

Valuing the voluntary sector: rethinking economic analysis

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**VALUING THE VOLUNTARY SECTOR IN SPORT:
RETHINKING ECONOMIC ANALYSIS**

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VALUING THE VOLUNTARY SECTOR IN SPORT: RETHINKING ECONOMIC ANALYSIS

Abstract

The voluntary sector plays an important role in the sports industry, as a provider of sporting opportunities and in the development of sport, from increasing participation through to supporting excellence and elite performance. However, despite this importance, research on its contribution to sport-related economic activity is limited, with information on this sector remaining the weakest part of current economic assessments of the UK sports industry. The research presented in this article examines the economic importance of the voluntary sector, using a case study of Sheffield. It demonstrates that the sports voluntary sector in the city is considerably smaller than was predicted when using national estimates and that this is largely a consequence of methodological issues relating to previous research. The article suggests that in the light of the findings and the increasing use of sport in urban policy, there is a need to rethink the methodology used to evaluate the economic contribution of the voluntary sector in the future.

Introduction

In recent years, the concept of using sport for economic regeneration has gained increasing credibility. As a result, a number of cities in the UK, including Sheffield, Manchester and Birmingham, have integrated sport into their urban regeneration strategies. At the same time, there has been an increase in both academic and policy related literature on the economic importance of sport (e.g. British Urban Regeneration Association, 2003; Cambridge Econometrics, 2003; Davies, 2002; Gratton and Henry, 2001; Gratton *et al*, 2001). This has largely stemmed from the need for a more systematic evaluation process to underpin strategies for sport and to enable more efficient decision making with regard to resource allocation (Lincoln and Stone, 1999).

The voluntary sector plays a crucial role in sports development and the provision of sporting opportunities in the UK. Volunteers play a significant role in the organisation of UK sport and the sector also provides a major economic contribution to the total value-added¹ of the industry (Gratton and Taylor, 2000; Shibli *et al*, 1999). Yet despite this significance, there is limited empirical analysis of its economic importance, even at the national level. Attempts have been made to evaluate the economic activity generated by the voluntary sector as part of broader assessments of the sports industry. However, the reliability and validity of the data used is questionable and the information on this sector remains one of the weakest parts of the current assessments of the economic importance of sport in the UK (Leisure Industries Research Centre, 1997).

This article uses a case study of Sheffieldⁱⁱ to examine the economic importance of the voluntary sector within the sports industry. It demonstrates that the economic significance of the voluntary sector in Sheffield is considerably less than predicted using national estimates and that this is largely a consequence of previous studies over-estimating the importance of the voluntary sector. The article goes on to argue that as a result of the findings presented and the increasing profile of sport in economic regeneration, the methodology used for estimating the economic importance voluntary sector needs to be re-examined. It suggests that this is particularly important if estimates of the economic importance of sport are to retain credibility or to be of any value to policy makers in the future.

Defining the sports voluntary sector

Sport and leisure opportunities in the UK are largely provided for by three sectors, each of which has different objectives. As shown in Figure 1, these are the public sector, the private-for-profit sector and the private-not-for-profit sector, although it should be noted that the boundaries of these categories themselves are blurred and often contested (Nichols and Taylor, 1993; Shibli, *et al*, 1999). The voluntary sector, also known as the third sector, is part of the private not-for-profit sector and is the largest sub group within it. It is largely comprised of voluntary sports clubs and governing bodies and is distinguished by the wide use of voluntary labour. The charitable sector is the second sub group in the private not-for-profit sector and is comprised of charitable trusts formed specifically to operate sports facilities, many of

which have been owned previously by local authorities. The third and final subgroup is the industrial sector, which comprises sports facilities and clubs organised at industrial premises, often with subsidies from commercial firms. The whole sector is thus characterised by private ownership and the lack of profit (Gratton and Taylor, 2000).

Insert Fig. 1

Although the three sectors can be separately defined with different objectives, many organisations within the sports industry fall between these rigid categories (this is illustrated by the arrow on Figure 1). For example, while charitable trusts operate on a non-profit making basis, they often receive considerable subsidies from the local authority. Similarly, while some voluntary clubs own the facilities they use, many pay for subsidised use of local authority facilities. In both cases there are arguments for placing voluntary clubs and charitable trusts in either the private not-for-profit or the public sector. However, ultimately they will be classified according to the underlying rationale of the organisation concerned and that of the sector in which they are categorised.

The research presented in this article relates to the voluntary, rather than the not-for-profit sector. It is only concerned with the economic activity generated by voluntary sports clubs and governing bodies in the research area and does not take account of the charitable or industrial sub sectors.

The economic importance of the voluntary sector: previous research

In the UK, two strands of literature have emerged relating to the economic importance of the voluntary sector in sport. The first, which has received relatively little attention, relates to the economic contribution (value-added) of the voluntary sector to the sports industry; the second relates to the value of the volunteer labour market.

Economic contribution of the voluntary sector to value-added

Research on the sectoral output produced of the voluntary sector has largely been undertaken as part of broader studies that have measured the economic importance of sport. A number of these studies have been undertaken at the national and regional level. These include the Centre for Advanced Studies in the Social Sciences (1995), Henley Centre for Forecasting (1986; 1989; 1990; 1992; 1992a), Pineda (1991; 1994) and Leisure Industries Research Centre (1997; 1997a; 1997b; 1997c; 1997d; 2000; 2000a; 2000b; 2000c; 2000d). Most recently, Sport England has published a report on the economic value of sport in England (Cambridge Econometrics, 2003), and on its value across all of the English Regions (Cambridge Econometrics, 2003a; 2003b; 2003c; 2003d; 2003e; 2003f; 2003g; 2003h; 2003i). These studies have found that the contribution of the voluntary sector to the Gross Domestic Product (GDP) of the sports industry amounted to 12.3% of sport-related value-added in England in 2000, which was equivalent to £1,210.07 million (Cambridge Econometrics, 2003). This estimate excludes the value of volunteer labour, which is recorded separatelyⁱⁱⁱ.

A major problem with all of the studies highlighted, is the reliability and validity of the data used to estimate sport-related economic activity. The Leisure Industries Research Centre (1997) notes that the level of economic information required for an economic impact study of the voluntary sector is simply not available. It goes on to argue that although virtually all the studies carried out in the UK have attempted to solve this problem with primary data collection, this remains the weakest part of current assessments of the economic importance of sport, as Gratton and Taylor (1985: 129) have explained:

By the very nature of voluntary sector activity assessment of its economic impact is virtually impossible. Many of the inputs into organisations go unrecorded...equally the output of such organisations is rarely measured because many voluntary organisations are small and many of their activities are not available except to the organisations' members.

The problem with data in the voluntary sector is therefore twofold. Firstly, there are limited data sources available at the local, regional and national level and secondly, while many studies carried out in the UK have attempted to solve this problem with primary data collection, this has been inconsistent and the data have often been of poor quality.

For those studies that have collected primary data using questionnaires, sampling has been inconsistent, techniques for aggregating data have been questionable and the validity of the estimates produced have been debatable. While further evidence for this critique will be amplified later in the article, Table 1 provides an example of the weakness in voluntary sector data. The table illustrates the sample sizes and response rates of the questionnaires sent to voluntary sports clubs in previous studies. As it

can be seen, these are highly variable. For example, of the 405 clubs sampled, covering 27 different sports, in the first Welsh study, only 52 responses were obtained, with no response from several sports. While the Northern Region study presented some improvements in data collection, with a sample size of 425 clubs and a response of 142 from 23 sports, there is clearly a need for further improvement in the reliability of primary data in this sector.

Insert Table 1

For studies that have not carried out primary data collection - namely those carried out most recently (e.g. Leisure Industries Research Centre, 1997, 2000; Cambridge Econometrics, 2003) - the quality of data is even more questionable. These studies have relied upon the results of previous research making ad hoc assumptions and 'suitably scaled to adjust for inflation' (Cambridge Econometrics, 2003: 35). Such manipulation renders the voluntary sector data in these studies even more unreliable than those that have undertaken limited primary research.

Valuing volunteers: the economic contribution of voluntary labour

In contrast to research on sectoral output, an area of voluntary sector research that has generated increasing attention is that relating to the economic contribution of voluntary labour to sport. While it is relatively straightforward to make comparisons of volunteer time and numbers, there is no widely accepted method for quantifying the value of volunteers to the sports industry. The Sports Council (1996: 15) argued, for example, that '...to put a monetary valuation on voluntary labour is in some senses

a contradiction in terms. Voluntary labour is given explicitly for no monetary reward...’ In a sense, to place a monetary value on volunteer labour is like treating volunteering as a cost to the volunteer involved, whereas in many cases it is a benefit to them, as Solberg (2003: 20) has explained:

...people’s involvement in voluntary work is not based on an instrumental rationality where the objective is to maximise one’s own utility. There are many who will regard volunteering as part of being a member of a club, and who will find it extremely difficult to distinguish the voluntary job from the rest of membership. Even though one can ask the respondents to value such aspects in monetary terms, it is difficult to regard the answers as serious assessments.

Notwithstanding volunteers motivations, the situation is paradoxical, since an organisation's point of view ‘the value of voluntary labour is relevant because without this voluntary labour the main alternative is a paid replacement’ (Sports Council, 1996: 15).

Gratton and Taylor (2000) suggest that there are three ways of valuing voluntary labour. These are the Contingent Valuation Approach, the Hedonic Pricing Method and the Opportunity Cost Method. They suggest that the latter is the one typically used in the valuation of voluntary time. The Opportunity Cost Method:

...works on the premise that the alternative to doing voluntary work is to do paid work, and the rate at which paid work could be obtained is the opportunity cost or shadow wage of preferring voluntary labour (Gratton and Taylor, 2000: 132).

There are numerous examples of research on sport and the voluntary sector that use the Opportunity Cost Method. For example, although recorded outside formal estimates of economic activity, several of the studies of the economic importance of

sport have used a shadow wage of 50% of the average manual workers earnings to calculate voluntary labour (e.g. Henley Centre for Forecasting 1992; Centre for Advanced Studies in the Social Sciences, 1995). However, increasingly this figure is viewed as outdated and controversial. Research on the characteristics of volunteers has shown that voluntary workers are more likely to come from higher socio-economic groups and to have higher than average levels of educational attainment (Goddard, 1994; Gratton and Taylor, 2000; Lynn and Davis Smith, 1992; Office for National Statistics, 1997; OPCS, 1983; 1989; 1994; Shibli *et al*, 1999; Sports Council, 1996). This suggests that using 50% of the average manual workers earnings for estimating the value of voluntary time in sport is not appropriate.

Other studies and organisations have tended to use different measures for valuing the volunteer market. For example, the Heritage Lottery Fund uses a shadow wage of £5.75 for manual labour and £15 an hour for professional labour, while the Sports Lottery Fund uses a value of £5 or £10 for manual labour and £5 to £15 for professional work (Sports Council, 1996). However, the problem with using these figures, particularly the Sports Lottery fund shadow wage, is that if it is assumed that a high proportion of volunteers in sports organisations are highly skilled and professional, the shadow wage adopted will be higher than average hourly earnings for all industries (Sports Council, 1996).

In contrast, the Volunteer Centre UK (1995) used the national average wage in its research into the economic value of the voluntary sector at the national level. Other

organisations, such as the Centre for Research in Social Policy at Loughborough University, have used more sophisticated approaches for valuing voluntary labour, such as the VIVA (Volunteer Investment and Value Audit). This method analyses the job skills used by volunteers and matches them to equivalent paid work, it then applies a shadow wage accordingly (Gaskin, 1999). While methods such as the VIVA are considered to be a more accurate way of measuring volunteer labour, they are complex and at this point in time have not been used to value unpaid labour in sport.

The Sports Council (1996) followed the precedent of the Volunteer Centre (1995) and adopted the national average wage for calculating the value of volunteering in UK sport. It used average hourly earnings for 1995 (£8.31) and estimated that the value of volunteer labour in UK sport was over £1.5 billion. This was over eight times greater than the previous estimate provided by the Henley Centre for Forecasting (1992). While some of this difference was accounted for by the Henley Centre using a different shadow wage, adjustments for this and inflation 'still yield a figure over four times the adjusted Henley Centre estimate' (Sports Council, 1996: 16).

Some studies have used measures other than the Opportunity Cost Method to value voluntary labour in sport. In addition to using the Opportunity Cost Method to assess the value of the displacement of other goods as a result of hosting a major sports event, for example, Solberg (2003) investigated the psychological benefits accruing to volunteers by asking them to grade their enjoyment by means of a Likert scale.

This measure was incorporated to illustrate that volunteering provides benefits to the individual, although acknowledging that these could not be expressed in monetary terms. Thus, discussion of the economic contribution of volunteers was still based upon data that used a shadow wage.

Arguably, there is no satisfactory way of valuing the voluntary sector and often a pragmatic line must be taken. The literature has shown that while most studies adopt a shadow wage for estimating the economic contribution of voluntary labour in sport, there is no universally accepted value assigned to this. Ultimately, the method and value used will depend upon the objectives of the research being carried out and the philosophical viewpoint of the researcher.

Methodology

Economic analysis of the voluntary sector in Sheffield was carried out as part of a broader study designed to measure the overall economic importance of sport in the city (Davies, 2002). The methodology used was the National Income Accounting (NIA) framework. This approach has been used in the majority of previous studies on the economic importance of the voluntary sector and while its application was problematic in these studies, it was largely due to data reliability and validity, rather than the fundamental principles of the methodology. Given these were issues that could be addressed at the local level, the NIA framework was used in Sheffield.

The National Income Accounting (NIA) framework

The NIA framework is a macro-economic approach to impact analysis and is based around the derivation of GDP. The framework is basically a measure of the monetary flow of all goods and services produced in an economy. There are two stages to the process of measuring the economic importance of sport using the NIA framework. The first is the identification of sport-related economic activity and the second is the derivation of the sectoral accounts and the calculation of value-added.

For the first stage, sport-related economic activity in Sheffield was identified and divided into seven sectors. These were: the consumer; commercial sport; commercial non-sport; voluntary; local government; central government; and 'outside the area' sectors. Income and expenditure profiles were derived for each of the sectors. For the second stage, sectoral accounts were created to show the monetary flows between the seven sectors. From these, value-added was calculated as wages and salaries plus any further excess of output value over production costs in each sector.

Data Collection

To identify sport-related economic activity in the voluntary sector, a database listing all voluntary clubs and organisations in Sheffield was derived. Previous studies have tended to classify clubs according to sporting activity. However, it was found that there were a number of clubs in Sheffield with several sporting activities. Therefore, clubs were classified into single and multiple sport organisations, as illustrated in Figure 2. These categories were further sub-divided on the basis of preliminary data

analysis, which revealed that there was a significant statistical difference between the gross income and expenditure of: single sport clubs that were independent from any other organisation (CORE) and those associated with the universities (UNI); and multiple sport clubs that were part of Working Men's Clubs (WMC) and Sport and Social Clubs (SSC).

Insert Fig. 2

The data were collected in 1997 using a postal survey, which was piloted prior to implementation. The whole population of voluntary clubs and organisations in Sheffield were sampled. Two hundred and sixty two responses were obtained from 1046 questionnaires. Table 2 summarises the number of responses obtained from each type of club.

Insert Table 2

Given that a relatively low response rate was obtained for CORE and WMC clubs, non-response was investigated to indicate any potential sample bias in the results. Ten per cent of the non-respondents were contacted and asked to indicate the reasons for not completing the questionnaire. While several reasons were stated in relation to the non-completion of CORE clubs, there was no evidence to suggest that the sample was biased in any particular way. However, with regard to the WMC clubs, a third of non-respondents stated that the reason for not completing the questionnaire was that no sport was played at the club. Consequently, at the aggregation stage, the number of clubs in the population was adjusted to take account of this.

Aggregation

Data collected from the postal survey were aggregated in several ways, based on the categorisation illustrated in Table 2. Firstly, independent single sport clubs (CORE) were aggregated by deriving a profile of income and expenditure for each sport. These were then multiplied by the number of clubs in the city. This technique was used for CORE clubs because there was found to be a significant statistical difference between the gross income and expenditure of clubs from different sporting activities.

Secondly, UNI clubs were aggregated by deriving a profile of income and expenditure for each institution (Sheffield Hallam University and Sheffield University). These were then multiplied by the total number of sports clubs in each university. This technique was used because, unlike CORE clubs, there was not found to be a significant difference between the gross income and expenditure of the various sporting activities, but there was found to be a difference between the two institutions.

Finally, SSC and WMC clubs were aggregated by deriving a profile of income and expenditure for each category. These were then multiplied by the number of SSC and WMC clubs in Sheffield. This technique was used because there was found to be a significant difference between the gross income and expenditure of SSC and WMC clubs. For the purposes of aggregation, the total number of WMC clubs in the Sheffield population was reduced by a third (33.3%) to take account of those clubs in which no sport was played.

While non-response in questionnaire research can lead to sample bias and the use of such a sample to aggregate up for a total population can further reduce data reliability and validity, attempts were made to keep this to a minimum by implementing the aggregation process outlined above. Despite this, it should be noted that the aggregation process does not necessarily remove all sample bias and, while the estimates produced in this article are conservative:

...as with all data collection exercises of this type there will be inevitable errors of estimation associated with the choice of sampling base and errors of sampling response (Henley Centre for Forecasting, 1992a: 76).

Base model

To enable a comparison of the economic importance of the voluntary sector in Sheffield with estimates of sport-related economic activity at the national level, a base model was derived. The base model gave a 'top down' benchmark estimate of sport-related economic activity in the voluntary sector, if Sheffield was typical of the rest of England. The base model for Sheffield was estimated using the Leisure Industries (LIRC) spreadsheet model for the economic importance of sport in England (Leisure Industries Research Centre, 1997a). This was calculated on a pro-rata basis using the population of Sheffield, the number of households in Sheffield and the percentage of England that Sheffield represents (based on total population). Since the England model represented 1995, a price inflator based on the Retail Price Index was used to estimate the base model for 1996/97.

Estimating the value of volunteer labour

Given that the NIA framework does not take account of unpaid labour, the value of volunteer labour in Sheffield was calculated by multiplying the total number of hours worked by volunteers in sports clubs and organisations in the city by a shadow wage. This was obtained from the postal questionnaire and aggregated as detailed previously. The shadow wage adopted was equivalent to the national average hourly earnings for 1996/97 of £9.13. This was the same as the shadow wage used by the Sports Council (1996).

Survey results

Table 3 shows the income and expenditure profile for the voluntary sector in Sheffield derived using the aggregation procedure described above. The table illustrates that the total income of the voluntary sector in Sheffield for 1996/97 was £9,619,814 and the total current expenditure was £9,275,873.

Insert Table 3

Comparison of these figures with the base model, shown in Table 4 reveals that the income and expenditure flowing to and from the voluntary sector in Sheffield was significantly smaller than anticipated. The base model predicted that the total income to the voluntary sector would be £32.96 million and that current expenditure would be £24.89 million. This was over three times greater than the actual revenue generated by the voluntary sector in Sheffield and over 2.5 times more spending than actually occurred.

Insert Table 4

While the aggregated total of income for the voluntary sector in Sheffield and the base model were considerably different, there were some similarities between the profiles of income shown in Table 3 and Table 4. For example, 35.2% of all revenue to the voluntary sector in Sheffield was generated from membership, training fees, players' collections and match fees. This was similar to the equivalent category from the base model, which predicted these items would account for 37.3% of income. Equally it can be seen from the tables that bar receipts and goods for resale were major sources of revenue in both profiles.

Sectoral output

Table 5 gives the value-added of the voluntary sector together with the other sectors generating sport-related economic activity in Sheffield. It also illustrates the predicted value-added from the base model. The voluntary sector contributed £2,899,808 value-added to the sports industry in the city, which was just 1.8% of sport-related GDP. In comparison, the base model predicted that the sector would generate approximately £13,342,299, or 15.5% of total value-added.

Insert Table 5

The value of volunteer labour

The total value of the volunteer labour force to the sports industry in Sheffield was £9,178,790. The Leisure Industries Research Centre (1997a) did not produce revised estimates of voluntary labour for England, therefore it was not possible to compare the Sheffield estimate for voluntary labour with the base model, as it was for sectoral output. Nevertheless, comparison of the estimated value of volunteer labour with the

profile of income and expenditure for the voluntary sector in Sheffield revealed that this was greater than the total income accruing to the voluntary sector and just less than total current expenditure. In previous studies, such comparisons have found that the estimated value of voluntary labour was more than twelve times smaller than the income and expenditure generated in this sector (Henley Centre for Forecasting, 1992). Thus in contrast to sectoral output, the value of volunteer labour in Sheffield was considerably greater than anticipated.

Explaining the economic significance of the voluntary sector

When compared to previous studies, the data collected in Sheffield represented a considerable improvement, in terms of the sampling framework used and the aggregation techniques. It is thus highly likely that a significant amount of the variation between the actual and predicted data are accounted for in this way. The following discussion consequently argues that previous estimates of the voluntary sector in sport are inaccurate. It suggests that such studies have over-estimated sport-related activity and under-estimated the value of volunteer labour. It argues that the findings illustrated in this article are largely a result of methodological issues relating to the collection of data rather than fundamental differences in the size and structure of the voluntary sector in Sheffield.

Sampling and sample framework

In comparison to primary research in other studies, the sample in Sheffield was larger and the number of responses higher. The largest number of clubs previously sampled was 600 in the second national study (Henley Centre for Forecasting, 1992). Other studies have sampled between 37 (Bracknell: Henley Centre for Forecasting, 1989) and 425 clubs (Pieda, 1994). In comparison, the Sheffield research sampled all 1046 clubs in the locality, which firstly, represented a much larger sample than any other study and secondly, ensured all sports organisations and activities were fully represented.

While sample size is unlikely to have any bearing on the reliability of the results, the numbers of responses obtained is likely to have had an influence. Two hundred and sixty two responses were obtained for Sheffield, which in absolute terms was again more than any other UK study. As shown in Table 1, previous responses have ranged from 14 in Bracknell (Henley Centre for Forecasting, 1989) to 232 in the national study (Henley Centre for Forecasting, 1992). Although the number was not significantly different from the number received in the national study, the fact that all were from one city and therefore more likely to reflect the variety in that locality than the 232 responses nationally, is likely to have enhanced the reliability of the results.

With regard to the sampling framework used for researching the voluntary sector, in Sheffield clubs were sampled using a 'bottom up approach' from a population that was known to exist. The national studies have tended to sample using a 'top down approach' from an unknown population, estimated using handbooks from governing

bodies. The uncertainty of the number of clubs that actually exist at the national level has undoubtedly contributed to the inaccuracy of national studies. Furthermore, it has quite possibly led to the omission of a number of smaller less formal clubs not registered with a governing body.

A final point in relation to the sampling framework is that previous studies of the voluntary sector have tended to view it as homogenous, essentially comprising of single sport non-profit making independent clubs (CORE). This study revealed that the voluntary sector was diverse and, while CORE clubs created the largest amount of economic activity, they only accounted for 60% of total income and expenditure to the sector. The results of the postal survey revealed that university clubs, SSC and WMC clubs accounted for the remaining income and expenditure flowing to the voluntary sector. Thus, if these elements had been taken into account at the national level, there may have been an even greater disparity between the actual and predicted results.

Aggregation techniques

There is evidence to suggest that the techniques used for aggregation in previous studies have tended to over represent larger and richer clubs. For example, in the second national study (Henley Centre for Forecasting, 1992), six 'major' sporting activities were selected for sampling, based on their high level of expenditure and the popularity of the activity. The entire voluntary sector was then aggregated by multiplying the number of clubs in each of the six activities by the profiles derived

for each sport sampled, with an additional 20% added on for 'other' sports. This undoubtedly biased the sample towards the larger and richer clubs, as four out of the six sports chosen were listed in the ten largest spenders of all sports (Centre for Leisure Research, 1991).

The aggregation technique used for Sheffield was more rigorous. All 34 sports were sampled and a framework for aggregation was devised based on a number of statistical tests carried out to reveal whether there was a significant difference between the various sports and the different categories of club. This procedure minimised any distortions that may have arisen from outlying values and the use of the mean for deriving income and expenditure profiles (Davies, 2002a). It also ensured that all categories and sporting activities in the voluntary sector were fully represented. The method of aggregation therefore certainly accounts for some of the difference between the Sheffield data and the base model. In addition, the value of voluntary labour in Sheffield was found to be considerably greater than expected in relation to income and expenditure accruing to the sector, largely due to the different shadow wage used to aggregate the value of hours worked by volunteers.

Implications of research findings

Methodological considerations for further research

In light of the research findings, future investigations of the voluntary sector should recognise and consider a number of key factors. These are:

- The limitations of existing information and the case for collecting primary data;
- Delimitation of the voluntary sector within the research area;
- Representation of all sports clubs and organisations within the sampling framework;
- The derivation of appropriate aggregation techniques to ensure that bias towards any one element of the voluntary sector is minimised;
- The value of voluntary (unpaid) labour.

As this article has illustrated, previous research on the voluntary sector is unreliable. In light of these findings, future investigations of the voluntary sector should acknowledge the limitations of current data sources and should endeavour to collect primary data as a priority. Although resource issues will always prevail as a reason for not carrying out primary data collection, particularly at the regional and national level, it is evident that little published data is available. The information that exists is largely based on inconsistent and weak primary data that has been derived, in many cases, with the use of ad hoc assumptions. Therefore to improve information on the voluntary sector, studies must move away from any dependence on these sources and derive new sources of reliable primary data.

If future investigations undertake primary research, a clear attempt should be made to define the boundaries of the voluntary sector. Furthermore, studies should clearly state whether estimates of sport-related economic activity include the other sub groups of the not-for-profit sector, such as charitable trusts and sports facilities/clubs

organised at industrial premises. Little is known about the scale of provision for sport through these sectors, although Gratton and Taylor (2000) argue that there is evidence the former is growing. If this is the case, they should be included in broader estimates of the economic importance of sport, and the most obvious sector to examine these within is the voluntary sector. Future investigations should therefore consider whether a study of the 'not-for-profit' sector is more relevant.

Future studies that use primary data to estimate sport-related economic activity and voluntary labour should ensure that all sports organisations and activities are included within the sampling framework. The research findings illustrated that the voluntary sector is not a homogenous entity; rather, multiple sporting organisations (SSC and WMC) and clubs dependent upon larger institutions (UNI) contribute a significant proportion of sectoral output in the voluntary sector in Sheffield. Research on the voluntary sector should therefore incorporate these organisations within the sampling framework. Similarly, attempts should be made to ensure that all sporting activities are represented. Statistical analysis revealed that different sporting activities have diverse income and expenditure profiles; consequently studies should attempt to sample from a wide, if not comprehensive, range of sports activities within the research area.

A further methodological issue that studies on the voluntary sector should consider is the technique used for aggregating primary data. This article has presented evidence to suggest that the aggregation process used in previous studies has resulted in bias

towards certain organisations within the voluntary sector. Future investigations should endeavour to derive techniques that utilise information from different types of sports clubs (e.g. single/multiple sport) and a wide range of sporting activities. The categories used for aggregation should be devised using statistical tests to reveal whether there are significant differences between the categories chosen. Furthermore, they should be derived to ensure that there are enough survey responses in each category to construct reliable profiles of income and expenditure.

Finally, any future evaluation of the voluntary sector should aim to incorporate information on, and estimate appropriately the value of, volunteer labour to the sports industry. Conventional economic estimates of the voluntary sector arguably underestimate the true size of the voluntary sector, as they only take account of the contribution the voluntary sector makes to the formal economy (Gratton and Taylor, 2000). These estimates only measure the income and expenditure of voluntary clubs, and take no account of the unpaid labour services of volunteers. Furthermore, as shown in this article, those studies that have included estimates of voluntary labour have hugely under-estimated its economic value (e.g. Henley Centre for Forecasting, 1992).

While it can be argued that the value of voluntary labour lies outside the formal economy and therefore should be omitted, unpaid labour is an essential resource element of the voluntary sector. The argument remaining that without it, a paid equivalent would be required, which would be a cost to the sector. Consequently,

future studies should estimate the value of voluntary labour, but as presented in this article, record it as a separate figure to formal estimates of economic activity generated. Furthermore, the shadow wage used to calculate this should be clearly stated, to allow comparisons with other studies. This way, policy makers and organisations wishing to use data on the voluntary sector can choose whether it is appropriate to include the value of unpaid labour. This will obviously depend upon the objectives of the research being carried out. Given that detailed information exists on the value of voluntary labour in sport (Sports Council, 1996), it should not be an onerous task to incorporate the value of unpaid labour into future economic evaluations of the voluntary sector.

Re-evaluating the economic importance of sport: regional and national studies

With increasing recognition of the positive benefits sport can generate in the UK economy, the findings presented in this article have implications not only for future studies on the economic importance of the voluntary sector, but also for those studies that use information on the voluntary sector to produce holistic estimates on the economic impact of sport.

The national economic importance of sport has been estimated annually by UK Sport for a number of years (e.g. Leisure Industries Research Centre, 1997; 2000). More recently, it has been calculated at the regional level by Sport England (Cambridge Econometrics, 2003) and as a consequence of increasing emphasis on regionally based funding decisions and the continual need to justify public spending on sport, it

is likely that further such studies will be commissioned. While there are methodological flaws with the data in all of the sectors that are measured by the NIA framework in these studies, this article has suggested that the voluntary sector is the weakest part of such estimates. If annual estimates of the sports industry at the national and regional level are to retain credibility in the future, a revision of the way in which the voluntary sector is measured is urgently required.

Although recent studies of the economic importance of sport acknowledge that current data on the voluntary sector is weak (Cambridge Econometrics, 2003), existing data are still used to make further estimates, thus perpetuating inaccurate representations of the voluntary sector. Existing data should no longer be used to make further estimates of sport-related economic activity in this sector. Cambridge Econometrics (2003) state that their economic model had to be founded on readily available data, to allow their analysis to be updated over time. However, it is clear that such data is not available for the voluntary sector. Thus, organisations commissioning these studies need to invest resources in creating more reliable information on the voluntary sector, which can subsequently be used to enhance the accuracy of future studies.

The collection of survey data on voluntary clubs at the regional and national level is possible, but it would be a time consuming and costly task. An alternative solution would be to set up a database detailing the financial accounts of these organisations. The database could be constructed through a series of local or regional case studies or

through the governing bodies of each respective sport. The latter way would enable data to be collected for all sports and would prevent the bias that has arisen in previous studies, particularly through only recording information from larger and more affluent clubs. It would enable a more accurate identification of the economic activity generated by the voluntary sector. However, this solution would require funding and a national body such as Sport England to co-ordinate it. Therefore it is only a realistic solution if the merits of improving estimates in the voluntary sector are deemed worthwhile from a policy perspective.

Future economic analysis of sport at the regional and national level should consider how best to collect primary data on the voluntary sector. Thought should be given to the feasibility of deriving a 'bottom up', rather than 'top down' estimate, which should be investigated. This could take the form of a number of locally based studies in cities and towns in the UK. This approach would be similar to that used by Myerscough (1988) in calculating the economic importance of the arts. However, unlike the Myerscough study, it should be based on a larger number of case studies. The idea of carrying out research at the local level and aggregating from this to obtain regional and national estimates is a methodological consideration that could be applied to the whole of the sports industry and not just the voluntary sector.

The use of sport as a tool for the renewal of urban areas and the regeneration of regions in the UK is likely to become more prominent in future years. Roger Draper, Chief Executive of Sport England was recently quoted as stating that:

...sport is a growing industry and one which is set to have an even bigger impact on the economy in the future. It plays a significant part in all of the regional economies and should feature prominently in the work of Regional Development Agencies plans to promote inward investment (Sport England, 2003).

With the profile of sport in urban and regional policy likely to increase, the need to evaluate its economic value will be of even greater importance in forthcoming years.

The findings of this article have suggested that current estimates of the voluntary sector are fundamentally flawed and that a full evaluation and appraisal of the way in which this sector is measured is urgently required. This is essential if the estimates of sport-related economic activity generated by the voluntary sector and subsequently those broader estimates of economic activity that use estimates of the voluntary sector, are to retain any academic credibility or provide useful information for policy makers in coming years.

References

British Urban Regeneration Association (2003) **BURA guide to best practice in Sport and Regeneration**, British Urban Regeneration Association, London.

Cambridge Econometrics (2003) **The Value of the Sports Economy in England**, Sport England, London.

Cambridge Econometrics (2003a) **The Value of the Sports Economy in the Regions: The Case of Yorkshire & the Humber**, Sport England, London

Cambridge Econometrics (2003b) **The Value of the Sports Economy in the Regions: The Case of London**, Sport England, London

Cambridge Econometrics (2003c) **The Value of the Sports Economy in the Regions: The Case of the South East**, Sport England, London

Cambridge Econometrics (2003d) **The Value of the Sports Economy in the Regions: The Case of East of England**, Sport England, London

Cambridge Econometrics (2003e) **The Value of the Sports Economy in the Regions: The Case of the South West**, Sport England, London

Cambridge Econometrics (2003f) **The Value of the Sports Economy in the Regions: The Case of the West Midlands**, Sport England, London

Cambridge Econometrics (2003g) **The Value of the Sports Economy in the Regions: The Case of the East Midlands**, Sport England, London

Cambridge Econometrics (2003h) **The Value of the Sports Economy in the Regions: The Case of the North West**, Sport England, London

Cambridge Econometrics (2003i) **The Value of the Sports Economy in the Regions: The Case of the North East**, Sport England, London

Centre for Advanced Studies in the Social Sciences (1995) **The Economic Impact of Sport in Wales**, The Sports Council for Wales, Cardiff.

Centre for Leisure Research (1991) **A Digest of Sports Statistics for the UK**, Sports Council, London.

Davies, L. E. (2002) Sport in the City: Measuring Economic Significance at the Local Level, **European Sport Management Quarterly**, Vol. 2, No. 2, pp. 83 - 107.

Davies, L. E. (2002a) Consumers' Expenditure on Sport in the UK: Increased Spending or Under-Estimation? **Managing Leisure: An International Journal**, Vol. 7, No. 2, pp. 83-102.

Gaskin, K. (1999) **Valuing Volunteers in Europe: a comparative study of the Volunteer Investment and Value Audit**, Institute for Volunteering Research, London.

Goddard, E. (1994) **Voluntary Work**, HMSO, London.

Gratton, C. and Henry, I. P. (eds.) (2001) **Sport in the City: The role of sport in economic and social regeneration**, Routledge, London.

Gratton, C. and Taylor, P. (1985) **Sport and Recreation: An Economic Analysis**, E. & F. N. Spon, London.

Gratton, C. and Taylor, P. (2000) **Economics of Sport and Recreation**, E. & F. N. Spon, London.

Gratton, C. Coleman, R. and Davies, L. (2001) **The Sport Industry in South Yorkshire**, Leisure Industries Research Centre, Sheffield.

Henley Centre for Forecasting (1986) **The Economic Impact and Importance of Sport in the UK**, Study 30, The Sports Council, London.

Henley Centre for Forecasting (1989) **The Economic Impact and Importance of Sport in Two Local Areas: Bracknell and the Wirral**, Study 33, The Sports Council, London.

Henley Centre for Forecasting (1990) **The Economic Impact and Importance of Sport in the Welsh Economy**, The Sports Council of Wales, Cardiff.

Henley Centre for Forecasting (1992) **The Economic Impact and Importance of Sport in the UK Economy in 1990**, The Sports Council, London.

Henley Centre for Forecasting (1992a) **The Economic Impact and Importance of Sport in the Northern Ireland Economy**, The Sports Council for Northern Ireland.

Jones, H. (1989) **The Economic Impact and Importance of Sport: A European Study**, Council of Europe, Strasbourg.

Lincoln, I. and Stone, I. (1999) 'Sport and the Northern Economy', in **The Case for Sport**, The Institute of Sport, University of Northumbria at Newcastle, Newcastle, pp. 81-131.

Leisure Industries Research Centre (1997) **A Review of the Economic Impact of Sport in the United Kingdom**, Report to The Sports Council. Leisure Industries Research Centre, Sheffield Hallam University and The University of Sheffield.

Leisure Industries Research Centre (1997a) **The Economic Importance of Sport in England in 1995**, Report to The Sports Council. Leisure Industries Research Centre, Sheffield Hallam University and The University of Sheffield.

Leisure Industries Research Centre (1997b) **The Economic Importance of Sport in Wales in 1995**, Report to The Sports Council for Wales. Leisure Industries Research Centre, Sheffield Hallam University and The University of Sheffield.

Leisure Industries Research Centre (1997c) **The Economic Importance of Sport in Scotland in 1995**, Report to The Scottish Sports Council. Leisure Industries Research Centre, Sheffield Hallam University and The University of Sheffield.

Leisure Industries Research Centre (1997d) **The Economic Importance of Sport in Northern Ireland in 1995**, Report to The Northern Ireland Sports Council. Leisure Industries Research Centre, Sheffield Hallam University and The University of Sheffield.

Leisure Industries Research Centre (2000) **The Economic Importance of Sport in the UK in 1998**, Report to The UK Sports Council. Leisure Industries Research Centre, Sheffield Hallam University and The University of Sheffield.

Leisure Industries Research Centre (2000a) **The Economic Importance of Sport in England in 1998**, Report to Sport England. Leisure Industries Research Centre, Sheffield Hallam University and The University of Sheffield.

Leisure Industries Research Centre (2000b) **The Economic Importance of Sport in Scotland in 1998**, Report to Sport Scotland. Leisure Industries Research Centre, Sheffield Hallam University and The University of Sheffield.

Leisure Industries Research Centre (2000c) **The Economic Importance of Sport in Wales in 1998**, Report to The Sports Council for Wales. Leisure Industries Research Centre, Sheffield Hallam University and The University of Sheffield.

Leisure Industries Research Centre (2000d) **The Economic Importance of Sport in Northern Ireland in 1998**, Report to the Northern Ireland Sports Council. Leisure Industries Research Centre, Sheffield Hallam University and The University of Sheffield.

Lynn, P. and Davis Smith, J. (1992) **The 1991 National Survey of Voluntary Activity in the UK**, The Volunteer Centre, London.

Nichols, G. and Taylor, P. (1993) **UK Sports Information Services: An Investigation of Demand by People with a Professional Interest in Sport**, The Sports Council, London.

Myerscough, J. (1988) **The Economic Importance of the Arts in Britain**, Policy Studies Institute, London.

Office for National Statistics (1997) **Living in Britain: Results from the 1996 General Household Survey**, The Stationary Office, London.

OPCS (1983) **General Household Survey 1981**, HMSO, London.

OPCS (1989) **General Household Survey 1987**, HMSO, London.

OPCS (1994) **General Household Survey 1992**, HMSO, London.

Pieda (1991) **Sport and the Economy of Scotland**, Research report No 18, The Scottish Sports Council, Edinburgh.

Pieda (1994) **Sport and the Northern Regional Economy**, Final Report to The Sports Council (Northern Region). Pieda, Edinburgh.

Shibli, S., Taylor, P., Nichols, G., Gratton, C. and Kokolakis, T. (1999) 'The Characteristics of Volunteers in UK Sports Clubs', **European Journal for Sport Management**, Vol. 6, Special Issue, pp. 10-27.

Solberg, H. A. (2003) Major Sporting Events: assessing the value of volunteers' work, **Managing Leisure**, Vol. 8, No. 1, pp. 17-27.

Sports Council (1996) **Valuing Volunteers in UK Sport**, The Sports Council, London.

Sport England (2003) Research reveals value of sport to the economy is increasing, **Sport England Press Releases 2003**, Visited: 17/09/03, URL: <http://www.sportengland.org/press>

Volunteer Centre UK (1995) **The Economic Value of Volunteering**, Research Bulletin 1, Volunteer Centre UK, London

Tables

TABLE 1. STUDIES COLLECTING PRIMARY DATA

<i>Source</i>	<i>Area</i>	<i>Number of sports sampled</i>	<i>Number of clubs sampled</i>	<i>Number of Responses</i>	<i>Response Rate (%)</i>
HC (1992)	UK	6	600	232	38.6
HC (1990)	Wales	27	405	52	12.8
CASSS (1995)	Wales	Unknown	195	68	34.9
HC (1992a)	Northern Ireland	29	376	73	19.4
Pieda (1991)	Scotland	Unknown	300	102	34.0
Pieda (1994)	Northern Region	23	425	142	33.4
HC (1989)	Bracknell & Wirral	(B) Unknown (W) 38	(B) 37 (W) 255	(B) 14 (W) 53	37.8 20.8

HC = Henley Centre for Forecasting

CASSS = Centre for Advanced Studies in the Social Sciences (1995)

TABLE 2. VOLUNTARY SECTOR DATA COLLECTION AND RESPONSES: SPORTS CLUBS IN SHEFFIELD

Type of club	<i>Population</i>	<i>Number of responses</i>	<i>Response Rate (%)</i>
CORE (single sport)	865	192	22.2
UNI (single sport)	87	47	54.0
SSC (multiple sports)	19	10	52.6
WMC (multiple sports)	75	13	17.3
Total	1,046	262	25.0

**TABLE 3. INCOME AND EXPENDITURE PROFILE: THE VOLUNTARY SECTOR
IN SHEFFIELD**

	<i>Total (£)</i>	<i>%</i>
<i>Income</i>		
Bar, food and clothing sales	3,615,906	37.6
Facility hire	659,018	6.9
Fundraising	626,952	6.5
Grants	288,655	3.0
Match fees, training fees & players contributions	905,211	9.4
Membership	2,482,727	25.8
Other	1,041,345	10.8
Total	9,619,814	100.0
<i>Current expenditure</i>		
Club equipment	255,507	2.8
Goods for resale	2,079,299	22.4
Ground maintenance	998,764	10.8
Hire of facilities	654,494	7.1
Operating costs	908,598	9.8
Travel	140,281	1.5
Wages and expenses	2,122,098	22.9
Other	2,116,832	22.7
Total	9,275,873	100.0

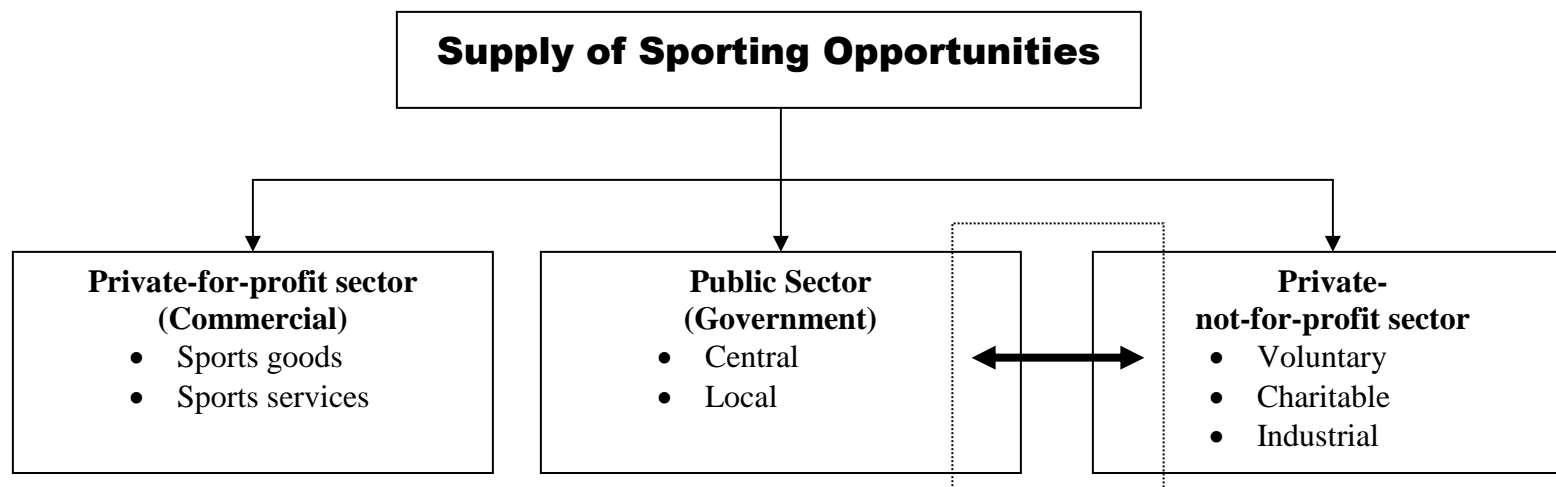
TABLE 4. INCOME AND EXPENDITURE PROFILE: THE BASE MODEL

	<i>Total (£ million)</i>	<i>%</i>
<i>Income</i>		
Bar receipts	15.04	45.6
Grants	2.5	7.6
Players subscriptions & match fees	12.28	37.3
Raffles and gaming	2.06	6.3
Sponsorship and advertising	0.66	2.0
Other	0.42	1.2
Total	32.96	100
<i>Current expenditure</i>		
Bar purchases	10.53	42.3
Club equipment	0.05	0.20
Ground hire and rents	0.49	2.0
Operating costs	0.49	2.0
Wages	7.42	29.8
Other	5.91	23.7
Total	24.89	100

TABLE 5. SPORT-RELATED VALUE-ADDED: SHEFFIELD AND THE BASE MODEL

	<i>Value-added (£)</i>		<i>Value-added (£)</i>	
	<i>Sheffield</i>	<i>%</i>	<i>Base model</i>	<i>%</i>
Commercial sport	66,677,790	40.3	18,801,269	21.8
Commercial non-sport	89,909,968	54.3	46,080,196	53.5
Voluntary	2,899,808	1.8	13,342,299	15.5
Local government	6,022,848	3.6	7,623,586	8.9
Central government	97,574	0.1	304,147	0.4
Total value-added	165,607,987	100.0	86,151,498	100.0

FIGURE 1. THE SUPPLY OF SPORTING OPPORTUNITIES




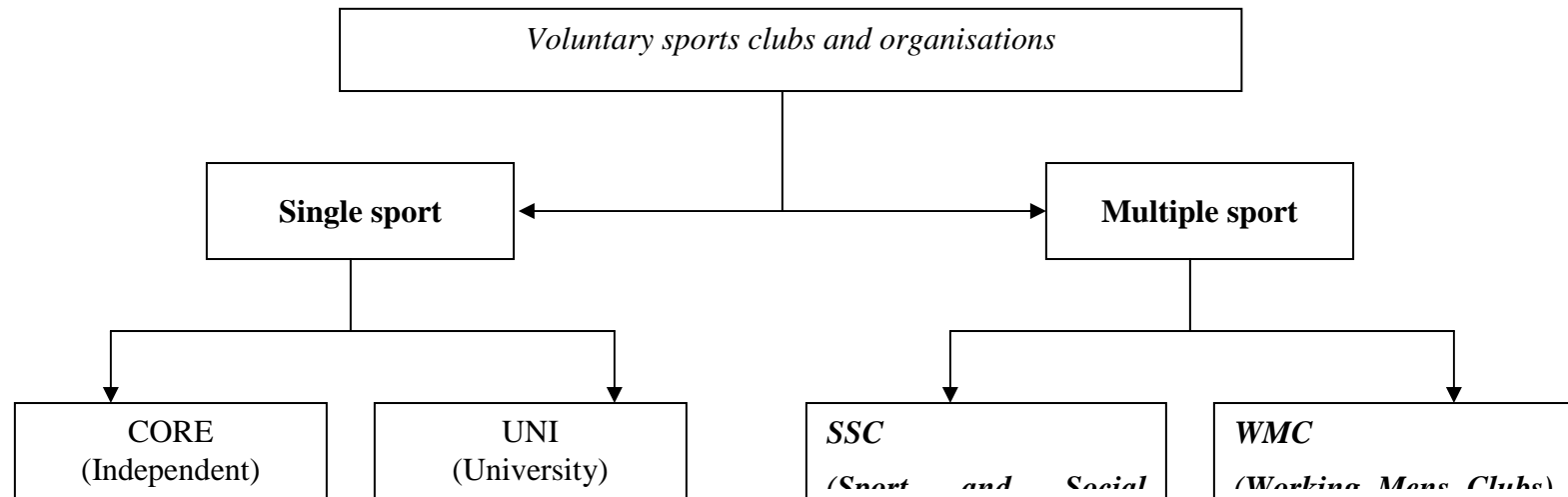
 Indicates organisations transcending the boundaries of conventional classifications

FIGURE 2: VOLUNTARY SPORTS CLUBS AND ORGANISATIONS IN SHEFFIELD



Footnotes/Endnotes

ⁱ Value-added is the difference between the value of the sport-related goods and services produced and the costs of the inputs used in producing them.

ⁱⁱ The fieldwork utilised in this article was carried out in 1996/1997. Although time has elapsed since it was undertaken, the findings presented continue to be of relevance, particularly to the methodological issues raised in the article, as these remain a weakness of current empirical research on the voluntary sector in sport.

ⁱⁱⁱ All studies that estimate the economic importance of the voluntary sector, record the value of volunteer labour as a separate value to the sectoral output (value-added) of the sector