UK Sport Satellite Account, 2016 (Provisional)

GVA

- The value of the Sports economy, as measured by Gross Value Added (GVA), was estimated to be £37.3 billion in 2016.
- Sport-related GVA accounted for 2.1 per cent of UK GVA in 2016, similar to previous years.

Employment

- Total Sport-related employment was 1.2 million in 2016.
- Sport-related employment represented 3.7 per cent of UK employment in 2016, similar to previous years.

This release presents the economic value of the UK's Sport sector for 2012 to 2016. The Sports economy is presented in terms of gross value added (GVA) and employment. This enables stakeholders to value the economic contribution of the sport sector and to understand how current and future policy interventions can be most effective.

The 2013, 2015 and 2016 estimates in this release are based on 2014 sport proportions and are therefore provisional. The methodology is under refinement and it is therefore likely that changes will be made in future releases.

The Sport Satellite Accounts for the UK are Official Statistics and have been produced to the standards set out in the Code of Practice for Official Statistics.

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1. Introduction

Released: 31 January 2018

Geographic Coverage: United Kingdom

2.1 Background
This report presents the value of the UK’s Sport sector for 2012 to 2016. The Sports economy is presented in terms of gross value added (GVA) and employment.

Further information on the definitions of sport, data sources and the methodology used are provided in Annex A.

In November 2017, DCMS published economic estimates for each of its sectors, including Sport. For the purposes of that publication, the statistical definition of Sport was used, which incorporates only those 4-digit Standard Industrial Classification (SIC)1 codes which are predominately Sport (see the DCMS Sectors Economic Estimates methodology note for further information on SIC codes). This allowed the contribution of Sport to be considered in a way which is consistent with the other DCMS sectors.

However, the DCMS Sport Satellite Account reported in this release, based on the EU agreed definition, should be used as the best headline measure of Sport’s contribution to the UK economy. This definition is much wider than those used in the Economic Estimates and considers the proportion of other industries which sport can be attributed to.

For this report, all estimates, except in 2012, are based on 2014 sport proportions (i.e. the proportion of each industry attributed to sport) and therefore these latest estimates are provisional. Furthermore, the sport-related GVA estimates have been revised to take into account the planned annual revisions in the underlying national accounts data produced by the Office for National Statistics. The results in this publication should supersede any previous Sport Satellite Accounts.

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1 The Standard Industrial Classification is a means of classifying businesses according to the type of economic activity that they are engaged in. The latest version (SIC 2007) is available here.
2. Sport related GVA

This chapter presents UK GVA estimates for the Sport sector at a headline level. All estimates of GVA are shown in current prices (i.e. not adjusted for inflation). GVA estimates are consistent with the Office for National Statistics National Accounts.

It is estimated that in 2016 the contribution of the Sport sector to the UK economy (GVA) was £37.3bn, or 2.1 per cent of total UK GVA. The GVA of the Sport sector has increased by 3.3 per cent since 2015 (£36.1bn) and 15.0 per cent since 2012 (£32.4bn). This compared to 3.5 per cent and 15.9 per cent respectively for the UK economy as a whole.

Table 2.1: GVA contribution by Sport sector: 2012 - 2016

<table>
<thead>
<tr>
<th>Sector</th>
<th>GVA (£bn)</th>
<th>Percentage change</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sport</td>
<td>32.4</td>
<td>33.4</td>
<td>34.6</td>
</tr>
<tr>
<td>% of UK GVA</td>
<td>2.2</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>UK</td>
<td>1,505.7</td>
<td>1,564.4</td>
<td>1,638.7</td>
</tr>
</tbody>
</table>

Notes
1. Data are in current prices (i.e. have not been adjusted for inflation).
2. 2016 GVA figures are based on the output measure of GVA.
3. 2013, 2015 and 2016 data are provisional as they are based on 2014 Sport proportions.
4. Underlying national accounts data have been updated as part of the ONS routine planned revisions and therefore all back series of GVA have been updated here.
5. Text in red show where the data have been revised due to the balancing of Supply and Use tables.

Figure 2.2 shows that growth in the Sport sector was at a slightly slower rate than that for the UK economy as a whole between 2012 and 2016.

Figure 2.2: Indexed growth in GVA (2012=100) in Sport sector and UK: 2012 – 2016

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2 All estimates of GVA in this chapter are shown in current prices (i.e. not adjusted for inflation). For the UK, GVA in current prices (ABML, nominal GVA, not adjusted for inflation) increased by 16.1 per cent between 2012 and 2016 and 3.7 per cent between 2015 and 2016, compared with an increase of 9.3 per cent for GVA in constant prices (ABMM, real GVA, adjusted for inflation) between 2012 and 2016 and 1.6 per cent between 2015 and 2016.
3. Sport related employment

This chapter presents UK employment estimates for the Sport sector at a headline level. All estimates of employment are rounded to the nearest thousand. Employment estimates are based on the Annual Population Survey.

In 2015, there were 1.2 million jobs in the Sport sector, 3.7 per cent of all jobs in the UK. This represents a 1.7 per cent increase since 2015 (1.2 million), and 11.3 per cent increase since 2012 (1.1 million). Over the same time periods, UK employment increased by 1.2 per cent and 6.9 per cent respectively.

Table 3.1: Employment in the Sport sector: 2012 - 2016

<table>
<thead>
<tr>
<th>Sector</th>
<th>Employment (000’s)</th>
<th>Percentage change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sport</td>
<td>1,065</td>
<td>1,069</td>
</tr>
<tr>
<td>% of UK GVA</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>UK</td>
<td>30,334</td>
<td>30,760</td>
</tr>
</tbody>
</table>

Notes
(p) = provisional

Figure 3.1 shows that growth in jobs in the Sports sector is greater than that for the UK as a whole, between 2012 and 2016, and 2014 and 2016.

Figure 3.1: Indexed growth in jobs (2012=100) in Sport sector and UK: 2012, 2014, 2015 & 2016
Annex A – Definitions, methodology and data sources

This annex outlines the data sources used within the Sport Satellite Account and the methodology used to produce the estimates. The estimates in this release are based on 2014 sport proportions (except for 2012 estimates) and are therefore provisional for 2013, 2015 and 2016. The GVA estimates have also been revised to take into account changes in the underlying national accounts data. GVA estimates in this publication are therefore an update on previous Sport Satellite Account publications. The methodology is under refinement and it is therefore likely that changes will be made in future releases.

We would be interested in any feedback that users have on the approach taken in this release, and any views on further enhancements to ensure that we are capturing the Sport Economy accurately. Please send any feedback to evidence@culture.gov.uk

1. Satellite Accounts
A satellite account system is specifically aimed at sectors of the economy which are not observable in the traditional system of National Accounts, because they do not correspond to a specific statistically delineated economic activity. The approach is an extension of the system of National Accounts.

2. Sport Definition
A definition of Sport is required to identify Sport-related activities in NACE (Nomenclature statistique des activités économiques dans la Communauté européenne). This is the classification of economic activities in the European Union. Within the UK, we use Standard Industrial Classification codes, which fit within the NACE structure. The estimates in this publication are based on the EU agreed definition of the Sport economy ('Vilnius Definition'), which sets out which categories or sub-categories are fully or partly related to Sports and the definition to which they belong. Sport under the Vilnius definition is comprised of three parts:

- Statistical Definition: Comprised of “Sporting activities” (the only part of the Sport sector having its own NACE category).
- Narrow Definition: All activities which are inputs to Sport (i.e. all goods and services which are necessary for doing Sport) plus the Statistical Definition.
- Broad Definition: All activities which require Sport as an input (i.e. all goods and services which are related to a Sport activity but without being necessary for doing Sport e.g. insurance or gambling) plus the Narrow Definition.

A table outlining the Vilnius definition is available here.

3. Sport-related proportion
To calculate the proportion of Sport-related activity within each SIC, the FAME software from Companies House was used. A sample was identified by applying the following criteria:

- active company in October 2016
- located in England, Scotland, Wales or Northern Ireland
- submitted a Profit and Loss Account during the last ten years.

This gave a sample of approximately 462,000 companies from the UK economy. From this sample, each of the Sport related SIC codes were selected according to their primary SIC code within the Companies House records.
The total of profits and remuneration for each year was calculated for each SIC code. This is the denominator for the final calculation.

In order to select those companies within the SIC code which are Sport-related, the records were queried using a set of Sport-related keywords in the Industrial description. This identified those companies within each Sport-related primary SIC code which are Sport-related. Some of these companies will be 100% within the Sport domain, but for many other companies only a proportion of their business is Sport related. The Sport share for these companies therefore needed to be estimated. The Sport share was then applied to the sum of gross profits and remuneration for each company. This was the numerator for the final calculation.

To produce a Sport-related proportion for each SIC code, the numerator (Total profits and remuneration for Sport-related primary SIC codes with Sport related keywords in the Industrial description) was divided by the denominator (Total profits and remuneration for Sport-related primary SIC codes).

For 2013, 2015 and 2016, it was assumed the proportions were the same as 2014.

For a few SICs, Companies House data were not available and therefore separate models had to be used to identify the proportion of Sport related activity within an industry.

4. GVA
GVA measures the contribution to the economy of each individual producer, industry or sector in the UK. It is used in the estimation of gross domestic product (GDP).

\[ GVA + \text{ Taxes on products} - \text{ Subsidies on Products} = GDP \]

Estimates of taxes and subsidies are not available at an industry level and therefore GVA is used as the headline economic measure at an industry level.

The GVA estimates in this release are consistent with National Accounts and use the same methodology as used in the DCMS Sectors Economic Estimates release.

Data Sources
The following data sources were used in the production of GVA estimates for the Sport sector:

- Unsuppressed ABS aGVA estimates at the lowest level available – used to allocate GVA below the level available in the supply and use tables.

Method
The most reliable estimate of GVA comes from the annually produced Supply and Use tables (SUT), which contain balanced data drawn from many different sources, forming one robust estimate for each of the 112 Industries in the SUT matrix.

However, as the Sport sector is predominantly defined at 4 digit SIC level, and the SUT matrix is at a higher level, a method for breaking down the SUT estimates of GVA was applied. This was done using approximate Gross Value Added (aGVA) data from the UK non-financial business economy (Annual Business Survey).
For example, SIC 19.2 (Manufacture of refined petroleum products) forms part of the Sport sector. SIC 19 is available in the SUT, however, SIC 19.2 is the only part of the 2 digit SIC which should be included in the Sport sector estimate. To get an estimate of the GVA for this particular 4 digit SIC code that is consistent with National Accounts, the ABS aGVA was used to estimate 19.2 as a proportion of 19. This was then applied to the value of 19 in the SUT to get an estimate of GVA, consistent with National Accounts, for 19.2. This approach was applied for all cases where a 3 or 4 digit SIC is used in the Sport definition.

2016 GVA Data
The SUT and ABS only provide data up to 2015. Therefore estimates for 2016 use data from the short term measures of output (Index of Production, Index of Services, Construction Output), as a proxy for GVA. A complete time series of GVA (including these 2016 estimates) is available in the UK GDP(O) low level aggregates table which is published each month alongside the UK GDP publication. These short term measures tend to use turnover as a proxy for output and have no information on intermediate consumption.

5. Employment
Employment in this release is measured by number of jobs. Analysis is on a workplace basis. Employment estimates are made up of all first and second jobs in the Sport sector. Estimates include both employed and self-employed jobs.

Data Sources
The Labour Force Survey (LFS) which feeds into the Annual Population Survey (APS) is used for the number of jobs.

Method
Employment in the release covers all first and second occupations. In order to count the occupations, the data are first restricted to those who are employees or self-employed (main job - INECAC05 = 1 or 2; second job – SECJMBR = 1, 2 or 3). They are then restricted only to those who work in the Sport sector. Finally, data are weighted according to the person weighting (PWTA14). Confidence intervals can be constructed at the 95 per cent confidence level according to guidance in the LFS user manual.

Disclosure
All figures under 6,000 are suppressed in order to prevent any disclosure of personal data in the statistics in accordance with APS guidance. The mean value for weights in the APS data set is around 200 (199 in 2014 and 196 in 2013), although the maximum can take values of 3,000 or more. Therefore a figure of 6,000 could typically be based on a sample of 30 individuals, but may in some cases refer to fewer.

6. Limitations
DCMS strives to produce the best possible estimates and we have worked closely with the Office for National Statistics to ensure the underlying GVA and employment data are consistent with national measures. However, there are a number of limitations to the data which users should be aware of.

a) Measurement issues

Standard Industrial Classifications (SICs) - Estimates have been constructed from ONS Official Statistics which use international classifications. This is an important element of the methodology due to availability of data and to enable international comparability. However,
there are substantial limitations to the underlying classifications. As the balance and make-up of the economy changes, the international classifications are less able to provide the detail for important elements of the UK economy related to DCMS sectors, and therefore best fit SIC codes have been used to produce these estimates.

**Deflators** – Estimates have not been adjusted for inflation (published in current prices). Where possible comparison with growth in the wider economy is provided to put the changes for DCMS sectors in context.

**Sport proportions** – an estimate is required to capture the proportion of individual industries which have Sport-related activity. This has been based on a sample of all companies reporting accounts to Companies House. This may exclude sole traders and charities who do not have this requirement. For some SICs, data are not available from Companies House, and therefore the proportion of Sport-related activity within that SIC needs to be modelled. There is no standard method for apportioning Sport related activity to industries, and therefore some assumptions have had to be made.

**2013, 2015 and 2016 Sport proportions** – It has been assumed that the proportion of Sport activity within each SIC is the same in 2013, 2015 and 2016 as it was calculated to be in 2014. The proportions for 2012 and 2014 are similar so this was felt to be a reasonable assumption.

**2010 - 2015 GVA** – 2015 GVA has been updated from the figures first published in August 2016 to take into account the latest balancing of the National Accounts and finalisation of the Annual Business Survey data. National Accounts Supply Use Tables are open to revisions back to 1997 each year resulting in some changes to the back series too.

**GVA 2016 sector estimates** – estimates for 2016 have been modelled and therefore are subject to revisions once the fully balanced National Accounts estimates and latest ABS data become available (in Autumn 2018).

**Industry breakdowns** - The estimates in this report are based on survey data from the Annual Population Survey (APS), which is itself a derivative of the Labour Force Survey (LFS). This is a household survey with industry self-reported by the individual completing the survey. This provides good information on demographics, but leads to some inaccuracies on the industry breakdown. This should be borne in mind when using these estimates. Methodological information about the LFS can be found [here](#).

b) Data sources

**Survey data** – all the estimates included in the report are based on survey data collected by ONS. While these data provide the best available source of information there is often volatility, especially at the 4-digit SIC level which is predominantly used to produce estimates for the Sport sector.

**GVA 2012-2015**– National Accounts Supply Use Tables are only available with a breakdown of 112 industry categories. In most cases this means that for the Sport sector the most granular data available are at the 2-digit SIC level. Where the required detail is not available in the Supply Use tables, the Annual Business Survey (ABS) has been used to allocate GVA at the 4-digit level.

**GVA 2016** - For the latest year (currently 2016), the GVA data are taken from the output measure of GVA to allow consistency with the sector measures. This is aligned to average
GVA up to and including 2015 (last Supply Use balanced year) but then uses growth in the output measure as a proxy for GVA beyond that. The 2016 figure therefore differs from National Account GVA at current basic prices (series named ABML).

**Employment** – The *Annual Population Survey* (APS) is considered to be the best source of information for headlines estimates of UK jobs, including employed and self-employed jobs. However there are significant weaknesses with the industry breakdowns as they are based on self-reporting of individuals (and therefore are often inconsistent with how businesses are allocated in National Accounts). This should be borne in mind when using these estimates.
Annex B – Background Note

1. The next update to these statistics will be published later in 2018.

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4. DCMS statisticians can be followed on Twitter via @DCMSInsight.

5. We would be interested in any feedback that users have in the approach taken in this release, and any views on further enhancements to ensure that we are capturing the Sports economy accurately. Please send any feedback to evidence@culture.gov.uk.