic value of volunteering in sport in Ireland, which is estimated at €1,455m. For comparative purposes, the corresponding estimate in 2008 was between €322m and €582m. In order to monetise voluntary hours, we have used the average hourly wage of employees in Ireland. In reality, volunteers will range from young adults in education with little experience of volunteering to highly qualified and skilled individuals volunteering later in their careers. The best way to represent the value of this spectrum of volunteers is by using the average industrial wage.

Table 4.10: Economic value of volunteering in sport (2018)

	2018
Population of the Republic of Ireland, thousands (CSO)	4,857
Population aged 16+, thousands (CSO)	3,785
Percentage of regular volunteers (Irish Sport Monitor 2017/2019)	11.5%
Number of regular volunteers, thousands	**435.27**
Volunteering weeks per person per year (as used in the Indecon-SIRC report)	40
Number of hours volunteering per week (Irish Sport Monitor 2019)	3.65
Number of volunteering hours per year (thousands)	63,549
Average hourly earning (CSO)	€22.90
Value of volunteering	**€1,455m**
Value of volunteering as percentage of sport GVA	40%

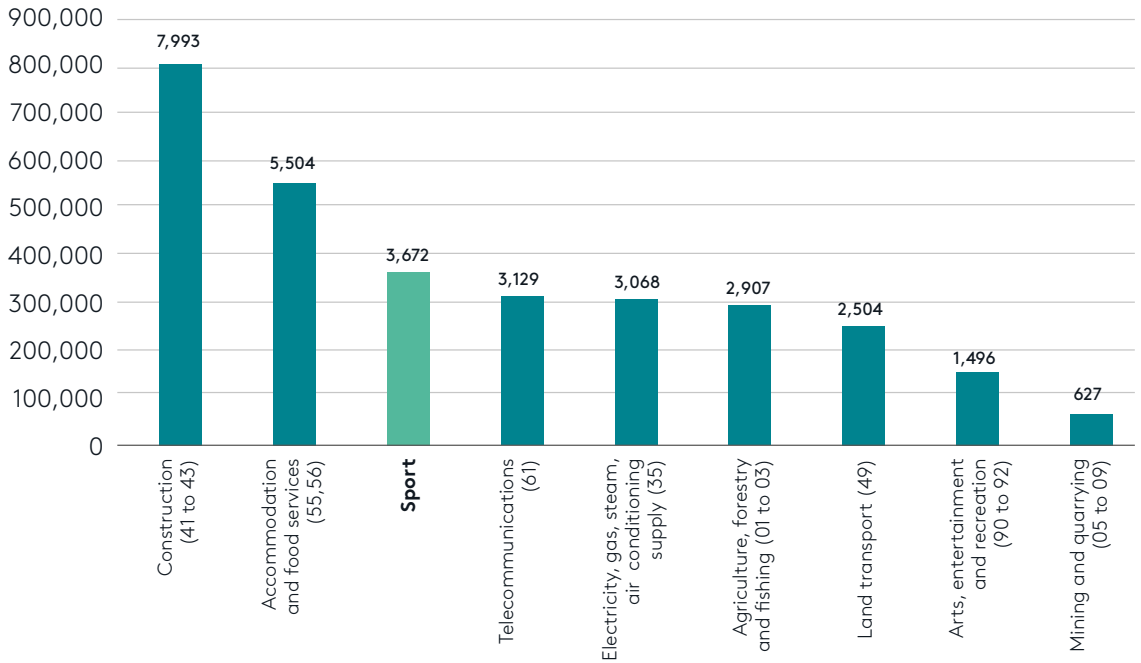
Had the various organisations that benefit from sport volunteering paid for the 63,549 hours contributed by volunteers, the estimated value would have increased sport GVA in 2018 by 40%.

4.7. The sport economy in context

To place the sports economy in Ireland into context, we have compared the GVA of sport to the GVA produced by other industries in Ireland. This comparison is illustrated in Figure 4.6. The statistics for these industries are taken directly from the GVA Tables on the CSO website.

We compared sport with the following economic sectors (NACE codes in brackets): Construction (41 to 43); Accommodation and food services (55, 56); Telecommunications (61); Electricity, gas, steam and air conditioning supply (35); Agriculture, forestry, and fishing (01 to 03); Land transport (49); Arts entertainment and recreation (90 to 92); and, Mining and quarrying (05 to 09). Note that this is a selection of economic sectors in Ireland to illustrate the comparative size of Irish sport economy. For consistency we are using 2018 market prices throughout. For the year 2018, sport-related GVA was €3,671.8m. Among the selected categories, only Construction and Accommodation and food service activities exceed Sport in terms of their GVA. Sport has greater economic significance (in terms of GVA in 2018) than the sectors Telecommunications[30]; Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; Land transport; Arts entertainment and recreation; and Mining and quarrying. These comparisons with significant economic sectors underline the importance of sport in Ireland as an economic activity[31]. This pattern in general can also be seen in many EU countries through the Pan-European SSAs.

Figure 4.6: GVA of selected industries in Ireland, €m (2018)



The total GVA associated with the six categories[32] from Ireland's Input-Output Table for 2018 that correspond most closely with the sectors covered by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media is estimated at €20,876m. This figure is equivalent to 8% of the national economy.

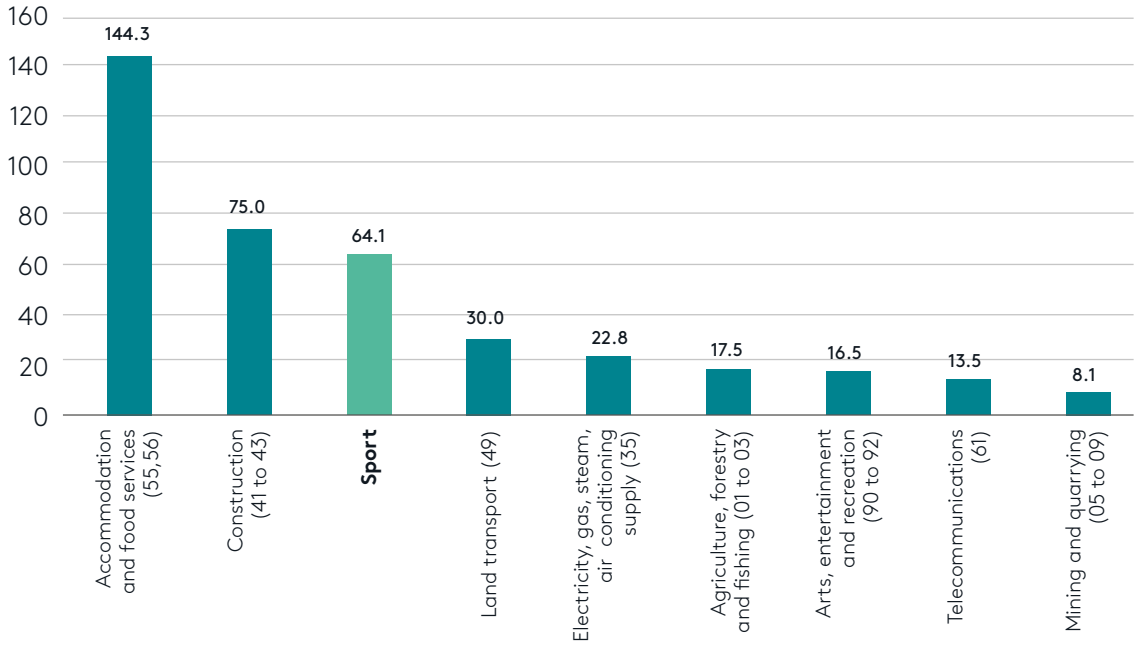
[30] These categories are as defined in the Irish Input Output Tables. Telecommunications for example, correspond to NACE Rev.2 classification, code 61, which includes (among others): wired telecommunication activities; wireless activities; satellite activities; and provision of Internet access by the operator of the wired, wireless and satellite infrastructure. (https://ec.europa.eu/eurostat/documents/3859598/5902521/KS-RA-07-015-EN.PDF).

[31] Note that sport may also be included in some of the other categories, hence the comparison is only indicative.

[32] Accommodation (code 55); Publishing, film and broadcasting services (58-60); Telecommunication services (61); Travel agency, tour operator and other reservation service and related activities (79); Arts entertainment and recreation (90-92); and, Sports activities and amusement and recreation activities (93).

Figure 4.7 presents the same sectors as Figure 4.6, this time in terms of their employment (ftes). Sport maintained its third position behind Accommodation and food services and Construction. However, the largest industry, among the ones examined, is now Accommodation rather than Construction on the strength of a very large number of relatively low paid employees. Overall, the two graphs demonstrate that Sport is a genuine economic force in Ireland both in terms of wealth creation and employment.

Figure 4.7: Employment of selected industries in Ireland, thousands (2018)



HEALTH IMPACT 5

5.1 Context

Data from the World Health Organisation (WHO) cited in *The National Physical Activity Plan for Ireland*[33] illustrates three key points. First, physical inactivity in Ireland is thought to be responsible for: 9% of the burden of disease from coronary heart disease (CHD); 11% of type 2 diabetes; 15% of breast cancer; and, 16% of colon cancer. Second, for all these major diseases the statistics for Ireland are worse in comparison with both the European and global averages. This comparison is shown in Table 5.1. Third, based on international research, physical inactivity is estimated to cost Ireland up to €1.5 billion per year. To the best of our knowledge, there are no bespoke estimates of the value of the direct health benefits attached to participation in sport and physical activity in Ireland. This study is the first attempt to address this gap.

Table 5.1: The contribution of physical inactivity to the burden of major diseases

Disease	Ireland	Europe	World
CHD	9%	6%	6%
Type 2 diabetes	11%	7%	7%
Breast cancer	15%	9%	10%
Colon cancer	16%	10%	10%

The *National Guidelines on Physical Activity for Ireland*[34] are based on international expert evidence and describe appropriate levels of health enhancing physical activity for the Irish population. As outlined below, these guidelines include recommendations for children and young people as well as adults, people with disabilities and older people.

- **Children and young people** should be active, at a moderate to vigorous level, for at least 60 minutes every day. This should include muscle-strengthening, flexibility and bone-strengthening exercises three times a week.
- **Adults** should engage in at least 30 minutes a day of moderate activity on five days a week (or 150 minutes a week).
- **Older people** should engage in at least 30 minutes a day of moderate intensity activity on five days a week (or 150 minutes a week) with a focus on aerobic activity, muscle-strengthening and balance.
- **Adults with disabilities** should be as active as their ability allows but aim to meet adult guidelines of at least 30 minutes of moderate-intensity activity on five days a week (or 150 minutes a week).

5.2 Approach and findings

5.2.1 Health conditions

In order to ensure that the estimates derived using our approach are robust and defensible, we have valued health conditions for which there is strong empirical evidence demonstrating the link between sport/physical activity and improved physical and mental health. Table 5.2 presents the health conditions that were included in our calculations and the corresponding reductions in their risk of disease among adults who take part in sport/physical activity at moderate intensity for 150+ minutes (or 75+ minutes of vigorous activity) per week. This participation threshold is entirely consistent with the recommended activity levels for adults and older people within the National Physical Activity Guidelines.

The risk reduction assumptions shown in Table 5.2 are based on a review of international evidence[35],[36]. For some of these health conditions the evidence of reduced risk is limited to a sub-sample of the adult population, notably for breast cancer (females) and for dementia and hip fractures (older adults).

[33] https://assets.gov.ie/12198/5f3dbab207f2464bba3b9b3f6d02bff6.pdf
[34] https://www.hse.ie/eng/about/who/healthwellbeing/our-priority-programmes/heal/heal-docs/the-national-guidelines-on-physical-activity-for-ireland.pdf
[35] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/832868/uk-chief-medical-officers-physical-activity-guidelines.pdf
[36] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/216370/dh_128210.pdf

Table 5.2: Conditions included in health impact valuation for Ireland

Condition	Population group	Risk reduction
Physical health		
CHD/stroke	All adults	35%
Breast cancer	Adult females	20%
Colon cancer	All adults	20%
Type 2 diabetes	All adults	40%
Hip fractures	Older adults	52%
Back pain	All adults	25%
Mental health		
Dementia	Older adults	30%
Depression	All adults	30%

Beyond the eight physical and mental health conditions identified in Table 2.2, we have attempted to place a notional value on sports injuries using proxy data from previous research[37]. The valuation for sports injuries is presented in section 5.2.6.

5.2.2 Prevalence of disease

The latest available data pertaining to the general prevalence of the selected health conditions among the Irish population are presented in Table 5.3. These data were identified or estimated from various sources. For example, the prevalence statistic for depression was sourced from the 2019 wave of the Healthy Ireland Survey, whereas breast and colon cancer statistics for Ireland were ascertained using the Global Cancer Observatory's interactive data tool available online. The data presented in the Global Cancer Observatory are the best available for each country worldwide. Because the prevalence rates for some health conditions relate to the entire Irish population, it is likely that they underestimate the prevalence of disease among adults.

Table 5.3: Prevalence of disease in Ireland

Condition	Population group	Prevalence rate
Physical health		
CHD/stroke[38]	All ages	1.76%
Breast cancer[39]	Females (all ages)	0.14%
Colon cancer[39]	All ages	0.04%
Type 2 diabetes[40]	Ages 20-79	3.98%
Hip fractures[41]	Ages 60+	0.39%
Back pain[42]	All ages	8.73%
Mental health		
Dementia[43]	Ages 65+	7.25%
Depression[44]	Ages 16+	6.00%

[37] https://sportengland-production-files.s3.eu-west-2.amazonaws.com/s3fs-public/2020-09/Social%20return%20on%20investment.pdf?5BgvLn09jwpTesBJ4BXhVfRhV4TYgm9E
[38] https://www.bhf.org.uk/informationsupport/publications/statistics/european-cardiovascular-disease-statistics-2017
[39] https://gco.iarc.fr/today/data/factsheets/populations/372-ireland-fact-sheets.pdf
[40] https://www.diabetesatlas.org/upload/resources/material/20191218_144548_eur_factsheet_en.pdf
[41] https://www.noca.ie/audits/irish-hip-fracture-database
[42] https://www.chronicpain.ie/sites/default/files/files/document_bank/CPI%20-%20Annual%20Activity%20Report%202017%20(1).pdf
[43] https://www.alzheimer-europe.org/content/download/195515/1457520/file/FINAL%2005707%20Alzheimer%20Europe%20yearbook%202019.pdf
[44] https://assets.gov.ie/41141/e5d6fea3a59a4720b081893e11fe299e.pdf

5.2.3 Sport and physical activity participation data

Sport and physical activity participation data were sourced from the Irish Sports Monitor (ISM) 2019[45]. The threshold of participation used in the calculation was the National Physical Activity Guidelines for adults and older people (150+ minutes of moderate activity per week). Overall some 34% of Irish adults achieved this level of activity in 2019, which includes sport, recreational walking and active travel (walking or cycling for transport). For comparative purposes, the Healthy Ireland Survey (HIS) 2019 shows that 46% of Irish adults were moderately active for at least 150 minutes a week[46]. The HIS adopts a much broader definition of physical activity than the ISM and incorporates "all activities that are done by respondents at work, as part of their housework and gardening, travelling, as well as in their spare time for recreation, exercise or sport". Because the ISM definition of physical activity is more closely aligned with the remit of Sport Ireland, our analysis utilises the ISM data.

ISM participation data was used alongside the Central Statistics Office's (CSO) annual population estimates to calculate the number of people aged 16+ in Ireland meeting the recommended threshold of physical activity in 2019. The number of participants included in the valuation for each health condition is shown in Table 5.4.

Table 5.4: Number of people meeting National Physical Activity Guidelines (NPAG) in 2019

Condition	Population group	Population size[47]	Activity rate (NPAG)[48]	Number of participants
Physical health				
CHD/stroke	Ages 16+	3.91m	34.38%	1.35m
Breast cancer	Females 16+	1.99m	35.96%	0.72m
Colon cancer	Ages 16+	3.91m	34.38%	1.35m
Type 2 diabetes	Ages 20+	3.59m	33.73%	1.21m
Hip fractures	Ages 60+	0.95m	33.32%	0.32m
Back pain	Ages 16+	3.91m	34.38%	1.35m
Mental health				
Dementia	Ages 65+	0.70m	31.89%	0.22m
Depression	Ages 16+	3.91m	34.38%	1.35m

[45] https://www.sportireland.ie/sites/default/files/media/document/2020-09/irish-sports-monitor-2019-report-lower-res.pdf
[46] https://assets.gov.ie/41141/e5d6fea3a59a4720b081893e11fe299e.pdf
[47] https://data.cso.ie/
[48] https://www.sportireland.ie/sites/default/files/media/document/2020-09/irish-sports-monitor-2019-report-lower-res.pdf

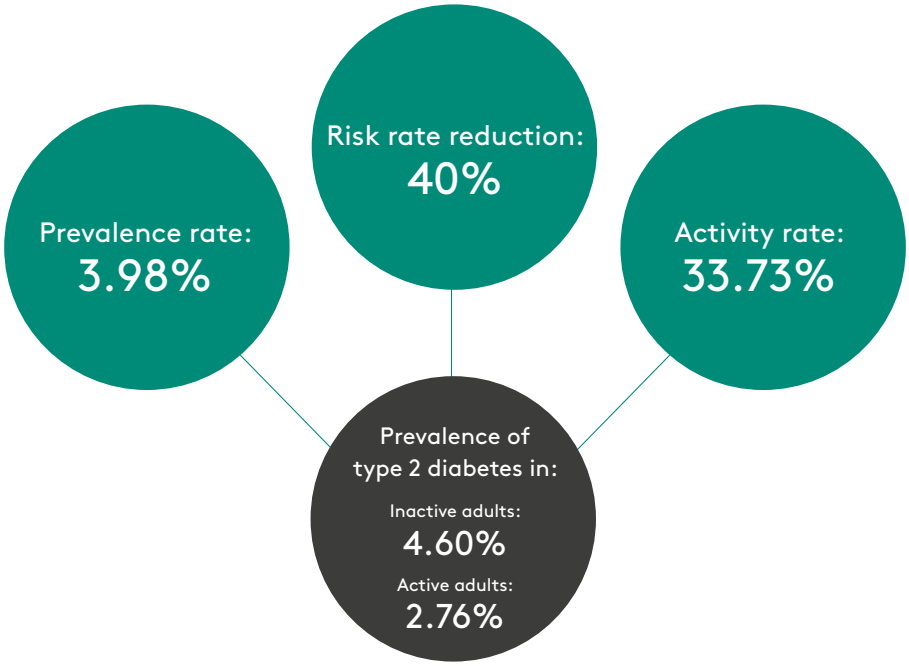
5.2.4 Cases of disease prevented

For each physical and mental health condition, we estimated the potential number of cases of disease prevented by taking into account the following factors:

- the reduced risk of disease among physically active adults (Table 5.2);
- the actual prevalence of disease in the Irish population (Table 5.3); and,
- the proportion and absolute size of the Irish population meeting the National Physical Activity Guidelines (Table 5.4).

Using type 2 diabetes as an example, Figure 5.1 shows the prevalence rate of disease among Irish adults (aged 20-79), the activity rate for this cohort and the risk reduction for this health condition were used to calculate separate disease prevalence rates for adults who are sufficiently active (i.e. meet the National Physical Activity Guidelines) and those who are not. For those who are sufficiently active, the prevalence rate of type 2 diabetes is calculated at 2.76%, which is 40% lower than the prevalence rate of type 2 diabetes among adults who do not achieve the recommended activity level (4.60%).

Figure 5.1: Derivation of prevalence rates of type 2 diabetes for active and inactive adults



As shown in Figure 5.2, the total number of physically active adults (aged 20-79) was then used in conjunction with the differential disease prevalence rates derived for adults defined as being active and inactive to estimate the potential cases of type 2 diabetes averted.

Table 5.5 shows the relevant statistics derived for all health conditions. The total number of cases of disease prevented in Ireland in 2019 across the eight health conditions was estimated to be in excess of 97,000, including nearly 65,000 cases of physical health and over 32,000 cases of mental health.

Figure 5.2: Derivation of cases of type 2 diabetes prevented

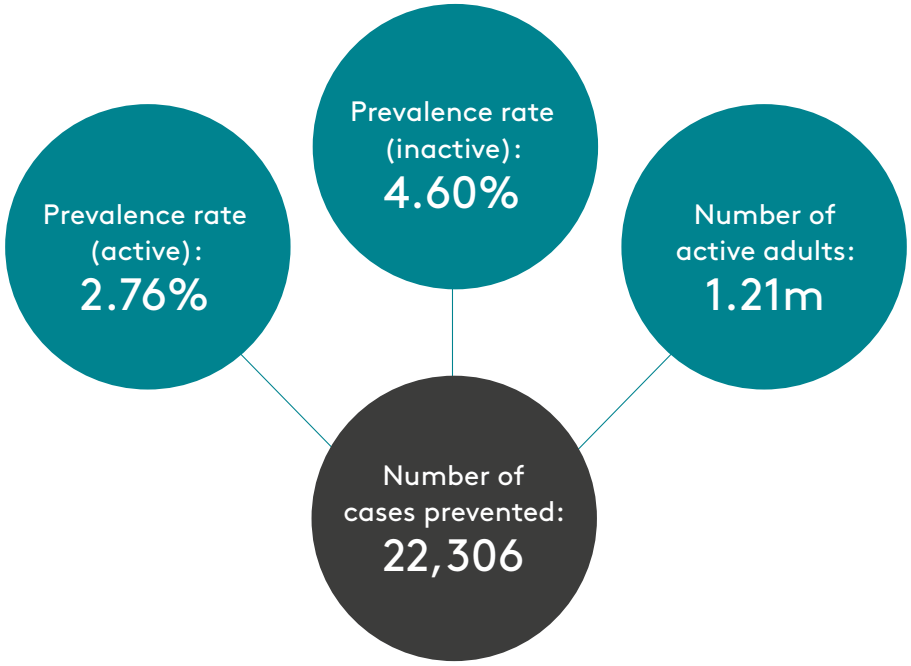


Table 5.5: Cases of disease prevented in Ireland in 2019

Condition	Prevalence among people not meeting NPAG	Prevalence among people meeting NPAG	Cases prevented
Physical health			
CHD/stroke	2.00%	1.30%	9,429
Breast cancer	0.15%	0.12%	213
Colon cancer	0.04%	0.03%	116
Type 2 diabetes	4.60%	2.76%	22,306
Hip fractures	0.47%	0.23%	776
Back pain	9.56%	7.17%	32,133
Physical health total			**64,973**
Mental health			
Dementia	8.02%	5.61%	5,342
Depression	6.69%	4.68%	26,996
Mental health total			**32,338**
OVERALL			**97,311**

5.2.5 Cost savings

In order to estimate the cost savings that can be attributed to sport and physical activity in Ireland, the number of potential cases of disease averted among the physically active population (from Table 5.5) were multiplied by the average annual cost per person diagnosed with the eight health conditions. The average annual cost per person varies between each health condition. For some health conditions (e.g. type 2 diabetes) the costs relate to health care only, whereas for some others (e.g. CHD/stroke) they also cover wider costs including informal care and loss of productivity. For any diseases where cost data could not be sourced for Ireland specifically, we have borrowed UK or European cost data. The annual cost 'per case' for each health condition is presented in Table 5.6 and their underpinning data sources are also referenced.

Table 5.6: Annual cost 'per case' for the eight health conditions

Condition	Health care (€)	Other (€)	Total (€)
Physical health			
CHD/stroke[49]	3,563	7,677	11,240
Breast cancer[50],[51]	36,828	26,482	63,310
Colon cancer[50],[51]	36,828	26,482	63,310
Type 2 diabetes[52]	5,480	NA	5,480
Hip fractures[53]	16,641	NA	16,641
Back pain[54]	263	NA	263
Mental health			
Dementia[55]	18,294	NA	18,294
Depression[55]	1,990	2,835	4,825

Note: All cost data are in euros and inflation adjusted to 2019 prices using the CSO's CPI inflator calculator[56].

Using the type 2 diabetes example, the number of cases prevented were 22,306 and the annual cost per case was €5,480, which means that the total cost savings for this health condition amounted to €122.25m. Bringing together the data from Table 5.5 and Table 5.6, the aggregate cost savings attached to the physical and mental health benefits generated by sport and physical activity in Ireland in 2019 are valued in the region of €0.5 billion. Of this amount, €0.34 billion (68%) relates to health care cost savings and €0.16 billion (32%) relates to other cost savings. The breakdown of costs savings for each health condition is shown in Table 5.7.

Table 5.7: Total cost savings from cases of disease prevented

Condition	Health care (€m)	Other (€m)	Total (€m)
Physical health			
CHD/stroke	33.59	72.39	105.98
Breast cancer	7.83	5.63	13.46
Colon cancer	4.27	3.07	7.34
Type 2 diabetes	122.25	NA	122.25
Hip fractures	12.91	NA	12.91
Back pain	8.44	NA	8.44
Physical health total	**189.29**	**81.09**	**270.38**
Dementia	97.72	NA	97.72
Depression	53.73	76.52	130.25
Mental health total	**151.45**	**76.52**	**227.97**
Physical health total	**340.74**	**157.61**	**498.35**

[49] https://www.bhf.org.uk/informationsupport/publications/statistics/european-cardiovascular-disease-statistics-2017
[50] https://www.ejcancer.com/article/S0959-8049(20)30026-5/pdf
[51] https://www.ncri.ie/sites/ncri/files/factsheets/Factsheet%20all%20cancers.pdf
[52] https://www.diabetesatlas.org/upload/resources/material/20191218_144548_eur_factsheet_en.pdf
[53] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4740562/#:~:text=The%20total%20annual%20hospital%20costs,year%2 (Table%20%E2%80%8B4).
[54] https://reader.elsevier.com/reader/sd/pii/S0304395999001876?token=4BE573F38280BD04E3F9CA78B950C09405D298A0A734112 BBB7E137F8F31C9B86D903C9938CBDBCE872000
[55] https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1468-1331.2011.03590.x?saml_referrer
[56] https://www.cso.ie/en/interactivezone/visualisationtools/cpiinflationcalculator/

5.2.6 Sports injuries

According to *The National Guidelines on Physical Activity for Ireland*[57] only one injury occurs for every 1000 hours of walking activity, and fewer than four injuries occur for every 1000 hours of running. The most common injuries that people suffer are minor, short-lived musculo-skeletal ones, such as straining a muscle or tendon. Nevertheless, it is important to recognise that injuries can occur, which in some cases may incur a fiscal cost.

In the absence of robust data on the number of injuries linked to sport and physical activity in Ireland, we have adopted an alternative approach to estimate their likely costs. When we calculated the health impact of sport and physical activity in England in 2018[58], we found that the positive impact (health care cost savings) attached to the eight conditions included in this research outweighed the negative impact (fiscal cost) associated with Accident and Emergency (A&E) cases recorded as sports injuries by approximately 73%.

If we apply the same assumption to the health care costs savings estimate for Ireland (€0.34 billion), we get a notional estimate of €93.07 million for sports injury related costs in 2019. This estimate should be treated with caution for two reasons: first, it is not based on Irish data for sports injuries; and second, cases presenting at A&E departments are likely to underestimate the cost of all sports injuries. However, acknowledging that such costs exist and getting a sense of their likely scale provides a more balanced view of the health impact of sport and physical activity.

5.2.7 Health impact summary and projections

The headline estimates for the physical and mental health impacts of sport and physical activity in Ireland in 2019 are summarised in Table 5.8. Taking into account the notional fiscal cost of sport injuries, the net value of the physical and mental health benefits achieved through participation in sport and physical activity in Ireland is estimated at €0.41 billion.

Table 5.8: Health impact summary

Condition	Cases Prevented	Cost savings (€m)
Physical health	64,973	270.38
Mental health	32,338	227.97
OVERALL	**97,311**	**498.35**
Less: Injuries		*(93.07)*
NET VALUE		**405.28**

According to the Irish Sports Monitor 2019, some 53% of the population (aged 16+) are classified as being either 'fairly active' (27%) or 'just active' (26%)[59]. If some of these individuals can be encouraged to achieve the minimum recommended activity levels for adults and older people (150+ minutes of moderate activity per week), then there are considerable gains to be made in terms of health care and wider cost savings, as demonstrated by the projections shown in Table 5.9.

These projections are underpinned by the following key assumptions derived from our calculations of the health impact of sport and physical activity in Ireland in 2019.

1. For every 100,000 adults meeting the National Physical Activity Guidelines, 7,235 cases of disease are prevented.
2. The average annual cost (value) per case across all conditions is €5,121.
3. Healthcare costs account for 68% of total costs.
4. Health care cost savings from disease prevention outweigh the fiscal cost of sport-related injuries by 73%.

[57] https://www.hse.ie/eng/about/who/healthwellbeing/our-priority-programmes/heal/heal-docs/the-national-guidelines-on-physical-activity-for-ireland.pdf
[58] https://sportengland-production-files.s3.eu-west-2.amazonaws.com/s3fs-public/2020-09/Social%20return%20on%20investment.pdf?5BgvLn09jwpTesBJ4BXhVfRhV4TYgm9E
[59] https://www.sportireland.ie/sites/default/files/media/document/2020-09/irish-sports-monitor-2019-report-lower-res.pdf

Table 5.9: Projections of cost savings under different participation scenarios

Activity Rate	Number of people meeting NPAG	Number of cases of disease prevented	Potential cost savings (€m)		
			Gross	Injury costs incurred	Net
34% (Current)	1.35m	97,311	498.35	(93.07)	405.28
35%	1.37m	99,070	507.37	(94.76)	412.61
40%	1.57m	113,223	579.85	(108.29)	471.56
45%	1.76m	127,376	652.33	(121.83)	530.50

Note: The projections in this table are based on the proportion of the population meeting the NPAG (150+ minutes per week). The NSP has a target of increasing the number of adults playing sport regularly to 60%. In 2019, the ratio of people playing sport regularly (46%) to people classified as 'highly active' (34%) from the ISM was 1.35. Hence, in broad terms achieving the NSP goal of getting 60% of adults to become regular sports participants is the equivalent of 44.4% of adults meeting the NPAG.

5.2.8 Exclusions

The health conditions valued in this research do not capture the full extent of the health impact of sport and physical activity in Ireland. For some of the exclusions outlined below, further scientific evidence is required to establish the precise effect of sport and physical activity on physical and mental health, whereas other exclusions are due to data limitations.

- Levels of activity below the National Physical Activity Guidelines may also confer health benefits and reduce the risk of disease. Because risk reductions for lower levels of activity (less than 150 minutes per week) are not quantified in the same way and lack robust empirical evidence, it is difficult to assign a monetary value to them.
- Similarly, we have not valued the health impact of sport and physical activity on children and young people due to insufficient empirical evidence on the outcomes.
- Not all of the cost savings associated with disease prevention are captured within our estimates. For some health conditions, the estimates only include health care cost savings.
- We have considered the 'preventative' health benefits of sport and physical activity. There is a lack of robust empirical evidence on 'therapeutic' health benefits (i.e. using sport and physical activity in the treatment of various illnesses).
- Even though there is some evidence that physical activity is associated with a risk reduction of communicable infectious disease[60], the strength of this evidence (and the specific conditions to which the evidence relates) is not entirely clear and therefore it was not possible to value in economic terms.
- We have derived a notional estimate of the costs linked to sports injuries in Ireland using non-Irish data and for A&E cases only. Hence, this aspect requires a more thorough investigation and refinement.

[60] https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3673184

SUMMARY AND RECOMMENDATIONS 6

6.1 Economic impact of sport

The results of this research demonstrate the importance of sport and physical activity to the Irish economy. This report shows that sport and physical activity generates significant consumer expenditure, GVA and employment for Ireland in 2018. The importance of these indicators has increased in real terms since 2008. Furthermore, sport-related employment has grown at a faster rate than overall employment growth in Ireland, and, since 2008, at a faster rate than sport GVA, underlining the role of sport and physical activity in generating and sustaining jobs and output. The following bullet points summarise the key findings presented in this report:

- The total value of sport-related consumer spending was €3,341.6m in 2018, representing an increase of 77% relative to 2008. In comparison with consumer spending for Ireland as a whole, the sport economy has over performed increasing its share from 2.0% in 2008 to 3.1% in 2018.
- A large part of consumer spending on sport is directed towards participation. For example, the biggest spending categories are 'subscription to sport clubs' (€622.9m), followed by 'sport clothing and footwear' (€568.8m), 'subscriptions to fitness and dance' (€490.9m), 'admissions related to participation' (€427.2m), and 'sport goods and bicycles' (€345.2m). Hence, other than gambling and broadcasting, the market is driven by the participation elements of sport.
- The sport economy of Ireland has improved in terms of GVA and employment since 2008.
- Sport-related GVA in 2018 was €3,671.8m. It has increased by 101% since 2008.
- In 2018, the level of employment in sport was the highest ever recorded (64,080), both in absolute fte terms and relative to its share of total employment (2.8%).
- The sport-related share of employment (2.8%) is greater than the sport-related share in GVA (1.4%). This is consistent with the European experience, showing that sport is an effective policy tool for generating employment. This is likely to be particularly effective during periods of recession.
- The largest sector of sport-related employment in 2018 was the community sector, supporting 20,690 jobs or 32% of all sport-related employment in Ireland. The commercial sport, commercial non-sport and public sectors support 24%, 23% and 21% of Ireland's sport-related jobs respectively.
- The market is driven by the participation elements of sport, showing that a small change in participation rates would have a strong impact on the economy.
- Since the participation element of the sport economy is particularly dominant, the implication is that any rise in the participation rates is likely to have a strong effect in the employment, GVA and consumer spending estimates. Hence any effort and investment aiming to and successful in increasing sport participation is likely to be self-financing.
- Given the current level of sport investment, spending and sports participation, the Central Government has considerable revenues from sport, in excess of its overall spending. In fact, the government can double its spending on sport without sacrificing a positive surplus. This makes the current objectives of the National Sport Policy feasible and realistic.
- Voluntary non-paid work is an important factor in facilitating sport participation. Sport volunteering has been valued at €1.455 billion for 2018, which if it had been paid labour would increase GVA by 40%.
- Employment generation in sport happens mainly through the network of sport clubs and from the commercial sector, which has a very high multiplier associated with sport services and construction. The public sector contributes mainly through sport-related education and administration.

6.2 Health impact of sport

This report demonstrates that sport and physical activity has a measurable and substantial impact on the physical and mental health of participants in Ireland who achieve the National Physical Activity Guidelines (150+ minutes per week). It is estimated that over 97,000 cases of disease were prevented in Ireland in 2019 from sport and physical activity participation, which is equivalent to nearly €0.5 billion in health care and wider costs savings. The notional cost of sports injuries was estimated to be around €93 million and therefore the net gain in health was worth closer to €0.4 billion. We projected that the value of the health benefits can increase even further to more than €0.5 billion if the proportion of Irish adults undertaking the recommended level of activity increases from 34% to 45%. Beyond these monetised estimates of cost savings, there is emerging scientific evidence that highlights the health benefits associated with being physically active during the Covid-19 pandemic:

- Regular, moderate to vigorous physical activity is associated with reduced risk of community-acquired infectious diseases and infectious disease mortality, enhances the first line of defence of the immune system, and increases the potency of vaccination[61].
- Consistently meeting physical activity guidelines is strongly associated with a reduced risk for severe Covid-19 outcomes (risk of hospitalisation, ICU admission and death) among infected adults[62].

While it has not been possible to value these health benefits in the same way as non-communicable diseases, they provide further evidence of the importance of promoting regular physical activity among the general population and incorporating it into routine medical care to mitigate the impact of pandemics.

6.3 Research recommendations

There are several areas where we feel further research should be prioritised by Sport Ireland to improve understanding and get a more accurate picture of the value of sport and physical activity in Ireland.

6.3.1 Economic impact

To appreciate the full effect of sport in the Republic of Ireland, a Sport Satellite Account should be created following the EU recommendations and the Vilnius definition, which is accepted as the basis of a Satellite Account throughout the EU. Such an account could be updated annually whenever CSO produces new Input Output Tables, and could link the direct effects of sport, through the multipliers to the whole economy.

Satellite accounts or satellite systems are extensions to the System of National Accounts (SNA). The Input Output Tables form the core of an SNA. When we construct a Sport Satellite Account, we investigate each category of the SNA for sport content. Sport is contained in many industrial categories; for example, sport journalism is within media production, sport shoes manufacturing is classified within clothing etc. Extracting from each activity of the Input Output Tables the sport content (following the Vilnius definition of sport) is the essence of a Sport Satellite Account. At the end of this procedure, sport GVA and sport employment would be readily available. The Sport Satellite Account is likely to give higher outcomes than any other methodology because it does not start from the available surveys where sport is present but from the economy as a whole, which must be modelled for sport content[63].

There is already some evidence that has been captured in this report and in previous research about the link between sport tourism and major events; however, a research framework must be developed, backed up by primary data collection, to enable the full evaluation of events and sport travel. Outside the events framework, international tourism can be classified as sport-related if its major motivation is to do sport or if it is based in a sport resort such as a golf resort or skiing resort. Hence, another avenue for research is to gather primary data on the most important travelling motivation of tourists in order to capture any sport-related impacts.

[61] https://link.springer.com/article/10.1007/s40279-021-01466-1
[62] https://bjsm.bmj.com/content/early/2021/04/07/bjsports-2021-104080
[63] An example of a SSA can be seen in the EU report: Study on the economic impact of sport through sport satellite accounts - Publications Office of the EU (europa.eu)

6.3.2 Health impact

Further research is required to value the impact of sport and physical activity below the National Physical Activity Guidelines of 150 minutes per week on physical and mental health conditions. Conducting this exercise is likely to involve making some assumptions about risk reductions of diseases at lower levels of activity.

It would be beneficial to investigate more thoroughly the costs attached to sports injuries using Ireland-specific data on A&E admissions and cost of treatment. It would also be worthwhile to broaden the scope to include minor injuries that do not require urgent medical attention.

6.3.3 Social Return on Investment

As a final general recommendation, Sport Ireland should consider commissioning a more holistic assessment of the social impacts of sport and physical activity in Ireland using a Social Return on Investment (SROI) framework. SROI is increasingly being used across a wide range of policy areas, especially by public agencies and charities, to measure social value and to justify public investment. An SROI study expresses the value attached to various social outcomes in relation to the costs associated with providing the infrastructure and opportunities for sport and physical activity. This approach enables a ratio of benefits to costs to be calculated. Using this approach, we found that the SROI for sport and physical activity in England in 2017/18 was £3.28, which means that for every £1 invested in sport and physical activity in England, £3.28 worth of social impact was created for individuals and society in that year.

In this research, we have considered one of the main social outcomes that would feed into an SROI study (i.e. health) for which there is more robust quantifiable evidence of the link with sport and physical activity. The economic estimate of sport volunteering, which represents both a non-financial input to support sport and physical activity and an outcome in terms of the non-market value generated for sports organisations using volunteers is also captured. The main omissions from this research (for which the evidence is less developed and requires bespoke research) that could be assessed include wellbeing, social capital, human capital, educational attainment and crime reduction.

APPENDICES

APPENDIX: Community sport survey questions

Question 1:

For which type of organisation are you responding? ◯ Voluntary sport club
◯ Other

Question 2:

What is the name of your club?

Question 3:

What is the name of your club?

Question 4:

From the sports listed below please indicate those provided in 2018.

American Football
Angling
Archery
Athletics
Badminton
Baseball/Softball
Basketball
Baton Twirling
Billards/Snooker
Bol Chumann
Bowls
Boxing
Camogie
Canoeing
Clay Target Shooting
Coarse Fishing
Cricket
Croquet
Deaf Sports
Disability sport
Equestrian
Gaelic Football
Gaelic Handball
Golf
Gymnastics
Hockey
Horseshoe Pitchers
Hurling
Ice Hockey
Ice Skating
Judo
Karate
Lacrosse
Martial Arts
Motor Cycling
Motor Sport
National Community Games
Netball
Olympic Handball
Orienteering
Paralympics
Pentathlon
Pitch and Putt
Racquetball
Rounders (GAA)
Rowing
Rugby League
Rugby Union
Sailing/Yachting
Shooting
Snow Sports
Soccer
Special Olympics
Speleological
Surfing
Swimming
Table Tennis
Taekwondo
Tennis
Tenpin Bowling
Triathlon
Trout Angling
Tug of War
Underwater Sports
Vision Sports
Volleyball
Waterski and Wakeboard
Water polo
Weightlifting
Wrestling
Other (_____)

Question 5:

Please indicate the total number of registered members in 2018.

Question 6:

Please indicate the total number of registered active participants in 2018.

Question 7:

Please indicate the number of people employed in 2018 (on a paid basis): Number of full-time employees
Number of part-time employees

Question 8:

Please indicate the number of volunteers helping in 2018.

Question 9:

Please indicate the number of hours a volunteer worked per week in 2018.

Question 10:

Please indicate the amount of income received in 2018 under the following income headings:

- Players'/Members' subscriptions and participation fees
- Event admission fees/gate receipts - sports events
- Event admission fees/gate receipts - other events
- Sports camps, sports programmes, taster sessions and training courses
- Hire of equipment to players/members
- Advertising and Sponsorship
- Fundraising, including lotteries & raffles
- Bar and restaurant/catering receipts
- Other – all other non-grant income
- Grants (e.g., from NGBs, Sport Ireland, Gov. Dept. or Local Authority, Capital Sports Grants, etc.)

Question 11:

Please indicate the amount of expenditure in 2018 under the following expenditure headings:

- Wages & Salaries (including fees paid to players and referees)
- Grounds hire and rents
- Local Authority Rates
- Equipment (e.g. hire of sports equipment or other equipment)
- Utilities (e.g. Heat & Light, Telephony/Communications etc.)
- Bar supplies and Restaurant/Catering supplies
- Other – all other current expenditures

Question 12:

Please indicate the average amount spent on capital expenditure over the last three years: (e.g., building, construction and equipment; infrastructure and equipment related to sport and administration; information technology):

- Capital expenditure – 2016-2018 annual average
- Capital expenditure – 2018 annual total

APPENDIX: Economic impact data sources

B

Most data have been sourced through the CSO database to identify income and expenditure per sector. The table below provides an overview of how the economic impact modelling was informed by the various data sources in terms of the sectors examined. Then by using total spending in each category and the various ratios for wage spending derived from Input Output Tables or through the company annual accounts we can estimate wage spending. The latter, together with average wages can help us estimate employment. Eventually through a system of interactions each data entry affects the whole sport economy. For example, spending on sport clothing affects primarily consumer spending, but then through VAT influences Government income. Finally note that in the current methodological context the foreign sector is treated as the residual sector to ensure that the double entry system is balanced; yet, some foreign trade estimates are derived from the UN database, Comtrade.

Data sources	Sector(s) affected
Annual Population estimates (CSO)	Consumer sector
Annual Reports and Financial Accounts of sport related organisations, through the FAME dataset	Commercial Sport, Commercial non-sport
Annual Services Inquiry (CSO)	Commercial sport, Commercial non-sport
Census of Population (CSO)	Consumer sector
Census of Industrial Production (CSO)	Commercial sport, Commercial non-sport
Department of Transport Tourism and Sport, Annual Report 2018	Central Government, Local Government, Community sport
Earnings and Labour costs quarterly (CSO)	Commercial sport, Commercial non-sport, Central government, Local government, Community sport
Household Budget Survey (CSO)	Consumer sector
Household Travel Survey (CSO)	Consumer sector
Input-Output and Supply and Use Tables (CSO)	Commercial sport, Commercial non-sport, community sport, Central government, Local government
Irish Sports Monitor, Annual Report 2017	Central government, Community sport
Irish Sports Monitor, Annual Report 2019	Central government, Community sport
Irish Sports Monitor Survey	Central government, Community sport
Local Authority Budgets, 2018	Local government, Community sport
Measuring Ireland's progress, Education (CSO), https://www.cso.ie/en/releasesandpublications/ep/p-mip/measuringirelandsprogress2017/ed/	Central government
National Employment Survey (CSO)	Commercial sport, Commercial non-sport, community sport
PRODCOM database	Commercial sport
Sport Ireland Annual Report 2018	Central government, Community sport
UN dataset of trade in commodities	Consumer sector, Foreign trade

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