

The Economic Importance of Sport: A Case Study of Sheffield

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ABSTRACT

Over the last decade, the concept of using sport for regeneration purposes has gained increasing credibility in a number of cities throughout the UK. Despite this, little is known about the economic importance of sport at the local level. Although research has been carried out on the economic activity generated through sport since the mid 1980s (Henley Centre for Forecasting, 1986), the majority of studies have been undertaken at the national and regional level. This thesis investigates the economic importance of sport at the local level, using Sheffield as a case study. It represents the first study of sport-related economic activity to be carried out at the city level, in the UK.

Following a critical evaluation of the feasible methodologies for measuring the economic importance of sport at the local level, the National Income Accounting framework was found to be most appropriate for measuring sport-related economic activity in Sheffield. To satisfy the data requirements of this framework, extensive primary data collection was undertaken in the voluntary, consumer and commercial sport sectors using questionnaires and structured interviews. This was used, together with data collected from secondary sources and previous economic impact studies in the UK, to estimate the value-added and employment created from sport-related economic activity in Sheffield.

The findings of the research revealed that the economic importance of sport in Sheffield in 1996/97 was approximately twice the level predicted from current national estimates. The value-added by sport-related economic activity was found to be £165.61 million, which was approximately 4.11% of GDP in Sheffield in 1996/97, compared with just 1.61% of GDP at the national level (LIRC, 1997). Whilst a number of explanations for these findings are explored within the thesis, one of the most significant findings of the research is that previous estimates, established in other studies on the economic importance of sport in the UK, have been inaccurate and have essentially underestimated the size of the sport-related economic activity.

The research also evaluated the potential role for sport in economic regeneration and provided evidence to suggest that sport can perform as a basic sector activity, a function widely assumed to be fulfilled only by producer services, manufacturing and agricultural activities (Williams, 1997). The study demonstrates that sport is an industrial sector within its own right and that it has considerable potential for generating benefits, including local economic development, job creation and urban renewal. Nevertheless, the thesis suggests that the future development of the sports industry for regeneration purposes should take the form of an integrated approach with other cultural industries and tourism.

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ABBREVIATIONS

CBA	Cost Benefit Analysis
CBCT	Chapeltown Baths Community Trust
CG	Central Government
CIPFA	Chartered Institute of Public Finance and Accountancy
CNS	Commercial Non Sport
CONS	Consumer
CS	Commercial Sport
CSO	Central Statistical Office
CVM	Contingent Valuation Method
DCMS	Department for Culture, Media and Sport
DSO	Direct Service Organisations
DTI	Department of Trade and Industry
Euro 96	European Football Championships 1996
FES	Family Expenditure Survey
FT	Full Time
FTE	Full Time Equivalent
GB	Great Britain
GDP	Gross Domestic Product
GHS	General Household Survey
GNP	Gross National Product
GRP	Gross Regional Product
GRSP	Gross Regional Sports Product
JICNARS	Joint Industry Committee for National Readership Survey
KES	King Edwards Swimming pool
LCS	Local Cultural Strategy
LEA	Local Education Authority
LG	Local Government
LIRC	Leisure Industries Research Centre
LSD	Leisure Services Department
NIA	National Income Accounting
NNP	Net National Product

NSVA	National Survey of Voluntary Activity
NTS	National Travel Survey
ONS	Office for National Statistics
OUT	Outside (Sheffield)
PP	Per Person
PT	Part Time
PW	Per week
RCC	Regional Cultural Consortium
RDA	Regional Development Agency
RPI	Retail Price Index
RSL	Research Services Limited
SCC	Sheffield City Council
SCLG	Sheffield City Liaison Group
SCT	Sheffield City Trust
SDC	Sheffield Development Corporation
SERC	Sheffield Economic Regeneration Committee
SHU	Sheffield Hallam University
SIS	Sheffield Information Service
SIV	Sheffield International Venues
SSC	Sports and Social Club
SU	The University of Sheffield
SUFC	Sheffield United Football Club
SWFC	Sheffield Wednesday Football Club
T1	Type 1 respondent
T2	Type 2 respondent
T3	Type 3 respondent
T4	Type 4 respondent
T5	Type 5 respondent
T6	Type 6 respondent
TEC	Training and Enterprise Council
UK	United Kingdom
UKSI	United Kingdom Sports Institute
US	United States
V1	Voluntary sector pilot questionnaire: Version 1

V2	Voluntary sector pilot questionnaire: Version 2
V3	Voluntary sector pilot questionnaire: Version 3
VOL	Voluntary
WMC	Working Mens Club
WSG	World Student Games

GLOSSARY

Factor cost	A valuation of the national income which excludes indirect taxes, net of subsidies
Factor expenditure	Payments made to the factors which contribute to output e.g. wages paid to employees
Factor income	Payments received by the various elements which contribute to the output of an economy e.g. revenue gained from bar, clothing and food sales in the voluntary sector, wages received by employees of the sports industry, the rent received for land
Factor surplus	The difference between factor income and factor expenditure
Final good	A good directly used by its ultimate consumer
Gross Domestic Product (GDP)	The total output of goods and services produced within a given country in a particular time period
Gross National Product (GNP)	The total output of goods and services produced by a country in a given period, plus the value of net property income (investments) from abroad, over a specific time period
Intermediate good	A good used in the production of another
Market prices	A valuation of the national income which includes indirect taxes, net of subsidies i.e. the value of output in terms of what it would cost the consumer
National Income	The monetary value of goods and services resulting from the economic activities of the residents of a country over a given time period
National Income Accounting	A measurement system used to estimate the total national income and its components
Net National Product (NNP)	Gross National Product minus depreciation
Transfers	Income flows where no economic activity is involved and no value added created e.g. unemployment benefits

Type 1 respondent (T1)	Not participated in sport in the last 12 months
Type 2 respondent (T2)	Participated sometime in the last 12 months but not in the last 4 weeks
Type 3 respondent (T3)	Participated on one occasion in the last 4 weeks
Type 4 respondent (T4)	Participated on 2-4 occasions in the last 4 weeks
Type 5 respondent (T5)	Participated on 5-10 occasions in the last 4 weeks
Type 6 respondent (T6)	Participated on more than 10 occasions in the last 4 weeks
Value-added	The value of an industry's sales minus the value of intermediate goods (for example raw materials and parts) purchased for use in production

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CHAPTER ONE. INTRODUCTION

Over the last decade, the concept of using sport for economic and social regeneration has gained increasing credibility in a number of cities throughout the UK. Despite this, little evidence is available about the economic importance of sport at the sub-regional and local level. Although research has been carried out on the economic activity generated through sport since the mid 1980s (Henley Centre for Forecasting, 1986), the majority of studies in the UK have been carried out at the national and regional level. Only one economic impact study has been carried out at the local level (Henley Centre for Forecasting, 1989). However, this was not undertaken within a major city. Therefore, while cities such as Birmingham, Manchester and Sheffield are now developing sport-led strategies for regeneration purposes, no evidence exists to inform such policy initiatives.

Given this lack of evidence, there is clearly a need to investigate the amount of economic activity generated through sport at the local and in particular, the major city level, to provide policy makers with information on the economic importance of sport. This research therefore uses a case study of Sheffield to examine the contribution of sport to value-added¹ and employment and to examine the role of sport in regeneration at the local level. This research follows on from a tradition of work on the economic importance of sport, initially developed by the Henley Centre for Forecasting (1986), which as outlined above has mainly been carried out at the national and regional level the UK. It uses the spreadsheet model constructed by Gratton and Kokolakis (1997) for measuring the economic importance of sport in England, in order to derive a model for estimating the economic importance of sport in Sheffield.

Although the research focuses specifically on the economic importance of sport in Sheffield, the research will provide a platform from which to develop further studies on the economic importance of sport at the local level. Sport is now considered to be a cultural industry (DCMS, 1999) and the need for every Local Authority in England to develop a Local Cultural Strategy by 2002, which is essentially a vision of how an area

¹ Value-added is defined as the difference between the total revenue of sport-related economic activity and the cost of bought-in raw materials, intermediate goods, services and components.

intends to develop its cultural services, indicates that an increasing number of cities are likely to place a substantial emphasis on evaluating the role of sport in economic and social regeneration in the future.

This chapter will set the context for the research by outlining the changing economic climate in which the sports sector in Sheffield has developed and the key organisations which were instrumental in this change and development. The chapter will then go on to outline the overall aim and objectives of the research and the structure of the ensuing thesis.

1.1 ECONOMIC CHANGE AND THE DEVELOPMENT OF THE SPORTS INDUSTRY IN SHEFFIELD

From the early nineteenth century until the 1970s, Sheffield flourished as the steel capital of the world and one of the most prosperous and important regions in the UK. Nevertheless, by the mid 1980s, the economy of Sheffield was in a considerably different state. Increasing overseas steel production, new technology and automation in the industry, the collapse of the world market for steel and the widespread de-industrialisation throughout the UK resulted in significant job loss in the city (Lawless and Ramsden, 1990; Lawless, 1990, 1994; Dabinett, 1995, Taylor *et al*, 1996). Local unemployment rose from 4.9% (against 5.4% nationally) in 1979, to 9.6% locally (against 6.8% nationally) in 1990 (Foley, 1991). In the city as a whole, jobs in steel fell from 45,000 in 1971 to 13,000 in 1987 (Dabinett 1991) and in 1991, just 22.7% of employees worked in manufacturing compared with 48% some twenty years previously (Williams, 1997). In addition, although the level of manufacturing in Sheffield was still above the national average of 21%, service sector employment did not grow at a sufficient rate to off-set widespread job loss.

The economic problems resulting from the decline of manufacturing and recession in the 1980s were enhanced by the virtual non-existence of private enterprise and service sector industry in Sheffield, in addition to the unusually high proportion of public sector employment. Furthermore, economic decline was exacerbated by the radical interventionist policies of the local government the early 1980s, which created an anti-

business image that dampened the market for investment and discouraged any retail, commercial or industrial investment for the first half of the 1980s (Lawless, 1990). The Employment Department, which was created by Sheffield City Council in 1981 to co-ordinate its economic activities, was arguably working to restructure the economy for the benefit of labour rather than capital. For example, assistance was given to trade unions to resist job losses in manufacturing industries and equal opportunities were pursued for minority groups (Lawless, 1990). These initiatives were in contrast to the Conservative government policies of the 1980s, that were promoting private sector development and market driven regeneration and as such, did little to entice new economic development into the city.

The mid-1980s marked a substantial paradigm shift in local policy from municipal socialism to public-private partnership (Dabinett, 1995). Amidst a growing national trend of partnerships and private sector intervention, Sheffield City Council

"was forced to concede that private sector investment would be necessary to meet the shortfall between available public resources and the investment needed to complete agreed projects for urban regeneration" (Dabinett, 1995: 226).

From 1986, the business community driven primarily by the Chamber of Commerce and the City Council therefore began to work together. This partnership eventually led to the creation of the Sheffield Economic Regeneration Committee (SERC) in 1987, which represented a formal partnership between the local authority, the private sector, trade unions, higher education, community groups and subsequently the Sheffield Development Corporation (SDC) (Lawless, 1990).

The SERC was given the task of overseeing the regeneration strategy in the city, with an emphasis on economic and physical development. As the SERC had no specific budget, its fundamental role was to act as a catalyst and co-ordinator of a wide range of developmental projects and activities in the city (Lawless, 1994). It produced various documents linked to regeneration (Sheffield City Council 1987, 1990), in which development opportunities were identified. For example, the 'Sheffield 2000' development strategy (Sheffield City Council, 1990) identified five growth networks economic and social regeneration including Manufacturing, Public Services, Information, Leisure and Green Growth. The emphasis on a leisure growth network, which included the development of sport, culture, arts, heritage and tourism in the city

was a relatively new concept. Poor imaging and market perception of Sheffield were widely perceived as a deterrent to private sector investment in the city (Foley, 1991), thus the adoption of sport, leisure and tourism as a regeneration theme for Sheffield in the late 1980s was part of the re-imaging and marketing strategy for the city, in an bid to make the city more attractive to inward investment. In addition, tourism and leisure were perceived to have both economic and social value.

Several flagship projects in the late 1980s marked a shift in the regeneration and renewal strategy of the city, away from traditional manufacturing to a property led service-orientated approach (Dabinett, 1991). In particular, the development of Meadowhall, a multi-million pound leisure and retail complex, four miles from the city centre and the successful bidding of the 1991 World Student Games (WSG), laid the foundation for the development of consumer services, in particular the sport and leisure industry in the city.

The Sheffield City Liaison Group (SCLG) emerged as a important partnership for regeneration and a key player in policy formation in the city in 1992. It was comprised of senior representatives from the city council, the universities, the health authority, SDC, the Chamber of Commerce and Industry, the Training and Enterprise Council (TEC) and key representatives from industry. However, unlike the SERC it did not directly represent community and voluntary groups and trade unions. Whereas the emphasis of the SERC was on economic and physical development, the SCLG attempted to integrate both economic and social regeneration (Dabinett, 2000).

Between 1992 and 1996, the SCLG produced several strategies for regeneration in Sheffield and sport featured as a common theme for economic development in each of these. In April 1994, the SCLG published its first plans for the economic development of Sheffield titled 'The Way Ahead' (Sheffield City Liaison Group, 1994). Within this document, sport was identified as both a strength in the economy and as a key business sector of potential growth. It was stated that 'the economic potential of sport needs to be considered and planned systematically' (Sheffield City Liaison Group, 1994: 15) and that a forum to develop an action plan for developing the economic and employment potential of sport was required.

In January 1995, the SCLG published a discussion document titled 'Shaping the Future' which focused on plans for social regeneration (Sheffield City Liaison Group, 1995a) and in July 1995, it published 'Growing Together' (Sheffield City Liaison Group, 1995) which was the first integrated economic and social strategy and plan for Sheffield. Within this document, there was a continued emphasis upon sport. Within the strategy it was stated that "there is now a need to explore the further potential for wealth and job creation from sport-related activities in the city" (Sheffield City Liaison Group, 1995: 16). It stated that a strategy for the development of sport was to be produced, to be subsequently used in support of bids for funding from the National Lottery Sports Fund. In 1996, the last draft strategy from the SCLG titled 'Sheffield Growing Together 1996' was produced, updating the strategy of the previous year (Sheffield City Liaison Group, 1996). Again the need to develop an action plan for sport was emphasised.

In November 1998, the Sheffield City Liaison Group became the Sheffield First Partnership, comprising key members of public and private organisations in city. In Autumn 1998, it produced a draft strategy for regeneration of the city (Sheffield First Partnership, 1998) which was finalised in July 1999 (Sheffield First Partnership, 1999). Within the document, it was acknowledged that the sector development plans for sport had not been completed but that leisure, tourism and sport were still key business sectors in the city which offered opportunities for investment and expansion. In the finalised strategy, the vision for Sheffield's future listed seven key points, one of which was to see Sheffield become a distinct city of European significance renowned as "A centre of excellence and opportunity and a leader in sport, education and culture" (Sheffield First Partnership, 1999: 8). In particular, sports science was highlighted as a key sector with the potential to create a new economic identity for the city.

Since 1987 to the present day, there has been a large growth in the cultural and service sector. By the early 1990s Sheffield had invested £147 million in new and renovated sports facilities ready for the WSG in 1991. New facilities included Ponds Forge (£51 million) and Hillsborough Sports Centre (£12 million), Don Valley Athletics Stadium (£28 million) and the Sheffield Indoor Arena (£34 million). In addition, over 40 major construction contracts have taken place in the city, worth over £600 million, to complement these sporting facilities and to encourage tourism including Meadowhall, Orchard Square and the Cultural Industries Quarter (Foley, 1991). Since 1995, the

canal basin at Victoria Quays has been renovated, the South Yorkshire Supertram has opened linking all of the new sporting facilities together, and other cultural venues such as the National Centre for Popular Music have been developed in the city. Sheffield was designated the first National City of Sport in the UK in July 1995 and it was announced in 1998 that Sheffield was chosen as the city to host the headquarters of the UK Sports Institute (UKSI), although subsequently this has been withdrawn and Sheffield is to be a regional centre of excellence.

Although evidence of physical renewal through retail, leisure and sporting industries can clearly be seen in fabric of the city, the approach to regeneration adopted by Sheffield, particularly with regard to sport has been controversial (Smith, 1991). Roche (1994: 9) has argued that Sheffield's approach to sports events has been "crisis ridden, politically divisive and financially highly questionable", while Dabinett (2000) has argued that the approach has done little to address the question of unemployment which in 1997 remained high at 7.2% some 1.9% above the UK rate (Local Economy Research Unit, 1998). It could further be argued that it has had little impact on GDP which in 1996 was £9,338 per head of resident in Sheffield compared with the UK average of £10,711 per person, approximately 13% below average (Sheffield First Partnership, 1999a).

One of the major problems for Sheffield has been that no comprehensive evaluation of the medium and long term impacts of investment in sport has been undertaken in the city. While the local authority is still criticised for the £10.4 million debt it incurred through staging the WSG, little recognition has been given for the fact that much more income than this has subsequently been raised through the annual programme of events which takes place in the city every year (KRONOS, 1997). Nevertheless, regardless of the fact that little is known about the economic activity generated by sport in Sheffield, as shown from the regeneration strategies discussed above, sport is clearly on its social and economic agenda.

Sheffield was chosen as an appropriate case study for measuring the economic importance of sport at the city level, largely as a result of the high level of public spending on sport in the early 1990s, but also because of the prominence of sport in the regeneration strategies of the city since then. The information derived from this

research will be useful for policy makers in Sheffield for informing such initiatives, in addition to providing information that can be used to bid for Objective One Funding for developing sport in the future.

1.2 AIMS AND OBJECTIVES OF THE RESEARCH

The overall aim of the thesis is to estimate the economic importance of sport in Sheffield and examine the role of sport in economic regeneration. The research has the following objectives:

- to critically evaluate the alternative economic methodologies that can be used to measure the economic importance of sport at the local level;
- to follow through to empirical investigation, those methodologies found to be appropriate and feasible for measuring the importance of sport at the local level, in order to estimate the economic importance of sport in Sheffield;
- to examine the potential role of sport in local economic development and to provide information for policy makers on the role of sport regeneration at the city level.

This research therefore seeks to become the first comprehensive evaluation of the economic activity generated by sport in a major city within the UK. It will provide valuable information for policy makers throughout the UK on the economic role of sport at the city level and also provide a platform for evaluating sport and economic regeneration in the future. The thesis is divided into three parts and will be structured as follows.

The first part is essentially concerned with setting the context of the research. Chapter Two will discuss sport in the wider domain of consumer services and economic regeneration and will then review the literature relating to the economic impact and importance of sport. Chapter Three, which is primarily concerned with the analytical framework, will firstly evaluate the various methods which have been used for measuring the economic importance of the leisure industry. Having selected the most appropriate method for measuring the importance of sport at the local level, it will then examine the theoretical base of the selected method. Chapter Three will also give



details of the base model which was derived to estimate the economic importance of sport in Sheffield if it were typical of the rest of England.

The second part of the thesis will focus on the methodology used to collect data and the results of the primary and secondary research. Chapter Four outlines the research design, in terms of the methods and techniques available for collecting data and the rationale for the chosen methods. Chapter Five presents and analyses the voluntary sector; Chapter Six, the consumer sector; Chapter Seven, the commercial sport sector and finally Chapter Eight analyses the secondary data collected in Sheffield. As there is limited information available on the economic importance of sport at the city level, within each of the analysis chapters, the data collected using primary and secondary methods will be compared to the results obtained from the base model, presented in Chapter Three.

The final part of the thesis draws together the results from the previous chapters and examines these within the context of the wider literature. Chapter Nine will discuss the overall economic importance of sport in Sheffield, in terms of value-added and employment. Chapter Ten will explain the significance of sport in Sheffield and discuss the role of sport in economic regeneration and finally, Chapter Eleven will conclude the thesis by discussing the findings of the study in the context of the objectives of the research and by outlining a number of recommendations for further research.

CHAPTER TWO. LITERATURE REVIEW

The previous chapter indicated that while a number of cities in the UK are now using sport for regeneration purposes, limited research has actually been carried out on the economic importance of sport at the local level. This chapter will review the literature relating to the proposed research outlined in Chapter One. It will examine previous studies on the economic importance of the leisure industry. However, it will primarily focus on evaluating research which has measured the economic activity generated by the sports sector in the UK and in Europe. Prior to this, the chapter will firstly commence by discussing the wider context of the research, with regard to consumer services and economic regeneration.

2.1 CONSUMER SERVICES AND ECONOMIC REGENERATION

Traditionally manufacturing industries were viewed as the motors to economic development. However, widespread de-industrialisation and the growth of service industries in the post war period has forced this traditional view of advanced capitalist societies to be reconsidered (Allen and Massey, 1990). As the absolute and proportional importance of the services has become an increasingly prominent part of all developed economies, in terms of output and employment, so the debates over their actual economic importance have become more intense (Johnston *et al*, 2000).

The service sector now employs 67% of all employees in advanced economies (International Labour Organisation, 1995) nevertheless, only recently have definitions of 'services' been established. The diversity of activities encompassed within this sector has created problems for classification. However, while these issues are well documented in the literature (Marshall and Wood, 1992; Urry, 1995), they will not be discussed here. The dichotomous categorisation of economic activities according to their markets, into producer and consumer services is now widely accepted and is used within this research. Producer services refer to those which are supplied to businesses and government which meet intermediate demand, whereas consumer services are those ordinarily supplied to individual consumers which fulfil final demand (Illeris, 1996;

Johnston *et al*, 2000). Sport, tourism, retailing, universities and the cultural industries are all examples of consumer services.

2.1.1 The Geography of Consumer Services: growth and location

The service sector has experienced a steady growth in the proportion of employment over the last century and is no longer a residual sector (Illeris, 1996). Williams (1997: 41) noted that "by 1991, more employees worked in the consumer services than in the primary and secondary sectors combined and nearly three times as many worked in the consumer services as the producer services". In total, the consumer sector currently employs over 40% of all employees in employment in the UK (Central Statistical Office, 1995).

Service activities and their locational patterns are diverse. However, the UK presents a dominant pattern of spatial centralisation in the location of services, with a clear concentration of services in metropolitan areas. Marshall and Wood (1995) note that studies as recent as the 1970s still used the Walter Christaller's Central Place Theory (Christaller, 1966) as a framework for explaining the distribution of service activities. Christaller's normative theory is based on the notions of range and threshold, which are the maximum distance that a consumer will travel to purchase a good, and the minimum volume of business necessary for an establishment selling that good alone to be commercially viable (Johnston *et al*, 2000). He argued that different goods have different ranges and thresholds.

Although the location of consumer services has changed with the growth of disposable income, counter-urbanisation, patterns of employment and purchasing behaviour, it has been argued that the concentration of inter-related forms of service demand by consumers in cities is a key mechanism behind urban growth and the location of services. In fact, Marshall and Wood (1995) argue it was the basis of much urban renewal in the 1980s in tourism, leisure and recreation. Furthermore, in terms of the inter-urban distribution of consumer service activities in the UK, contrary to popular belief, there is an over-representation of consumer service jobs in the poorer peripheral northern regions and an under-representation in the more affluent southern regions

(CSO, 1995; Williams, 1997). This is in contrast to the distribution of producer and financial services which are heavily concentrated in the Southeast.

2.1.2 Consumer Services as Wealth Creators

There is an ongoing debate in geography, economics and other urban-related disciplines as to whether services can firstly, create wealth and secondly, contribute to economic development. Many would argue that services are non-productive and that their role is passive (Peck and Tickell, 1991; Campbell, 1996). However, Illeris (1996) has suggested that services create new production and employment and play an important role in economic regeneration. Nevertheless, Williams (1997: 1) argues that although producer services are now widely accepted as playing an important role in economic regeneration, consumer services are still "assumed to be residual activities simply dependant upon other economic sectors for their vitality and viability".

The economic base theory, derived by Isard and Czamanski (1965) is one method used in assessing the role of economic activities in local and regional development. It divides economic activity into firstly, basic sector activities which generate external income for the area and act as engines of growth and secondly, dependent sector activities which circulate income within the economy. Although widely used, Illeris (1996: 132) notes that in recent years the traditional economic base theory has come under attack. He argues that "since service activities in each local area – as well as society as a whole have grown rapidly, it must be recognised that new employment, new economic development and new incomes are primarily created in service industries". He goes on to argue that service activities are undoubtedly basic and that they generate considerable external income to areas.

In recasting the role of consumer services in local economic development, Williams (1997) also argues that although consumer services are categorised as non-basic, they actually function as a basic sector activity. He maintains that consumer services generate external income through importing 'consumers' rather than exporting products. Furthermore, Williams (1997) and Persky *et al* (1993) argue that consumer services also contribute to economic development in their role as leakage preventers, through the

consequent inter-linkages between the various sectors of the local economy. This is supported by the work of Marshall and Wood (1995: 230) who also acknowledge the role of services as 'basic' in that they contribute significantly to the wealth creation of localities, but argue that local economic development

"depends on a complex network of relationships and exchanges with other economic functions at the local, regional and national levels".

While a significant body of literature exists on the contribution of services to local economic development, much of which has been reviewed by Marshall and Wood (1992), only a limited amount of research has been carried out on consumer services. Williams (1997) was the first to focus exclusively on the role of consumer services, and although he has used a wide range of local case studies such as Glasgow, Sheffield, Leeds and London and specific consumer service industries such as sport, tourism, cultural industries, universities and retailing to support his discussion, there is a clear need for additional research within various service sectors to further support the argument that consumer services can contribute to economic development.

2.1.3 Sport and Local Economic Development

Although there is growing recognition for the importance of consumer services in economic regeneration in general, literature on the role of sport and local economic development has nevertheless been somewhat limited. While tourism and the cultural industries (excluding sport) are now widely recognised as important sectors of economic activity (Bianchini *et al*, 1991; Williams and Shaw, 1991; Sinclair and Stabler 1991, 1998; Bianchini and Parkinson, 1993; Law, 1994; Landry *et al*, 1996; Williams, 1998), the idea of using sport as an industrial sector for regeneration purposes in the UK, has only recently been considered. Lincoln and Stone (1999: 124) argue that

"the idea of treating the sports sector as an 'industry' (as has happened in relation to other non traditional areas such as the 'cultural industries') and exploiting its potential in terms of generating benefits – including economic development, job creation and urban regeneration – for society in general is a relatively new one".

Literature on the role of sport and local economic development has traditionally focused on either the development of sports stadiums to host professional sports teams (Baade

and Dye, 1988, 1990; Colclough *et al*, 1994; Stevens, 1994; Baade, 1995; Bale and Moen, 1995, Loftmen and Spirou, 1996,), or the use of sports events for regeneration (Getz, 1991; Law, 1994; Roche, 1994; Bramwell 1997, 1997a; Callicott, 1999). As will be seen later in the chapter, only limited research has been carried out on the economic activity generated by the sports industry at the local level in the UK (Henley Centre for Forecasting, 1989) and no comprehensive evaluation of sport-related economic activity has ever been undertaken within a major city. Regardless of this, the use of the sports industry is increasingly being considered for local economic development within cities in the US and the UK (Loftmen and Spirou, 1996).

In North America, Indianapolis, Philadelphia, Kansas City, Baltimore and Denver provide examples of cities that have adopted sports orientated strategies (Bamberger and Parham, 1984; Collins, 1991; Owen, 1993; Loftman and Spirou, 1996) and in the UK, Glasgow (Booth and Boyle, 1993), Birmingham (Lister, 1991; Digaetano and Klemanski, 1993), Manchester (Manchester City Council, 1992) and Sheffield (Taylor *et al*, 1996) have also heavily invested in the sports industry for economic purposes. Within these cities, sport has been developed not only to sustain and enhance the local community, but to attract inward investment, to improve the image of the city and to contribute to local economic development, irrespective of the absence of academic research to support this.

2.1.4 Cultural Policy and Urban Development

The concept of using cultural policy for the development of urban areas is not a new phenomenon. Since the early 1970s, cultural policy has become an increasingly important component of urban development in the UK (Bianchini, 1990). Nevertheless, over this period, there has been a distinct shift from the social and political emphasis of the late 1970s and early 1980s to the economic development and urban regeneration priorities of the late 1980s and early 1990s (Bassett, 1993; Bianchini and Parkinson, 1993). Within this latter period, the cultural industries have been used to develop positive urban images, attract inward investment and to enhance tourism (Bianchini and Schwengal, 1991). Throughout the 1990s, the cultural industries have continued to be used for economic development. However, there has been an increasing move towards

the end of the decade to integrate both social and economic objectives into urban development.

The broadest definitions of 'culture' and 'cultural policy' adopted by Western European city governments include

"not only the 'pre-electronic' performing and visual arts (theatre, music, painting and sculpture) but also 'contemporary 'cultural industries' like film, video, broadcasting, advertising, electronic music, publishing, design and fashion. At the outer reaches, the phrase 'cultural industries' includes also the tourism, heritage and leisure industries" (Bianchini and Parkinson, 1993: 3),

Nevertheless, within the UK, much of the literature relating to cultural policy and urban regeneration, particularly up to the early 1990s focused upon a much narrower definition, basing its roots primarily within established cultural forms such as the arts and heritage (Garnham, 1983; Bianchini, 1991; Landry *et al*, 1996). Therefore, while cultural policy in the UK has essentially been used for economic development since the 1980s, the use of sport for urban development is a relatively new phenomenon. Nevertheless, the Department of Culture, Media and Sport (DCMS) now acknowledge that culture includes a wide range of activities including as arts, media, sports, parks, museums, libraries, the built heritage, the countryside, playgrounds and tourism (DCMS, 1999) and with local governments being encouraged embrace this term, rather than the well established concept of leisure (Lutz *et al*, 2000), it is likely that these broader definitions will become more widely adopted in the future.

In June 1999, the DCMS published a guidance document for local authorities in England on developing Local Cultural Strategies (DCMS, 1999) and by 2002 all local authorities are expected to have a strategy in place, which is essentially a vision of how the local area intends to develop its cultural services. Although the development of Local Cultural Strategies are intended to address a wide range of national cross cutting themes including social inclusion, regeneration and life long learning, cultural services including sport are also viewed as playing an important role in the economic development of local areas. However, as discussed previously, despite this rationale the role of sport in economic regeneration is still largely under researched and although policy documents advocating the use of sport for regeneration purposes are being produced (DCMS, 1999a; Lutz *et al*, 2000), there is nevertheless a need to carry out

rigorous academic research on the role of consumer services such as sport in economic regeneration at the local level.

2.2 ECONOMIC IMPACT AND IMPORTANCE STUDIES

In recent years, the need to justify both the use of scarce public resources and private sector investment in the leisure industry has led to a significant growth in academic and practitioner research on the economic activity generated by the leisure industry. Studies on the economic impact and importance of leisure are now an established field of research. However, sport studies are only a relatively small part of this. Historically in the UK, literature has focused on aspects of the leisure industry such as the arts and tourism with research on the importance of sport as an industrial sector not emerging until the mid-1980s. While the majority of the chapter will focus upon the literature relating to the economic importance of sport, within both the UK and Europe, the discussion will briefly outline research which has been undertaken in other areas of the leisure industry. It will be shown within this chapter that the literature on the economic impact and importance of tourism and the arts, in contrast to research on sport, has been predominantly carried out at the local level and as outlined in Chapter Three, has used different methods to measure the economic activity generated.

Prior to the discussion of literature on the economic activity generated by the leisure industry, it should be noted that within this field of research, the terms 'economic impact' and 'economic importance' are used interchangeably. For the purposes of this research, 'economic impact' is used in relation to the economic activity generated from a one-off activity such as a sports event or a cultural festival, whereas the term 'economic importance' is used in relation to the economic activity associated with a particular industry, for example the monetary flows into and out of economy from sport or tourism as an industrial sector. This research is therefore concerned with measuring the economic importance of sport in Sheffield.

2.2.1 Measuring the Economic Impact and Importance of Tourism and the Arts

Since the 1970s, tourism has emerged as one of the world's major industries in terms of sales, employment and foreign currency earnings (Sinclair and Stabler, 1991). One estimate alone suggests that the industry generates at least 60 million jobs a year world-wide (Urry, 1995) and some 1.5 million jobs within the UK (Foreign and Commonwealth Office, 1995). The growth of the tourism industry has been accompanied by the development of extensive theoretical and empirical literature on the economic implications of this and in the UK, there is a significant body of material on the importance of tourism dating back to the early 1970s (Richards 1972; Archer 1973; Bryden 1973; Henderson, 1975; Hanna 1976). While this will not be reviewed in detail here, spatially and analytically research on the tourism industry differs considerably from sport. Unlike sport, research in tourism has been carried out predominantly at the local and regional level and the methods used to measure this, which will be discussed in Chapter Three, are also significantly different.

Although research on the economic importance of the arts also did not emerge as a major field of study until the 1980s, the arts were measurably more successful than sport in raising its profile as an economically significant industrial sector. Myerscough (1988) was particularly instrumental in this and his work led to a proliferation of research on the economic importance of arts events and cultural tourism in the 1990s (Getz, 1991; Gratton and Taylor, 1992; Rolfe, 1992; Scottish Tourist Board, 1993). Myerscough (1988) used three local areas, Glasgow, Ipswich and Merseyside to determine the additional spend generated by the arts (Myerscough, 1988a; 1988b; 1988c) and from these he aggregated up to a national estimate (Myerscough, 1988). He estimated that the arts sector in the UK had a turnover of approximately £10 billion and was responsible for direct employment of almost half a million. Myerscough (1988) emphasised the role of the arts as a prime magnet for drawing people to a region or locality and as a consequence, awareness of the potential of the arts to act as a tool for regional and local development was greatly enhanced.

Prior to the research by Myerscough (1988), the arts and the cultural industries of urban areas were perceived as purely local amenities and while this work was later highly

criticised by Hughes (1989), for adopting such a wide definition of the arts and by Peacock (1992), for over estimating the positive economic benefits reported, since this, the arts have increasingly been viewed as part of the tourism resource base and an industrial sector in their own right (Law, 1994; Hewitson, 1995; Landry *et al*, 1996). In contrast, as noted by Lincoln and Stone (1999) earlier in the chapter, this recognition has not been achieved by the equivalent studies on the economic importance of sport in the UK. This is possibly because research on the arts and cultural industries has been undertaken at the local level, thus providing information at the spatial level required by policy makers, whereas the equivalent sport studies have predominantly been carried out at the national level.

2.2.2 Measuring the Economic Impact and Importance of Sport

Until the early 1980s, very little work existed on the economic impact and importance of sport, despite its increasing prominence in the international economy as a large growth area (Collins, 1991). However, since this time, a highly diverse body of international literature has developed in the area of sport and economics. In particular two distinct strands of literature have developed. The first, on the contribution of the sports industry to output and employment and the second, on the economic impact of sports events. Although the collection of literature on the economic importance of sport is essentially the most relevant to the context of the study and will be the focus of the majority of the discussion in this section, the literature on events provides an insight into an aspect of the sports industry, previously largely omitted from measurements of its contribution to GDP. In addition, sports events are an integral part of the regeneration strategy of Sheffield and will therefore also be reviewed briefly.

Although the discussion within this chapter focuses on the economic importance of the sport within Europe and the UK, research on the contribution of sport to output and employment has been carried out in other countries. For example, several impact studies have also been undertaken in Australia (Department of the Arts, Sport, the Environment, Tourism and Territories, 1993, 1993a, 1993b, 1993c; Soloff, 1993, Ernst and Young, 1998). In addition, a considerable body of literature on the economics of sport exists in the United States. Nevertheless, with the exception of isolated studies

such as Meek (1997), little of this actually focuses on the contribution of the sports industry to output and employment. A large proportion of the literature on sport and economics in North America focuses on the economic impact of sports stadiums and professional sports teams (Baade and Dye, 1988, 1990; Colclough *et al*, 1994; Baade, 1995; Bale and Moen, 1995), much of which has been initiated and published by local municipalities and promoters of stadiums and professional teams keen to convince citizens and electorates of the economic benefits to their city.

The following part of the chapter will now focus on the literature relating to the economic importance of sport, which has been undertaken within Europe and in the UK. It will be demonstrated that the research undertaken in sport is significantly different from the literature outlined in the arts and tourism, both in its application and methodological approach and also in terms of the spatial level at which the research has been carried out.

2.2.2.1 The economic importance of the sports industry: European studies

Within the European Community, research on the importance of sport was initiated in 1983, following a Council of Europe seminar on 'The Challenge of Increasing Leisure Time to Sport and Recreation'. At this seminar, it was suggested that

"increasing leisure time was contributing to the development of sport as a generalised recreational activity and hence creating a broad market open to the products of the sports goods industry and various services connected with sport" (Andreff, 1994: 7).

It was also pointed out that despite this, the economic impact and importance of sport remained largely unknown in the majority of countries. As a consequence of this, in 1984, a study was commissioned by the Council of Europe Committee for the Development of Sport, to analyse the impact of sport on the economies of the member states, with the UK taking the lead role. The conclusions of this study were published in a report henceforth referred to as the Jones Report (Jones, 1989).

The Jones Report was based on current or existing work on the economic importance of sport in a number of countries within Europe and its principal aim was to make international comparisons. Countries participating in the study included Belgium

(French and Flemish communities) Denmark, Finland, France Germany (formerly the Federal Republic of Germany), Iceland, Netherlands Portugal and the UK. The aim of this pioneering study was to attempt to investigate the importance of the sports industry in the economies of the participating countries and then to compare these results.

The Jones Report raised the profile of the sports industry as an industrial sector within the participating member states and throughout the community. However, interpretation and cross-national comparison of the individual studies proved to be difficult due to a number of reasons. As the following discussion will reveal, variations in the aims and objectives of the respective studies, the chosen analytical frameworks, the structure of sport within the different countries and the actual size of the national economies of the countries concerned made a comparison of national studies difficult.

Whereas the focus of the majority of the studies was to measure the contribution of sport to the total economy, Belgium (French community), Denmark and France focused on partial or sectoral studies of sport and therefore data was incomplete. Furthermore, in terms of the methodologies used, several countries employed macro economic techniques (UK, Finland, Belgium (Flemish community), Germany, Netherlands), while other countries adopted microeconomic approaches (Belgium French community) or even sociological methods (Denmark, Portugal). Each of these aspects made co-ordination of results from individual member states difficult (Jones, 1989).

Although global comparisons were problematic, a number of key findings made comparisons between studies possible. In terms of the macro economic studies which were undertaken, the study of sport in the Flanders (Kesenne *et al*, 1987), which used an Input-Output method to investigate the contribution of sport to national income and employment, found that in 1982, 55,000 people in Belgium were directly or indirectly employed due to sport and that the sports industries contribution to the Flemish GNP was approximately 1.3%. In comparison, the Netherlands which used the same technique, found the contribution of sport amounted to 1.8% of GNP (Van Puffelen *et al*, 1988). The Finnish study which used a National Income Accounting framework found the contribution of sport in 1985 was 0.9% of GNP (Rissanen, *et al*, 1989) and the United Kingdom also using the same framework, found that sport equalled 1.6% of GNP (Henley Centre for Forecasting, 1986).

The micro economic study carried out by the Belgian French community focused on the distribution of expenditure by sports participants (Les Pratique Sportives En Communauté Française, 1985) and found that consumer expenditure on sport accounted for 3.6% of Total Final Consumption. The Belgian French study was particularly relevant to this research as a similar investigation of consumer expenditure on sport was undertaken in Sheffield. In the study, 4,000 households were surveyed and 9,895 individuals were questioned. Of these 39.2% were sports participants of which 62% were males and 38% females. The study categorised sports participants according to their intensity of participation and calculated the distribution of sports expenditure by type of sports person, in addition it gave a detailed breakdown of age, sex and socio-economic status of sports participants. The study also looked at expenditure categories by type of sports person and by sex.

The following tables taken from the Jones Report indicate some of the key findings of the Belgian French community study. As can be seen from Table 2.1 nearly half of total sport-related consumer expenditure was by the intensive participants, which were those persons who had participated in sport four or more times per week.

TABLE 2.1. DISTRIBUTION OF SPORTS EXPENDITURE BY TYPE OF SPORTS PERSON

	<i>Intermittent</i>	<i>Occasional</i>	<i>Regular</i>	<i>Intensive</i>	<i>Total</i>
BF (billions)	5.2	9.1	11.4	21.3	47.0
%	11.1	19.4	24.2	45.3	100.0

Source: Jones (1989), Table 4.1

Table 2.2 shows that as the frequency of participation increased, so did the amount spent per person on sport-related activity. This was also supported by the work of Taks *et al* (1999) who found a positive significant correlation, when the relationship between time spent doing sport and the amount of money spent on sport was tested using a Pearson correlation on data derived from 900 sportsmen in Belgium.

TABLE 2.2. DISTRIBUTION OF PER CAPITA SPORTS EXPENDITURE BY TYPE OF SPORTS PERSON

	<i>Intermittent</i>	<i>Occasional</i>	<i>Regular</i>	<i>Intensive</i>
BF	18,663	21,770	30,809	65,501

Source: Jones (1989), Table 4.2

Table 2.3 shows that as sport is participated in more regularly, the profile of expenditure on items change. The Jones Report makes the observation that as participants take part in more sporting activities, the expenditure on travel accounts for an increasing proportion of total expenditure, up to approximately 50%. The report goes on to compare this figure with the estimated 13% of consumers expenditure that was allocated to travel in the UK study, noting that this may represent an underestimate.

TABLE 2.3. EXPENDITURE CATEGORIES BY TYPE OF SPORTS PERSON

%	<i>Intermittent</i>	<i>Occasional</i>	<i>Regular</i>	<i>Intensive</i>
Annual subscriptions	5	5	3	2
Admissions costs	9	22	19	23
Travel	19	34	46	51
Competition costs	12	7	9	7
Courses	4	3	3	3
Clothing	19	13	10	6
Equipment	32	17	10	8

Source: Jones (1989), Table 4.3

It is widely acknowledged that levels of sports participation are lower for women, than for men (Gratton and Tice, 1994; Lamb *et al*, 1992; Coalter, 1993, 1999) nevertheless, as shown from Table 2.4, it can also be seen that the distribution of consumer expenditure also varies. The Jones Report suggests that this distribution may be explained by the types of activity undertaken by the different sexes, with females participating more in activities such as swimming and aerobics which have low equipment costs but relatively high admissions. In addition, these sports tend not to be competitive.

TABLE 2.4. DISTRIBUTION OF SPORT- RELATED EXPENDITURE BY SEX

%	<i>Males</i>	<i>Females</i>
Annual subscriptions	3	4
Admissions costs	17	27
Travel	43	41
Competition costs	10	5
Courses	3	4
Clothing	9	10
Equipment	15	9

Source: Jones (1989), Table 4.4, pp. 33

The Belgium French community study was the only European study in the Jones Report to undertake a consumer expenditure survey on sport. Others studies such as those

carried out in the UK (Henley Centre for Forecasting, 1986), which will be discussed later in the chapter, used published data sources such as the Family Expenditure Survey (FES) to estimate consumer expenditure on sport and the level of detail obtained was consequently much less than the data presented in the tables above.

The third group of studies discussed in the Jones Report were those which adopted a sociological approach (Denmark, Iceland, Portugal) and were essentially concerned with the public and voluntary sector. The Danish study (Riiskjaer, 1987) as well as investigating the contribution of sport to GDP, also focused on the financial structures of the government and voluntary sector and the changing relationship between these. In addition, it was concerned with the resulting social changes as a consequence of these. The Icelandic study (Magnusson *et al*, 1989) focused essentially on the voluntary sector with considerable emphasis on the income and expenditure flows and again the role of the public sector. Finally, the Portuguese study concentrated on the effects of changing public sector funding on the voluntary sector (Tenreiro, 1986). The studies aforementioned were all partial studies and were therefore of less relevance to the research.

The difficulties of undertaking cross national comparisons in the Jones Report have been highlighted above, nevertheless the report was a valuable study in that, not only did it initiate further research on the importance of sport in the respective countries, but it also raised methodological considerations on the chosen analytical frameworks and problems encountered with these techniques. It also highlighted the difficulty in obtaining sufficiently detailed published statistical data on sport in each country. However, although the report included a chapter on policy implications, it did little to raise the awareness of policy makers, particularly in the UK, to the potential role of sport for economic development.

In 1992, the Council of Europe commissioned a follow up study to the Jones Report (Andreff, 1994: 8). The approach of this was entirely different to the previous study in that a standard questionnaire was produced to "increase the homogeneity and comparability of the data between Council of Europe member countries". This approach proved limited due to restrictions of available data in the participating countries to complete the questionnaires. Although it increased comparability of

research between member states, it did not lead to the further development of economic impact studies as occurred with the Jones Report, or to increased knowledge of the economic role of sport within the individual countries. Furthermore, the report made no contribution to the debate of sport in regeneration and provided little information of relevance to policy makers in the member states.

Since the initial studies carried out in the member states which formed part of the Jones Report, subsequent national European studies have been undertaken in a number of countries including Italy (Brunelli, 1992), Germany (Federal Institute of Sport Science and the Ministry of Culture of North Rhine-Westphalla, 1992) Denmark (Riiskaer, 1992), Croatia (Bartoluci, 1997) and the Netherlands (Oldenbroom *et al*, 1996). In addition, further studies have been carried out in the UK (Henley Centre for Forecasting, 1992, LIRC, 1997) which will be discussed later in the chapter.

One study of particular interest to this research, largely as a result of the comprehensive investigation of consumer expenditure on sport, was the research on the economic significance of sport in Flanders (Taks and Kesenne, 1999). Unlike the previous study on the economic importance of sport in the Flanders which used an Input-Output approach (Kesenne *et al*, 1987), the second Flanders study used the expenditure approach of the National Accounts to calculate economic impact. The study found that the Gross Regional Sports Product (GRSP) for the Flanders was \$US 4314 billion or 3.7% of the total GRP, compared to the previous estimate which found the economic importance of sport totalled 1.35% of GRP. Table 2.5 shows a comparison of total final expenditures as reported by the two studies.

TABLE 2.5. GRSP FOR FLANDERS 1996 AND 1982

	1996	1982 (in 1996 prices)
Private consumption	4,147	874
Government consumption	307	318
Public investment	67	67
Private investment	37	30
Trade balance	-320	-58
Total final expenditures	4,239 Euro	1,231 Euro

Source: Taks and Kesenne, (1999: 14), Table 7

Clearly the largest difference was in terms of household consumption. While it was noted in the report that this was undoubtedly due to the growth in private consumption,

it was also noted that methodologically the 1996 study investigated this sector in much greater detail than the 1982 study. The 1996 household survey of sports expenditure, which was completed by 512 households, found that a Flemish family spends on average \$US 1,809 per year, of which 85% was on active participation and 15% was related to spectator sport. This figure was similar to that suggested by Chelladurai (1999) who estimated that consumer expenditure on participant sport may well be over 75% of the total sports industry.

The 1996 Flanders report also found as in the Belgium (French community) study (*Les Pratique Sportives En Communauté Française* 1985), that travel was one of the largest expenditure categories. In addition, it highlighted the increasing importance of sports tourism in the Flanders, an issue that will be discussed later regarding the UK studies. The report concluded that sport has become a major sector in the regional and national economy and that this in essence was driven by the consumer sector. Nevertheless, as noted in the conclusion, these estimates exclude sponsoring and television rights which given the economic significance from global demand for televised coverage of major sports events (Gratton, 1998, Chelladurai, 1999), the most recent estimate of the economic importance of sport in the Flanders may still represent an underestimate.

2.2.2.2 The economic importance of the sports industry: UK studies

Following the initial UK study carried out at the national level which formed part of the Jones Report (Henley Centre for Forecasting, 1986), a subsequent number of studies on the economic importance of sport have been commissioned by various Sports Councils. As shown in Table 2.6, to date nine studies of the economic importance of sport have been undertaken in the UK, the majority of which were carried out at the national or regional level.

In all of the UK studies, the principal aim was to provide a 'snapshot' of the role of sport in the economy and with the exception of the Northern Region study, where an expenditure based multiplier approach was used to measure the economic importance of sport, the National Income Accounting (NIA) framework was adopted to estimate the value-added and employment in all of the studies.

TABLE 2.6. ECONOMIC IMPORTANCE STUDIES: UK

<i>Author</i>	<i>Date</i>	<i>Study area</i>	<i>Level</i>
Henley Centre for Forecasting	1986	UK	National
Henley Centre for Forecasting	1989	Bracknell & Wirral	Local
Henley Centre for Forecasting	1990	Wales	Regional
Pieda	1991	Scotland	Regional
Henley Centre for Forecasting	1992	Northern Ireland	Regional
Henley Centre for Forecasting	1992	UK	National
Pieda	1994	Northern region	Regional
Centre for Advanced Studies in the Social Sciences	1995	Wales	Regional
LIRC	1997	UK	National

Source: Henley Centre for Forecasting (1986; 1989; 1990; 1992; 1992a), Pieda (1991; 1994), Centre for Advanced Studies in the Social Sciences (1995), LIRC (1997)

The second study to be carried out in the UK was by the Henley Centre for Forecasting (1989) on behalf of The Sports Council. It focused on the economic importance of sport in two contrasting areas in England: Bracknell and the Wirral and it was the only UK study to be undertaken at the local level. Despite this, the study did not include a major urban area within the geographical catchment of the research. The study found that sport-related activity generated approximately £3 million of value-added in Bracknell and £14.6 million value-added in the Wirral and that sport-related employment totalled 323 and 1,619 in Bracknell and the Wirral respectively. In contrast to the previous UK study, it was found that a much larger proportion of value-added was generated by the local government sector – 40% for Bracknell and 31% for the Wirral, compared with just 13% at the national level. At the national level, the largest sector to generate value-added was by far the commercial non-sport sector (53%), a far less important sector in the local study.

The third UK study, also carried out by the Henley Centre for Forecasting (1990) was commissioned by the Sports Council for Wales to quantify the economic outputs, inputs and flows resulting from sport in the Welsh economy. Following a similar format to the previous studies in terms of data collection and analysis, the study found that the total value-added of sport-related economic activity in Wales was £188 million in 1988 and that estimated sport-related employment was 19,000. In this study, the largest sectors in terms of the creation of value-added were the commercial non-sport sector (36%) and the commercial sport sector (31%).

The first and only comprehensive analysis of the economic importance of sport in Scotland was undertaken by Pieda (1991). The study found that sport generated £985.7 million value-added to the Scottish economy which was the equivalent of 2.5% of Scottish GDP in 1990. It was also estimated that sport-related economic activity supported some 57,350 jobs in the Scottish economy. Furthermore, consumer spending on sport was estimated to be £1.2 billion which was approximately £11.38 per household per week. This was considerably larger than the previous UK study and some three times greater than the comparable figure found from the Welsh study (Henley Centre for Forecasting, 1990). A reason for this as will be seen later in the chapter, was that a survey was carried out to measure consumer expenditure on sport in Scotland, unlike in the previous UK studies outlined which used published data sources. While the estimate of consumer spending was large in comparison to previous UK estimates, it was nevertheless relatively modest compared to expenditure on sport per household per week in the Flanders, of approximately £22.96¹ (Taks and Kesenne, 1999).

In 1989, the Sports Council for Northern Ireland commissioned the Henley Centre for Forecasting (1992a) to evaluate the economic importance of sport on the Northern Ireland economy. The overall structure was similar to previous studies carried out in the local study and in Wales. Total value-added to the economy in 1989, was estimated to be £100.5 million and as with the Welsh study, the largest proportion of value-added was generated in the commercial sport sector (31%) and the commercial non-sport sector (27%). Consumer spending was approximately £184 million and employment generated by sport-related activity was approximately 7,600 jobs, a high proportion (32%) of which were classified as professional and managerial.

Following the initial UK study carried out in 1985 (Henley Centre for Forecasting, 1992), a second UK study was commissioned by the Sports Council to evaluate the economic importance of sport on the UK economy in 1990 (Henley Centre for Forecasting, 1992). It was found that the value-added by sport was the equivalent of 1.7% of GDP (£8.27 billion in 1990 prices) compared with 1.4% of GDP in 1985 (£5.58 billion in 1990 prices), a real increase of 48.2%. Employment in sport-related activities

¹ based on exchange rate of \$1 = £0.66

in 1990 also increased to 467,000 with approximately 26% of jobs classified as professional and managerial. This compares with 33% of all jobs which are classified professional and managerial in the UK (CSO, 1993). As with the initial UK study, the commercial non-sport sector was by far the largest contributor to value-added representing some 60% of the total.

In 1993, Pidea (1994) undertook the first study on a regional economy. The study on Sport and the Northern Region economy found that sport-related economic activity generated £366 million of value-added, the equivalent of 1.5% GDP, just slightly below the UK average. In comparison to the second UK study it was found that 4.2% of all employees were in sport-related employment compared with 5.2% nationally, furthermore that consumer spending was found to be £351 million, some 23% below the UK average. The distribution of value-added in the Northern Region economy was similar to that exemplified by the local study with the largest contributors of value-added being the commercial sector (36%) and the government sector (36%), with the commercial non-sport sector the third most important sector.

Also in 1993, the Centre for Advanced Studies in the Social Sciences (1995) carried out the second study on the economic importance of Wales. Its aim was not only to evaluate the significance of sport to the Welsh economy, but to compare it to the first Welsh study and to assess the implications for the future of the sports industry in Wales. In contrast to the first Welsh study, in which the commercial non-sport sector was the largest contributor to value-added (36%), the second Welsh study found that 39% of value-added was generated in the commercial sport sector. While the commercial non-sport sector remained static at 36%, the local government sector declined from 24% to 17% of total value-added from sport. However, overall the total value-added of sport-related economic activity was £234.9 million, which compared to the first Welsh study represented a relative decrease of 3%. Nevertheless, employment resulting from sport-related activities increased by 13% from 1988 to 21,518 in 1993 although evidence was found of a decrease in the higher level staff and an increase in lower cost short term employees. In real terms, sport-related consumer expenditure rose by 5% to £364.3 million.

In 1996, the Leisure Industries Research Centre (LIRC) reviewed all of the studies carried out on the economic importance of sport in the UK (LIRC, 1997). Furthermore, it constructed a spreadsheet model that replicated the economic importance of sport in the UK studies for 1985 and 1990 and produced estimates for 1995. Where it was not possible to replicate the sources used by the Henley Centre for Forecasting exactly, alternative data sources were used. Within this study, value-added to the UK economy in 1995 was £9.8 billion or 1.6% of GDP, consumer expenditure on sport was £10.4 billion and employment was 415,000.

From the LIRC (1997) study, Gratton and Kokolakakis also produced updated estimates for the economic importance of sport in England, Wales, Scotland and Northern Ireland by deriving a 'home countries' spreadsheet model (Gratton and Kokolakakis 1997, 1997a, 1997b, 1997c). While all of the studies by LIRC provided more recent estimates of the economic activity generated by sport, and produced valuable time series data for evaluating the contribution of sport to economic development, they did not modify or challenge the assumptions made in previous work, except where it was not possible to replicate data sources. Furthermore, the 'home countries' models essentially replicated and 'downsized' the national model without considering the changing nature and inter-related functions of a regional economy. Nonetheless, all of the models provide a fundamental platform for developing further models of the sports industry in the future.

Overall, the UK studies discussed above, were relatively successful in raising the profile of sport as an industrial sector within the academic environment. However, the actual relevance of these studies to policy makers was in fact limited, despite the fact that all of the UK studies with the exception of the initial UK study and the reports by Pineda, explicitly included a section on policy implications. This is illustrated by Lincoln and Stone (1999: 124) who argue that the idea of using sport for economic development and job creation "does not appear to be central to the policy process involving sports bodies" and that

"while local councils often regard policy in relation to sport in its wider economic context within their areas, there is a need for coordination overall to incorporate economic goals in strategies at all levels within the region".

Arguably a reason for this is that only limited research has actually been carried out at the local level which is directly relevant to policy makers within local authorities. As

highlighted earlier in the chapter, there is an absence of available research and information at the city level.

While the economic impact studies discussed above broke new ground in being the first of their kind to measure the importance of sport on an economy, as will be seen in the following section, they have been subject to criticism regarding the quality of data used. In addition, they have also been criticised for omitting aspects of sport-related economic activity such as sports tourism and sports events from estimates of value-added (LIRC, 1997).

Data reliability and validity

One of the major problems with all of the UK studies, although some were better than others, was the reliability and validity of data used to estimate sport-related economic activity. However, this was not a new problem in terms of economic impact studies in the UK and was also an issue in the European sport studies discussed earlier. Jones (1989: 13) comments

"the quality of the data is highly variable. Some figures are derived from statistically significant surveys; others are very rough guesstimates by the researchers.....the data made available did not come in the form of 10 neat reports. Much of the information was gathered from personal discussions and correspondence with policy makers. The result being a great deal of highly variable data of a partial nature."

As Jones illustrates, collecting data to satisfy the requirements of studies on the economic importance of sport is difficult nevertheless, in the UK studies there are serious misgivings in the way that data has been collected and used to make estimates. For example, in the voluntary sector, due to limited published data sources, although primary data collection was carried out using questionnaires in all but the initial UK study (Henley Centre for Forecasting, 1986), sampling has been inconsistent between studies and the validity of the estimates produced questionable. In the second UK study (Henley Centre for Forecasting, 1992), only six sports were surveyed and these results were grossed up and an additional 20% was 'added on' for 'other' sports. Furthermore, as highlighted above, when LIRC repeated the 1985 and 1990 UK study for the Sports Council (LIRC 1997), it also found the availability and the actual validity of the data

used in previous studies questionable. Indeed, the formation of the spreadsheet model actually revealed that in many cases exact duplication of statistics was not possible.

An example of the problem of data reliability can be shown using the voluntary sector. Table 2.7 shows the sample sizes and response rates of questionnaires sent out to the voluntary sector in all of the UK studies. It can be seen from the table that in the first Welsh study (WALES1) although 405 clubs were sampled covering 27 different sports, only 52 responses were obtained. No response was obtained from several sports in this study, leaving estimates derived from these questionnaires subject to large margins of error. The Northern Region study presented some improvements in data collection of the voluntary sector with a sample size of 425 clubs and a response of 142 from 23 sports nevertheless, clearly there is still need for improvement in this sector. Table 2.8 gives a more detailed summary of the voluntary sector data collection and analysis in previous UK studies.

TABLE 2.7. DATA COLLECTION: UK STUDIES - VOLUNTARY SECTOR

<i>Research report</i>	<i>Primary data collection</i>	<i>Number of sports sampled</i>	<i>Number of clubs sampled</i>	<i>Number of Response</i>
UK 1	✗	7	N/A	N/A
UK 2	✓	6	600	232
WALES1	✓	27	405	52
WALES2	✓	?	195	68
Northern Ireland	✓	29	376	73
Scotland	✓	?	300	102
Northern Region	✓	23	425	142
Bracknell & Wirral	✓	(B) ? (W) 38	(B) 37 (W) 255	(B) 14 (W) 53

Source: Henley Centre for Forecasting (1986; 1989; 1990; 1992; 1992a), Pidea (1991; 1994), Centre for Advanced Studies in the Social Sciences (1995)

The voluntary sector actually represents the weakest part of previous studies on the economic importance of sport. Data on the economic activity generated by voluntary clubs is simply not available at the local, regional or national level (LIRC, 1997), and while virtually all the studies carried out in the UK have attempted to solve this problem with primary data collection, the data is notoriously weak. Although an increasing amount of research is being carried out on voluntary work within sport (Lynn and Davis Smith, 1992; Goddard, 1994) and valuing volunteer time (LIRC, 1996a, Shibli *et al*, 1999), research on estimating the economic importance of the voluntary sector remains scarce.

TABLE 2.8. SUMMARY OF VOLUNTARY SECTOR DATA COLLECTION: UK STUDIES

Reference	Level	Primary data	Sampling framework/ aggregation procedures	Number of sports	Sample size	Response	Value added (VA)/ employment (emp)
Henley Centre, 1986	National (UK)	N	Examined a small sample of 35 club accounts for 7 sports which were considered likely to dominate the sectors monetary flows. Sample drawn from the applications made by the clubs to the Sports Council for grants	Football, rugby, athletics, cricket, tennis, golf, bowls. No adjustment for other sports	N/A	N/A	£115m VA Non-monetary exp. vol. emp £81m
Henley Centre, 1989	Local	Y	Bracknell sampled in and out of area. Wirral sampled in area only	38 (Wirral)	37 B 255 W	14 B 53 W	B: £132,000 VA, 192,000 emp; W: £1.49m VA, 1.37m emp
Henley Centre, 1990	National (Wales)	Y	Sample derivation unknown. Data aggregated for individual sports to obtain estimate whole sector	27 sports	405	52	£15.1m VA £8.34m from vol. emp
Pieda, 1991	National (Scotland)	Y	Sample derivation unknown. Results agg. for main/minor sports as in Pieda (1994)	Major/minor sports	300	102	£37.1m VA No emp figs
Henley Centre, 1992	National (UK)	Y	Targeted 6 sports. Sampling frameworks constructed from relevant gov. body handbooks on national/county basis. Criteria: popularity/ high exp. per club. Agg. using the Digest of Sports Statistics (Sports Council)	Athletics, cricket, football, golf, rugby, sailing. Add 20% for 'other' sports	600	232	£831m VA £178 m vol. emp
Henley Centre, 1992a	National (N.Ire)	Y	Sample taken (not stated how). Data aggregated for individual sports	29 sports	376	73	£14.1m VA £2.6m vol. emp
Pieda, 1994	Regional (Northern)	Y	Gov. bodies in NR identified. From these, list of indiv. clubs derived and random sample of 1 in 7 chosen. These were then aggregated for all vol. clubs across NR	Sample divided into main clubs: cricket, foot, golf, rugby, swim, tennis and 'other' (23)	425	142	£3.8m VA £10m vol. emp (900FTE)
CASSS (1995)	National (Wales)	Y	Sample weighted according to distribution of sporting activity throughout Wales. Included all those with large economic imp. foot, rugby, then a selection of smaller clubs on geographical basis. Aggregated on indiv. sport basis	Not stated, but contain greater rugby, football, cricket, bowls to less pop. activities	195	68	£15.9m VA £9.43m vol. work

Source: Henley Centre for Forecasting (1986; 1989; 1990; 1992; 1992a), Pieda (1991; 1994), Centre for Advanced Studies in the Social Sciences (1995), LIRC (1997)

The commercial sport sector is another sector where data reliability has been questionable in the previous studies outlined. Although much of the published data available for this sector at the national level is reliable, in the studies which have collected primary data because published sources were not available, particularly at the regional and local level, poor response rates have resulted in unreliable data. For example, in the Scottish study (Pieda 1991), 12 responses from a sample of 76 commercial leisure facilities surveyed were obtained and in an attempt to estimate the sports elements of newspapers, just 3 out of 20 questionnaires were returned, none of which were complete. Similarly in the Northern Region study (Pieda, 1994), 51 questionnaires were sent out to sports clubs and facilities operated by the private sector and even after follow up telephone calls it was not possible to exceed a response rate of 10%, subsequently of which half of these were rendered invalid due to incomplete responses.

Although the UK studies have been used to make comparisons of sport-related economic activity in for example, Wales and Scotland, or the UK in 1985 and 1990, caution should be exercised when analysing the results. In the commercial sport sector, as with the voluntary sector discussed previously, the way in which data has been collected between the UK studies has been unsystematic and inconsistent. In some studies primary data has been collected while in other sectors secondary sources and *ad hoc* assumptions have been made to estimate data. For example, in the second UK study, income to the retailing sector was estimated for the greater part using the flows of expenditure from the consumer sector. Turnover was derived from the income side and from this turnover, expenditure on wages and profits were derived using Business Monitors. Such calculations require significant assumptions regarding published data sources and can yield quite different results to those obtained from primary data.

Since the sports industry is not a conventionally defined industrial sector, published data is often not available in the detail required for the analytical framework used to measure the economic importance of sport in the UK. Often the sport-related component of wider expenditure categories in surveys such as the National Travel Survey (NTS) or Family Expenditure Survey (FES) need to be derived. However, while this often presents problems for data reliability and validity at the national level,

this is an even greater issue at the regional or local level whereby even less data is available.

Although the availability of reliable data sources is a problem for all the studies listed in Table 2.6, research at the local level provides an opportunity to collect primary research. Regardless of this, the only study that was undertaken at the local level (Henley Centre for Forecasting, 1989) failed to capitalise on this opportunity to improve data reliability in this way. In this study aside from the voluntary sector, attempts to improve upon the weaknesses of data quality were limited and although primary research was conducted, sample sizes and responses were poor, particularly for the commercial sport and non-commercial sport sectors.

As noted earlier in the chapter, consumer expenditure in the Scottish study was found to be notably higher than in previous studies in the UK. It was found that

"Comparison with the UK study suggests that the present estimate of Scottish sport-related value-added is over twice the level that would be implied by the UK study when allowance is made for inflation and Scotland's share of the UK national economy" (Pieda, 1991: 18).

The Scottish study concluded that the principal reason for this was the high level of expenditure found by the consumer survey. The Scottish study was the only UK study to carry out such a survey, with the other reports relying upon published data sources such as the FES. Similar results were also obtained in the second Flanders study (Taks and Kesenne, 1999). This study also carried out a consumer survey on sports expenditure and found it to be considerably higher than anticipated. The evidence presented in these studies suggests that when data is collected on sport-related consumer expenditure using published data sources, such as in the national UK and Dutch studies (Henley Centre for Forecasting 1986, 1992; Oldenbroom *et al*, 1996), expenditure is considerably lower than when consumers are actually surveyed and asked how much they actually spend on sport (Les Pratique Sportives En Communaute Francasie, 1985; Pieda, 1991; Lamb *et al*, 1992; Taks and Kesenne, 1999).

Lamb *et al* (1992) argue that published sources on consumer spending on sport underestimate total expenditure because they do not specifically examine the cost of sports participation to those people who are actually participating. They argue that

studies such as Gratton and Taylor (1985) and the Henley Centre for Forecasting (1986), have underestimated consumer spending on sport for this reason. While the reasons for the differences shown between consumer data collected using a consumer survey and that derived from secondary sources are inconclusive, this is clearly a methodological issue. Regardless of the reasons, the literature strongly indicates that estimates of consumer expenditure on sport in the previous UK studies have been largely under reported. Given that real consumers' expenditure on sport (which accounted for 2.33% of all consumer expenditure in 1995) has grown by 30% between 1985 and 1995 (Gratton, 1998) and the evidence emerging from the literature discussed above, of significant under reporting in previous studies, any future data collection in the consumer sector merits considerable attention.

Estimating sport-related economic activity: sports tourism and sports events

In addition to issues of data reliability and validity, a further collective weakness of all the UK studies on the economic importance of sport, was the exclusion of items of sport-related economic activity from estimates of value-added. Sports tourism and sports events were two such areas which were omitted from previous research.

As Glyptis (1990) points out, sport and tourism are inextricably linked, both in terms of popular participation and some forms of practice. However, in the reports highlighted in Table 2.6, sports tourism in terms of additional expenditure generated through participation and spectating has been treated inconsistently, if at all. The two previous UK national studies (Henley Centre for Forecasting 1986, 1992) have largely ignored sports tourism and the initial Welsh study (Henley Centre for Forecasting, 1990) made little direct reference to expenditure related to sports tourism, other than on skiing. Although sports tourism is acknowledged in the Scottish study (Pieda, 1991), it is essentially confined to golf tourism, with no mention of walking, skiing, climbing, fishing or shooting. More recent studies have paid increasing attention to sports tourism, although this is still under represented. The second Welsh study included £53.2 million as an estimate of expenditure on sporting holidays in Wales (Centre for Advanced Studies in the Social Sciences (1995: 25) and a further £19.8 million on skiing. Furthermore, the Northern Regional study attributed an estimate of £92.5 million to sport-related expenditure on holidays and hotels.

The importance of sports tourism can be demonstrated from a study carried out by Highlands and Islands Enterprise (1996), which estimated that expenditure associated with mountaineering generates £34 million of income annually and secures 3,950 jobs in the Highlands and Islands area and £53 million and 6,100 jobs in the Topographical Highlands area. Given that the Scottish study discussed above ignores the contribution of walking to sports tourism, this study clearly under estimates the value of sports tourism. Evidence presented in other economic impact studies has indicated that sports services are increasingly becoming a major factor when making the decision about a holiday destination (Taks and Kesenne, 1999). The relationship between sport, tourism and economic gain therefore merits further attention and it should not be omitted from future estimations of sport-related economic activity.

Sporting events, as with sports tourism, have also been largely ignored in the UK studies discussed earlier. The only record of expenditure from events in the previous UK studies were from the FES estimates of expenditure on entrance charges at sports events. However, this is only a small element of the actual income generated by a sports event. Additional expenditure on various items including food and drink, accommodation, merchandise and other items all together amount to far more economic impact than admissions alone (LIRC, 1996).

Despite the fact there has been little consideration of the economic impact generated by sports events, within the research on the economic importance of sport in the UK, there is a well developed literature world-wide, both pre and post-event, within the wider multidisciplinary research on sports events (Syme *et al*, 1989; Getz, 1991; Hall, 1992). Much of this research is concerned with the economic impacts of mega-events such as the Olympic Games (Ajuntament de Barcelona, 1992; Spilling, 1992; Brunet, 1993; Ritchie, 1984) and other major events (Burns *et al*, 1986; Centre for Applied and Business Research, 1986; Department of Sport, Recreation and Tourism, 1986; Newman, 1989), although there is also a significant body of literature on regular sporting events, much of which has been reviewed by Williams (1997).

It is now widely recognised that sporting events have the potential to generate significant economic impact and the highly publicised Los Angeles Olympics in 1984, which was the first games to make a profit, was instrumental in this. (Economics

Research Associates, 1984; Gratton and Taylor, 2000). Whereas much of the literature outlined above has focused on mega events, research has also shown that sports events do not have to be mega-events to have significant economic impacts (Marsh, 1984; Gitelson *et al*, 1988; Yardley, *et al*, 1990; KRONOS, 1997).

Despite being host to some of the worlds most prestigious annual sporting events, research on the impact of sporting events in the UK has only really established itself in the 1990s. Callicott (1999: 1) argues that to date, "the study of the impacts associated with hosting major events in the UK has received little serious academic attention". Following the publication of several impact studies on events such as Euro 96, the World Masters Swimming Championships and the World Cross Country Championships (Elvin and Emery, 1996; LIRC 1996; Dobson *et al* 1997) which publicised the growing economic importance of events, the potential role of sport in economic and social regeneration in the UK is increasingly being recognised (UK Sport, 1999; Gratton and Taylor, 2000).

It is clear from existing research, that the economic importance of major sports events is becoming an increasingly important issue, both nationally in the UK and locally within Sheffield. Since 1991, over 300 events have been held in Sheffield and the additional expenditure generated by visitors attending these events is estimated at over £30 million (KRONOS, 1997; Gratton and Taylor, 2000). In 1996, two major events, Euro 96 and the World Masters Swimming Championships, alone generated over £9 million of additional expenditure in a 24 day period (LIRC, 1996; Dobson *et al*, 1997). However, despite the significant impacts generated through events they have not been included in previous research on the economic importance of sport.

Given that the significance of sports events and sports tourism only began to emerge in the 1990s, it is likely that many of the previous UK studies listed in Table 2.6 did not consider these items of sport-related economic activity to be important. However, it is clear from the discussion within this section, that the omission of sports events and sports tourism from estimates of the economic importance of sport in the future would represent a significant underestimate of the true value of sport.

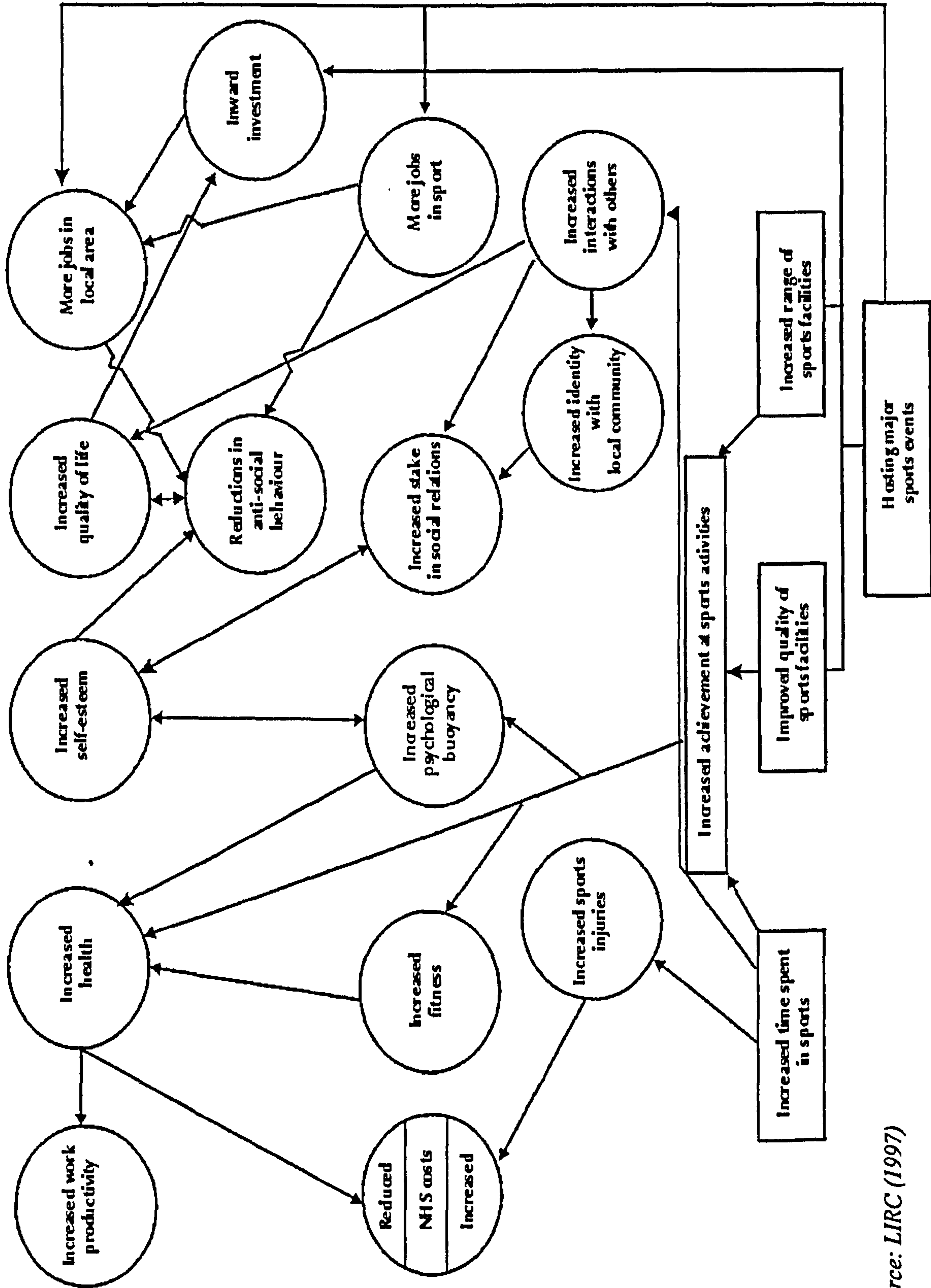
2.2.2.3 Wider economic benefits of sport

The European and UK studies discussed so far have been concerned with the economic benefits of sport. Although these studies acknowledge the wider implications of sport, they make no attempt to measure the broader economic impacts of sport such as health returns to individuals through sport, productivity returns to individuals and organisations, quality of life returns to individuals and society and more indirectly health care savings, reductions in anti-social behaviour (crime and vandalism) and public good benefits such as national and community pride. Furthermore, they fail to account for the dis-benefits of sport experienced by the host community such as the loss of local community sporting facilities at the expense of large scale prestigious facilities, inaccessible to many. In addition, no account is taken of the disruption and cost of environmental degradation resulting from the staging of major events.

Attempts have been made to estimate the economic benefit of regular physical activity in terms of medical costs and benefits and also industrial productivity (Department of the Arts, Sport, the Environment, Tourism and Territories, 1993a; Nicholl *et al*, 1994) and several Council of Europe position papers have discussed aspects of the wider implications of sport (Oja *et al*, 1993; Svoboda and Patriksson, 1994; Vuori and Fentem, 1994). Nevertheless, little empirical research has been undertaken.

The LIRC (1997) assessed the potential for measuring the broader economic benefits arising from sports participation and Bovaird (LIRC, 1997) produced the model shown in Figure 2.1 to demonstrate the main linkages between sports activity and the broader economic benefits of sport. It was suggested that local case studies should be used to build up a clearer picture of the strength of some of these inter-relationships. However, the study expressed caution with integrating quantifiable economic benefits associated with these broader benefits into the UK studies discussed previously, until the methodologies used to measure these have been more rigorously tested.

FIGURE 2.1. MODEL OF RELATIONSHIP BETWEEN SPORT AND WIDER ECONOMIC BENEFITS



Source: LIRC (1997)

Despite the economic implications of these wider issues and their importance in terms of urban regeneration, they are beyond the scope of this research. Each of the wider economic elements mentioned previously, as LIRC (1997) notes, constitute individual research programmes in themselves. The focus of this research is essentially to determine the 'narrower' economic importance of sport and unlike the omission of sports events and sport tourism, which are an integral part of these narrower impacts, the wider economic benefits of sport extend beyond these and will therefore not be discussed any further.

2.3 SUMMARY

This chapter has reviewed the literature relating to the economic importance of sport in the UK and Europe. It has revealed that while many studies now exist which examine the contribution of sport to output and employment at the national and regional levels, there remains a distinct lack of knowledge on the significance of sport at the local and major city level in the UK and on the role of sport in local economic development.

The review has shown that by and large, existing research on the economic importance of sport has been subject to considerable criticism regarding data reliability and validity and the omission of various items of sport-related economic activity, particularly sports tourism and sports events. However, it was argued within the chapter, that although the omission of sports events and sports tourism from previous research can be explained by the fact that their significance has only recently been recognised, it is clear that future research on the economic importance of sport should incorporate both sports tourism and sports events. In addition, it was argued that there is a need to improve the quality of data used to estimate consumer expenditure on sport and the economic activity generated by the voluntary sector.

Finally, it was apparent from the discussion relating to consumer services and economic regeneration at the beginning of the chapter, that an increasing number of cities in the UK are using sport for urban development, despite the limited evidence which is available on the economic importance of sport at the city level. It was also evident from the discussion of government policy regarding Local Cultural Strategies that sport,

together with other cultural industries are clearly on the regeneration agenda. Consequently, there is a need to investigate the economic importance of sport at the local level. The following chapter will now analyse the economic methods which have been used to measure the importance of the leisure industry.

CHAPTER THREE. ANALYTICAL FRAMEWORK

The previous chapter has shown that a considerable amount of research on the economic importance of the leisure industry has been carried out in recent years and that impact analysis is now an established field. Continuing the review of literature, the first part of this chapter will critically evaluate the various methods which have been used to measure the economic activity generated in the arts, tourism and sport. Using examples drawn from previous research, the chapter will determine the most appropriate method for measuring the economic importance of sport in Sheffield. The second part of the chapter will then go on to explore the theoretical and methodological considerations of the chosen framework, in terms of applying it to measure sport-related economic activity in Sheffield. The chapter will finally conclude by presenting a base model of the economic importance of sport in Sheffield, derived from existing estimates of sport-related employment and value-added at the national level. This will be used in subsequent chapters as a comparison for the findings of this research.

3.1 METHODOLOGICAL REVIEW

It was highlighted in Chapter Two, that the techniques used to measure the economic importance of tourism and the arts have differed considerably from the methods used to evaluate the size of sport as an industrial sector. Whereas conventionally the tourism and the arts industry have tended to use multiplier analysis, research on the economic activity generated by sport-related goods and services has widely used macro economic approaches, such as Input-Output analysis and the National Income Accounting framework. Although multiplier analysis has been used for measuring the economic impact of sports events, research on the contribution of sport to output and employment has tended to use the macro-economic approaches. The following discussion will now evaluate each of these approaches, to determine the most suitable method for measuring the economic importance of sport at the local level.

3.1.1 Multiplier Analysis

The most widely used technique for determining the economic importance in tourism and the arts at the regional level is multiplier analysis. Although the use of this technique is problematic at the national level, as the multiplier is largely regarded as very small (Henley Centre for Forecasting, 1986; 1992 LIRC, 1997), it retains credibility as a feasible method for impact analysis at the regional and sub-regional level and for micro-economic analysis.

Multiplier analysis works on the principle that a change in the level of injections (or withdrawals) in an economy brings about a relatively greater change in the level of national income (Armstrong and Taylor, 1978; Beardshaw, 1989). The concept of the multiplier is based upon the recognition that the various sectors that make up the economy are interdependent, therefore any change in the level of final demand will not only affect the industry that produces the final good or service, but also those which supply it (Fletcher and Archer, 1991). In tourism for example, the multiplier can be used to measure the impact of tourism expenditure as it circulates through the local or regional economy (Williams, 1998). The multiplier measures not only the direct impacts in the economy, but also the indirect and induced effects which represent further rounds of related spending.

Several types of multiplier are used for regional impact analysis. However, there are four types in common use within the field of tourism (Archer, 1977; Jackson, 1986). These are the *Sales or Transactions* multiplier, the *Output* multiplier, the *Income* multiplier and the *Employment* multiplier. It is widely agreed that the Employment multiplier, which measures the effect of a unit of extra spending on employment, showing the Full Time Equivalent (FTE) jobs created, is the least reliable (Williams, 1997). This is because the Employment multiplier is based upon a number of assumptions which are debatable. Firstly, it assumed that not all existing employees are fully utilised and that increased employment will result from an increase in output or expenditure. In reality, increases in output particularly for special events and tourism, are often met within the employment system by people working additional hours therefore, there tends not to be a linear relationship between output and employment.

Furthermore, it can not be assumed that unemployed labour exists to met this demand (Williams, 1987).

There are two general approaches to multiplier analysis used in the arts and tourism, these are the Economic Base approach and the Keynesian multiplier approach (Archer 1977; Armstrong and Taylor, 1978). These methods will be briefly outlined and examples of studies that have used these will be discussed, in order to evaluate the appropriateness of this method for measuring the economic importance of sport in Sheffield.

3.1.1.1 Economic Base approach

The most primitive forms of the multiplier were derived from Economic Base theory. The theory holds that within a defined area, economic activities can be divided into two categories: (1) basic or export activities and (2) non-basic, non-export or service activities (Isard and Czamanski, 1965). The principal idea is that a stable relationship exists between these two categories and that changes in the level of (1) lead to predictable changes in (2), and furthermore that the size of (1) is the sole determinant of levels of income and employment in the economy.

Isard and Czamanski (1965) illustrate the Economic Base model as follows. In simple form:

$$E_t = E_b + E_s$$

where

E_t = Total Employment

E_b = Employment in basic activities (1)

E_s = Employment in non-basic activities (2)

Taking the ratio

$$\frac{E_s}{E_b} \quad \text{as constant}$$

then

$$E_t = E_b + \frac{E_s}{E_b} E_b$$

or

$$E_t = (1 + \frac{E_s}{E_b}) E_b$$

The model may be formulated to determine changes in employment:

$$\Delta E_t = (1 + \frac{E_s}{E_b}) \Delta E_b$$

Alternatively, taking

$$\frac{E_b}{E_s}, \text{ or } \frac{E_b}{E_t} = \frac{E_b}{E_b + E_s} \text{ as constant}$$

one can obtain the employment multiplier.

Finally, if the ratio of service employment to total employment is constant:

$$r = \frac{E_s}{E_t}$$

then

$$E_t = E_b \frac{1}{1 - r}$$

or

$$E_t = E_b \cdot \frac{1}{1 - E_s/E_t}$$

Archer (1977) gives two examples of multipliers being derived from Economic Base models. Nathan Associates (1966) calculate tourism employment multipliers to estimate total employment generated for counties and cities in Appalachia and Picket and Becher (1972) use an Economic Base model to determine an income multiplier for the impact of skiers in Kansas City. The Economic Base approach to multiplier analysis has the advantage that the formulations are simple and that the data

requirements are significantly less than other forms of the multiplier. However, as a consequence there are a number of pitfalls, not all of which can be overcome.

Isard and Czamanski (1965) summarise the disadvantages of Economic Base. Firstly, the classification of an economic activity as either wholly export or service based is subjective. As highlighted earlier, the original categorisation of services as non-tradable activities is questionable and many now argue that tourism, retailing, cultural industries and sport all function as basic tradable activities, earning a proportion of their income externally (Illeris, 1996; Williams 1997). Furthermore, to assume that economic growth is proportional to the basic or export sector is also problematic. The basic sector is not homogenous and the effect of any given change in export demand on regional income may vary considerably according to which export industry experiences change in demand (Armstrong and Taylor, 1993). The multiplier effect on the non-basic sector will depend on which ever part of the basic sector receives this change in demand. Immediately the model becomes more sophisticated, therefore reducing the simplicity and thus the main advantage of the approach.

It was noted in Chapter Two, that Williams (1997) used the framework of the Economic Base model to argue that consumer services contribute to local economic development. Although the conceptual idea of the dichotomous economy consisting of basic and dependant activities was used to argue that consumer services have a role to play in economic revitalisation, this research did not evaluate the economic impact generated by consumer services, consequently Economic Base multipliers were never actually used to measure economic activity. While it is possible to estimate tourism multipliers using the Economic Base approach, it is now rarely used in its original form in practical research. An alternative and more widely used method for constructing the multiplier is the Keynesian approach.

3.1.1.2 Keynesian approach

The Keynesian approach to constructing multipliers is more widely used in regional impact analysis and tourism studies, mainly as it is more practicable than the Economic Base, but also because the data requirements are more easily satisfied than those of

Input-Output analysis (Henderson, 1975). The concept of the Keynesian multiplier is based upon the work of Kahn (1931) and Keynes (1933, 1936), which holds that an injection of extra investment spending into an economy generates further increases in total income as it is worked through the system. The proportion of additional spending that remains in the system after leakage (through savings, imports etc) is determined by the multiplier.

In its simplest form:

$$k = \frac{1}{1-c}$$

where

k = the multiplier effect

c = marginal propensity to consume

The model can be summarised as follows (Armstrong and Taylor, 1978):

$$Y = C + \bar{I} + \bar{G} + \bar{X} - M$$

$$C = \bar{C} + cY^d$$

$$M = \bar{M} + mY^d$$

$$Y^d = Y - tY$$

where

Y = regional income

C = regional consumption; c = marginal propensity to consume

\bar{C} = autonomous consumption

\bar{I} = autonomous regional investment spending

\bar{G} = autonomous government expenditure within the region

\bar{X} = autonomous regional exports

M = regional imports of consumption goods;

m = marginal propensity to import consumption goods

\bar{M} = autonomous imports of consumption goods

Y^d = disposable income in region

t = rate of income tax

On substituting the above equations we obtain:

$$Y = k(\bar{C} + \bar{I} + \bar{G} + \bar{X} - \bar{M})$$

where

$$k = \frac{1}{1 - (1 - t)(c - m)}$$

This regional multiplier forms the basis of more complex models. Archibald (1967) used this form when studying the regional multiplier effects of a number of industries in the UK and Steele (1969) extended this further to allow for direct and indirect taxes separately:

$$k = \frac{1}{1 - [(1 - ps)(1 - ti)(1 - m)]}$$

where

- p = ratio of marginal: average savings and direct tax rates
- s = proportion of personal income withdrawn as savings and tax (net of transfer payments)
- t = proportion of regional consumption expenditure paid in indirect taxes
- m = marginal propensity to import out of personal consumption net of indirect taxes

More sophisticated models can be constructed using a more realistic model of the regional economy. Greig (1972) estimated the impact on regional income and employment of the grants made available to the fishing industry in part of Scotland and included government transfer payments in the model. Furthermore, Lewes *et al* (1970) examined tourism in Devon and Cornwall and incorporated direct and indirect taxes, social security benefits, imports purchased from disposable income and the feedback effect through increased demand for imports in the area on the rest of the UK. They estimated the income multiplier to be:

$$k = \frac{1 - (1 - td - b)(c - ti, c - mt)}{\{[1 - (1 - td - b)(c - ti, c - m)][1 - (1 - td - b)(c - ti, -mt)] - muk \cdot mdc(1 - td - b)^2\}}$$

where

- c = marginal rate of consumption
- td = marginal rate of personal tax & national insurance
- ti = marginal rate of indirect tax
- b = marginal rate of government transfers to households
- m = marginal propensity to import out of disposable income
- mt = the rest of the UK's total marginal propensity to import from Devon & Cornwall and abroad
- muk = marginal propensity of the rest of the UK to import goods and services from Devon and Cornwall
- mdc = marginal propensity of Devon and Cornwall to import from the rest of the UK

The Keynesian approach has the advantage that the data requirements are significantly less than those for regional econometric models. Nevertheless, as the multiplier becomes more realistic and thus more complex, as illustrated from the equations above, the comparative advantage of this method is once more reduced.

A further major weakness of regional multiplier analysis, both the Economic Base and the Keynesian approach, is that it only gives estimates of aggregate effects of expenditure changes, rather than a detailed analysis of the impacts throughout the economy (Armstrong and Taylor, 1993). Models such as Input-Output and the National Income Accounting which will be discussed later, have the advantage that they provide a more detailed structure of the local or regional economy and the linkages between the various sectors of the economy can be seen. In addition, the other major criticism of multiplier analysis which has been documented in the literature is that multipliers often over-exaggerate the economic benefits, which tourism brings to a region or locality (Archer, 1977, 1984; Hughes, 1982; 1994). Loftman and Spirou (1996) argue that there is evidence to suggest that the findings from research which has used multiplier analysis to measure the economic impact of sports stadiums and the impact of sports tourism, are often not as large as predicted. In addition, Baade and Dye (1988) suggest that multipliers are often assigned a sufficient weight to financially support the rationale for developing sports stadiums.

Multiplier analysis has been widely applied to the tourism industry, particularly the Keynesian approach, for measuring the impact of additional expenditure injected into a regional or sub-regional economy. However, to date, it has never been used for determining the economic value of a whole industrial sector. Although Myerscough

(1988) used proportional multiplier analysis for measuring the economic importance of the arts, he primarily focused on the impact of arts attractions and visitor spending, rather than the whole arts sector. Furthermore, the application of 'an expenditure based multiplier approach' in Prieda (1994) to determine the impact of sport on the Northern Regional Economy was problematic. The method actually employed in this study was not the conventional approach discussed above or that which was stated (Prieda 1994). The only use made of the multiplier, was on an *ad hoc* basis to obtain estimates of indirect and induced impacts of employment. However, LIRC (1997) argue that the way in which this has been 'added on' is arguably inappropriate as, since Input-Output tables were used to determine value-added, it was questionable whether indirect and induced effects are already accounted for.

In the majority of previous studies reviewed, the multiplier has normally been used to measure the impact of visitor or *additional spending* within a defined economy, rather than the impact of an *industrial sector*. Because of this and the other disadvantages of the method highlighted, its appropriateness for measuring the economic importance of sport at the local level is questionable. It will not therefore be used in this research as a measurement technique for the sports sector in Sheffield.

3.1.2 Input-Output Analysis

Input-Output analysis may be used as a third method for determination of the multiplier. Furthermore, it is also a sophisticated method in itself for detailed economic impact assessment. It has been applied widely as a method for measuring not only tourism activity (Baster, 1980; Fletcher, 1989; Hefner, 1990), but also the economic activity of other industrial sectors.

Input-Output analysis was developed in the 1960s by the economist Wassily Leontief (1966). The application of this technique involves the derivation of an Input-Output table, otherwise known as a Transactions Table. This represents a set of accounts relating the components of final demand in an economy to the various industrial sectors, the interaction between industrial sectors and the primary inputs (Armstrong and Taylor, 1978; Fletcher, 1989). A large majority of countries in both developed and developing

countries now produce national Input-Output tables detailing the economy. In the UK, the Office for National Statistics (ONS) produce tables approximately every five years. Published tables exist for 1954, 1963, 1968, 1974, 1979, 1984 and 1990 (Office for National Statistics (1995), with the next edition due in late 2000 covering data for 1995.

The Input-Output table may be described algebraically as:

$$X_i = \sum_{j=1}^n X_{ij} + Y_i$$

where

X_i = the total output of the i th industry

X_{ij} = sales of industry i to industry j

Y_i = final demand for industry i

(Fletcher and Archer 1991)

A hypothetical Input-Output table is shown in Appendix 1 to illustrate this.

The Input-Output table shows where the inputs of an industry came from and where the outputs of an industry goes to. An advantage of this method therefore is that it shows the interdependencies of the economic system (Armstrong and Taylor, 1978). Nevertheless, while the Input-Output table provides information on the interactions of an economy, it is not an operational model (Fletcher, 1989). To convert the table into an operational model, it is necessary to transform it into a Technical Coefficients Matrix, also shown in Appendix 1. This is done by expressing the inputs of each industry as a ratio of the gross output of that industry. The Technical Coefficients Matrix therefore shows the proportion of inputs purchased by each sector to produce one unit of output and from this, it is possible to determine the *direct* effect. To determine the *direct plus indirect* effect of a change in any category of final demand the Leontief inverse or inverted technology matrix may be applied:

If

I = the identity matrix

A = an $n \times n$ matrix of technical coefficients

X = an $n \times 1$ vector of gross output

Y = an $n \times 1$ vector of final demand

then

$$(1 - A)X = Y$$

and

$$X = (1 - A)^{-1}Y$$

where

$(1 - A)^{-1}$ is the inverted technology matrix.

Induced effects can also be incorporated into the model.

Attempts have been made to measure the impacts of tourism using either full or partial use of Input-Output analysis. Blake and McDowall (1967) with their study on the St Andrews's economy and Richards (1972) with research on the national economies of the UK and Ireland, provide early examples of the use of Input-Output analysis. Fletcher (1989) gives further examples of examples of research on the impact of tourism using Input-Output analysis in the Philippines, Hong Kong, Jamaica. However, the use of this technique at the regional and sub-regional level is often limited by a lack of adequate data. Input-Output tables tend only to be derived at the national level due to the immense amount of data which is required. The use of this technique at the regional and local level would invariably require the construction of Input-Output tables relating specifically the economy in question, which is both a time consuming and costly process.

An alternative approach to enable Input-Output analysis at the local level, without the derivation of local tables, is to modify the structure of the Transaction Table to incorporate more information on the relevant economic activity. Baster (1980) disaggregated the service sector into more detail than the national tables to allow for the identification of the tourism industry. Another approach is to develop a reduced form, or partial Input-Output model, that is based on Input-Output concepts, but uses direct survey data to avoid the need for completing a full Input-Output matrix of the local economy (Jackson, 1986). Archer (1973, 1979) and Wanhill (1982) provide examples of partial Input-Output analysis and Henderson (1975) also used this approach to derive income, employment multipliers at the local, regional and national level to measure the economic importance of tourism on Tayside.

Unlike with the conventional multiplier approach that has been used essentially to measure the impact of additional expenditure, there are examples of Input-Output analysis being used to measure the economic activity of whole industrial sectors. For example, in sport, Input-Output analysis has been used to determine the economic importance of sport in the Belgium (Flemish Community), the former Federal Republic of Germany and the Netherlands (Jones, 1989).

Fletcher (1989) highlights the advantages of Input-Output analysis. The main advantage of this technique is that it allows the economy to be viewed as a whole. It is therefore possible to identify and measure the linkages between the various activities within the defined economy and thus predict the effect of any given change in one part of the economic system on the rest of the system. It therefore provides policy makers with an extensive view of the economy (LIRC, 1997). It is also feasible to adapt the model to suit the purpose it is being constructed for and to derive multipliers by either partial or full use of this technique. In addition, it has the advantage that the multiplier effect for each sport-related sector can be considered (LIRC, 1997), unlike the Economic Base and Keynesian multipliers highlighted above. Furthermore, Input-Output analysis also allows measurement of economic impact to be dis-aggregated into three levels - direct, indirect and induced.

As with any economic models, there are also a number of drawbacks. The principle constraint of this model is that the data requirements are very demanding and as such the derivation of full Input-Output tables is both time-consuming and expensive. Although they are produced periodically in the UK, they are very rarely constructed at the regional and sub-regional level. When working at these levels, it is therefore necessary to use and make assumptions regarding the national tables and this consequently reduces the accuracy of the data used. To overcome this, it is possible to simplify the table to make it manageable at the regional level. Nevertheless, further assumptions are required and once more, the advantages of the technique are reduced.

A second related disadvantage of Input-Output analysis, as a consequence of the above is that there is often a time-lag between the year in which research is being undertaken and the most recent published tables. As highlighted above, the most recent Input-Output tables that exist at present in the UK relate to 1990 and while tables are due to

be released in late 2000, they will relate to 1995. This means that when calculating economic importance for any economic sector, tables from years previous to the year actually being calculated are often used. For this research, it would mean using tables which related to 1990, for calculating the economic importance of sport in 1996/97, which is clearly inappropriate.

A third drawback of this technique, particularly for the purpose of this research, is that the industrial categories used for Input-Output analysis are very broad and thus numerous assumptions are required to dis-aggregate sport from the various groupings. For example, spectator clubs, participation clubs, voluntary clubs and local authority sports services are all grouped in the category of recreational and welfare services and bicycles come within the category of 'other vehicles'. Once more, the need to make assumptions to derive the sport-related component of these industrial categories would again be detrimental to the quality of data obtained.

LIRC (1997) has shown that it is feasible to measure the economic importance of sport in the UK at the national level, using this method. The Coefficients Matrix for sports, shown in Table 3.1 and the Leontief Inverse for Sports, shown in Table 3.2 were derived from the 1990 UK Input-Output tables. The 13 groups identified are those which are sport-related and the table indicates the commodities and labour inputs required per unit of gross supply (£ million) in each of these.

Although the application of the Input-Output technique is clearly feasible at the national level, it is an unsatisfactory method for determining the economic importance of sport at the local level, primarily because this would require the creation of local Input-Output tables which is not practical within the constraints of the research. Although partial Input-Output tables could be derived, or assumptions could be made about the national tables, these adjustments would significantly reduce the reliability and validity of the data used to estimate-sport-related economic activity. Furthermore, the existing UK tables relate to 1990 therefore the data would again need to be adjusted for measuring the economic importance of sport in 1996/97. The Input-Output method was therefore clearly not a feasible method for measuring the economic importance of sport in Sheffield.

TABLE 3.1. THE 1990 COEFFICIENT MATRIX FOR SPORTS

	Shipbuilding (54)	Other vehicles (56)	Footwear (78)	Clothing (79)	Sport goods (89)	Retail (93)	Railways (96)	Road transport (97)	Advertising (110)	Renting of movables (113)	Public Administration (115)	Education (117)	Recreation and welfare(120)	Other
Shipbuilding (54)	0.062	0	0	0	0	0	0	0	0	0	0	0	0	0
Other vehicles (56)	0	0.037	0	0	0.002	0	0.004	0	0	0.001	0	0	0.001	0
Footwear (78)	0	0	0.0028	0	0	0	0.002	0	0	0	0	0.001	0.001	0
Clothing (79)	0	0.003	0	0.0014	0	0.001	0.003	0.002	0.001	0.002	0	0.002	0.006	0
Sport goods (89)	0	0	0	0	0.005	0	0	0	0	0	0	0.002	0.001	0
Retail (93)	0	0	0	0	0.002	0	0	0	0	0	0	0	0.001	0
Railways (96)	0.001	0.005	0.001	0.001	0.006	0.001	0.005	0.001	0.005	0.001	0	0.002	0.001	0.001
Road transport (97)	0.002	0.003	0.006	0.007	0.008	0.024	0.02	0.02	0.013	0.026	0	0.004	0.001	0.008
Advertising (110)	0.001	0.001	0.001	0.002	0.005	0.013	0.027	0.01	0.029	0.033	0	0.002	0.016	0.004
Renting of movables (113)	0.007	0.006	0.008	0.004	0.005	0	0.001	0.009	0.004	0.007	0	0	0.002	0.003
Public Administration (115)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Education (117)	0.001	0.002	0.002	0.002	0.005	0.002	0.004	0.001	0.006	0.001	0	0.011	0.003	0.002
Recreation and welfare(120)	0.01	0.001	0.002	0.002	0.003	0	0.005	0.001	0.016	0.001	0	0	0.163	0.001
Other	0.359	0.393	0.331	0.226	0.438	0.316	0.42	0.334	0.32	0.421	0	0.132	0.158	0.216
Income from employment	0.477	0.372	0.398	0.352	0.296	0.456	0.621	0.346	0.373	0.263	0.9	0.767	0.416	0.135
Gross profits	-0.014	0	0.038	0.101	0.029	0.118	-0.004	0.245	0.143	0.211	0.1	0.021	0.189	0.096

Source: LIRC (1997)

TABLE 3.2. THE 1990 LEONTIEF INVERSE FOR SPORTS

	Shipbuilding (54)	Other vehicles (56)	Footwear (78)	Clothing (79)	Sport goods (89)	Retail (93)	Railways (96)	Road transport (97)	Advertising (110)	Renting of movables (113)	Public Administration (115)	Education (117)	Recreation and welfare(120)	Other
Shipbuilding (54)	1.0661	0	0	0	0	0	0	0	0	0	0	0	0	0
Other vehicles (56)	0	1.0385	0	0	0.0021	0	0.0042	0	0.0001	0.0011	0	0	0.0013	0
Footwear (78)	0	0	1.0288	0	0	0	0.0021	0	0	0	0	0.001	0.0012	0
Clothing (79)	0.0001	0.0032	0.0001	1.0143	0.0001	0.0011	0.0032	0.0021	0.0013	0.0022	0	0.002	0.0012	0
Sport goods (89)	0	0	0	0	1.005	0	0	0	0	0	0	0.002	0.0012	0
Retail (93)	0	0	0	0	0.002	1	0	0	0	0	0	0	0	0
Railways (96)	0.0016	0.0058	0.0015	0.0014	0.0067	0.0015	1.0058	0.0016	0.0057	0.0018	0	0.0022	0.0016	0.0013
Road transport (97)	0.0066	0.008	0.0103	0.0099	0.0135	0.0283	0.0258	1.0246	0.0176	0.032	0	0.0057	0.0038	0.0107
Advertising (110)	0.0038	0.0038	0.0034	0.0037	0.0083	0.0155	0.0308	0.0129	1.0326	0.0371	0	0.003	0.21	0.0056
Renting of movables (113)	0.0091	0.008	0.0098	0.0051	0.007	0.0016	0.0032	0.0107	0.0057	1.0092	0	0.0006	0.0034	0.004
Public Administration (115)	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Education (117)	0.0022	0.0033	0.003	0.0027	0.0064	0.003	0.0055	0.0021	0.0073	0.0025	0	1.0115	0.0043	0.0027
Recreation and welfare(120)	0.0134	0.002	0.0031	0.0029	0.0045	0.0009	0.0073	0.002	0.0203	0.0027	0	0.0003	1.1955	0.0017
Other	0.5015	0.5348	0.4474	0.3027	0.5819	0.4241	0.5704	0.4497	0.4408	0.5738	0	0.1778	0.2585	1.2861

Source: LIRC (1997)

3.1.3 National Income Accounting Framework

The National Income Accounting framework has been developed as a method for measuring the economic importance of sport-related economic activity. It was first used by the Henley Centre for Forecasting (1986) and with the exception of the Northern Region study (Pieda, 1994), this method has been used in all of the UK studies on the economic importance of sport. It was also adopted by Finland in the national study on the economic importance of sport for the Jones Report (Jones, 1989). The NIA framework has not been used to calculate economic importance in either the arts or tourism therefore the literature on this method is relatively scarce.

The principles of the NIA method were established by Cambridge economist Richard Stone in the 1930s and are based around the derivation of GDP. The framework basically measures the monetary flow of goods and services produced in an economy. GDP can be measured in the following three ways (Central Statistical Office, 1996: 2):

- as the total of all *incomes* earned from the production of goods and services;
- as the total of all *expenditures* made either in consuming the finished goods and services produced or in adding wealth less the cost of imports;
- as the sum of the *value-added* by all activities which produce goods and services, that is their net output.

As will be discussed later in the chapter, in theory each of these approaches should give the same result. However, in practice this is seldom the case. The choice of precisely which method to use is essentially determined by the availability of data and the objectives of the research.

Both the UK (Henley Centre for Forecasting, 1986) and Finland (Rissanen, 1989) adopted the third approach, whereby GDP was calculated by measuring and adding up the value-added of the various sport-related firms and enterprises in the country. Although Jones (1989) argues that the UK adopted the 'expenditure method', which is calculated by:

$$\text{Total Final Expenditure (GDP)} = C + G + I + (X - M)$$

Where:

- C = consumers expenditure, which includes durable consumer goods, non-durable consumer goods and services;
G = government expenditure, which includes local and central government purchases of goods and services;
I = investment expenditure, which includes fixed investment and investment in working capital ;
X = total exports;
M = total imports.

The Henley Centre for Forecasting (1986) and other studies have actually used Total Final Expenditure on sport to identify sport-related economic activity and have then calculated the GDP of the sports sector by measuring the value-added of the various sport-related firms and in the country or region.

To analyse the economic importance of sport in the UK, sport-related economic activity needs to be divided into seven sectors, based on the UK National Accounts. These are the:

- Consumer Sector;
- Voluntary Sector;
- Commercial Sport Sector ;
- Commercial non-sport Sector;
- Local Government Sector;
- Central government Sector;
- Overseas Sector.

Income and expenditure accounts then need to be derived for each of the seven sectors, indicating how expenditure flows from one sector of the economy as income to another. From these, value-added and employment can subsequently be estimated (Henley Centre for Forecasting, 1986; LIRC, 1997).

An advantage of this method, as with the Input-Output approach, is that the overall structure of the economy can be viewed and the linkages between the various sectors seen, unlike with multiplier analysis discussed earlier. The National Income Accounting Framework has the benefit that through the construction of sectoral

accounts, the flows of income and expenditure are visible therefore as a result of traceable flows, double counting is minimised (LIRC, 1997).

Although a large proportion of the estimates of sport-related final expenditure can be obtained from the expenditure figures of the UK National Accounts and other published sources at the national level, many of these sources are not available at the sub-regional level. Nevertheless, the data requirements of the NIA method are considerably less than for the Input-Output method therefore it is feasible to collect data which is not available through primary data, as shown by the Henley Centre for Forecasting (1989). Unlike the data requirements for creating a local input-output table, this is achievable within the constraints of the research. Furthermore, the collection of primary data means that the sources relate to the year in which the research is being carried out, rather than several years previous, as with the Input-Output technique if national tables were used. Finally, the collection of primary data to satisfy the requirements of the NIA framework means that sport-related expenditure can be specifically targeted, rather than requiring assumptions to derive the sport-related component of larger expenditure categories.

The application of the NIA framework also has its disadvantages. Although a significant proportion of data can be obtained from published sources, due to the unconventional nature of the sports industry a large number of assumptions are required to satisfy the data requirements of the model, particularly at the sub-national level. Moreover, as noted earlier, such assumptions can reduce the reliability and validity of data used to construct the sectoral accounts. These margins of error are undoubtedly greater where fewer published sources are available, such as at the regional and local level. Nevertheless, as highlighted above, it is possible to reduce this problem by carrying out extensive primary research, which is particularly feasible at the local level.

A further disadvantage of this method as highlighted by the Henley Centre for Forecasting (1986) is that, as with any impact analysis which is based on the derivation of GDP, the NIA framework excludes all productive work which is not sold for money, such as voluntary work. However, it is possible to compensate for this by quantifying volunteer work, as in previous UK sport studies.

Table 3.3 summarises the advantages and disadvantages of each technique discussed in the first part of this chapter. It should be noted that all methods have not been reviewed within this chapter and several methods have not been discussed which have been used elsewhere in the leisure industry for measuring economic activity such as Cost-Benefit analysis (CBA), Contingent Valuation Method (CVM), and Census of Employment as they were deemed unsuitable for the objectives of the research. Although a variety of methods could be employed, as Fletcher (1989) summarises, the final choice of methodology will ultimately be determined by the resources available, the purpose of research, time constraints and the structure of the economy in question.

Following the review of the various techniques which could be used to measure the economic importance of sport, it was decided that the NIA framework was the most viable method at the local level and that the disadvantages of the method could be minimised within the constraints of the research. It was decided to adopt the 'output approach', which has been used in previous UK studies. The multiplier approach was not considered to be appropriate for measuring the impact of industrial sectors and the data requirements of the input-output method were concluded to be too great for the resources of the research. The next part of the chapter will now outline the theoretical underpinnings and methodological considerations of the NIA framework in more detail.

TABLE 3.3. SUMMARY OF THE PRACTICALITIES AND LIMITATIONS OF ECONOMIC METHODS UNDER REVIEW

<i>Method</i>	<i>Description</i>	<i>Advantages</i>	<i>Disadvantages</i>	<i>Policy level</i>	<i>References</i>
Multiplier Analysis	Multiplier analysis is used to determine the direct, indirect and induced effects of additional (visitor) expenditure in the local/regional economy. There are several types of multiplier e.g. income, output, employment.	<ol style="list-style-type: none"> 1. It is less expensive to carry out multiplier analysis than either NIA or input-output. 2. More applicable to local and regional studies. 	<ol style="list-style-type: none"> 1. The multiplier is often misused. Coefficients are often borrowed not derived, and these are often over exaggerated. As a result the reliability of many multiplier studies is questionable. 2. There is no evidence of multiplier analysis being used to measure industrial sectors, only additional spend. It is questionable whether it is appropriate to use it for measuring sport. 	Used to determine the economic importance of special events. Also been applied to the Northern region sport study, although the application of the employment multiplier used is questionable. Multiplier frequently used in tourism studies to determine the impact of visitor spending.	<p>Pieda (1994)</p> <p>Hanna (1976)</p> <p>Jackson (1986)</p> <p>Hall (1992)</p> <p>Getz (1991)</p> <p>Myerscough (1988)</p> <p>Archer (1977)</p>
Input-Output Analysis	Measures the inter-relations between the different sectors of the economy through the derivation of input-output tables. These show the flows of expenditure and production throughout the entire economy. They are then used to predict measure economic activity in a given area e.g. sport.	<ol style="list-style-type: none"> 1. It is the most accurate way of determining economic activity and tracing successive rounds of spending and withdrawals in an economy. 2. Multipliers derived internally. 3. Allows the economy to be viewed as a whole. 	<ol style="list-style-type: none"> 1. Although the national tables are readily available in the UK they are only updated periodically - approximately every five years. 2. Tables are rarely compiled at regional or local level and to do so would be expensive and data demanding. 3. Industrial categories used in national tables are broad. Of 123 categories, only 12 relate to sport. 	This method was used by Belgium (Flemish community), Netherlands and the Federal Republic of Germany for their national sport studies. Never used in any UK sport studies. A few tourism multipliers have been derived from input-output tables.	<p>Kesenne <i>et al</i> (1987)</p> <p>Van Puffelen, <i>et al</i> (1988)</p> <p>Kops, M. and Graff (1986)</p> <p>Jackson (1986)</p> <p>LIRC (1997)</p>
National Income Accounting (NIA)	The sports economy is divided up into 7 sectors and within these, flows of income and expenditure are identified. Sectoral accounts are constructed for each sector. The VA and emp. for the sports economy is calculated from these.	<ol style="list-style-type: none"> 1. Flows of income and expenditure are visible and therefore traceable, which reduces double counting. 2. Feasible to collect primary data at the local level. 	<ol style="list-style-type: none"> 1. Its application to the sports industry requires a number of assumptions to obtain the required data for the model. 2. The construction of the required matrix can be complex and timely. 	Method has been used in national regional and local level sport studies in the UK. Also for the national sport study in Finland. Never used in arts or tourism studies.	<p>Henley Centre (1986; 1989; 1990; 1992; 1992a)</p> <p>Pieda (1991)</p> <p>Centre for Advanced Studies in Social Sciences (1995)</p> <p>Rissanen (1988)</p>

3.2 THE NIA FRAMEWORK

This part of the chapter will now examine the theoretical basis of the NIA framework and the methodological considerations of using the NIA framework to measure the economic importance of sport in Sheffield. It will also discuss the importance of defining the boundaries of the sports sector for measurement purposes.

3.2.1 The NIA Framework and the Circular Flow of Income

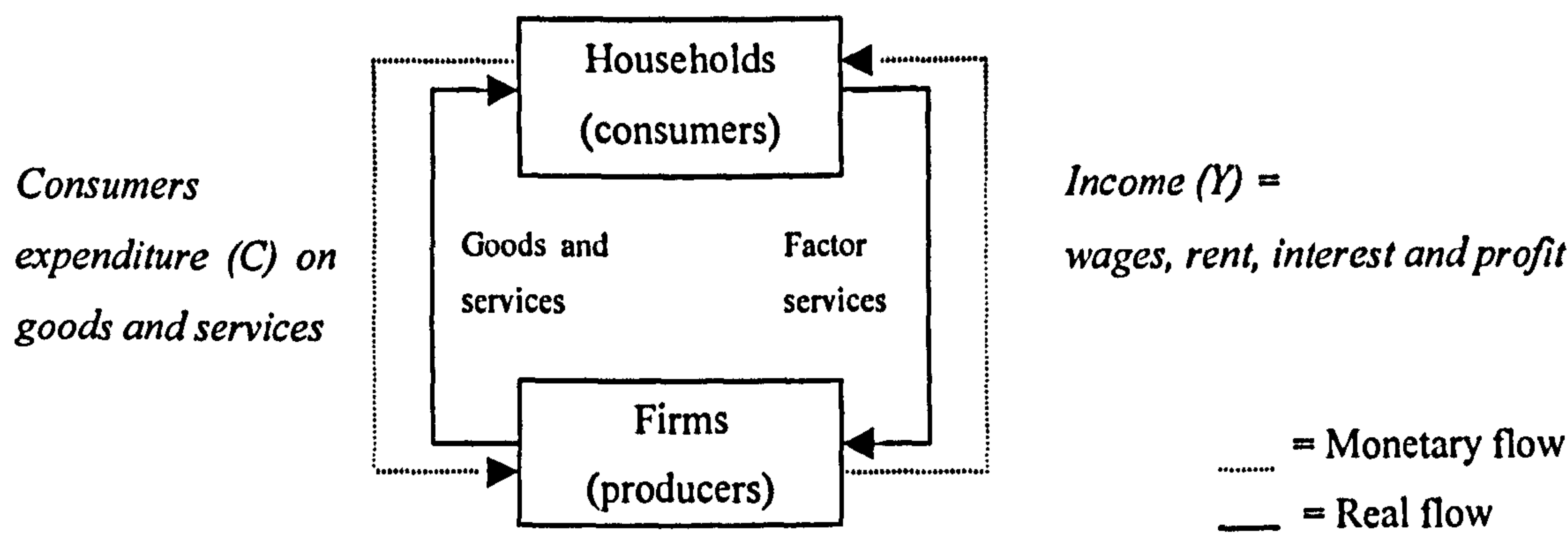
As discussed earlier, the National Income Accounting (NIA) framework is a macro-economic approach to impact analysis and is based around the derivation of the national product. There are several different measures of national product namely GDP, GNP, NNP nevertheless, the NIA framework is based on the derivation of GDP, which is a measure of the monetary value of the total flow of goods and services produced in an economy over a specified period of time. It was also highlighted in 3.1.3 that there are three methods for estimating GDP. These are the:

- income method;
- expenditure method;
- output method.

In theory, each of these approaches should give the same result.

Figure 3.1 illustrates the circular flow of income and expenditure in a simple two sector closed economy between households and firms with no savings, investment, foreign trade or government intervention. As it can be seen from Figure 3.1, households receive income in return for their factor services in terms of wages, rent, income and profit and households purchase or consume goods and services from firms. The clockwise flow therefore represents a real flow and the anticlockwise flow, a monetary flow. In this simple economy all output is sold and all income spent.

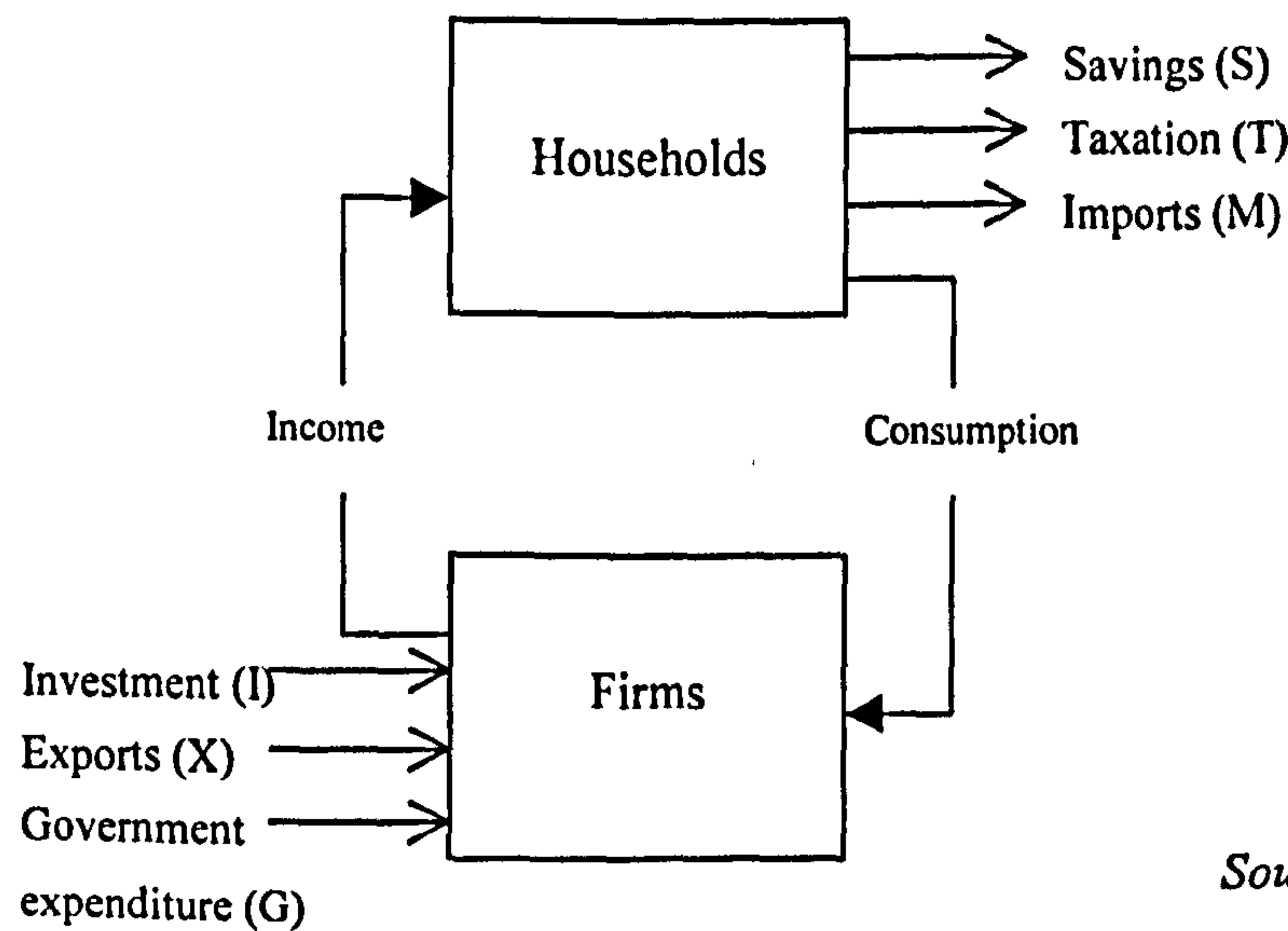
FIGURE 3.1. THE SIMPLE ECONOMY: CIRCULAR FLOW OF INCOME



Source: Beardshaw (1989)

Figure 3.2 shows the circular flow of income in an open economy which includes financial institutions, the overseas and government sector. In this economy, with the income they receive, households not only purchase goods and services from the domestic economy but also from overseas firms which represent imports (M). Households save (S) some of their income and also pay the government taxes (T). All of these flows represent leakages out of the economy. The government sector purchases goods and services from the domestic economy (G), domestic firms sell or export goods and services overseas (X) and investment takes place in the economy (I). Investment, government spending and exports all represent injections into the economy.

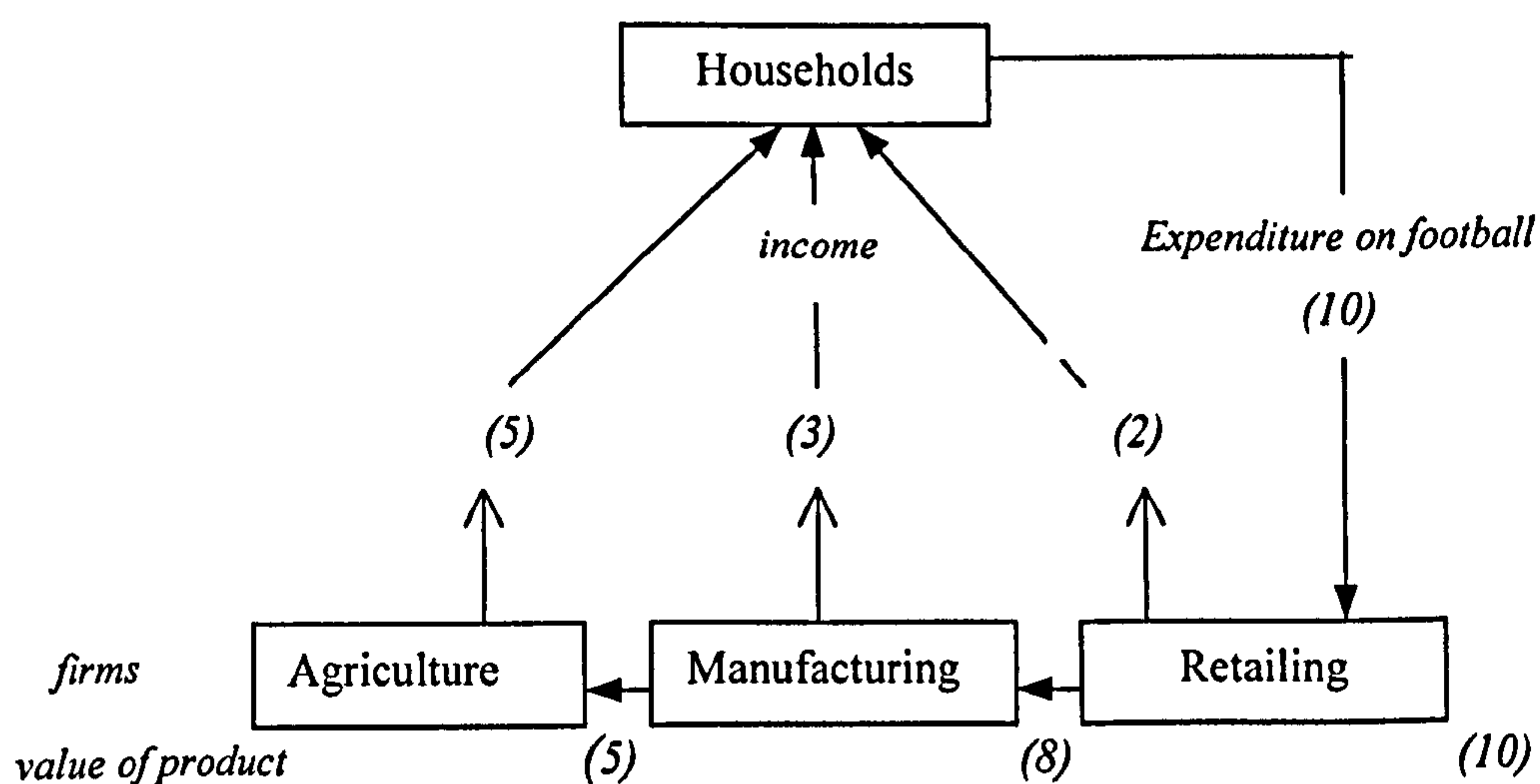
FIGURE 3.2. THE COMPLETE MODEL OF THE ECONOMY



Source: Beardshaw (1989)

The circular flow of income in the simple closed economy as illustrated in Figure 3.1, can be used to show how the three national income accounting methods can be used to measure economic activity. Figure 3.3 uses the example of the production of a football to show how its contribution to GDP can be estimated using all three methods. As it can be seen, the monetary value the football contributes to the national product can be measured as the expenditure of households on the football (£10), the totalling of value-added by each of the 3 stages of production $[(£10 - £8) + (£8 - £5) + £5]$ or the flows of income to households in return for the factor services such as land, labour, capital and entrepreneurial activity (£5 + £3 + £2).

FIGURE 3.3. MEASURING GDP: INCOME = EXPENDITURE = OUTPUT



Theoretically in a complete model of the economy, each of these three methods should also give the same result as the flow of expenditure on goods and services (the expenditure method), must equal the value-added at each stage of production of goods and services (the output method), which in turn must equal the sum of income paid out by firms to the factors of production as wages and salaries, interest, rent and profit (the income method). However, in reality, the economy is very rarely in equilibrium due to time lags with leakages and injections.

It should also be noted here, that so far discussion has focused on economic activity in a national economy. Nevertheless, in this research the NIA framework will be used to measure a *sector* of the whole economy i.e. sport. In reality, sectors are also very rarely

in equilibrium in terms of their income, expenditure and output. Furthermore, industrial sectors have a net imbalance in that for every sector which contributes to the national product, other sectors are either in balance or take away from it.

3.2.2 The NIA Framework: Methodological Considerations

So far the theoretical basis of the NIA framework has been considered. This section will now go on to explain how the NIA framework was used to measure the GDP of the sport-related economic activity in Sheffield.

3.2.2.1 The sectoral accounts

A key aspect of the National Income Accounting framework is the division of economic activity into sectors as in the published UK National Accounts. The national accounts system divide economic activity into the following four sectors:

- the corporate sector;
- the personal or household sector;
- the government sector;
- the overseas sector.

The NIA framework used in this research further divides economic activity into seven sectors to enable the monetary flows of income and expenditure of relevance to sport-related economic activity to be examined.

As in the previous sport studies which have used the NIA framework, the corporate sector was separated and defined so to enable distinction between the commercial sport and commercial non-sport sectors of the sports sector. The personal sector or household sector was divided to represent the consumer sector and the voluntary sector. Although little of the voluntary sector is actually captured in the published accounts within the personal sector, this was seen as a particularly important sector for the sports industry. The voluntary sector is as a key supplier of sports facilities and provision in the form of sports clubs, governing bodies and various other non-profit making sports associations.

The government sector was divided into local and central government, this being particularly important for a local study. Finally, the overseas sector was redefined to represent the economy outside of Sheffield, namely the rest of the UK and overseas.

To measure the economic importance of the sports sector using the NIA Framework, sport-related economic activity was therefore identified and divided into the following sectors: Consumer sector; Voluntary sector; Commercial sport sector; Commercial non-sport sector; Local government; Central government and Outside the area. For each of these sectors, an income and expenditure profile was derived showing how expenditure in one particular sector of the economy flows as income to other sectors. These profiles of income and expenditure are known as the sectoral accounts. They not only show the flow of funds between the sectors of the sports industry in Sheffield and those firms dependant upon spending in sport, but also the imports and exports outside the city economy. Each of the seven sectors are both exhaustive (i.e. in combination cover all sport-related activities within the economy) and mutually exclusive (i.e. each firm or consumer is located in only one sector). Each of these sectors will now be defined.

Consumer sector

The consumer sector is comprised of all households in Sheffield. The consumer sector derives income from wages and salaries paid to employees in sport-related industries. This sector also receives income from prize money earned by residents participating in sports events. Consumers expenditure includes all spending by the residents of Sheffield on sport-related goods and services such as spending on spectating and participating in sport, sports clothing and footwear, sports gambling and so on.

Commercial sport sector

The commercial sport sector as shown in Figure 3.4 consists of private organisations which operate on a commercial basis to provide sports goods and services within Sheffield, for example professional clubs; private participation clubs and sporting facilities; retailing outlets for sports clothing, footwear, equipment; manufacturers of sports goods, clothing, footwear and the sports media. Income is essentially received for the provision of goods such as sports clothing, for sports services such as watching

sports events and for advertising or as part of sponsorship. A large proportion of expenditure is on wages and salaries in commercial sport industries and also on the purchase of current and capital inputs.

Voluntary sector

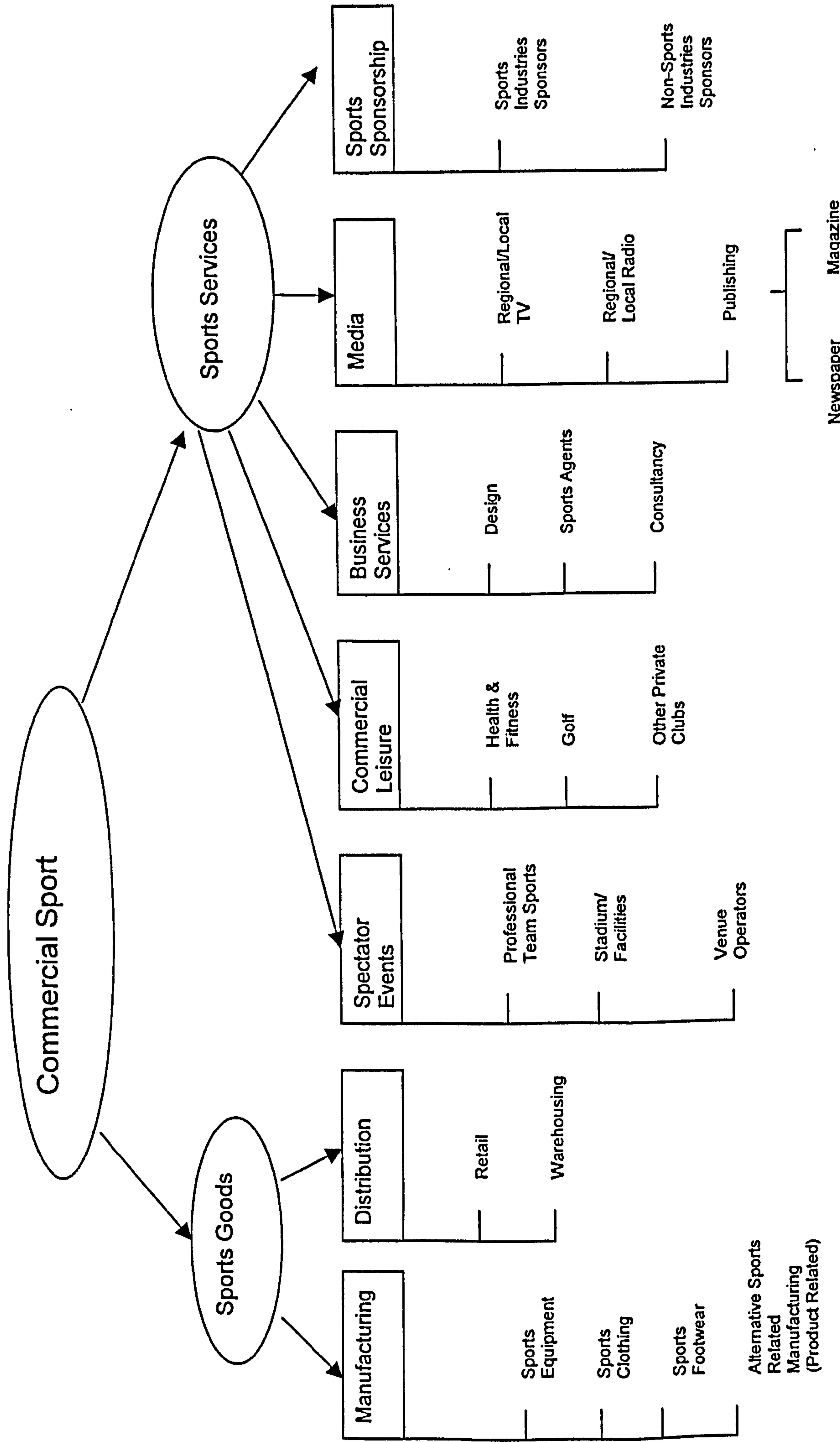
The voluntary sector consists of non-profit making organisations which are essentially run by participants on an amateur basis (Pieda 1991). This sector is very diverse and includes voluntary sports clubs within the city, for example, swimming; football; cricket; university sports clubs; Working Mens Clubs (WMC); Sport and Social Clubs (SSC) and clubs run by employers on behalf of their employees. It also includes charitable trusts such as the King Edwards Swimming (KES) trust and Chapeltown Baths Community Trust (CBCT) and governing bodies of sport and organisations which are involved in arranging and co-ordinating leagues and tournaments. Income to this sector is mainly derived from membership and sales of clothing, equipment, food and drink. Expenditure in this sector is likely to be on purchase of goods for resale, maintenance and on wages and salaries.

Commercial non-sport

The commercial non-sport sector essentially represents those private organisations within Sheffield which supply goods and services to the sports sector. They are those businesses which supply current and capital inputs to the sports sector and which are recipient of sport-related components such as travel and gambling: i.e. those services which are outside the sports sector, but are directly dependent on spending within it. The main components of income in this sector, as with the commercial sport sector, are sales of inputs to the commercial sport sector and the provision of services which fall within the boundary of sport-related final expenditure, but which do not constitute the sports industry itself. An explanation of the reasons for including this sector as sport-related economic activity will be given in 3.2.2.2.

Source: Gratton and Taylor (2000)

FIGURE 3.4. DEFINITION OF THE COMMERCIAL SPORT SECTOR



Central government

The central government sector essentially has an indirect involvement in the sport-related economic activity in the Sheffield. In terms of income, it receives money from direct taxation on the wages and salaries of those employed within the Sheffield sports sector and from commercial firms in the form of corporation tax. It also receives indirect taxation on sports goods and services. Expenditure from this sector in Sheffield represents grants and funding to local government and voluntary clubs. In addition, it also includes any funding provided through Sport England for excellence within the city and funding through the education sector for university sport and recreational services.

Local government

The role of the local government in the sports sector in Sheffield is essentially in sports provision. Local government receives income from admissions to local authority owned sports facilities, from central government grants and from revenue obtained through council tax from sports businesses in the city. Expenditure in this sector is essentially on wages and salaries, running costs of facilities and the provision of sport in school education.

Outside the area

The final sector of the NIA framework represents the flows of income and expenditure into and out of the Sheffield economy, otherwise known as the exports and imports of sport-related goods and services to and from the rest of the UK and overseas. No distinction has been made between domestic and overseas sectors outside the city as it was decided it was not necessary for the objectives of the research. Income to this sector (i.e. exports of the sports sector in Sheffield) essentially consists of inputs to other sectors. Expenditure from this sector (i.e. imports to the sports sector in Sheffield) consists of sales of sports goods and services to consumers and firms outside of the city.

Calculating value-added and employment

Although the sectoral accounts are the main output of the NIA framework, they are not essentially an economic impact calculation. To move from the flow of funds framework, to estimate the economic importance of sport, value-added and employment created by sport-related final expenditure in each sector must be calculated (LIRC, 1997).

Value-added, defined as the difference between the value of sport-related goods and services produced and the costs of the inputs used in producing them, is calculated by adding wages paid in each sector plus the sector's profit or factor surplus (i.e. the difference between factor income and factor expenditure) where it exists. Therefore,

$$\text{Value-added} = \text{Wages and Salaries} + \text{Factor Surplus (profit)}$$

or

$$\text{Factor Income} - \text{Non-Labour Factor Expenditure}$$

Value-added can therefore also be calculated by subtracting the cost of raw materials and services bought in from total factor income for each sports operator (LIRC 1997).

Similarly, the sectoral accounts do not directly generate estimates of employment and these are generated by dividing total wages in each sector by average wages in the relevant sector taken from the New Earnings Survey 1997. The calculation of both value-added and employment will be discussed in greater detail using the Sheffield data in Chapter Nine.

3.2.2.2 The definition of sport

A further important methodological consideration when using the NIA framework or indeed any analytical framework is defining the boundaries of the sports sector. Failure to make this explicit, or drawing the definition too wide, can leave economic studies open to criticism. This was highlighted in the arts, whereby Hewitson (1995:277) argued that the definition adopted by Myerscough (1988) "was so broad that only ten per cent of the estimated overall ten billion pounds was generated by conventional art activities".

Clearly if the boundaries of the sports sector are drawn widely as to include many rounds of sport-related spending, then if the exercise were repeated for other sectors of the economy, the GDP of the component parts of the economy would greatly exceed the actual national level of GDP. The Henley Centre for Forecasting (1992) point out that there is no absolute or unequivocal way to define the boundaries of the sports sector. However, where to draw the line between the value-added of the sports industry and the value-added of industries dependant on sport, is a crucial methodological issue for this research to ensure clarity and to enable comparisons with previous and future research. The definition of 'sport', 'sport-related final expenditure' and the 'sports industry' will now be discussed.

Sports activities

The issue of distinguishing physical activities between those which constitute sport and those which constitute leisure is one which has been long contested (Rodgers, 1978; Gratton and Taylor, 1985; Henley Centre for Forecasting, 1986). The definition of sport can encompass a large range of formal and informal activities from yoga and dance, through to rugby and cricket. Whereas certain activities such as the latter two are clearly sporting activities, many would argue that yoga and dance are leisure activities.

There is no universal definition of sport and the boundaries between this and physical recreation are often both unclear and changeable. For this research, as with the previous UK studies, the definition of sport from the European Sport for All Charter (Council of Europe 1980) is used, which divides sport into the following four broad categories of activity:

- Competitive games and sports (e.g. football, athletics);
- Outdoor pursuits in which participants seek to negotiate a 'terrain' (e.g. mountaineering);
- Aesthetic movement (e.g. gymnastics);
- Conditioning activity or exercises undertaken to improve well-being (e.g. weight training, aerobics).

In accordance with the UK Scottish study (Pieda, 1991), this definition does not include hunting or activities in which animals are the sole active participants, for example, grey hound racing. However, it does include popular recreational activities such as snooker, pool and walking (for two miles for more) for leisure purposes. Nevertheless, it is important to note the valid point argued by Jones (1989: 10) that

"to some extent the definition of sport is outside our control: the primary data sources on which we rely employ their own definitions and these tend to vary from source to source....."

This is arguably the case with the sources of data used in this research also.

The definition used encompasses all those sports with recognised governing bodies by the UK Sports Council. A full list of the all the sports included in this research is listed in Appendix 2.

Sport-related final expenditure

As discussed earlier, while the GDP of sport-related economic activities in the UK studies was not estimated using the expenditure approach $[C + G + I + (X - M)]$, Total Final Expenditure on sport was used to identify firms producing sport-related value-added. The boundaries of what constitutes sport-related final expenditure are therefore also important to this research. To help with this consideration, Table 3.4, from Jones (1989), summarises the inclusions and exclusions of expenditure items in the national studies carried out across Europe.

TABLE 3.4. ASPECTS OF SPORT-RELATED FINAL EXPENDITURE INCLUDED IN EUROPEAN ECONOMIC IMPACT STUDIES

	<i>Travel</i>	<i>Food and Drink</i>	<i>Sports media</i>	<i>Education</i>
Belgium: Flemish	✓	✓	✓	✓
French	✓	N/A	N/A	N/A
Denmark	✗	✗	✗	✗
Finland	✓	✗	✓	✗
Germany	✗	✗	✗	N/A
Iceland	✗	✗	✗	✗
Netherlands	✓	✓	✓	✗
Portugal	✗	✗	✗	✓
UK	✓	✗	✓	✓

✓ included; ✗ excluded; N/A data not available
Source: Jones (1989)

As in the Belgium study, travel, food and drink, sports media and education have all been included in the boundary of sport-related final expenditure in the Sheffield study. For example, where a sports activity is undertaken or a sports event watched, all costs incurred to undertake this activity have been included such as, admission, hiring equipment, travelling to the venue, food and drink consumed while at the venue and any additional expenditures such as car parking. In the previous UK studies, food and drink were excluded in all but the Scottish study (Pieda, 1991). This therefore represents a significant difference between estimates of sport-related final expenditure made in this research and previous studies.

In the case of holidays, if the primary reason for the holiday was for sporting purposes such as skiing, this expenditure including flights, accommodation and other items has been regarded as sport-related final expenditure in the Sheffield study, as with previous UK studies. With reference to the media, expenditure on sports magazines, videos, books and a proportion of newspaper cost (in relation to the sports content of the newspaper) has been included, as has a share of the BBC licence fee and TV rental costs. Gambling on sports events has also been included in the definition of sport-related final expenditure, although this has been recorded separately to allow a distinction between this and other sport-related activities. Finally, all expenditure on sports education has been included within sport-related final expenditure in this research.

The sports 'industry'

As discussed earlier, previous studies in the UK have used Total Final Expenditure on sport to identify sport-related economic activity and have then calculated the GDP of the sports sector by measuring the value-added of the various sport-related firms and in the country or region. While Total Final Expenditure on sport generates value-added across a number of different industries, the actual economic activity generated by the firms belonging to the sports 'industry' is dependent upon where the boundary of the sports industry is drawn. The Henley Centre for Forecasting (1992: 11) argue that

"the choice of what is included in the sports industry is somewhat arbitrary and depends on how far the research goes down the chain of suppliers of inputs to the final sports product. Precisely where the line is drawn is not crucial: it will not affect the total value-added attributable to sports final expenditure, but only

the division of this total between that retained in the sports industry and that distributed elsewhere in the economy"

It is true that the boundary of the sports 'industry' will not affect the value-added of sport-related final expenditure. Nevertheless, where the line is drawn between the value-added of sport and non-sport industries is extremely crucial, particularly for providing information for policy makers on the economic importance of the sports 'industry'.

For the purposes of this research, while the sports industry in the narrowest sense is taken to be the commercial sport, voluntary and local government sector; the study actually measures the value-added of sport-related economic activity, which also includes the commercial non-sport sector. As discussed earlier, the commercial non-sport sector represents those firms within Sheffield that supply goods and service to the sports 'industry' and are directly dependant upon spending within the sports industry. For example, the purchase of materials for sports manufacturing would also be included in the sports industry as value-added in the commercial non-sport sector. To measure the economic importance of sport in Sheffield, this research therefore adopts a wider definition of sport-related economic activity, rather than the narrower definition of the sports 'industry'. This is consistent with the economic studies of sport in both the UK and Europe, which were discussed in Chapter Two.

3.3 THE BASE MODEL

The final part of this chapter will discuss the derivation of the base model for Sheffield. The base model was derived for two purposes; firstly, to establish a benchmark for the economic importance of sport in Sheffield, against which the findings of this research can be measured and secondly, as will be discussed in Chapter Eight, to complete the income and expenditure accounts for NIA framework, where it was not possible to undertake primary data collection.

3.3.1 Derivation of the Base Model

As discussed in the previous chapter, the Leisure Industries Research Centre (LIRC) reviewed all the studies on the economic importance of sport in the UK (LIRC, 1997). As part of this review, LIRC derived a spreadsheet model to reproduce the economic impact calculations of 1985 and 1990 for the UK, as originally estimated by the Henley Centre for Forecasting (1986, 1992). This model was also used to calculate the economic importance of sport in the UK for 1995 (LIRC, 1997). LIRC then further adapted the model to develop a home countries spreadsheet model, to provide estimates of the economic importance of sport in England, Wales, Scotland and Northern Ireland for 1995 (Gratton and Kokolakakis, 1997, 1997a, 1997b, 1997c).

The base model for Sheffield was estimated using the LIRC model for England (Gratton Kokolakakis, 1997). This was calculated on a pro-rata basis using the population of Sheffield, the number of households in Sheffield and the percentage of England which Sheffield represents (based on total population). This gave an estimate of the sport-related economic activity in the city, if Sheffield was typical of the rest of England.

Since the England model represented 1995 and the selected year of study in Sheffield was 1996/97, it was necessary to use a price inflator, based on the retail price index (RPI) to ensure comparability between this and the primary and secondary data collected. The price inflator was calculated by taking the RPI average for the financial year 1996/97 (April to March) and dividing it by the annual average for 1995. The price inflator was estimated at 1.0311 and was used to estimate the base model for 1996/97.

3.3.2 The Economic Importance of Sport: The Base Model

The results of the base model will not be discussed in detail within this chapter, as the purpose of it was essentially to provide a benchmark estimate of the economic importance of sport in Sheffield, if it was typical of the rest of the UK. However, the results of the base model will be used in later chapters to provide a comparison with the findings of the primary and secondary data collected in Sheffield. Several summary

tables are nevertheless presented below, to give an indication of the predicted economic importance of sport in Sheffield if it was typical of the rest of England. The complete sectoral accounts and estimates of value-added and employment, derived for Sheffield in 1996/97 from the base model, can be found in Appendix 3.

Table 3.5 shows the sport-related income and expenditure flows of the base model to the seven sectors of the NIA framework. As it can be seen, if Sheffield was typical of the rest of the England, the consumer and local government sectors would be net spenders on sport and the commercial sport, voluntary, commercial non-sport and central government sectors would be net recipients. It can also be seen that Sheffield would import approximately four times more sport-related goods and services into the city, than it exports. However, care should be taken when interpreting these findings as no adjustment has been made for the local economy. The base model merely replicates the England model, to establish an arbitrary benchmark against which to compare the findings of this research.

TABLE 3.5. THE BASE MODEL: SPORT-RELATED INCOME AND EXPENDITURE FLOWS 1996/7 (£ MILLION)

<i>Sectors</i>	<i>Income</i>	<i>Expenditure</i>
Consumer	45.23	91.85
Commercial sport	46.96	45.92
Voluntary	22.44	17.29
Commercial non-sport	59.27	56.20
Central Government	36.73	7.51
Local government	11.76	15.28
Outside the area	21.89	5.70

Source: The Base Model

From Table 3.6 it can be seen that the estimated value-added of sport-related expenditure in Sheffield if it was typical of the rest of England, would be £86.15 million. It can also be seen that the largest proportion of this would be generated in the commercial non-sport sector which accounts for 53.5%, followed by the commercial sport sector and the voluntary sector which account for approximately 21.8% and 15.5% of value-added respectively. Furthermore, although not shown in either table, sport-related employment from the base model was estimated to be 3,659.

TABLE 3.6. THE BASE MODEL: VALUE-ADDED BY SPORT-RELATED ECONOMIC ACTIVITY 1996/97

<i>Sectors</i>	<i>(£ million)</i>	<i>%</i>
Commercial sport	18.80	21.82
Voluntary	13.34	15.49
Commercial non-sport	46.08	53.49
Central government	0.30	0.35
Local government	7.62	8.85
Total	86.15	100.00

Source: The Base Model

3.4 SUMMARY

Within this chapter, it has been shown that several methods have been used to evaluate the economic importance of the leisure industry. Having critically evaluated these methods and assessed the advantages and disadvantages of using Multiplier Analysis, the Input-Output method and the National Income Accounting framework (NIA), it was concluded that the NIA method provided the most appropriate analytical framework for measuring the economic importance of sport in Sheffield.

While Multiplier Analysis was considered to be appropriate for measuring the economic impact of sports events, there was no evidence to suggest that it was suitable for measuring the economic importance of an industrial sector such as sport. The Input-Output method was found to be appropriate for measuring the economic importance of an industrial sector, but was also found to be inappropriate for different reasons. The derivation of a local Input-Output tables was considered to be too expensive and data demanding for the resources of this research and the use of existing national tables was considered to be detrimental to the quality of data used to estimate sport-related economic activity. Furthermore, the industrial categories of existing tables were by and large, considered to be too broad for the investigation of sport with the need to make numerous assumptions to dis-aggregate sport from various grouping. In addition, LIRC (1997) argues the Input-Output analysis, a conceptually more difficult framework than the NIA framework is likely to lead to a very similar result anyway.

The National Income Accounting framework was concluded to be the most appropriate method for several reasons. While it provides a framework through which the inter-

relations between the different sectors of the economy can be viewed, the data requirements of the NIA framework are considerably lower than those required for the Input-Output method. The use of the NIA framework at the local level provides the opportunity to investigate the monetary flows of income and expenditure to and from the sports sector, which are not available from published statistics, using primary data. This has the advantage that sport-related economic activity can be specifically targeted, rather than requiring assumptions to derive the sport-related component of larger expenditure categories.

This chapter has also presented a base model of the economic importance of sport in Sheffield. This provides estimates of the sectoral accounts, value-added and employment of sport-related economic activity in the city, if Sheffield were typical of the rest of England. The base model will be used as a benchmark, to compare the findings of this research in later chapters, in addition to providing any data required by the NIA framework which can not be collected using primary and secondary sources. The following chapter will now outline the research methodology and procedures used to collect the data required to estimate the economic importance of sport in Sheffield.

CHAPTER FOUR. RESEARCH METHODOLOGY

In the previous chapter it was highlighted that there are two stages to the process of determining the economic impact of sport in Sheffield, using the output approach of the National Income Accounting (NIA) framework. The first is the identification of sport-related economic activity in the seven sectors highlighted previously and the second is the derivation of the sectoral accounts and the calculation of value-added and employment. The purpose of this chapter is to consider and to justify the methodology used to identify and estimate sport-related economic activity in Sheffield.

The chapter will firstly discuss the philosophical underpinnings of the research and the issues of data reliability and validity, before going on to justify the research design and provide details of the data collected. The investigation has adopted a quantitative approach and has used questionnaires to derive information in the consumer, voluntary and commercial sport sectors. It has also used existing published secondary sources and the base model to complete the data requirements of the NIA framework. The data collected in Sheffield relates to the financial year 1996/97.

4.1 QUANTITATIVE OR QUALITATIVE RESEARCH?

The first methodological issue to be considered within this chapter is the nature of the methods used within the research. It will be argued that while quantitative and qualitative methods are widely regarded to represent different epistemological positions, the choice of which approach to use within this research was essentially determined by technical issues relating to the objectives of the research.

Until the 1970s, discussions of the attributes of quantitative and qualitative methods of research operated almost entirely around the technical merits of each paradigm. However, since this time the intrusion of broader philosophical issues has become increasingly apparent. Bryman (1993: 3) notes that

"the terms 'quantitative research' and 'qualitative research' came to signify much more than ways of gathering data; they came to denote divergent assumptions about the nature and purposes of research in the social sciences",

Within social science, there are essentially two contrasting epistemological viewpoints of what constitutes acceptable knowledge (Filstead, 1979). Quantitative research methods are based on the natural science approach, which essentially depicts the hallmarks of a positivist approach in which the social world can be measured objectively. In contrast, qualitative research methods which subscribe to positions such as phenomenology, constructivism or naturalism, maintain that reality is socially constructed by the individuals involved in the research situation and are measured subjectively through the eyes of those being studied (Veal, 1992; Creswell, 1994).

It has been argued that the underlying philosophical principles, upon which a study is based, essentially determines whether quantitative or qualitative methods are appropriate. Bryman (1993: 105) comments that

"the view that quantitative and qualitative research constitutes different epistemological positions would seem to imply that researchers formulate their views about the proper foundation for the study of social reality and choose their methods of investigation in the light of that decision".

However, he goes on to argue that although many researchers view quantitative and qualitative methods as distinct paradigms, the choice of which method to use is often based upon technical rather than epistemological considerations. It has been suggested that the alternative research traditions are appropriate to different kinds of research problem and that the choice of technique is pre-determined by whether it is appropriate to the research question itself (Scase and Goffee, 1982; Walker 1985, Yin, 1994).

While the underlying philosophical position of this research is essentially positivist, the choice to use quantitative methods was based upon the advantages and strengths of the techniques available and inasmuch as the use of such an approach carries with it epistemological implications, this was not the primary motive for selecting quantitative methods. The research methods and techniques used for collecting data were essentially pre-determined by the fact that the overall research aim and objectives required quantitative data to calculate the value of sport-related economic activity to the economy in Sheffield.

4.2 RELIABILITY AND VALIDITY

It was outlined in Chapter Two, that one of the major problems with previous research on the economic importance of sport, was the reliability and validity of the data used to estimate the value-added and employment generated by sport-related economic activity. The second methodological issue that was considered in the research design therefore was its legitimacy as a means of collecting the data needed to satisfy the requirements of the NIA framework and thus the objectives of the research.

4.2.1 Reliability

Reliability is concerned with the consistency of a measure (Bryman, 1993), which is ensuring that the research findings would be the same if identical procedures were to be repeated in the same way, at a later date or with a different sample. It is therefore concerned with minimising the errors and biases in a study which occur from sources such as bad wording on questionnaires/interviews, different interviewers, coding or asking questions on issues which people have insufficient information or no opinion about (de Vaus, 1996). It also occurs from small samples and non-response as shown in the voluntary and commercial sport sectors of several economic impact studies, discussed in Chapter Two.

While reliability is an important issue within this research, Veal (1997: 36) suggests that unlike in the natural sciences where data reliability can be controlled and measured,

"this is rarely the case in the social sciences because they deal with human beings in ever-changing social situations".

de Vaus (1996) argues that although there are a number of well-established methods for testing the reliability of indicators, these mainly apply to measuring the reliability of scales to measure one concept, rather than a single item, as required for the Sheffield research. He goes on to note that the 'test-retest' method is the only way to check the reliability of single questions, where the same people are asked the same question at different intervals and the correlation co-efficient between the answers given is measured. However, this is widely regarded to be problematic within social science research. Moser and Kalton (1989) maintain that rarely are these questions

independent, with the respondent recalling the previous answer given and when a period of time has lapsed between the questions, events occurring between may have changed the response of the respondent. Also, it is often difficult to ask the same question twice within a survey. Furthermore, Veal (1997: 36) argues that

"while a single person's report of their behaviour may be accurate, when it is aggregated with information with other people, it presents a snap-shot picture of a group of people, which is subject to change over time, as the composition of the group changes, or as some members of the group change their patterns of behaviour".

Therefore, even well developed questions will be subject to reliability problems (de Vaus, 1996) and although the research design has incorporated measures to reduce the sources of unreliability which were highlighted above, this will always be a problem with the nature of the data required.

4.2.2 Validity

Validity is the extent to which the information collected by the researcher truly reflects the phenomenon being studied. There are several kinds of validity and the definitions of these within the literature is variable (Moser and Kalton, 1989; Bryman, 1993; Frankfort-Nachmias and Nachmias, 1996). The three most common forms of validity are listed below and for the purposes of this research, the following definitions from de Vaus (1996) will be used:

- *Content Validity*: the assessment of validity based on whether the measure of the concept covers the concept's full meaning;
- *Construct Validity*: the evaluation of the validity of a measure by comparing results using that measure with the results expected on the basis of theory;
- *Criterion Validity*: the evaluation of validity by comparing results based on new measures of a concept with those using established measures.

This research was primarily concerned with content validity, which is the extent to which the methods used, measure the different aspects of the concept being evaluated. For example, in Chapter Two, it was argued that there is evidence to suggest that the use of published data sources to measure consumer spending on sport, underestimates the actual level of spending on sport and when this is measured using a consumer survey,

expenditure is found to be considerably higher. The evidence suggests therefore that the use of published data sources to measure consumer expenditure on sport lacks content validity and while the FES may be a reliable source, it is not a valid measure of consumer spending on sport.

Veal (1997: 35) argues that leisure research, unlike research in the natural sciences, is fraught with difficulties of data validity. He argues the reason for this is

"mainly because empirical research is largely concerned with people's behaviour and with their attitudes, and for information on these the researcher is, in the main reliant on people's own reports in the form of responses to questionnaire-based interviews".

Similarly, Clarke and Critcher (1985: 27) comment that

"there is always a gap between what people say and what they actually do and no study of work or leisure can afford to take what people say at face value".

As with reliability, all social science research is subject to criticism regarding validity and although there are no specific measures for validity, procedures were integrated within the research design which attempted to minimise this, such as piloting the questionnaires and where possible taking large samples. In addition, the results of the questionnaires were compared to existing research, for example participation rates in sport in Sheffield were compared to the General Household Survey (GHS) data to ensure construct validity.

Despite the difficulties in ensuring and measuring data reliability and validity they are important concepts in social science research and while they can not be eliminated totally, every effort was made to minimise these in the research design of this research. Data reliability and validity was therefore a fundamental consideration with regard to the techniques used to collect primary and secondary data.

4.3 RESEARCH DESIGN

This section will now examine how the research in Sheffield was carried out and the justification for the methods and techniques used. As discussed earlier, the NIA framework essentially precluded the use of qualitative methods other than in a

contextual capacity, thus the emphasis of the remaining chapter is on quantitative methods.

It was highlighted in Chapter Three, that one of the advantages of using the NIA framework at the national level is that much of the data required can be obtained from the UK National Accounts. Nevertheless, at the local level this is not the case and much of the data needed to implement this framework had to be derived from primary sources. It was not possible to collect data using this approach in all seven sectors in Sheffield, therefore the decision of which sectors to prioritise was essentially determined by the level of existing data available in each sector at the local level.

The literature review revealed that the availability of data in the voluntary sector at both the local and national level, is a longstanding problem (LIRC, 1997), with the quality of data used in previous studies on the economic importance of sport being highly variable. For example, the number of different sports targeted within previous UK studies has varied from a little as 6 sports (Henley Centre for Forecasting (1992) to as many as 38 sports (Henley Centre for Forecasting, 1989) and the number of questionnaire responses, between 14 and 232. Given that little published information exists at the local level and that the quality of the data collected in the previous UK studies is so inconsistent, it was decided to focus on the voluntary sector as a key area of primary research.

The second sector of economic activity, which was considered to be a priority for primary data collection, was the consumer sector. Chapter Two revealed that studies which have carried out surveys to estimate consumer spending on sport (Les Pratique Sportives En Communaute Francasie, 1985; Piedad, 1991; Taks and Kesenne, 1999) have found that expenditure is considerably higher than shown when using published data sources (Henley Centre for Forecasting, 1986, 1992; Oldenbroom *et al* 1996; LIRC, 1997). The evidence suggests that the use of published data sources to measure this sector leads to a significant under recording of consumer expenditure on sport. As a result of this and given the fact that consumer spending on sport has grown by 30% between 1985 and 1995 (Gratton, 1998), it was decided that consumer spending on sport in Sheffield should also be targeted.

The third and final sector in which primary data collection was undertaken was the commercial sport sector. While published sources are available for this sector at the national level, limited regional and local data on sport-related economic activity exists. The commercial sport sector represents an important part of the overall sports economy, accounting for approximately 21% of the sport-related value-added in the UK in 1995 (LIRC, 1997), therefore the need to obtain information in this sector at the city level was paramount.

It was discussed earlier that in addition to primary research, secondary data was also collected in the other sectors of the NIA framework and used together with information from the base model to estimate the income and expenditure profiles of sport-related economic activity. Prior to the detailed consideration of the primary and secondary data collected in Sheffield, it is necessary to outline the research methods and techniques used in the voluntary, consumer and commercial sport sectors. It is important to note previous to this discussion, that given the vast literature on research methods, the terminology between sources varies. Within this chapter the term 'method' will be used in the context of the overall approach to the research question and 'technique' will be used to refer to the actual process of collecting data.

4.3.1 Research Methods

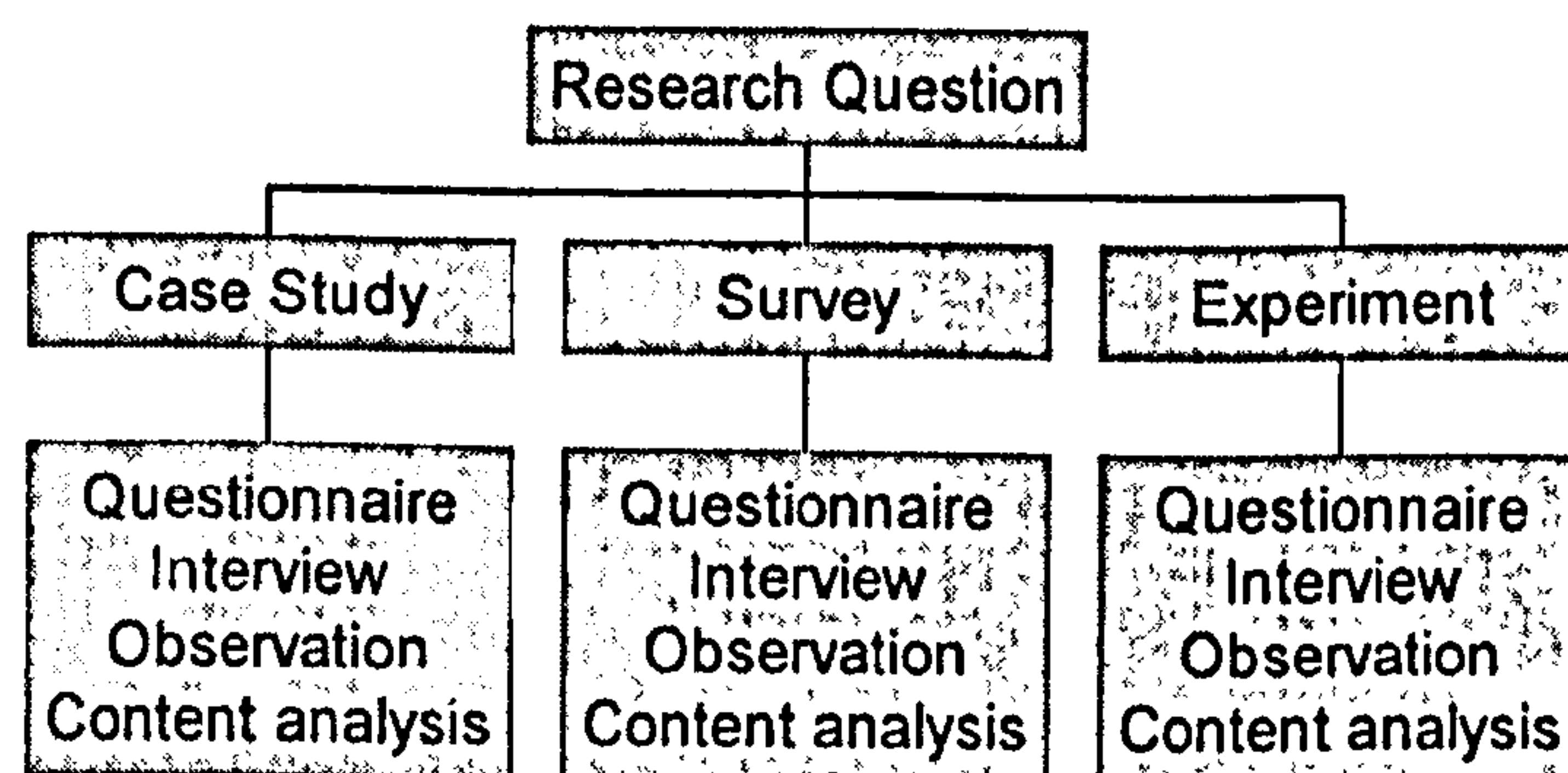
Under the wide umbrella of quantitative research, there are a number of different approaches to data collection. Survey research is one of the most widely used methods in quantitative research (Hakim, 1994). Nevertheless, it is not the only method by which research can be designed. Figure 4.1, from de Vaus (1996) shows that a number of techniques to collect, organise and analyse data can be used within a variety of methods.

It was noted earlier that the aim and objectives of the research essentially pre-determined the use of quantitative methods. However, arguably they also determined the type of method to be used for data collection. The requirement of numerical data, for multiple cases of sport-related economic activities within Sheffield therefore meant it was necessary to use the survey method for measuring sport-related final expenditure



in the consumer, commercial sport and voluntary sectors. It was not appropriate to undertake case studies of individual households, commercial leisure centres or voluntary clubs nor was it appropriate to set up an 'experiment', thus the survey method was the only feasible method for collecting the quantitative data required for this research.

FIGURE 4.1. A RANGE OF RESEARCH METHODS AND TECHNIQUES USED FOR DATA COLLECTION



Source: de Vaus (1996)

Within the literature, the 'survey method' has assumed a wide definition. Marsh (1982: 6) insists that

"a survey is no longer just a way of collecting data, but rather an investigation having a particular method of data collection, a particular method of data analysis and a particular substance".

She notes that as a method of collecting data, it must be systematic, looking at multiple cases and measure the same variables on each case. While Marsh (1982) is fairly explicit in her definition of the survey method, other authors are more vague and some chose to avoid the issue of defining a survey altogether. For example, Moser and Kalton (1989: 1) argue that a definition of social survey would have to be

"so general as to defeat its purpose, since the term and methods associated with it are applied to an extraordinarily wide variety of investigations".

Hoinville *et al* (1989) and Frankfort-Nachmias and Nachmias (1996) chose not even to acknowledge the issue of definition at all, the latter authors using the term 'survey' to encompass three 'methods' of gathering data; namely mail questionnaires, personal interviews and telephone interviews.

From Figure 4.1, it can be seen that the 'methods' discussed by Frankfort-Nachmias and Nachmias (1996) would be regarded as 'techniques' by de Vaus (1996). Such confusion with terminology can lead to the survey method being unduly criticised for example, citing the weaknesses of a postal survey is clearly not the same as discussing the weaknesses of survey methods in the general sense. Marsh (1992) claims that the social survey has been the object of damaging criticism in recent years, much of which is ignorant and ill founded. She goes on to argue that defining the survey method is important to enable those criticisms of surveys which can be avoided, to be identified from those which it shares with other methods of social science.

For the purposes of this research, the survey method refers to the specific form of data collection which is characterised by a case data matrix, i.e. information is collected "about the same variables or characteristics from at least two (normally far more) cases" (de Vaus, 1996: 3), which is recorded in a data matrix. The second distinguishing feature of a survey is the method of analysing data. This should allow characteristics of cases to be described and comparison of cases to investigate correlation and causality. The discussion will now focus upon the techniques used for the Sheffield research.

4.3.2 Research Techniques

Figure 4.1 shows that within any given research method, a number of techniques of data collection can be used. The questionnaire is one of the most widely used techniques for collecting quantitative data (Marsh, 1982; Moser and Kalton, 1989; Frankfort-Nachmias and Nachmias, 1996). Nevertheless, as (de Vaus, 1996: 3) highlights

"other techniques such as structured and in-depth interviews, observation, content analysis and so forth are also appropriate".

In the previous UK economic impact studies discussed in Chapter Two, the majority of primary data was collected using postal questionnaires. In the Bracknell and Wirral study (Henley Centre for Forecasting, 1989) questionnaires were also used, but these were administered personally.

In-depth interviews were the alternative survey method for collecting data in Sheffield. However, given the large quantity of data across the three sectors identified for primary

research, this was not feasible within the time scale of the research. Furthermore, unless highly structured, these would not yield the information required for the NIA framework. Consequently the questionnaire was chosen as the main technique for collecting primary data in the voluntary, consumer and commercial sectors.

4.3.2.1 Evaluating the methods of administering a questionnaire

A further consideration when using questionnaires for collecting data in Sheffield was the method of administration. de Vaus (1996) argues that this can not only affect the sample quality in terms of data reliability and validity, but also the type of questions that can be asked and even the layout of the questionnaire. Table 4.1 summarises the advantages and disadvantages of the most commonly used methods of administering questionnaires.

TABLE 4.1. A SUMMARY OF THE ADVANTAGES AND DISADVANTAGES OF ADMINISTERING QUESTIONNAIRES

<i>Method of administration</i>	<i>Advantage</i>	<i>Disadvantage</i>
Mail/postal	Low cost Reduction in bias error Considered answers and consultations Greater anonymity Accessibility	Requires simple data No opportunity for probing No control over who fills in the questionnaire Low response rate
Face to Face (personal interview)	High response rate Flexibility Probing Collection of supplementary information Control of the interview situation	Interviewer bias Lack of anonymity Higher cost
Telephone	Moderate cost and control Speed High response rate Sample can be based upon criteria	Less information The broken-off interview Quality Reluctance to discuss sensitive topics

Source: adapted from Frankfort-Nachmias and Nachmias (1996)

A postal questionnaire was used to collect data in the voluntary and consumer sector and a combination of the three methods in the table were used to obtain information in

the various sub-sectors of the commercial sport sector. Given that a considerable amount of data was required for the NIA framework, the postal questionnaire was considered to be the most effective and efficient method for collecting the majority of data in Sheffield (Frey, 1983; Fowler, 1993). Nevertheless, as previous studies on the economic importance of sport in the UK have been largely unsuccessful at collecting data in the commercial sport sector using postal questionnaires, it was decided to also use telephone and face to face interviews in this sector.

There were several advantages to using a postal questionnaire. Firstly, it provided the opportunity for the respondent to consult others, which was particularly useful in the voluntary and commercial sectors. Lansing and Morgan (1971) argue that when collecting financial information, the person being questioned may not have all the knowledge required to complete the questionnaire and may therefore need to speak to others or to consult records or accounts to give an accurate answer.

Secondly, the postal questionnaire provided the opportunity for the respondent to consider answers, which was particularly relevant to the consumer sector, for recalling participation and expenditure on sport. Although Sudman and Bradburn (1989) suggest that self administered questionnaires can often lead to over reporting or telescoping behaviour, other researchers argue that this is more an issue of the timing and frequency of events in relation to the questionnaire being undertaken (Hoinville *et al*, 1989). This is articulated by Lansing and Morgan (1971: 123) who state that

"consumer expenditure studies which seek to secure detail on expenditures by categories or sub-categories, face problems of deciding on the period of time for which to ask for each type of expenditure. If a very short period, yesterday or last week, is used; then it is difficult to avoid double counting (telescoping, or bringing into the period things bought just before or just after), or omission of borderline or ambiguous items. If the period is too long, then memory errors are more likely".

One of the most crucial methodological considerations of collecting financial data, particularly in the commercial sport sector, was obtaining highly sensitive and confidential data. The method used for administering questionnaires can be particularly influential in this. As Lansing and Morgan (1971: 114) explain

"a reason for non-response is that financial information will somehow be used by people with opposing economic interests".

Arguably, if greater anonymity is provided through less personal methods of administration, a better response will be obtained to sensitive issues (Moser and Kalton, 1989; Frankfort-Nachmias and Nachmias, 1996). Sudman and Bradburn, (1989) similarly argue that the threat posed by sensitive questions can be reduced by using methods to increase the anonymity. Nevertheless, previous studies on the economic importance of sport in the UK which have used mail questionnaires for collecting data in the commercial sport sector have historically obtained low response rates therefore telephone and face to face interviews were also used in this sector for this reason. The advantages and disadvantages of these methods are also presented in Table 4.1.

Probably the largest problem facing questionnaire research is the problem of non-response. de Vaus (1996) notes that non response can create two problems; unacceptable reduction of sample size, which can affect the accuracy of a sample and bias. From the evidence presented in Chapter Two, it is clear that one of the most fundamental problems and contributing factors to poor data reliability and validity in previous UK studies, was non-response to primary data collection and the ensuing bias. This was therefore inevitably a key issue in this research.

As highlighted in the Table 4.1, the mail questionnaire has traditionally been most subject to the problem of non-response, with telephone and face to face questionnaires achieving much higher response rates. However, as Lansing and Morgan (1971) and de Vaus (1996) note, non-response can often be misleading and overestimated in the case of mail questionnaires. Those members of the population for example, who are ineligible or unreachable are assumed to be non-respondents, unless otherwise informed. In the case of voluntary sports clubs, a club may no longer exist however, in the case of a mail questionnaire this would be treated as a non-response rather than ineligible. This problem is avoided with the other two methods of administration as members outside the population can be immediately identified and deleted therefore reducing non-response.

There were a number of measures taken within the research design to increase response rates, such as ensuring covering letters were sent to a named person, sending reminder letters, ensuring the population database was accurate and targeting populations with particular relevance and interest in the investigation. The issue of non-response and

bias in questionnaires is to a large extent inevitable. However, more importantly de Vaus (1996: 73) argues

“The difficulty is not so much the bias itself, since there are statistical techniques for minimising its influence in the analysis, but in working out what the bias is and to what extent it occurs”.

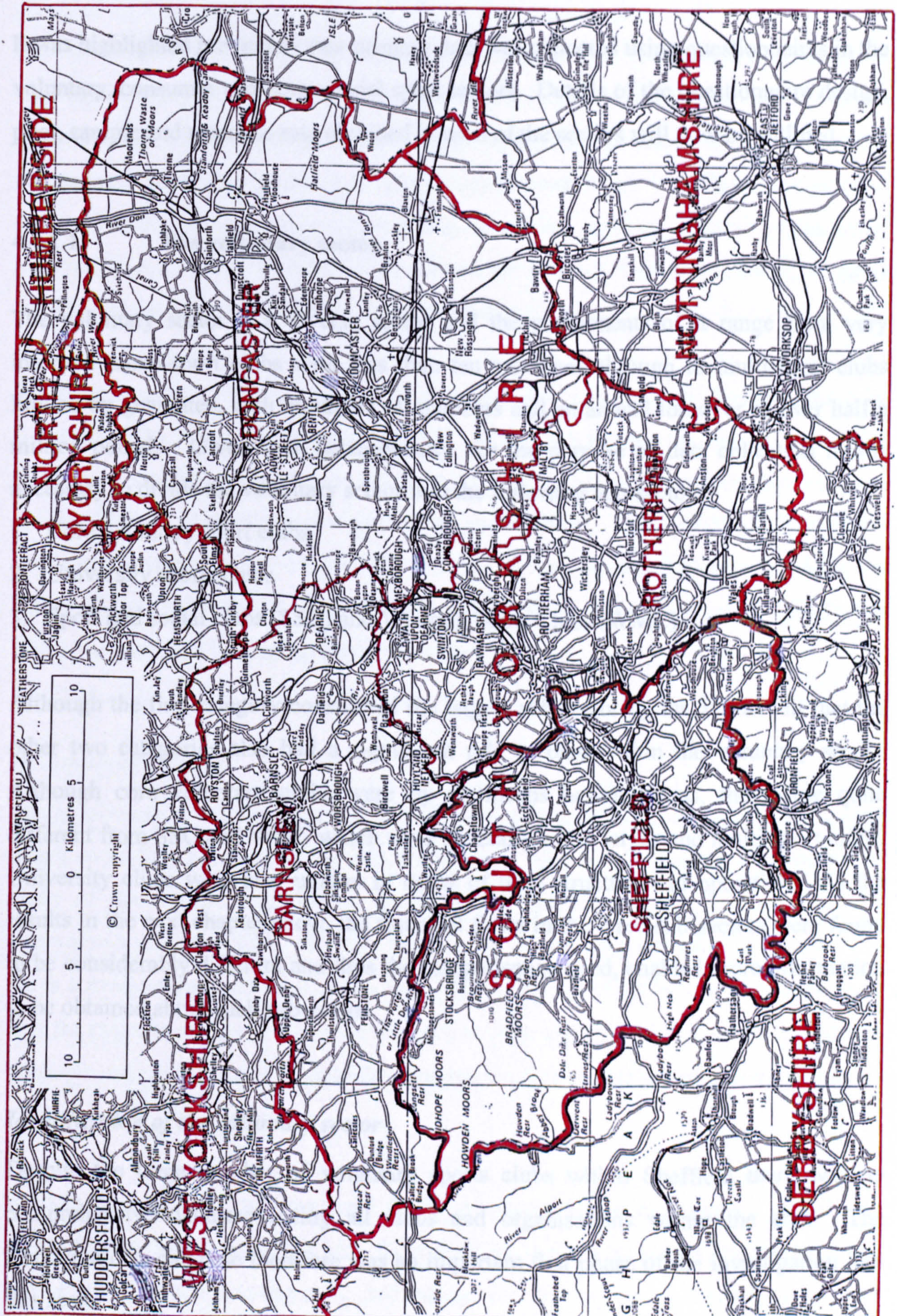
Measures were therefore taken within each sector to get some information about the characteristics of the non-respondents. This enabled the non-respondents to be compared with those who did respond, which in turn gave some indication of sample bias and possible ways to adjust for this.

4.4 DATA COLLECTION

The final section of this chapter outlines the actual process of the research and considers how primary and secondary data was collected in Sheffield. Prior to discussing this, it is firstly necessary to outline the geographical boundary of the research.

This research uses a case study of Sheffield to estimate the economic importance of sport at the local level. Sheffield is situated in South Yorkshire and has a resident population of 501,202 (Census of Population, 1991). Figure 4.2 outlines the geographical boundary of the research area in accordance with that defined by the 1991 Census and Appendix 4 shows the wards of Sheffield and the postal districts of the city, used for sampling in the consumer sector. Although Sheffield is statistically the fifth largest city in the UK, it can be seen from Figure 4.2 that a large proportion of the city boundary extends into the National Peak District. The spatial delineation of the city is thus relatively confined.

FIGURE 4.2. BOUNDARY OF THE RESEARCH



Source: Census of Population (1991)

4.4.1 Primary Data Collection

It was highlighted previously that primary data was collected using questionnaires in the voluntary, consumer and commercial sport sectors. Details of the questionnaire design, pilot, sample and response rate obtained in each of the sectors will now be outlined.

4.4.1.1 The voluntary sector

The voluntary sector is a diverse sector and the components of it range from very informal mono-sport clubs with less than ten members, through to multi-sport clubs limited by guarantee, with hundreds of members and an annual turnover of over half a million pounds. Given such heterogeneity, for the purpose of data collection it was necessary to divide the voluntary sector into the following sub-sectors:

1. Core voluntary sport clubs
2. University sports clubs
3. Sport and social clubs (SSC) and Working Mens Clubs (WMC)

Although the first category constituted the largest sub-sector by far, it was felt that the other two categories also had a significant role to play within the voluntary sector. Although core voluntary clubs were by no means homogeneous, they were quite different from SSC and WMC which were generally much larger and multi-sport clubs. University clubs were also unique in terms of their structure and operation. As the results in the next chapter show, the financial flows in the three sub-sectors were found to be considerably different and thus the categorisation used, enabled more information to be obtained about each sub-sector.

Identification of the voluntary sector

Despite the large number of voluntary sports clubs within Sheffield there was no comprehensive database listing all clubs and organisations within the area. The formation of a database therefore was an important first phase of the investigation into this sector.

The most comprehensive source of voluntary sports clubs available in Sheffield, was provided by Witt (1996), who carried out a major research project on voluntary leisure clubs and organisations in South Yorkshire. A database of 2,522 voluntary *leisure* clubs and organisations in South Yorkshire, last updated in June 1995, was used from her research. The leisure database was compiled using information provided by regional and national governing bodies and local libraries across South Yorkshire. It contained the club name, contact name, address and telephone number, activity, organisation affiliated to and source of information. From the original database, a list of all sport clubs and organisations within Sheffield was formed.

For the purposes of this research, the database was subsequently divided into core voluntary clubs, university sports clubs, SSC, WMC and leagues and associations. The majority of clubs listed were core voluntary therefore additional sources were required to identify the other clubs and organisations in Sheffield. The 1996/97 Yellow Pages were used to complete the list of SSC and WMC and information from the Athletics Union of The University of Sheffield (SU) and Sheffield Hallam University (SHU) was utilised to complete the list of University clubs.

Questionnaire design

The questionnaire was structured with the overall aim to obtain quantitative information which could be placed within the NIA framework. This was potentially problematic as many of the organisations within the voluntary sector are small and the financial transactions of these clubs are often unrecorded, or are only available to members of those specific organisations (Gratton and Taylor, 1985). Nonetheless, it was assumed that the majority of sports clubs would have income and expenditure or profit and loss accounts or at least be able to provide some information on economic activity within the club.

A basic questionnaire was designed for the voluntary sector and adapted slightly for each of the different types of club. Consideration was given to both the structure and the wording of the questionnaire and advice was used from a number of research methodology text books (Marsh, 1982; Hoinville *et al*, 1989; Oppenheim, 1992; Hakim, 1994; de Vaus, 1996; Veal, 1997). Given that the clubs that were to receive the

questionnaire were varied in size, the questionnaire was designed to enable both smaller and larger clubs to complete it. Also, while it was kept as simple and short as possible, with minimum use of technical wording, this was difficult as there was a need to ensure that a basic level of information and financial data was obtained from all the voluntary clubs and organisations. Where possible, examples were given on the questionnaire to demonstrate the information required.

The following discussion outlines the structure of the voluntary sector questionnaire. It specifically relates to the questionnaire used for investigating core voluntary clubs. However, the basic structure was also used for collecting information on university clubs, SSC and WMC. A copy of the voluntary club questionnaires can be found in Appendix 5.

There were three main sections to the questionnaire. The first was designed to obtain general information about the club, the second section was to derive data on the income and expenditure flows in the organisation and the third section was included to provide details of paid and unpaid (volunteer) employment. Each of these will now be discussed in greater detail.

Section One was structured to provide information on the size of the club, status and ownership of facilities. It was relatively straightforward to enable all clubs to provide at least a basic level of information. Data on the status of the club was required to identify independent clubs from those linked to either larger parent clubs or SSC and WMC. Information on ownership of facilities was included to build up a profile of sports facilities in Sheffield, to be investigated within the commercial sport sector. Information on the clubs' governing bodies was also required to cross-check if any were located in Sheffield, that had not already been identified from the database.

Section Two was concerned with the economic activity generated by the club. Each club was asked to provide their annual accounts and/or complete information about the flows of income and expenditure within the organisation. It was realised that for confidentiality purposes, many clubs would be reluctant to provide accounts and detailed financial information therefore categories of turnover were also included which provided an indication of the level of economic activity within the club.

Information was required on the gross income and expenditure, in addition to the sources and destinations of these. This was to enable a profile of the monetary flows into and out of the club to be identified. In addition, questions were asked on grant income and capital expenditure over the last three years. Given the fluctuating nature of these two elements from year to year, it was thought that the most accurate representation of these would be derived by averaging grant income and investment over the last three years. This was consistent with previous research on the economic importance of sport in the UK (Henley Centre for Forecasting, 1986). For all expenditure questions, it was asked whether money was spent within Sheffield, the rest of the UK or overseas. This was to determine whether expenditures were retained within the sports industry in Sheffield. This information was also used to derive the sectoral accounts.

Section Three was divided into questions relating to voluntary (unpaid) work and paid employment within the club. Information was requested on the total number of volunteers, committee members and the time spent on club affairs. Initially it was intended to create a hierarchical structure of volunteers within the club based on skill, similar to the occupational structure of employees. Then, rather than multiplying the total volunteer hours by a shadow wage as in previous economic impact studies, it was intended to apply a graded wage scale reflecting the degree of skill required to carry out tasks by volunteers. However, although this level of detail would have improved the quality of data on the voluntary sector, it was not a priority within the resource constraints of the research. With regard to paid employment, information was asked about the number of employees and the breakdown of these into categories of Full Time (FT) Part Time (PT) and temporary.

Minor modifications were made to the basic structure of the core voluntary club questionnaire for university clubs, SSC and WMC. These changes will not be detailed within this chapter, but they can be identified from the questionnaires included in Appendix 5.

The pilot

The core voluntary club questionnaire was piloted to determine whether clubs would be prepared, or more importantly have available, the detail of financial information needed to complete the questionnaire. Three versions were piloted, all of which had key questions on turnover, number of volunteers and employees. Each version required varying levels of detail on the breakdown of income and expenditure within the club. Version 1 (V1) asked for the least information, requesting only the financial accounts and Version 3 (V3) asked for the most detailed information, requiring the club to give comprehensive details of income and expenditure items and the actual amount spent on them. Version 2 (V2) was a compromise, asking for total amount of income and expenditure, but only asking for the breakdown in terms of percentage of each item rather than actual amount spent on each item.

A sample of 27 clubs were selected for the pilot from the original sample covering eight sports activities and one version of each questionnaire was sent to each sport. The eight sports were chosen because they represented a cross section of sports, covering different types of clubs from core sports (football, cricket, bowls) and mass participation (swimming/angling) to those participated in by a range of age groups, abilities and gender (athletics, badminton, rugby). Six questionnaires were sent to football as this sport represented over half of the total number of clubs listed in the Sheffield area.

It can be seen from Table 4.2 that the number of responses obtained was not evenly distributed across the three versions of the questionnaire, with the number of returns decreasing with the increased level of financial detail requested. Although it would have been most desirable to obtain the level of detail asked for in V3, the pilot showed that firstly, a low response rate would have been obtained and secondly, that much of the information requested was not given. Consequently, little of the additional information requested would have been obtained by using this version.. A much higher response was obtained from the less detailed questionnaire, but the majority of clubs did not include any accounts therefore the information provided was extremely limited. It was therefore decided that V2 was the best option, which asked for percentages of total income and expenditure spent on specific items without asking for actual amounts.

TABLE 4.2. RESULTS OF THE CORE VOLUNTARY CLUB PILOT

<i>Sport</i>	<i>Sample</i>	<i>Total response</i>	<i>V1</i>	<i>V2</i>	<i>V3</i>
Angling	3	3	✓	✓	✓
Athletics	3	2	✓	✓	
Badminton	3	1		✓	
Bowls	3	1	✓		
Cricket	3	3	✓	✓	✓
Football	6	2	✓		✓
Rugby (union & league)	3	1	✓		
Swimming	*3	0			
Total	26	13	6	4	3

✓ indicates response was obtained; * 1 club no longer existed.

Sampling

The whole population of clubs and organisations identified in the voluntary sector in Sheffield, using the procedures outlined above, were sampled. All clubs were sent a postal questionnaire, together with a covering letter and a pre-paid envelope. The university club questionnaires were distributed through the Athletic Union Sports Officers. The covering letter gave details of the research and asked for the questionnaire to be returned within 21 days. Given that the number of responses to the pilot increased from 8 to 13 following a reminder letter, a further letter was also sent after 14 days, to enhance the number of responses received. Within this letter, the deadline was extended for a further 7 days.

Core voluntary clubs: response

A valid population of 839 core voluntary clubs were sampled and a total response of 179 was obtained. Table 4.3 gives a breakdown of this with regard to each sporting activity. The pilot responses have been omitted from this table, although they were actually used in the aggregation of this sector therefore making the total number of core voluntary clubs in Sheffield 865.

TABLE 4.3. CORE VOLUNTARY CLUBS: RESPONSE BY SPORT

<i>Sport</i>	<i>Population</i>	<i>Response</i>
All martial arts	23	3
Archery	4	1
Athletics	11	4
Badminton	32	9
Basketball	10	5
Bowls	85	20
Boxing	6	1
Canoeing/Rowing	3	1
Climbing/mountaineering	5	1
Cricket	78	15
Cycling	19	5
Disabled sport	3	1
Fencing	2	2
Football	389	62
Golf	7	5
Gymnastics	4	1
Hockey	9	5
Ice sports	4	2
Korfball	2	0
Lacrosse	2	0
Rugby	7	2
Sailing	4	0
Shooting	5	1
Skiing	3	1
Snooker	65	8
Squash	5	2
Sub aqua	2	0
Swimming	4	4
Table tennis	26	8
Tennis	10	3
Volleyball	2	1
Walking	7	6
Weightlifting	1	0
Total	*839	179

* *excluding clubs used in pilot*

Given that a low response rate was obtained, non-response was investigated to indicate any potential sample bias in the results. Telephone numbers were not available for the majority of club contacts therefore the only method of exploring non-response was to send a short note. This asked the non-respondent to state the reasons for non-response, whether the club was independent and approximately how many members it had. The latter two questions were asked to give an indication of the characteristics of the non-respondents and any possible sample bias resulting from non-response.

Ten per cent of the non-respondent clubs were contacted. These were systematically selected from the initial database to ensure a range of sports were sampled. The limitations of exploring non-response in this way are documented by Hoinville *et al* (1989). Nevertheless, it was thought that this would give some indication of why clubs did not respond. Table 4.4 summarises the reasons for non-response.

TABLE 4.4. REASONS FOR NON-RESPONSE: CORE VOLUNTARY CLUBS

<i>Reason for non-response</i>	<i>Number of clubs</i>
Club contact no longer at address	5
Did not receive the questionnaire	3
Club no longer exists	11
Information confidential	3
Did not have time	3
No longer in touch with the club/passed on	4
Lost questionnaire	4
Club is part of a larger organisation	1
Response rate	51.5%

A significant number of those clubs which replied indicated that the club no longer existed. This suggested that the original database, while representing the best available source at the time, was inaccurate. There were two reasons for this; the first, was that the club had changed its name and the second, was that the club had disbanded. After careful consideration it was decided not to adjust the sample, for the following reasons. Firstly and most importantly, there was not sufficient evidence from the non-response questionnaires to identify how the sample was biased and secondly, a list of sports clubs and associations provided by the Sheffield Information Service (SIS) in March 1998, indicated that there were several clubs within the city, not actually listed on the original database. This suggested that while some clubs ceased to exist, others had also formed during the period of research.

University clubs: response

Table 4.5 shows the responses obtained from the university clubs. As it can be seen, the response rate was considerably higher than that obtained from the core voluntary clubs. This was possibly a combination of the mode of delivery, via the Athletics Union Sports Officers and as a result of the research being carried out within a university. Given that a high response rate was obtained and that a wide range of sports responded, there was no reason to suspect non-response bias in the survey.

TABLE 4.5. SUMMARY OF RESPONSE RATE: UNIVERSITY SPORTS CLUBS

	SU	SHU
Population	57	32
Initial Return	14	4
Return after reminder	20	9
Response rate	59.6%	40.6%

SSC and WMC: response

Table 4.6 summarises the responses obtained from SSC and WMC. As shown, the response rate of these clubs and organisations varied quite considerably, with a response rate of 52.6% obtained from SSC but only 17.3% from WMC. It was suspected that part of the reason for this was that sporting activity was a central part of SSC, but a much smaller part of WMC.

TABLE 4.6. SUMMARY OF RESPONSE RATE: SSC AND WMC

	SSC	WMC
Valid population	19	75
Response	10	13
Response rate	52.6%	17.3%

Due to the low response rate which was obtained in the WMC questionnaire, the reasons for non-response were investigated. Every fourth non-respondent was identified and telephoned. The club secretary was asked a series of short questions, including the reason for non-response, the sports played at the club and the names of the teams associated with the club (for cross-reference with core voluntary clubs). If the secretary was not available after two calls, the next non-respondent on the list was telephoned. Table 4.7 lists the reasons for non-response.

TABLE 4.7. REASONS FOR NON-RESPONSE: WMC

<i>Reason for non-response</i>	<i>Number of clubs</i>
Confidential Information	3
Changed Secretaries	4
No Sport	5
Did not receive	1
No time to complete	1
Forgot	1
Total	15

Given that a third of all the clubs replied that no sport was played, it was clear that aggregating for all WMC based on the total number of clubs in Sheffield, would

overestimate the amount of sport-related economic activity generated by this sub-sector. However, it was found that several of the clubs which claimed to have no sport as the reason for non-response, when asked what sports were played, listed at least two sports, one being snooker. It became apparent that as sport was only a small part of the overall activities of WMC, the research was not thought relevant to the clubs. Nevertheless, to ensure that estimates of the voluntary sector were conservative, the total population of WMC was reduced for aggregation purposes, by the percentage of clubs which stated 'no sport' as the reason for not returning the questionnaire. This will be discussed further in the Chapter Five.

4.4.1.2 The consumer sector

The consumer sector was identified as an area for primary research essentially because no published sources existed for this sector at the local level. Data was collected on sport-related consumer expenditure using a household postal questionnaire, which was distributed to a sample of residents in Sheffield. This method of administration was chosen because it gave respondents the opportunity to consider their answers, thus improving the quality of data obtained and also because the low cost of a household survey compared to the alternative methods for administering a questionnaire meant that a larger sample could be obtained. However, the main disadvantage of this method was non-response and possible bias resulting from this. Several measures were therefore taken to enhance the response rate when designing the questionnaire and collecting the data. Furthermore, adjustments were made when aggregating this sector for any bias which was identified from comparing the demographic characteristics of the respondents with the 1991 Census for South Yorkshire.

Identification of the population

To measure spending on sport in Sheffield, the electoral register was used to identify the population of residents in the city, who were likely to be the major consumers of sport-related goods and services in Sheffield. Nevertheless, there were a number of disadvantages to using the electoral register as representative of the Sheffield population. Hoinville *et al* (1989) comment that by the time the registers come into use

and by the end of their life, between 3-12% of electors will have moved. Furthermore, a number of eligible people are often excluded from the register through misunderstandings. Unfortunately, these omissions tend to be disproportionately in ethnic minority groups and people about to reach voting age, thus introducing bias to the sample, prior to any questionnaire responses. Even so, regardless of these disadvantages, it was decided that within the time and resource constraints of the study, the electoral register was the most appropriate database to use and that the advantages outweighed the disadvantages. The precise method used for selecting the sample is detailed below.

Questionnaire design

Given that a considerable amount of detail was required for the NIA framework, two questionnaires were used to investigate consumer expenditure on sport in Sheffield. An initial questionnaire (Part A) was sent out to a large sample of residents within Sheffield, to obtain information about sports behaviour in the city (participating and spectating) and a further questionnaire (Part B) was designed to obtain information on sport-related consumer expenditure in Sheffield. Part B was only sent to those residents who had returned Part A, participated in sport in the last 12 months and agreed to take part in a follow-up questionnaire. Part A was thus used to identify a sub sample for Part B and as will be seen later, to aggregate the data collected in Part B, for all residents in Sheffield.

Part A

To reduce the cost of investigating the consumer sector and to enable a larger sample to be obtained, Part A, which was concerned with levels of sports participation and spectating in Sheffield, was incorporated into the Sheffield Leisure Survey 1997, which was carried out by the Leisure Industries Research Centre. A copy of this survey can be found in Appendix 6.

The Sheffield Leisure Survey comprised 5 sections as follows:

- Ai: Sports participation;
- Aii: Spectating at sports events;

- B: Arts;
- C: Tourism;
- D: General leisure activities;
- E: Personal profile.

Ai and Aii were the sections relevant to this research. In both sections, information was asked about the type and frequency of sporting activities watched and participated in, over the last 12 months and 4 weeks. It was decided to use the previous 12 months to capture winter and summer sporting activities and the past 4 weeks to obtain a more accurate account of frequency of events. In addition, it was thought that these measures would allow comparison of the results with the General Household Survey (GHS). Section E of the Leisure Survey asked for information on demographic characteristics and whether the respondent was prepared to take part in a follow-up questionnaire.

Part B

It was highlighted above, that Part B was only sent to those respondents who had participated in a sporting activity in the last 12 months and agreed to participate in further research. It was initially thought that due to the complexity of some questions, that an interview would yield better quality and more consistent answers. However, given that over 400 respondents agreed to participate in Part B, it was decided to send the first half by mail and if this yielded poor quality data and a low response, the remainder of Part B would be administered by interview. Careful consideration was therefore given to the layout of the questionnaire and the wording of the questions as with the design of the voluntary questionnaire. A copy of Part B can also be found in Appendix 6.

The aim of Part B, was to determine how much Sheffield residents spend on sport. It was divided into the following sections:

- Section 1: Sports participation;
- Section 2: Sports spectating;
- Section 3: Expenditure on others watching and doing sport;
- Section 4: Sports goods;
- Section 5: Sporting holidays.

Section 1 and 2 were both structured similarly. Each section asked for information on the frequency of participation and spectating on sport in Sheffield, which could be cross tabulated with the data provided in Part A and the amount of money spent on the last occasion, in terms of admission, food and drink, travel, hire of equipment (participation only) and any other items. It was made clear that if someone else paid on the last occasion, expenditure should be recorded as £0 to avoid double counting. In both sections it was made clear that the questions related only to personal expenditure.

Section 3 was concerned with expenditure on others participating and spectating in sport. It was divided into expenditure on children and on behalf of other adults. Although an underlying assumption of the questionnaire was that the majority of children's expenditure on sport would be from adult expenditure, a question was also included within this section on children's own expenditure on sport. This approach had limitations, particularly with regard to estimating the expenditure of older children, nevertheless, aside from undertaking a major study of children's expenditure on sport which was not possible within this research, it was regarded to be an acceptable alternative.

Section 4 asked questions about expenditure on sports goods, including clothing, footwear, equipment videos, books and magazines. This section was concerned with both personal expenditure and that on behalf of others. Finally, Section 5 focused on expenditure related to sporting holidays. This was primarily to obtain an estimate of the flows of expenditure out of the Sheffield economy through sports tourism, rather than to be used for estimating the value-added and employment of sport-related activity in Sheffield.

The pilot

For Part A, thirty questionnaires were randomly distributed in several postal districts. Thirteen responses were obtained and the answers given were clear and coherent. A minor change was made to the order of the questions.

For Part B, ten questionnaires were distributed, six of those were sent to respondents from Part A who fitted the follow-up criteria and four additional sports participants

were selected from Ponds Forge International Sports Centre. The emphasis was on ensuring the questionnaire was comprehensible and not too complex. In total six surveys were completed and returned. One person returned the questionnaire stating they were not willing to fill it in because it was too long. After consideration, it was decided that all the information requested was essential and that a reduction in the size of the questionnaire would be more detrimental to the quality of answers than a lower response. Consequently, Part B remained unchanged.

Sampling

The sample for the Sheffield Leisure Survey (Part A) was computer generated from the Sheffield Electoral Register (February 1997). A sample of 5,000 names was requested and this was generated in the following way. A file was created by the Elections Department of Sheffield City Council, comprising the 6 constituencies of Sheffield (Attercliffe; Brightside; Central; Hallam; Heeley and Hillsborough). These constituencies were listed sequentially. From this, the records of the deceased, temporary voters, overseas peers, overseas voters, empty properties and other voters with special circumstances which did not allow disclosure of their address for security purposes were omitted. From those records which qualified for further processing, every 41st record was selected. Only the first elector for any given property/address was considered. The total sample was 5,130.

The sample for Part B was derived, as highlighted previously, from the respondents of Part A who had either participated in sport in the last 12 months and who agreed to take part in further research. In addition, a small sample of non-sports participants were also sent Part B, to compare expenditure on behalf of others with that of sports participants. In total, 449 Part B questionnaires were distributed.

The samples for Part A and Part B were divided into two mail-outs. This was to ensure that sports behaviour and expenditure was recorded over the winter/spring months and also over the summer months. For Part A, the first half was sent in February/March 1997 and the second half was sent in June/July 1997. The corresponding follow-up questionnaire, Part B, was sent out approximately 6 weeks after Part A in both periods.

With the exception of the first half of Part A, all of those sampled were sent a reminder letter 10 days after the initial questionnaire was sent out, to enhance the response rate.

Response

Table 4.8 shows the responses obtained to the Sheffield Leisure Survey (Part A). As it can be seen, the response rate for Part A was 22.9%, which is low, but as expected for a household survey. Nevertheless, the absolute number of responses, which is more important for the accuracy of the sample (de Vaus, 1996) was 1,162. There was bias in the responses obtained to Part A towards older male residents, but as outlined in Chapter Six, this was adjusted for using the 1991 Census for Sheffield.

As Part A was commissioned by LIRC, an incentive of entry into a prize draw for a holiday to Center Parcs was offered to the first sample of Part A, in return for completion of the questionnaire. It was interesting to note, that although an incentive was offered to the February sample, a much lower response was obtained. This was possibly because no reminder letter was sent out to the February sample, whereas it was to the June sample.

TABLE 4.8. SAMPLE AND RESPONSE RATE: PART A

	<i>Sample</i>	<i>Returned (*)</i>	<i>Valid sample</i>	<i>Response</i>	<i>%</i>
February	2,599	1	2,598	485	18.7
June	2,531	50	2,481	677	27.3
Total	5,130	51	5,079	1,162	22.9

() questionnaires returned - undelivered or not completed*

Table 4.9 shows that 250 responses in total were obtained to Part B. As it can be seen, the response rate which averaged 57.2% was much higher for this questionnaire. This was firstly, because the sample identified had agreed to take part in further research and secondly, because the topic under investigation was particularly relevant to the target population.

TABLE 4.9. SAMPLE AND RESPONSE RATE: PART B

	<i>Satisfied the criteria</i>	<i>Residents not identifiable(*)</i>	<i>Valid sample</i>	<i>Response</i>	<i>%</i>
March	214	6	208	111	53.4
August	235	6	229	139	60.7
Total	449	12	437	250	57.2

(*) *those respondents who fitted the criteria but could not be identified through removal of ID code from original questionnaire*

4.4.1.3 **The commercial sport sector**

The literature review revealed that collecting data in the commercial sport sector can be problematic. While reliable published data sources are available at the national level, these are rather limited at the regional and even more so at the local level. As highlighted earlier, previous attempts to collect primary data in this sector have not been overly successful, primarily due to the confidentiality of the information required for the NIA framework. However, the absence of any information on this sector within Sheffield meant that it was necessary to collect primary data. A combination of postal, telephone and face to face methods were used to administer the questionnaires. This was because previous attempts to investigate this sector using mail questionnaire have been largely unsuccessful.

Identifying the commercial sport sector

It was discussed in 4.1 that it was not possible to measure all of the commercial sector in Sheffield using primary techniques. Consequently, the sub-sectors were prioritised according to those which were shown to be most important, in terms of value-added in previous studies and those most likely to be most important in the Sheffield economy. From the definition of the commercial sport sector shown Figure 3.4, the following sub-sectors were selected for primary data collection:

- Sports services: Spectator Events (Professional Sports Clubs);
 Commercial Leisure;
- Sports goods: Sports manufacturing;
 Distribution.

The remaining data collected in this sector was derived from secondary sources and the base model and will be discussed later in the chapter.

Professional sports clubs and commercial leisure

A database was compiled of the professional sports clubs and the components of the commercial leisure category using the 1997/98 yellow pages, the Sheffield Information Service (SIS) and the voluntary sports club questionnaire (Q4a). Five professional sports clubs were identified as were 76 commercial leisure facilities including private participation clubs, health and fitness clubs, generic sporting facilities, snooker and pool centres and riding centres.

A postal questionnaire was used to investigate professional sports clubs and the commercial leisure sector. The main reasons for this were that it gave anonymity and allowed flexibility for the company to complete the questionnaire at their own convenience. Furthermore, this method allowed the whole population to be sampled. It would have been desirable to carry out a face to face questionnaire, but it was not possible to do this with all sub-sectors of the commercial sector. In addition, given that the previous UK studies have shown that poorer response rates were obtained when questionnaires were used in the sports manufacturing and retailing categories, it was thought that the use of the face to face questionnaire should be reserved for these sub-sectors. Financial data could be obtained at the local level to supplement the questionnaires, from annual accounts held at Companies House.

The questionnaire for the professional sports clubs and commercial leisure companies was similar in design to the voluntary sports club questionnaire, although it was shorter and had more emphasis on commercial issues such as sponsorship and advertising. As with the voluntary sector, questions were asked on income, current and capital expenditure and paid employment. In addition, questions were also asked on the status of the establishment, advertising and sponsorship of sports events. A copy of the questionnaire can be found in Appendix 7.

Given that a low response was obtained in these sectors in previous research, attempts were made to improve response rates by ensuring that all letters were sent to a named

person and that confidentially was emphasised. As with the voluntary and consumer questionnaires, a reminder letter was also sent. It can be seen from Table 4.10, that a reasonable response rate of 34.3% was obtained.

TABLE 4.10. SAMPLE AND RESPONSE RATE: PROFESSIONAL SPORTS CLUBS AND COMMERCIAL LEISURE

	<i>Number of companies</i>
Total population	81
Closed	11
Valid population	70
Refused to answer (confidential)	2
Initial Response	10
Response after reminder	14
Response Rate	34.3%

In addition to the replies recorded in the table above, accounts were obtained from a further three companies who did not complete the questionnaire, but were willing to send this information. While the number of actual responses remained relatively small, this represented a significant improvement on other studies which have also carried out questionnaires in this area, such as Piedad (1994), where less than five complete responses for this sub-sector were obtained.

Manufacturing

The sports manufacturing sector in Sheffield was identified using the 1997/98 Yellow Pages and the Local Studies Library. In total, 36 companies were identified, most of which produce sports equipment.

Previous economic impact studies in the UK have distributed postal questionnaires to sports manufacturing companies within the commercial sector, but have generally received an extremely low response rate. It was decided therefore to give these companies the choice of either completing a mail questionnaire or a face to face interview. It was thought that this may improve the overall response rate. Both forms of administration used the same structured questionnaire.

The manufacturing questionnaire had the basic structure of the questionnaire used to investigate professional sports clubs and commercial leisure. It can also be found in

Appendix 7. Section 1 asked for general information about the company. Section 2 required information on employment (this section was positioned early within the questionnaire to ensure that at least part of it was filled in). Section 3 asked for information on the financial transactions within the company. In addition to the standard questions on turnover, income, current and capital expenditure, questions were asked on the proportion of turnover that was sport-related and the proportion of sales to companies within Sheffield. This was to give an indication of the linkages with the rest of the economy.

All 36 manufacturing organisations identified were sampled either by a postal questionnaire or personal interview. A letter was sent to the manager of each company detailing the research and asking if they would be prepared to take part in a short interview or a questionnaire. This was followed up one week later with a telephone call to the person concerned to arrange an interview or to send a questionnaire. For those companies who requested a questionnaire, but did not respond by the deadline date, a second phone call was made offering them another copy.

As can be seen from Table 4.11, it was found that 6 of the companies had ceased trading and 4 replied that the research was not relevant to their organisation. Two companies chose to be interviewed and the remainder were sent questionnaires. From a valid population of 26, a response rate of 46.2% was obtained. While this was a significant improvement on previous economic impact studies, again the absolute number of responses for this category was low.

TABLE 4.11. SAMPLE AND RESPONSE RATE: SPORTS MANUFACTURERS

	<i>Number of companies</i>
Total population	36
Not relevant to the organisation	4
Closed	6
Valid population	26
Interviewed	2
Initial Response	8
Response after reminder	2
Response Rate	46.2%

Distribution

The final sub-sector to be investigated using primary methods were sports distribution companies. However, given that there were no independent sports warehouses in Sheffield, this sub-sector was comprised entirely of sports retailing. An exhaustive list of sports retailing outlets in the Sheffield area was obtained from the 1997/98 Yellow Pages. Eighty seven sports retailing outlets were identified within the city.

Again, previous economic impact studies have shown that the postal questionnaire was not an appropriate method of administration for the sports retailing sector. As with the manufacturing sector, it was decided to first send a letter to the store manager giving a brief outline of the research and asking whether they were prepared to take part. This was then followed up with a phone call the following week, asking if the manager would participate in a short interview either over the telephone or in person.

It was thought that by offering the retailers the option of a telephone interview they would be more likely to participate as it could be done quickly. The main disadvantage of this technique was that less information and lower quality data would be provided by respondents, compared to using the other methods of administration. However, this was seen as inevitable when investigating the commercial sector. Those who were not willing to be interviewed, due to time constraints or the need to request permission from head office/senior management, were sent a postal questionnaire. The same structured questionnaire was used whether the retailer chose to be interviewed in person, over the telephone or complete a questionnaire. This contained core questions on employment, sales and expenditure, but was shortened to just two sides of A4. A copy of the questionnaire used can be found in Appendix 7.

It was not possible to telephone and interview 87 retailers therefore 50% of the population was sampled. This was done systematically by identifying every second outlet from the complete list of retailers identified. A sample of 44 retailers was taken. As shown in Table 4.12, 28 store managers agreed to participate in an interview over the telephone. A further 4 store managers agreed to a face to face interview. Four store managers requested a questionnaire stating time constraints or the need to consult head office before participating. Despite this, only one of these questionnaires was

completed and returned. Five of the retail outlets on the database had ceased to exist and a further three were unauthorised to disclose financial information.

TABLE 4.12. SAMPLE AND RESPONSE RATE: SPORTS RETAILERS

	<i>Number of companies</i>
Total population	87
Sample	44
Closed	5
Valid sample	39
Telephone Interview	28
Personal interview	4
Postal questionnaires completed	1
Unauthorised to disclose any information	3
Response Rate	84.6%

Although a large response rate was obtained, it was clear that the quality of answers and information yielded was significantly less detailed than that obtained in the other sub-sectors. Turnover figures were given as categorical data and approximate amounts of income and expenditure categories given as either percentages, or merely in terms of rank. Nevertheless, in comparison to many of the previous studies which collected primary data such as the second Welsh study (Centre for Advanced Studies in the Social Sciences, 1995), that sent out 25 postal questionnaires, but only received 2 completed questionnaires in return, the quality and amount of data collected in this research was considerably better. However, the data should be used cautiously and only as an indication of the level of economic activity generated in this sector.

4.4.2 Secondary Data Collection

Earlier in the chapter, it was highlighted that secondary data was also collected in Sheffield. There were two aspects to the secondary data collection. The first type of secondary data collected, used published sources such as Local Authority budget data, FES, GHS and company accounts and the second type of secondary data collected, used information from the base model.

The main sector in which the first type of secondary data was collected was the local government sector, where the Sheffield City Council Revenue Budget Booklet for 1996/97 was used to estimate flows of income and expenditure to this sector. Two

categories of data were used, Sport and Recreation and Parks and Open Spaces. All of the data in the sport and recreation category was used and 40% of the income and expenditure in the latter category was assumed to be sport-related, which included sports facilities which were an integral part of the parks including bowling greens and sports pitches.

Given the resource constraints of this research, it was not possible to investigate whether the allocation of 40% used in previous UK studies, to estimate the percentage of income and expenditure accruing to the sports sector from parks and open spaces was reasonable. However, when asked, Sheffield Leisure Services thought this to be a fair, if not conservative estimate of the expenditure on sports facilities included within this category therefore an estimation of 40% was used in accordance with the UK estimate (Henley Centre for Forecasting, 1992; LIRC, 1997).

The other sector in which secondary data collection was undertaken was the consumer sector. Although a consumer survey was carried out, there were several aspects of sport-related consumer expenditure that were not included in the questionnaire, but were included in other studies in the UK. In particular, expenditure on repairs and laundry to sports clothing and the sport-related component of newspapers, videocassette rental, TV and video rental, the BBC licence, public schools and gambling. As in the UK study, these items were estimated by multiplying the appropriate category in the Family Expenditure Survey (FES) by the number of households in Sheffield.

Where possible the Yorkshire and Humberside FES was used to estimate expenditure in the consumer sector. For those categories which were not exclusively sport-related, as with the local government sector, an assumption was made for the proportion of sport-related expenditure, for example, it was assumed that 2% of total repairs to footwear were to be allocated to sport. The assumptions used were based on those made in the UK study, as it was not feasible to measure these specifically for Sheffield. While this may be an unsatisfactory method for estimating the remaining sport-related flows, the literature indicates that if anything, these assumptions represent a cautious estimate and therefore were preferable to omitting these components all together.

Secondary data was also compiled on the economic impact of sporting events in Sheffield. The KRONOS report (1997) and various economic impact studies carried out by LIRC (1996) were used to estimate the income flowing into the city from sporting events. As noted in the literature review, this is an element of economic activity previously omitted from economic impact studies, but an important aspect of the sports economy in Sheffield.

The remaining data requirements of the NIA framework were estimated using the base model. As discussed in Chapter Three, the base model had two purposes. Firstly, to provide a benchmark against which primary data could be estimated and secondly, to estimate the income and expenditure accruing to the other sectors of sport-related economic activity in Sheffield. This method of estimating data was mainly used for the remaining sectors of the NIA framework namely the commercial non-sport sector, central government and outside the area, but also any remaining aspects of the commercial sport, consumer and local government sector that were not accounted for in the primary data collection, for example retailing of sport-related books, or consumer income. Without this data, it would not have been possible to use the NIA framework to estimate the value-added and employment generated by sport-related economic activity in Sheffield.

4.5 SUMMARY

This chapter has discussed general methodological issues which were relevant to this research and justified the methodology that was used to satisfy the data requirements of the National Income Accounting Framework. The chapter has also outlined the primary data collected in the voluntary, consumer and commercial sport sectors and provided details of the secondary data which was also gathered in the other sectors.

The following four chapters will now analyse the primary and secondary data collected in Sheffield. Chapter Five will examine the voluntary sector data; Chapter Six will present estimates of consumer expenditure; Chapter Seven will explore the data derived in the commercial sport sector and Chapter Eight will scrutinise the secondary data. All of this data will be placed within the NIA framework in Chapter Nine.

CHAPTER FIVE. ANALYSIS OF THE VOLUNTARY SECTOR

In the previous chapter, it was highlighted that there are two stages to estimating sport-related economic activity. Chapter Four discussed the methods and techniques used to identify and estimate sport-related economic activity – the first stage of estimating the economic importance of sport in Sheffield. This chapter will present and analyse the results from the voluntary sector. The data from this chapter will subsequently be used to derive the sectoral accounts and calculate value-added - the second stage of estimating sport-related economic activity.

The voluntary sector plays a crucial role in the provision of sporting opportunities in the UK. As the literature has shown, the sector also provides a major economic contribution to the total value-added of the industry (Andreff *et al*, 1994). However, as noted in Chapter Two, despite the importance of the voluntary sector to the sports industry, there is only limited evidence available which indicates the contribution of the voluntary sector to the total value-added of sport-related activity even at the national level. LIRC (1997) notes that the level of economic information required for an economic impact study is simply not available and 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 on the economic importance of sport. This chapter will demonstrate firstly, that the data collected in this research was more detailed and rigorous than the data collected in previous UK studies and secondly, that the voluntary sector was significantly less important to sport-related economic activity in Sheffield than at the national level.

The analysis of the voluntary sector is divided into two sections. The first part will present the results of the questionnaires and the second part will discuss the aggregation of this data and provide an estimate of the income and expenditure account for the voluntary sector in Sheffield. Throughout the chapter, comparisons will be made between the aggregated data and the base model. This will enable the data collected for Sheffield to be compared with previous estimates at the national level in the UK.

5.1 PROFILING THE VOLUNTARY SECTOR: RESULTS

It was noted in Chapter Four, that given the diversity of the voluntary sector, data collection was subdivided into the following types of clubs/organisations: Core; University; SSC; WMC. All known clubs were sampled and Table 5.1 summarises the number of responses obtained from each type of club. Although the overall response rates was fairly low at 25%*, the actual number of responses represented a significant improvement on those obtained in previous studies, both in terms of the number of clubs and the range of sports represented.

TABLE 5.1. SUMMARY OF RESPONSES: VOLUNTARY SPORTS CLUBS

<i>Type of club</i>	<i>Number of responses*</i>	<i>Population*</i>
Core	192	865
University	47	87
SSC	10	19
WMC	13	75
Total	262	1,046

(* including responses from the pilot)

As discussed in Chapter Two and presented in Table 2.7, the largest number of clubs sampled previously was 600 in the second UK study. Other UK studies have sampled between 425 clubs (Pieda, 1994) and 37 clubs (Henley Centre for Forecasting, 1989: Bracknell). The number of clubs sampled in Sheffield alone including those used for the pilot was 1,046, thus representing a much larger sample than those previously undertaken. In terms of the number of sports sampled in the voluntary sector, although not explicitly stated in all previous UK studies, this has ranged between 6 sports (Henley Centre for Forecasting, 1992) and 38 sports (Henley Centre for Forecasting, 1989: Wirral study). In this research 34 groups¹ of sports were sampled.

The number of responses obtained in this research was 262, which was more than any other UK study, whereby responses to questionnaires have ranged from between 14 (Henley Centre for Forecasting, 1989: Bracknell) and 232 (Henley Centre for Forecasting, 1992). In fact, the total number of responses from the voluntary sector in the seven UK studies that collected primary data was just 736, thus demonstrating the

¹ Within the sporting groups sampled in the Sheffield study, several sports may be represented. For example, Martial Arts represents Judo, Karate, Tai Chi etc. For all sports groups see Appendix 8.1.

relatively large amount of data collected in the voluntary sector in Sheffield. Although the actual response rate remains fairly low, it will be demonstrated in the following discussion that the richness of data obtained represents a significant improvement on the existing data in the voluntary sector.

5.1.1 Characteristics of the Voluntary Sector

In previous UK studies, the voluntary sector data has been analysed and aggregated by sporting activity. While the income and expenditure flows of the different sports will be discussed later, it can be seen from the Table 5.2, that there were also significant differences in the characteristics of the sub-sectors of the voluntary sector outlined earlier.

TABLE 5.2. CHARACTERISTICS OF THE VOLUNTARY SECTOR: MEAN VALUES

<i>Type of club</i>	<i>Membership</i>	<i>Teams</i>	<i>Gross Income (£)</i>	<i>Gross current expenditure (£)</i>
Core	89	3	11,721	11,178
University	71	2	2,088	2,166
SSC	1,044	7	172,981	171,833
WMC	838	11	6,357	5,950
Average (mean)	162	3	14,951	14,281

Source: Voluntary sector questionnaire (Core; University; SSC/WMC)

Firstly, it can be seen from Table 5.2 that, although the mean membership of voluntary sports clubs was 162, membership averages range between 71 for university clubs and 1,044 for SSC, thus implying that club size varies significantly across the different types of sports clubs. From Table 5.3, it can be seen that the average size of sports clubs varies greatly within Europe, with the UK averaging 43 members. UK sports clubs are significantly smaller on average than other countries within Europe, which vary between an average of 45 members in Belgium (French community) to 312 members in the Federal Republic of Germany. Clearly the average club size in Sheffield, at 162 members was found to be considerably larger than the UK average, with university clubs having the smallest membership average at 71 members, approximately double the size of club estimated by Jones (1989).

TABLE 5.3. SIZE OF SPORTS CLUBS IN EUROPE

<i>Country</i>	<i>Average membership per club</i>
Belgium (Flemish Community)	90
Belgium (French Community)	45
Denmark	166
Finland	382
France	71
Federal Republic of Germany	312
Iceland	276
Netherlands	115
United Kingdom	43

Source: Jones (1989) Table 6.2

It should be noted that the UK average of 43 members (Henley Centre for Forecasting, 1986) did not take account of university clubs, WMC or SSC and therefore only represented core voluntary clubs, for which the average in Sheffield was 89 members, nevertheless, the Sheffield club size average still remains double that of the UK. A possible explanation for the small UK average (Henley Centre for Forecasting, 1986) is that it was calculated, using only seven selected sports (cricket, football, athletics, sailing, bowls, tennis), which, as will be shown later, with the exception of golf and rugby represent relatively small clubs in terms of membership. Further evidence supporting the validity of club size in Sheffield is provided by Piedad (1994), who found average club membership for core voluntary clubs to be 82 members. Both this research and the Piedad study sampled from a known population of sports clubs and represented 27 and 24 sports respectively, thus representing a more rigorous sampling procedure than used for the Henley Centre estimates.

It can also be seen from Table 5.2 that the number of teams per club is much higher in SSC and especially WMC, at 7.40 and 11.07 teams per club respectively, in comparison with an average number of 1.78 teams in university clubs and 3.14 in core voluntary clubs. This again demonstrates the diversity between types of clubs. However, more significant are the mean averages of gross income and current expenditure also shown in Table 5.2 for each type of club. Clearly there is a large difference in the gross income and current expenditure of for example, a SSC and a university club. The mean income values of £14,951 and current expenditure values of £14,281 for the entire voluntary sector in Sheffield, again hide the real diversity within the voluntary sector.

The descriptive statistics above, show that the sub-sectors identified within the voluntary sector have different characteristics. Nevertheless, this was further confirmed by carrying out the one way ANOVA test which revealed that statistically there was a significant difference in the total membership, gross income and current expenditure across different types of sports clubs. The results of this test are shown in Appendix 8.2. This is an important finding for the aggregation of data in the voluntary sector as it confirms that the voluntary sector is not homogeneous. This is an assumption underlying all previous studies in the UK, which have effectively ignored university clubs, SSC and WMC, assuming that the voluntary sector comprises only those recognised in this research as core voluntary clubs.

The techniques used for collecting, analysing and aggregating data on the voluntary sector have varied both within the UK and in other European studies. In many European studies data has been collected separately for clubs and national federations/governing bodies (Belgium [Flemish community]; Denmark; Finland; Iceland and Portugal), but combined in the UK and the Netherlands (Jones, 1989). However, for the majority of countries including the UK, the voluntary sector club data has been analysed by type of sporting activity.

Given the differences which have been shown between clubs in Table 5.2, it was decided that the analysis and aggregation of data in this research would be more reliable and valid, by taking account of club type. The following discussion will therefore focus on presenting the results of the questionnaires accordingly. The data from the questionnaires will be used to derive profiles of income and expenditure for core, university, SSC and WMC. These will subsequently be used, later in the chapter for estimating the income and expenditure profiles for the whole of the voluntary sector.

5.1.2 Core Voluntary Clubs

Core voluntary clubs were numerically the largest category of the voluntary sector and as with the classification into club types, there was also notable diversity within this category. Piedad (1994) commented that average club size disguises the significant range of club memberships between and within sports. Figure 5.1 shows the mean

membership of clubs according to sporting activity and it can be seen clearly that there are differences in the club size across the various sporting activities in Sheffield. For example, although the average size of a sports club in this sector was 89 members, the mean number of members in a swimming club was 335, but just 26 for a badminton club. Appendix 8.3 lists the average members per sporting activity.

Table 5.4 shows a comparison of the average members per club, in selected sporting activities found in Sheffield, with other recent studies carried out by LIRC (1996a) and Piedad (1994). It shows that the results obtained from the primary research in Sheffield did show some similarity with the average club sizes found in these other studies.

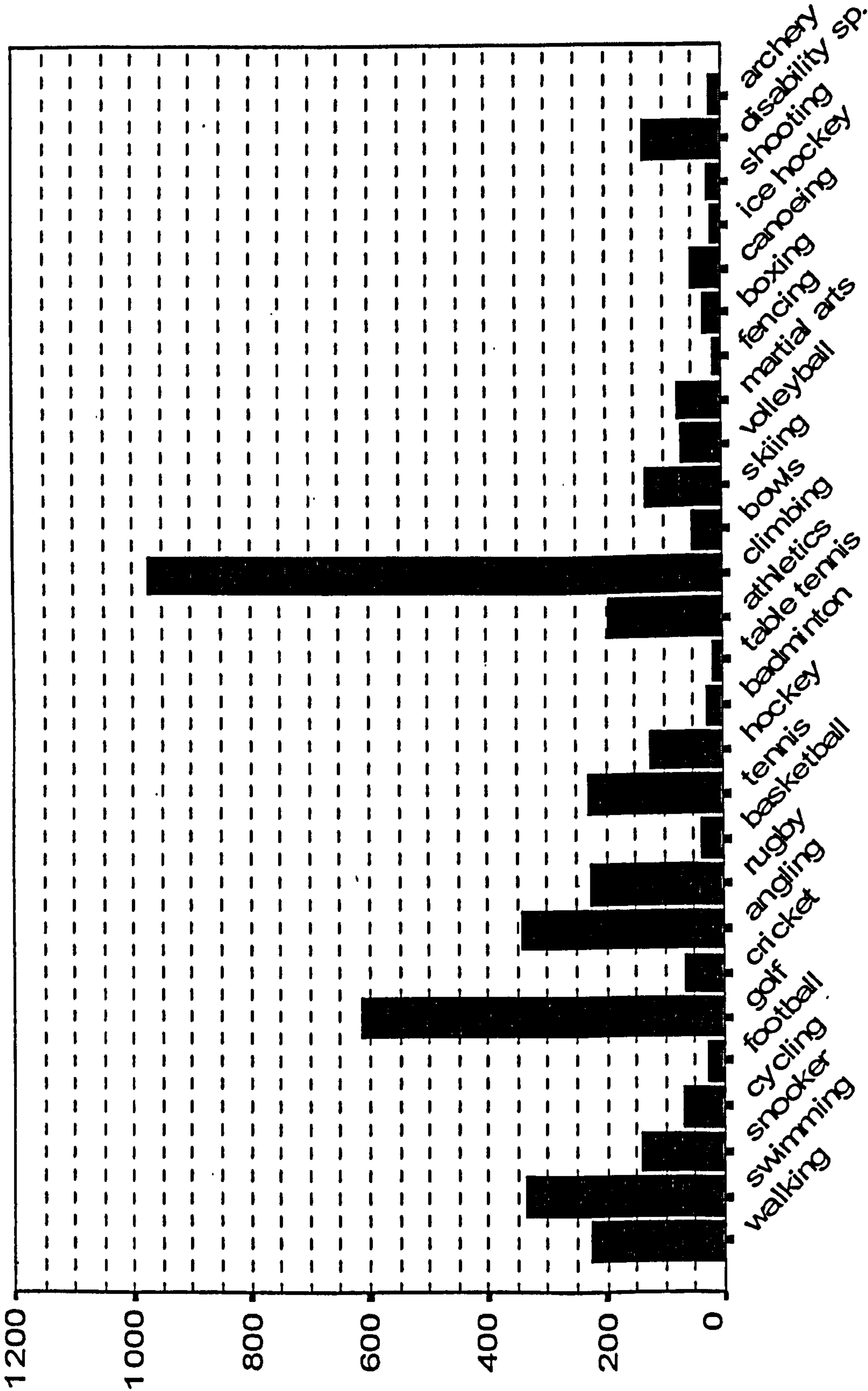
TABLE 5.4. AVERAGE CLUB SIZE ACROSS SELECTED SPORTS

	<i>Sheffield</i>	<i>LIRC (1996a)</i>	<i>Piedad (1994)</i>
Cricket	64	57	128
Football	26	21	49
Swimming	335	52	219
Tennis	229	197	226
Walking	225	256	N/A
Athletics	194	104	139
Rugby (League/Union)	226	200	309

Source: Voluntary sector questionnaire (Core); LIRC (1996a); Piedad (1994)

Similar patterns of variance between sporting activities was also found when mean income and current expenditure were graphed. The one way ANOVA test was again used to test whether there was a statistical difference between the different sporting activities in terms of the average club size, income and expenditure. The details of these tests can be seen in Appendix 8.4. Given that there was found to be a difference between the various sporting activities, it was therefore decided to aggregate this sector based on type of sporting activity.

FIGURE 5.1. MEAN MEMBERSHIP: CORE VOLUNTARY CLUBS



Source: Voluntary sector questionnaire (Core)

Sports Team

The case for aggregating core voluntary clubs based on sporting activity, was further strengthened when the Pearson correlation shown in Table 5.5 revealed that membership or size of club was positively correlated at the 0.01 significance level with all variables measured. It was decided that aggregation based on sporting activity consequently, would improve the reliability and validity of estimates in the voluntary sector.

TABLE 5.5. PEARSON CORRELATION COEFFICIENTS: CORE VOLUNTARY CLUBS

	VAR1	VAR2	VAR3	VAR4	VAR5	VAR6
VAR1		0.000	0.000	0.000	0.000	0.000
VAR2	0.654		0.000	0.000	0.045	0.000
VAR3	0.637	0.999		0.00	0.064	0.000
VAR4	0.340	0.459	0.456		0.056	0.000
VAR5	0.496	0.155	0.144	0.146		0.438
VAR6	0.474	0.878	0.881	0.597	0.058	0.212

↙ = *r* (correlation coefficient) → = *p* (significance level)

VAR1 = Members

VAR4 = Capital Expenditure

VAR2 = Gross Income

VAR5 = Number of Volunteers

VAR3 = Current expenditure

VAR6 = Number of employees

5.1.2.1 Profiling the core voluntary clubs

Although the monetary flows of income and expenditure to the core voluntary clubs were not normally distributed, it was decided that the mean was the most appropriate measure of central tendency and data analysis for several reasons. Firstly, it was thought that the median would significantly underestimate the value of sport by under-representing the larger clubs, secondly; it was thought that given the voluntary sector was aggregated on a sectoral basis using club type and sporting activity that any distortions or overestimates using the mean would be minimised and thirdly, it was a technique which had been adopted many of the other sport studies (Henley Centre for Forecasting, 1992; Pineda, 1994; Centre for Advanced Studies in the Social Sciences, 1995). In addition, as will be seen later, estimates of the economic activity generated by the voluntary sector obtained from this research were smaller than those of other studies on the economic importance of sport, thus suggesting that the use of the mean did not over-value the voluntary sector.

Table 5.6 presents the actual mean income for the various sporting groups that responded to the questionnaire and the components of income for each sport, as a percentage of the total income. The full table of actual values can be seen in Appendix 8.5. As it can be seen from Table 5.6, the average mean income amassing to the core voluntary clubs in Sheffield, was £11,721. However, as the table shows, there was a large variation within this depending upon the sporting activity. The activities with the highest gross income were golfing clubs with an average of £296,787, whereas those with the lowest gross income were fencing clubs, followed by snooker clubs with £250.00 and £398 gross income respectively.

The largest single component of average gross income across all sports was membership fees, which accounted for approximately 46.7% of gross income. This was significantly larger than estimated in the second UK study (Henley Centre for Forecasting, 1992), which estimated that membership fees accounted for 24% of voluntary income. The Sheffield estimate was in fact more comparable with findings from European studies such as Brunelli (1992), who found that membership fees accounted for 38% of total income in Italian clubs and Riiskjaer (1987) who found this to be 48.6% in Denmark. Still, as can be seen from the table, although membership fees were a source of income to all clubs with the exception of boxing, the proportion of total income varied between 7.9% and 100%, according to sporting activity. Nevertheless, for most clubs, membership fees were the most important source of income, with more than a third of all clubs reporting that fees accounted for more than 50% of total gross income.

Jones (1989) reported that profit from bar sales represented a major source of funds for the voluntary sector in the UK, accounting for more than 10% of total income. Similarly, this research found that the second largest component of income to core voluntary clubs was bar and food sales, accounting for approximately 21% of total income across all sports. In contrast to membership fees which accounted for a proportion of income in the majority of clubs, income from bar, food and clothing sales featured as a component of income across a much narrower range of sporting activities. Of the 13 sports which recorded this as an item of income three sports - climbing, cycling and tennis clubs reported that it accounted for over 40% of total income.

TABLE 5.6. PROPORTION OF INCOME BY EACH ITEM: CORE VOLUNTARY CLUBS (%)

<i>Sport</i>	<i>Total Income** (£)</i>	<i>Advertising</i>	<i>Bar/Food/ Clothing Sales</i>	<i>Bank Interest</i>	<i>Donations & Sponsorship</i>	<i>Facility hire</i>	<i>Fundraising</i>	<i>Average grant income ***</i>	<i>Match fees</i>	<i>Membership</i>	<i>Players collections</i>	<i>Training fees</i>	<i>Other</i>	<i>Total %</i>
All Martial Arts	1,450	0.0	24.0	0.0	0.0	0.0	3.0	0.6	0.0	58.4	0.0	2.3	11.7	100.0
Angling	4,516	0.0	18.8	0.0	0.0	0.0	14.8	0.0	0.0	66.5	0.0	0.0	0.0	100.0
Archery	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Athletics	2,383	6.0	4.7	2.2	0.0	0.0	13.2	3.3	29.8	34.9	0.0	0.0	6.0	100.0
Badminton	1,616	12.2	0.0	0.0	1.0	0.4	6.8	0.2	14.1	60.1	0.2	4.1	0.9	100.0
Basketball	7,527	13.3	0.0	0.0	10.6	0.0	33.2	1.3	16.4	24.0	0.0	1.2	0.0	100.0
Bowls	893	0.0	1.9	0.7	5.4	0.0	24.8	1.1	22.6	28.5	4.8	4.5	5.8	100.0
Boxing	1,000	0.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Canoeing	1,600	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	70.0	0.0	20.0	0.0	100.0
Climbing	74,200	0.0	41.0	0.0	0.0	4.2	0.0	20.8	0.0	34.0	0.0	0.0	0.0	-
Cricket	9,493	0.1	24.3	0.2	8.8	36.8	9.3	1.3	5.2	10.9	0.0	0.0	3.0	100.0
Cycling	1,111	0.2	46.9	4.3	0.9	0.0	2.0	6.6	9.0	29.1	0.0	0.0	0.9	100.0
Disabled Sp.	10,530	4.0	0.0	0.0	5.0	0.0	78.4	0.8	0.0	7.9	0.0	0.0	4.0	100.0
Fencing	250	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Football	2,128	7.3	0.1	0.0	17.2	0.0	37.3	0.2	10.7	20.0	0.6	0.1	6.4	100.0
Golf	296,787	0.0	25.0	0.0	0.5	0.0	0.3	0.0	0.0	60.2	0.0	10.7	3.3	100.0
Gymnastics	21,850	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	83.0	0.0	0.0	6.0	100.0
Hockey	10,402	2.4	2.7	0.6	1.5	0.0	24.6	0.3	27.3	34.4	0.0	0.0	6.2	100.0
Ice sports	10,184	0.0	0.0	0.0	0.0	0.0	27.8	0.0	0.0	72.2	0.0	0.0	0.0	100.0
Korfball	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lacrosse	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rugby	34,039	32.3	10.3	0.6	0.0	8.2	12.3	4.9	16.8	13.0	0.0	0.0	1.6	100.0
Sailing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shooting	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Skiing	6,033	0.0	0.0	0.0	0.0	2.8	0.0	71.8	0.0	25.4	0.0	0.0	0.0	100.0
Snooker	398	0.0	0.0	0.0	0.0	0.0	0.7	0.0	4.5	18.6	10.8	64.5	0.9	100.0
Squash	25,961	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.0	0.0	57.0	0.0	100.0
Sub aqua	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Swimming	15,582	0.0	0.0	0.6	2.8	0.0	3.8	0.5	42.3	38.8	0.0	2.9	8.2	100.0
Table Tennis	632	0.0	0.0	0.0	1.4	2.0	12.4	1.1	3.6	79.5	0.0	0.0	0.0	100.0
Tennis	32,461	0.0	51.0	0.0	0.0	0.0	4.8	0.0	2.0	27.8	0.0	0.0	14.5	100.0
Volleyball	14,000	0.0	0.0	0.0	0.0	0.0	10.7	3.6	0.0	10.7	0.0	75.0	0.0	100.0
Walking	693	0.0	4.5	3.5	0.0	0.0	16.9	0.0	33.7	38.3	0.0	0.0	3.1	100.0
Weightlifting	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Sports	11,721	2.5	20.6	0.1	2.5	3.8	6.6	0.8	4.9	46.7	0.1	7.8	3.7	100.0

Source: Voluntary sector questionnaire (Core)

For full definition of items included in the income categories see Appendix 8.6

** Income total different to Appendix 8.5, as Table 5.6 it includes grant income averaged over the last 3 years

*** Grant income averaged over the last 3 financial years

- = no data available due to missing values

It is clear from the discussion above and Table 5.6, that there was a large variation in the total income and the components of income across the different sporting activities, thus underlining the importance of analysing and aggregating the data separately for each sport. This can also be seen from Table 5.7, which shows the total average current expenditure of each sporting activity together with the average proportion of each expenditure item. The full table of actual expenditure can be seen in Appendix 8.7.

It can be seen from Table 5.7 that the average current expenditure across all clubs was £11,178, with the largest expenditure category being wages and expenses (24.3%), followed by goods for resale (17.7%) and ground maintenance (16.5%). As expected, the sport with the highest current expenditure was golf, with a current expenditure of £285,284 and the sports with the lowest expenditure were again fencing (£300) and snooker (£341).

While the sources of revenue to core voluntary clubs were essentially dominated by four categories (these items accounted for more than 80% of total income across all clubs), categories of expenditure were more numerous and likewise more variable according to type of sporting activity. Firstly, although wages and expenses are the highest expenditure category of all clubs, 89% of those surveyed had no employees, although many paid nominal expenses to volunteers. Similarly, despite ground maintenance being the third largest expenditure category of all clubs, only a third of those owned or leased facilities.

In terms of total income and current expenditure, the majority sports in Tables 5.6 and 5.7 received more income than they spent. On average, core voluntary clubs had a surplus of approximately £543 across all sports, with fencing, squash, climbing, volleyball and basketball spending more than they received².

It should be noted that the total income given in Table 5.6 represents average grant income over the last three years therefore, those sports with large grants in 1996/97, most notably climbing, basketball and volleyball, while appearing to spend in excess of their revenue, in actual fact did not. This is shown in Appendix 8.5 and 8.7, which give the actual current and capital expenditure of all clubs in 1996/97.

TABLE 5.7. PROPORTION OF CURRENT EXPENDITURE BY EACH ITEM: CORE VOLUNTARY CLUBS (%)

<i>Sport</i>	<i>Current Expenditure (£)</i>	<i>Club Equipment</i>	<i>Goods for resale*</i>	<i>Governing bodies</i>	<i>Ground maintenance</i>	<i>Hire of facilities</i>	<i>Insurance</i>	<i>League fees</i>	<i>Match expenses</i>	<i>Operating Costs</i>	<i>Socials & Club events</i>	<i>Travel</i>	<i>Wages and Expenses</i>	<i>Other</i>	<i>Total %</i>
All Martial Arts	1,326	33.3	0.0	6.1	6.4	20.6	2.1	0.0	3.6	21.9	0.0	0.0	2.4	3.6	100.0
Angling	1,650	0.0	22.1	0.0	0.0	0.0	0.0	5.8	8.6	19.2	19.2	0.0	4.0	21.1	100.0
Archery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Athletics	1,887	7.1	0.0	5.1	0.0	10.8	0.0	5.7	22.7	1.8	14.9	8.4	5.3	18.1	100.0
Badminton	1,356	8.5	0.0	2.5	0.0	83.6	0.0	0.5	0.0	0.6	3.4	0.0	0.0	0.9	100.0
Basketball	7,670	2.6	0.0	0.6	0.0	34.9	0.0	6.1	19.9	0.0	0.0	22.8	6.5	6.6	100.0
Bowls	814	2.1	2.8	11.1	3.8	11.6	0.2	6.2	13.8	6.8	27.1	0.0	8.8	5.8	100.0
Boxing	750	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	85.0	0.0	0.0	0.0	0.0	100.0
Canoeing	1,400	0.0	0.0	5.0	0.0	70.0	0.0	0.0	0.0	5.0	0.0	20.0	0.0	0.0	100.0
Climbing	92,000	0.0	66.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	6.0	100.0
Cricket	8,513	6.9	13.4	0.1	3.3	12.1	1.2	1.8	5.4	9.6	0.6	0.0	30.8	14.8	100.0
Cycling	988	4.0	49.2	10.0	0.0	3.0	0.0	1.0	14.2	6.9	10.9	0.2	0.0	0.5	100.0
Disabled Sp.	9,081	30.0	0.0	0.0	0.0	30.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	30.0	100.0
Fencing	300	16.7	0.0	0.0	16.7	58.3	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	100.0
Football	2,073	8.2	0.0	1.8	1.6	27.9	9.6	6.2	12.5	1.7	6.6	3.9	11.7	8.3	100.0
Golf	285,284	0.0	20.0	0.0	22.9	0.0	0.0	0.0	0.0	11.0	0.0	0.0	32.4	13.7	100.0
Gymnastics	15,575	24.0	5.0	6.0	0.0	19.0	3.0	0.0	2.0	10.0	0.0	4.0	11.0	16.0	100.0
Hockey	9,115	4.0	4.0	9.4	0.0	31.9	0.0	6.7	7.3	0.0	12.5	0.0	0.4	23.8	100.0
Ice sports	9,831	0.0	0.0	5.0	0.0	61.7	0.0	0.0	4.8	0.0	0.0	9.5	19.0	0.0	100.0
Korfball	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lacrosse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rugby	31,324	2.4	1.2	0.0	13.5	21.5	2.7	0.0	37.5	14.7	0.0	0.0	0.0	6.4	100.0
Sailing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shooting	600	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Skiing	1,600	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	100.0
Snooker	341	0.0	0.0	0.4	0.0	14.1	0.0	14.8	1.1	67.6	0.0	0.0	0.0	2.1	100.0
Squash	27,864	0.0	0.0	0.0	43.0	5.0	8.0	0.0	1.0	13.0	0.0	0.0	13.0	17.0	100.0
Sub aqua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Swimming	12,592	0.1	0.0	31.6	0.0	14.7	3.5	0.0	10.0	0.0	0.0	7.3	23.9	9.0	100.0
Table Tennis	601	12.7	0.0	5.0	0.0	41.3	6.5	21.5	0.5	10.9	1.2	0.0	0.0	0.4	100.0
Tennis	24,668	1.4	50.1	0.0	15.7	0.0	4.3	1.4	0.0	9.8	0.0	0.0	7.4	10.0	100.0
Volleyball	15,000	5.0	0.0	20.0	0.0	55.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	10.0	100.0
Walking	614	0.0	0.0	6.8	0.0	1.0	1.9	0.0	14.6	5.0	13.4	33.8	1.0	22.4	100.0
Weightlifting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All sports	11,178	2.0	17.7	1.6	16.5	7.9	1.2	1.0	4.3	8.9	1.2	1.1	24.3	12.4	100.0

Source: Voluntary sector questionnaire (Core)

For full definition of items included in the expenditure categories see Appendix 8.6

- = no data available due to missing values

The core voluntary clubs were clustered into two groups: those sports with below average (mean) membership and those sports with above average (mean) membership as shown below:

Cluster 1: Sports activities with membership below average

Fencing	Ice sports	Table Tennis
Archery	Shooting	Badminton
Football	Boxing	Basketball
Bowls	Canoeing	Cricket
Cycling	Volleyball	All Martial Arts

Cluster 2: Sports activities with membership above average

Hockey	Skiing	Disabled sports
Snooker	Athletics	Walking
Rugby	Tennis	Swimming
Angling	Golf	Climbing

When the sports activities were analysed according to the clusters, it can be seen from Table 5.8 that there were trends to suggest that income and expenditure items vary between smaller and larger clubs. For example, it can be seen that membership fees were more important to smaller clubs than larger clubs, with average membership fees accounting for 43.4% of income to Cluster 1 clubs, but only 33.3% to Cluster 2 clubs. Similarly as discussed above, income from bar, food and clothing sales was far more important to larger clubs than the smaller ones, accounting for 13.2% of income to Cluster 2 clubs, but only 7.5% to Cluster 1 clubs.

If expenditure is analysed by membership clusters, it can again be seen that items vary according to the size of club. With the exception of cricket, wages and expenses accounted for less than 20% of total expenditure in all of the clubs in Cluster 1, but they accounted for over 20% in skiing, golf and swimming clubs and also featured as an expenditure item in a further 6 out of the 9 remaining sports in Cluster 2. This trend is highlighted in Table 5.8, with wages and expenses accounting for 12.1% of total current expenditure in Cluster 2 clubs, but only 6.7% in Cluster 1.

TABLE 5.8. INCOME AND EXPENDITURE BY CLUSTERS OF SPORTS (%)

	<i>Cluster 1</i>	<i>Cluster 2</i>
<u>Income (%)</u>		
Bar, food and clothing sales	7.5	13.2
Fundraising	17.5	14.2
Match fees	6.3	13.0
Membership	43.4	33.3
<u>Expenditure (%)</u>		
Goods for resale	5.0	13.9
Ground maintenance	2.4	6.7
Hire of facilities	36.9	10.1
Wages and expenses	6.7	12.1

Source: Voluntary sector questionnaire (Core)

Further evidence of expenditure patterns, according to sporting activity can be found by examining current expenditure on hire of facilities. All of the sports in Cluster One with the exception of boxing, spent money on the hire of facilities in Sheffield in 1996/97, with almost half of those in Cluster Two spending nothing on this item. Again this is reflected in Table 5.8, which shows that hire of facilities accounted for 36.9% and 10.1% of current expenditure in Cluster 1 and Cluster 2 sports respectively. Similarly, 13.9% of current expenditure was spent on goods for resale in Cluster 2 activities, with just 5% in Cluster 1. This evidence again strengthens the case for aggregating data on the voluntary sector by sporting activity.

Table 5.9 shows the profile of mean values for capital expenditure, volunteers and club employees across all sporting groups. The average capital expenditure per club across all sports was £2,915 and likewise with current expenditure and income, there was a significant variation across the different sporting activities. Capital expenditure, as with grant income, was averaged over 3 years to account for fluctuating expenditure. As it can be seen from the table, golf clubs were the highest spending sport on capital, averaging £38,750. Furthermore, 52% of those sports which provided data spent less than £500. As expected, the majority of the latter sports were in Cluster 1.

TABLE 5.9. MEAN CAPITAL EXPENDITURE, VOLUNTEERS AND CLUB EMPLOYEES: CORE VOLUNTARY CLUBS

Sport	Total Capital										Total										Total				Total				Total			
	Exp (£)	Total	Volunteers	hrs per vol per week (all vols)	Total hrs	worked by all vols PW	No. Committee members	hrs per vol per week (committee)	Total hrs	worked PW	Com. members	Other volunteers	hrs per vol per week (other vols)	Total hrs	worked PW (other vols)	employees	FT Female	FT Male	PT Female	PT Male												
All Martial Arts	117	4.67	1.86	8.67	2.00	2.33	4.66	2.67	1.50	4.01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Angling	1,500	18.00	1.53	27.53	11.33	2.33	26.40	6.67	0.17	1.13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Archery	0	3.00	2.00	6.00	3.00	2.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
Athletics	8	23.60	2.25	53.05	9.60	3.63	34.85	14.00	1.30	18.20	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2												
Badminton	44	6.10	0.97	5.94	5.00	1.15	5.75	1.10	0.17	0.19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Basketball	844	10.80	1.96	21.20	4.60	3.80	17.48	6.20	0.60	3.72	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Bowls	1,294	10.15	1.28	13.01	6.25	1.55	9.69	3.90	0.85	3.32	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0												
Boxing	0	11.00	10.91	120.00	8.00	12.00	96.00	3.00	8.00	24.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Canoeing	600	20.00	1.10	22.00	8.00	2.00	16.00	12.00	0.50	6.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Climbing	19,000	46.00	3.00	138.00	16.00	3.00	48.00	30.00	3.00	90.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Cricket	10,962	11.35	1.78	20.20	7.76	2.33	18.08	3.59	0.59	2.12	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1												
Cycling	375	12.40	1.57	19.50	7.00	2.40	16.80	5.40	0.50	2.70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Disabled Sp.	0	7.00	5.00	35.00	7.00	5.00	35.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Fencing	50	8.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
Football	445	7.51	2.35	17.67	4.34	3.59	15.58	3.17	0.66	2.09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Golf	38,750	16.00	3.64	58.19	12.67	4.33	54.86	3.33	1.00	3.33	17.6	6.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	3.2												
Gymnastics	2,500	7.00	2.00	14.00	4.00	2.00	8.00	3.00	2.00	6.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Hockey	1,800	15.00	2.02	30.30	10.20	2.20	22.44	4.80	1.64	7.86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Ice sports	975	8.50	5.21	44.25	5.50	7.50	41.25	3.00	1.00	3.00	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5												
Korfball	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Lacrosse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Rugby	16,000	38.33	1.52	58.18	14.33	2.67	38.26	24.00	0.83	19.92	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7												
Sailing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Shooting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Skiing	4,600	20.00	1.75	35.00	10.00	3.00	30.00	10.00	0.50	5.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Snooker	83	6.50	-	4.42	4.25	0.94	4.00	2.25	0.19	0.42	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3												
Squash	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Sub aqua	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Swimming	425	33.25	2.00	66.44	13.00	2.25	29.25	21.25	1.75	37.19	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3												
Table Tennis	217	6.29	0.44	2.77	2.43	1.14	2.77	3.86	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Tennis	16,750	11.00	1.00	11.00	11.00	1.00	11.00	0.00	0.00	0.00	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.3												
Volleyball	0	14.00	6.00	84.00	14.00	6.00	84.00	0.00	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Walking	0	27.33	1.18	32.16	11.50	1.42	16.33	15.83	1.00	15.83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0												
Weightlifting	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
All sports	2,915	11.33	1.82	20.64	6.24	2.71	16.91	5.09	0.73	3.73	0.7	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2												

Source: Voluntary sector questionnaire (Core)

It was found that across all sports activities in Sheffield, capital expenditure accounted for approximately 20% of total expenditure (current and capital). This was significantly higher than the 5% cited in Jones (1989), as the average expenditure on investment across voluntary clubs within Europe. Given that the definition of investment was not given in Jones Report, it may be that capital expenditure figures are not comparing like with like.

Also presented in Table 5.9, is information regarding volunteers. As noted previously, one of the disadvantages of using a methodological framework based on GDP, such as the NIA framework is that it leaves a considerable amount of the voluntary sector out of the equation. GDP excludes all work that is not sold for money and even though volunteers add millions of hours to the voluntary sector, they are not valued as a major economic contributor to the sports industry. Consequently, although the volunteer labour force will not be included in the actual economic evaluation, a monetary value was still estimated for the voluntary sports sector in Sheffield.

In the report 'Valuing Volunteers in UK Sport' LIRC (1996a), who note the scarcity of evidence available on the size and composition of the volunteer market, comment that previous estimates on the economic value of volunteers, such as those provided by the Henley Centre for Forecasting (1992) significantly underestimate the value of the volunteer labour market in sport. In the Henley Centre reports discussed in Chapter Two, a shadow wage of 50% of average manual workers' earnings was assigned to voluntary labour. There is no widely accepted shadow wage rate for volunteer labour in the sports industry and it is beyond the scope of this research to investigate this, other than to say that several shadow wages have been used³. For the purpose of valuing volunteer labour in this research, in accordance with The Volunteer Centre UK (1995) and LIRC (1996a), the shadow wage adopted was the average hourly earnings for 1996/97 of £9.13 (Office for National Statistics, 1998). This marks a move away from the conventional measures used in economic impact studies of sport and therefore comparisons with such studies are not directly comparable.

³ Further discussion on the valuation of volunteer labour can be found in LIRC (1996a), pp. 15

Table 5.9 shows the average number of volunteers and time volunteered for each sport surveyed. In this research, while the total number of volunteers and hours worked tended to be greater in the Cluster 2 sports, the trend was less obvious than the differences between income and expenditure, as shown previously. For example, although climbing had on average 46 volunteers, who worked approximately 138 hours per week (PW), volunteers in boxing clubs and volleyball clubs worked approximately 120 hours and 84 hours PW respectively, both of which were small clubs.

In addition, as can be seen from Table 5.10, although the total hours worked PW by all volunteers was greater in the Cluster 2 activities (42.25 hours), if the average hours per volunteer per week is compared, it can be seen that more time per volunteer was spent by those in Cluster 1 (2.67 hours), than in Cluster 2 activities (1.97 hours). Furthermore, when total volunteer time PW is divided per member, volunteers for Cluster 1 activities spend almost five times per member working than their respective counterparts in Cluster 2 activities. A possible explanation for this is that clubs with lower levels of income and expenditure substitute volunteer time for money, thus smaller clubs have a higher ratio of volunteer time per member than larger clubs.

TABLE 5.10. VOLUNTEER CHARACTERISTICS BY SPORTS CLUSTERS

	<i>Cluster 1</i>	<i>Cluster 2</i>
Total Volunteers	9.56	20.15
Av. hrs PW (per vols.)	2.67	1.91
Total hrs PW (all vols.)	27.52	42.25
Total hrs PW/per member	0.69	0.14

Source: Voluntary sector questionnaire (Core)

Phase 1 of the primary research carried out by LIRC (1996a) involved a survey of club secretaries to identify the number of volunteers working in sports clubs and the average time input per volunteer. It was found that membership was positively correlated with the number of volunteers within a club and the time volunteered. There were several results in this research which were similar to those obtained by LIRC, for example, the average number of volunteers for gymnastics clubs was 7 and 7.5, for Sheffield and the UK respectively and for badminton, 6.10 and 6.7 respectively. Similarly, the time volunteered per week by volunteers in football clubs was 2.35 hours and 2.43 hours in Sheffield and UK clubs respectively and for climbing 3 hours and 3.34 hours for Sheffield and the UK respectively. However, generally the average and total hours

worked by all volunteers per week were lower in Sheffield than estimated by LIRC for the UK.

The discussion regarding volunteers has essentially focused on the number of volunteers and the time volunteered for individual sporting activities. Estimates of the value of the volunteer labour force in Sheffield using the measures discussed above, will be given later in the chapter.

5.1.3 University Sports Clubs

University sports clubs represented the second largest type of club numerically, after the core voluntary clubs in Sheffield. Unlike in the United States (US) where university sports clubs are major generators of economic activity (Brunelli, 1992), in the UK and in Sheffield, university sports clubs tend to be smaller and more informal than the core voluntary clubs discussed in 5.1.2. This can be seen from Table 5.11, which shows that the turnover of 90% of all clubs was less than £5,000. Nevertheless, given the numerical importance of these clubs to the voluntary sector in Sheffield, it was fundamental to include them in the profile of the voluntary sector.

TABLE 5.11. TURNOVER: UNIVERSITY SPORTS CLUBS

<i>Turnover (£)</i>	<i>Frequency</i>	<i>%</i>
Under 1,000	17	37.8
1,000 – 2,000	10	22.2
2,000 – 5,000	14	31.1
5,000 – 10,000	3	6.7
10,000 – 15,000	1	2.2

Source: Voluntary sector questionnaire (University)

As shown previously in Table 5.2, university clubs had an average membership of 71 members. While this was not largely different from core voluntary clubs, it was found that there was significantly less variation of membership, income, expenditure and turnover between university clubs than was shown between core voluntary clubs. Given that an equally large number of sporting activities was represented in the university clubs as in the core voluntary clubs, the Kruskal-Wallis test was carried out to determine whether there was a significant difference between the mean number of members in each sporting group. The results of the test can be found in Appendix 8.8.

As there was no difference between the mean number of members in each sporting group, it was decided not to analyse the data for university clubs based on the different sporting activities, as previously undertaken for the core voluntary clubs.

Further investigation of the mean membership of university clubs nevertheless found, as shown in Appendix 8.9, that there was a significant difference between clubs which belonged to The University of Sheffield (SU) and those which were part of Sheffield Hallam University (SHU). As shown in Table 5.12, given that there was a positive correlation between the membership of university clubs with income and expenditure (at the 0.01 and 0.05 level respectively), it was decided to profile the financial flows separately for each university. The reason for this was to make the aggregation of university and subsequently all voluntary sports clubs as accurate as possible.

TABLE 5.12. SPEARMAN CORRELATION COEFFICIENTS⁴ FOR UNIVERSITY CLUBS

	<i>Members</i>	<i>Income</i>	<i>Current expenditure</i>	<i>Volunteers</i>	<i>Employees</i>
Members		**0.001	*0.021	**0.005	0.154
Income	0.492		**0.000	*0.029	0.645
Current expenditure	0.364	0.807		0.404	0.356
Volunteers	0.420	0.332	0.131		0.745
Employees	-0.219	-0.072	-0.144	-0.049	

↓ = *r* (correlation coefficient) → = *p* (significance level)

* = Correlation is significant at the 0.01 level (2-tailed)

** = Correlation is significant at the 0.05 level (2-tailed)

5.1.3.1 Profiling the university clubs

Table 5.13 shows the mean income for clubs at SU and SHU. It also shows the sources of income and the percentage of the total income that each item accounts for. It can be seen that the average income to SU clubs was £2,289 and £1,503 for SHU clubs, which compared with an average gross income for core voluntary clubs of £11,721, further demonstrates the distinction between the type of clubs.

⁴ Spearmans rank correlation was used as the data did not meet the requirements of the equivalent parametric test, Pearson's correlation.

TABLE 5.13. INCOME AND EXPENDITURE: UNIVERSITY CLUBS

	<i>SU (£)</i>	<i>SU (%)</i>	<i>SHU (£)</i>	<i>SHU (%)</i>
<u>Income</u>				
Bar/Food/Clothing Sales	34.70	1.5	60.00	4.0
Donations & Sponsorship	15.63	0.7	160.00	10.7
Equipment Hire	6.25	0.3	0.00	0.0
Facility Hire	7.50	0.3	0.00	0.0
Fundraising	0.00	0.0	43.64	2.9
Grants	755.43	33.0	791.82	52.7
Interest	0.00	0.0	0.00	0.0
Match fees	158.45	6.9	9.09	0.6
Membership	879.21	38.4	256.36	17.1
Players contributions	375.37	16.4	181.82	12.1
Training fees	37.14	1.6	0.00	0.0
Other	19.08	0.8	0.00	0.0
Total Income	2,288.76	100.0	1502.73	100.0
<u>Current Expenditure</u>				
Club equipment	400.17	18.4	952.96	47.7
Goods for resale	29.11	1.3	48.96	2.5
Governing bodies	6.23	0.3	10.88	0.5
Ground maintenance	1.61	0.1	0.00	0.0
Hire of facilities	117.74	5.4	116.46	5.8
Insurance	33.85	1.6	0.00	0.0
League fees	106.16	4.9	114.92	5.8
Match expenses	85.59	3.9	136.50	6.8
Socials & Club events	29.68	1.4	45.00	2.3
Travel	1,005.55	46.2	350.34	17.5
Wages and expenses	280.12	12.9	204.88	10.3
Other	81.27	3.7	15.94	0.8
Current Expenditure	2,177.08	100.0	1,996.84	100.0

Source: Voluntary sector questionnaire (University)

It can be seen that SHU clubs were more dependent upon grants, donations and sponsorship, with 52.7% and 10.7% of their total revenue from these sources, compared with only 33.7% in total from SU clubs. SU clubs alternatively received a larger proportion of their income from membership fees (38.4%) and players contributions (16.4%), in contrast to SHU clubs which only received 17.1% and 12.1% from these sources respectively.

Comparison of both The University of Sheffield and Sheffield Hallam University club income in Table 5.13, with revenue received by all core voluntary clubs as shown in Table 5.6, also reveals patterns of difference. University clubs in general were more dependent on grants than core voluntary clubs and less on membership fees and training

fee contributions. The latter, in addition also receive a larger proportion of income from fundraising for which SU clubs received no income and SHU secured only 2.9%.

Table 5.13 also shows the mean current expenditure for SU and SHU sports clubs. As with income, it also shows a breakdown of the items of expenditure and of the percentage value that they account for. It can be seen that SU clubs spend on average £2,177 and SHU spend £1,997. This, compared to an average expenditure by core voluntary clubs of £11,721, again reveals the diversity of the voluntary sector. Comparison of the expenditure patterns of the two universities revealed that SU spent the largest proportion of their expenditure on travel (46.2%) compared with SHU who spent only 17.5% of expenditure on this item and the largest proportion on club equipment (47.5%) on which SU clubs spent only 18.4%.

Again, comparison of both The University of Sheffield and Sheffield Hallam University club expenditure in Table 5.13, with expenditure by all core voluntary clubs as shown in Table 5.7 reveals patterns of difference. Whereas the university clubs spent approximately 11% of their total expenditure on wages and expenses, the core voluntary clubs spent 24.3% on this source, making it their largest expenditure category. Also whereas club equipment and travel were major expenditure categories for both universities, they only accounted for 2% and 1.1% of total expenditure respectively for core voluntary clubs. A further notable difference between the expenditure of the two types of club, was that core voluntary clubs spent approximately 25% of their total expenditure on ground maintenance and operating cost combined, both of which were negligible to university clubs, for which central university departments bear the costs. In addition, university clubs had no capital expenditure.

Finally, Table 5.14 shows the number of club volunteers, employees and the total number of hours worked per week by each university. As it can be seen, the total number of volunteers per club was slightly greater in SU with an average of 8.91, compared to 6.54 at SHU. Within both of the universities, the total number of volunteers was lower than found in core voluntary clubs, with an average of 11.33. In contrast, the average hours per volunteer per week at SU and SHU was 2.56 hours and 2.90 hours respectively, which was larger than the 1.82 hours per volunteer per week for core voluntary clubs. This supports the explanation given earlier that smaller clubs

and those with less income have a higher proportion of turnover to volunteer time than larger clubs. As expected, the mean total employee hours per week was low with just 0.59 hours and 0.02 hours for SU and SHU per week respectively, compared with an average across all core voluntary clubs of 0.68.

TABLE 5.14. VOLUNTEERS AND CLUB EMPLOYEES: UNIVERSITY CLUBS

	<i>SU</i>	<i>SHU</i>
Total volunteers	8.91	6.54
Hrs per vol. PW (all)	2.56	2.90
Total hrs worked by all volunteers PW	22.80	18.97
No. committee members	5.91	5.08
Hrs. per vol. PW (committee)	3.35	3.38
Total hrs worked PW (committee)	19.80	17.17
No. other volunteers	3.00	1.46
Hrs. per vol. PW (other)	1.00	1.23
Total hrs worked PW (other vol.)	3.00	1.80
Total employees	0.53	0.15
Total employee hrs PW	0.59	0.02

Source: Voluntary sector questionnaire (University)

5.1.4 Sport and Social Clubs and Working Mens Clubs

The final types of voluntary clubs to be discussed are Sport and Social Clubs (SSC) and Working Mens Clubs (WMC). Although these clubs were smaller in number than the previous types of sports club discussed, they were significantly larger in terms of average membership and the number of sports teams within their club as shown in Table 5.2. The average membership of a SSC and WMC was 1,044 and 838 respectively and the number of teams per club was 7.40 and 11.07 for SSC and WMC respectively. It was found that the reason for the high membership of these clubs was twofold. Firstly, they were not solely sports clubs and represented a number of leisure and social activities and secondly, the clubs often represented more than one sport, hence the large number of teams per club. Given these different characteristics, it was decided to analyse the clubs separately to university and core voluntary clubs.

A further justification for analysing and subsequently aggregating the economic importance of SSC and WMC separately to other types of clubs, can also be seen from Table 5.15. It can be seen clearly that there was a significant difference between the

turnover and thus the economic activity associated with each type of club, with 75% and 83% of SSC and WMC having turnover greater than £50,000 and just 5% of core voluntary clubs and no university clubs having turnover of this amount.

TABLE 5.15. TURNOVER OF CLUBS IN THE VOLUNTARY SECTOR (£)

<i>Turnover</i>	<i>SSC</i>	<i>WMC</i>	<i>Core</i>	<i>University</i>
under 5,000	1	2	137	41
5,000 – 24,999	1	0	22	3
25,000 – 49,000	1	2	4	1
50,000 – 99,999	1	2	2	0
100,000 – 199,000	1	4	2	0
200,000 – 499,000	2	2	5	0
500,000 – 1,000,000	1	0	1	0

Source: Voluntary sector questionnaire (Core; University; SSC/WMC)

Nevertheless, it should be noted that the turnover of SSC and WMC was not wholly sport-related. The mean percentage of turnover which was sport-related in the SSC was 48.3% and in the WMC was 38%, thus demonstrating the increased importance of sport in the former, as suggested in Chapter Four. An allowance was made for this in the aggregation of data and this will be detailed later in the chapter.

In addition to the differences highlighted between the SSC and WMC in terms of sport-related turnover, a further number of differences between these clubs were observed. Firstly, all of the WMC which responded to the questionnaire were categorised as non-profit making bodies/charitable trusts, whereas only 50% of the SSC were classified as non-profit making, with 33% of the remainder registered as private limited companies.

As with the other types of clubs in the voluntary sector, several statistical tests were carried out to determine whether there was a difference between the membership, income and current expenditure of SSC and WMC. While no difference was found in membership, the Mann-Whitney test, shown in Appendix 8.10, found that there was a significant difference between these types of club in terms of sport-related income and expenditure. Consequently, to ensure the greatest possible degree of accuracy when calculating the economic activity of the voluntary sector, the income and expenditure profiles were derived and aggregated separately for SSC and WMC in a similar manner to the core voluntary and university clubs.

5.1.4.1 Profiling SSC and WMC

Table 5.16 shows the mean income generated from sport-related activities of SSC and WMC and a breakdown of the components of this. It also shows the mean current expenditure and the constituent elements of this. It should be noted that while Table 5.15 showed the *total* turnover of SSC and WMC, Tables 5.16 and the subsequent tables discussed in this section refer only to *sports-related* flows. It can be seen from these tables that when analysing only sport-related flows of income and expenditure, there was clearly a difference between SSC and WMC, with sport-related economic activity playing a more important role in SSC.

TABLE 5.16. INCOME AND EXPENDITURE: SSC AND WMC

	SSC (£)	SSC (%)	WMC (£)	WMC (%)
<u>Income</u>				
Bar/Food/Clothing Sales	126,770.02	73.3	1,451.15	22.8
Donations & Sponsorship	56.34	0.0	0.00	0.0
Facility Hire	15,909.66	9.2	200.00	3.2
Fundraising	777.62	0.5	392.50	6.2
Grants	4,884.66	2.8	0.00	0.0
Match fees	84.51	0.1	2,133.28	33.6
Membership	5,947.02	3.4	1,198.57	18.9
Training fees	1,275.84	0.7	805.50	12.7
Other	17,277.73	10.0	176.34	2.8
Total Income	172,981.40	100.0	6,357.33	100.0
<u>Current Expenditure</u>				
Club equipment	102.93	0.1	353.30	5.9
Goods for resale	55,984.76	32.6	637.50	10.7
Ground maintenance	10,773.94	6.3	634.89	10.7
Hire of facilities	1,147.04	0.7	477.90	8.0
Insurance	277.89	0.2	256.63	4.3
League fees	0.00	0.0	165.33	2.8
Match expenses	0.00	0.0	242.90	4.1
Operating costs	22,724.54	13.2	517.40	8.7
Socials & Club events	664.84	0.4	104.98	1.8
Grants to sporting sections	1,312.67	0.8	513.25	8.6
Travel	0.00	0.0	75.00	1.3
Wages and expenses	46,906.95	27.3	1,511.39	25.4
Other	31,937.12	18.6	459.55	7.7
Total Current Expenditure	171,832.68	100.0	5,950.00	100.0
Total Capital Expenditure	22,812.75	-	15,545.83	-

Source: Voluntary sector questionnaire (SSC/WMC)

It can be seen from Table 5.16 that the mean income of SSC was £172,981 compared to £6,357 of WMC. Clearly there was little similarity between these, with the difference between the total income of SSC and WMC greater than shown previously between university and core voluntary clubs. Overwhelmingly, the largest component of income to SSC was bar, clothing and food sales, which accounted for 73.3% of total income, with facility hire accounting for 9.2% of income. The income profile of WMC was significantly different to this, with 33.6% of income from match fees, 22.8% from bar, clothing and food sales, 18.9% from membership fees and 12.7% from training fees respectively. Although inherently unique, the income profile of WMC more closely resembled that of the core voluntary clubs than any other type.

It can be seen from Table 5.16 that current expenditure by SSC and WMC was £171,833 and £5,950,00 respectively. The expenditure profiles of SSC and WMC also shown, were quite different to each other. With regard to SSC, it can be seen that there were three major expenditure items which were goods for resale (32.6%), wages and expenses (27.3%) and operating costs (13.2%). Nevertheless, for WMC the expenditure profile was more evenly distributed across a number of items with the largest category being wages and expenses (25.4%), followed by goods for resale (10.7%) and ground maintenance (10.7%). Interestingly, the expenditure on wages and expenses of SSC, WMC and core voluntary clubs was approximately 25%, with only university clubs spending significantly less expenditure as a proportion, on this item. There was little correlation between the other items of expenditure and the four types of sports club identified. Both the SSC and WMC spent considerably more on capital expenditure, as also shown in Table 5.16, than the other types of voluntary club, averaging £22,813 and £15,546 respectively compared with just £2,915 across all core voluntary clubs.

Finally, Table 5.17 shows the data on volunteers and employees. Both SSC and WMC have approximately the same number of volunteers, although those from WMC tend to work longer hours, with the total hours worked by all volunteers PW at approximately 39.43 hours, compared with 25.32 hrs for SSC, 20.64 hrs for core voluntary clubs and 22.80 hours and 18.97 hours for SU and SHU clubs respectively. As expected, the number of employees of SSC and WMC was considerably greater than either of the other types of sports club, primarily due to the size of the clubs, with SSC averaging 9.90 employees per club and WMC 12.54 per club. However, it should be noted that

while the income, expenditure and volunteer figures relate to sport-related flows, the number of employees were given for the whole club including non-sport-related activities. This may therefore accentuate the difference between the number of employees in SSC and WMC and other clubs in the voluntary sector. An allowance was thus made for this at the aggregation stage and again this will be discussed later in the chapter.

TABLE 5.17. VOLUNTEERS AND CLUB EMPLOYEES: SSC AND WMC

	SSC	WMC
Total volunteers	20.25	20.08
Hrs per vol. PW (all)	1.25	1.96
Total hrs worked by all volunteers PW	25.32	39.43
No. committee members	10.75	12.77
Hrs. per vol. PW (committee)	1.25	3.00
Total hrs worked PW (committee)	13.44	38.31
No. other volunteers	9.50	7.31
Hrs. per vol. PW (other vol.)	1.25	0.15
Total hrs worked PW (other vol.)	11.88	1.12
Total employees	9.90	12.54
FT Female	0.90	0.77
FT Male	1.00	0.92
PT Female	4.40	6.31
PT Male	3.60	4.54

Source: Voluntary sector questionnaire (SSC/WMC)

5.2 AGGREGATING THE VOLUNTARY SECTOR

Given that the key characteristics of the core, university, SSC and WMC have been presented and the profiles of income and expenditure have been derived for each type, this section will firstly, outline how these were aggregated to represent the whole of the voluntary sector and secondly, examine the general findings. This section will therefore provide the platform for discussion in Chapter Ten.

5.2.1 Methodology

The legitimacy of previous methods employed for aggregating primary data collected in the voluntary sector was raised in Chapter Two. It was argued that methods used for example by the Henley Centre for Forecasting (1992), where only six sports were

surveyed and the results were grossed up by each sport, with an additional 20% added on for other sports, were one of the causes of unreliable data in this sector. Consequently, as a result of the statistical analyses undertaken, the voluntary sector in this research was aggregated using the profiles derived for each type of club as follows. The purpose of this was to improve the accuracy of aggregation and thus the estimates of sport-related economic activity in the voluntary sector.

Firstly, the core voluntary clubs were grossed up on a sport by sport basis, as discussed previously, by multiplying the number of clubs in each sport by the information gathered for each respective sport. For those sporting groups with no response or partial financial data, mean values across all sports were used. The total income and expenditure profile for core voluntary clubs can be seen in Appendix 8.11 and 8.12. Aggregated data for capital expenditure, volunteers and employees can also be seen in Appendix 8.13.

Secondly, given there was no significant difference between the membership of the various sporting groups, but that there was a significant difference between the membership of clubs in Sheffield Hallam University and The University of Sheffield, university sports clubs were aggregated by the number of clubs within each respective university. The aggregated data can be seen in Appendix 8.14 – 8.16.

Finally, total income, current and capital expenditure, volunteers and club employees were aggregated for SSC and WMC respectively, by multiplying the mean values of these variables by the total number of clubs. An adjustment was made for the number of WMC who stated that no sport was played at the club. As noted earlier, given that the questionnaire asked for the total number of employees within the club, rather than the number of sport-related employees, these figures were multiplied by the mean percentage of sport-related turnover. This was 48.3% for SSC and 38% for WMC. The aggregated tables can be seen in Appendix 8.17 – 8.19.

These process of aggregation used in this research was more rigorous than the procedures used in previous studies on the economic importance of sport. Furthermore, while such studies have only evaluated the economic activity generated by core

voluntary clubs, this research incorporates other aspects of the voluntary sector, which have been omitted from previous estimates.

5.2.2 Income and Expenditure Profiles

Table 5.18 shows the income and expenditure profiles for the voluntary sector, together with a breakdown of each type of club. As it can be seen, 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. Comparison of these figures with the base model shown in Table 5.19, revealed that the income and expenditure flowing to and from the voluntary sector in Sheffield was significantly smaller than anticipated.

As it can be seen from Table 5.19, it was predicted using the base model, that the total income to the voluntary sector would be £17.92 million excluding bar receipts and £32.96 million including bar receipts. The base model prediction was therefore over three times greater than the actual revenue generated by the voluntary sector in Sheffield. 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 5.18 and 5.19. For example, 35.2% of all revenue to the voluntary sector in Sheffield was from membership, training fees, players' collections and match fees, which 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.

Further similarities between the primary data collection and the base model can be seen in terms of the proportion of gross income from fundraising, which was 6.5% for Sheffield and approximately 6.2% in the base model and for advertising, which accounted for 2.1% of revenue in Sheffield and 2% in the base model. Clearly as the discussion has shown, there were some similarities in the income profiles despite large discrepancies in totals between the actual primary data and the estimated base model data.

TABLE 5.18. THE VOLUNTARY SECTOR: INCOME AND EXPENDITURE PROFILES (£)

	<i>Core</i>	<i>University</i>	<i>SSC</i>	<i>WMC</i>	<i>Total</i>	<i>%</i>
<u>Income</u>						
Advertising	200,538	-	-	-	200,538	2.1
Bar/Food/ Clothing Sales	1,133,722	3,898	2,408,630	69,655	3,615,906	37.6
Bank Interest	7,193	-	-	-	7,193	0.1
Donations & Sponsorship	251,311	6,011	1,070	-	258,392	2.7
Equipment Hire	-	356	-	-	356	0.0
Facility hire	346,726	428	302,265	9,600	659,018	6.9
Fundraising	591,940	1,396	14,775	18,840	626,952	6.5
Average grant income	127,467	68,398	92,790	0	288,655	3.0
Match fees	323,028	9,323	1,606	102,397	436,354	4.5
Membership	2,253,884	58,318	112,993	57,531	2,482,727	25.8
Players collections	12,209	27,214	-	-	39,424	0.4
Training fees	364,411	2,117	24,241	38,664	429,433	4.5
Other	238,126	-	328,277	8,464	574,867	6.0
Total income (all clubs)	5,850,556	177,459	3,286,647	305,152	9,619,814	100.0
<u>Expenditure</u>						
Club Equipment	183,289	53,304	1,956	16,958	255,507	2.8
Goods for resale	981,763	3,226	1,063,710	30,600	2,079,299	22.4
Governing bodies	78,704	703	-	-	79,407	0.9
Ground maintenance	763,493	92	204,705	30,475	998,764	10.8
Hire of facilities	599,323	10,438	21,794	22,939	654,494	7.1
Insurance	126,081	1,929	5,280	12,318	145,608	1.6
Kit wash	16,196	-	-	-	16,196	0.2
League fees	92,150	9,729	-	7,936	109,815	1.2
Match expenses	324,119	9,247	-	11,659	345,025	3.7
Operating Costs	451,996	-	431,766	24,835	908,598	9.8
Socials & Club events	99,852	3,132	12,632	5,039	120,655	1.3
Travel	68,154	68,527	-	3,600	140,281	1.5
Wages and Expenses	1,135,796	22,523	891,232	72,547	2,122,098	22.9
Grants to sporting sections	-	-	24,941	24,636	49,577	0.5
Other	616,544	5,142	606,805	22,058	1,250,550	13.5
Total Current expenditure	5,537,459	187,992	3,264,821	285,601	9,275,873	100.0
Total Capital Expenditure	2,001,724	-	209,483	283,556	2,494,762	-
Total Expenditure	7,539,183	187,992	3,474,304	569,157	11,770,635	-

Source: Voluntary sector questionnaire (Core; University; SSC/WMC)

TABLE 5.19. INCOME AND EXPENDITURE PROFILE: THE BASE MODEL

	<i>£ million</i>	<i>%</i>
<u>Income</u>		
Players' subscriptions and match fees	12.28	37.3
Equipment	0.04	0.1
Sponsorship and advertising	0.66	2.0
Raffles and gaming machines	2.06	6.2
Bar receipts	15.04	45.6
Grants	0.64	1.9
Foundation for Sport and Arts	0.34	1.0
Football Trust	0.05	0.2
Employers' subsidies	0.78	2.4
Interest	0.37	1.1
Lottery	0.69	2.1
Total Monetary Income (including bar receipts)	32.96	100.0
Total Monetary Income (excluding bar receipts)	17.92	-
<u>Expenditure</u>		
Wages	7.42	26.7
Ground hire and rents	0.49	1.8
Equipment	0.05	0.2
Other	5.67	20.4
(Bar purchases)	10.53	37.8
Rates	0.49	1.8
Interest	0.24	0.9
Total Current expenditure	24.89	89.5
Capital Expenditure	2.93	10.5
Total Monetary Expenditure (including bar receipts)	27.82	100.0
Total Monetary Expenditure (excluding bar receipts)	17.29	-

Source: The Base Model

Comparison of the primary data collected in Sheffield with the income profiles of the voluntary sector in other UK studies, revealed that although inherently unique, the data collected in Sheffield, did show some similarity to the profiles of income found in other research, particularly the Scottish study (Pieda, 1991). As shown in Table 5.20, it was estimated that approximately 43% of all income to the voluntary sector in Scotland was from membership and admission fees and 32% was from bar, food and clothing sales. In Sheffield, income from these items was 35.2% and 37.6% respectively. It can also be seen that the other studies listed in Table 5.20 show little resemblance to the primary data collected in Sheffield. With the exception of the Northern Region study, over 50% of total income in the other UK studies was from bar and food sales. This was far greater than the equivalent figure for Sheffield and may reflect the over-representation of larger clubs in the primary data collection of the UK studies, as highlighted in the literature review.

TABLE 5.20. ANALYSIS OF INCOME PROFILES IN THE VOLUNTARY SECTOR: SELECTED UK STUDIES (%)

<i>Item</i>	<i>Scotland</i>	<i>Wales</i>	<i>N Region</i>	<i>N. Ireland</i>	<i>Bracknell</i>	<i>Wirral</i>
Admission fees	16.0	1.0	-	1.0	-	-
Subscriptions	27.0	23.0	33.0	29.0	16.0	40.0
Sponsorship & advertising	1.0	3.0	7.0	5.0	2.0	1.0
Gaming machines & raffles	6.0	7.0	3.0	6.0	20.0	4.0
Other fundraising	3.0	-	20.0	-	-	-
Bar, food & clothing	32.0	55.0	17.0	54.0	53.0	51.0
Other items	7.0	7.0	9.0	2.0	9.0	4.0
Grants	8.0	4.0	11.0	3.0	-	-
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0

Source: Henley Centre for Forecasting (1989; 1992a), Pieda (1991; 1994), Centre for Advanced Studies in the Social Sciences (1995)

Analysis of the estimated expenditure of the voluntary sector in Sheffield using the primary data and the predicted data from the base model, again revealed a significant difference between the actual and estimated data. As with the profile of income, it can be seen from Table 5.18 and 5.19 that the predicted expenditure of the voluntary sector was £17.29 million excluding bar purchases and £27.82 million including bar purchases, which was again significantly larger than the £11.77 million calculated using the primary data. This indicates that the voluntary sector in Sheffield is much smaller

than expected, if the sport-related economic activity in the city were typical of the rest of the UK.

While the profiles of expenditure derived from the primary data and the base model revealed major differences, particularly in terms of the proportion of expenditure on wages and salaries and goods for resale, comparison of the primary data with expenditure profiles of selected UK studies as shown in Table 5.21 nevertheless revealed some similarities. With the exception of the Bracknell and Northern Region studies, wages and expenses were estimated to account for between 21% - 25% of all expenditure. In Sheffield, wages and salaries accounted for 22.9% of all current expenditure. In addition, while expenditure on goods for resale such as bar purchases were larger in several of the UK studies, the Scottish study (Pieda, 1991) found that 22% of total expenditure was spent on goods for resale., compared with 22.4% in Sheffield.

TABLE 5.21. ANALYSIS OF EXPENDITURE PROFILES IN THE VOLUNTARY SECTOR: SELECTED UK STUDIES (%)

<i>Item</i>	<i>Scotland</i>	<i>Wales</i>	<i>N Region</i>	<i>N. Ireland</i>	<i>Bracknell</i>	<i>Wirral</i>
Wages & expenses	25.0	21.0	6.0	24.0	12.0	25.0
Hire of facilities	4.0	2.0	6.0	1.0	-	-
Rent	-	1.0	6.0	-	-	-
Goods for resale	22.0	43.0	9.0	43.0	41.0	33.0
Utilities	4.0	5.0	7.0	4.0	5.0	4.0
Loan charges	3.0	1.0	3.0	3.0	-	1.0
Repairs	8.0	3.0	12.0	4.0	4.0	8.0
Rates/taxes	4.0	4.0	2.0	3.0	-	4.0
Travel	-	2.0	-	2.0	4.0	-
Capital Expenditure	14.0	7.0	18.0	12.0	8.0	5.0
Other	16.0	11.0	23.0	4.0	26.0	20.0
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0

Source: Henley Centre for Forecasting (1989; 1992a), Pieda (1991; 1994), Centre for Advanced Studies in the Social Sciences (1995)

Clearly there were large differences in the predicted and actual data collected on the voluntary sector in Sheffield, both in terms of the gross income and expenditure accruing to the sector and in terms of the components of this. There are several possible reasons for these differences which will be discussed further in later chapters.

The first reason could be that the voluntary sector has been measured incorrectly at the national level. While previous studies in the UK have focused primarily upon measuring the economic activity generated by core voluntary clubs, the evidence presented in this chapter has shown that the voluntary sector is not homogeneous and is in fact made up of several types of clubs as well as different sporting activities. Previous national studies have only considered core voluntary clubs, therefore the omission of SSC, WMC and university clubs in the national studies represents an underestimate rather than an overestimate of the economic activity generated by the voluntary sector. Nevertheless, there is evidence to suggest that the measurement of core voluntary clubs in previous UK studies at the national level has also been incorrect. As discussed in Chapter Two, the voluntary clubs which were sampled in the national studies were biased towards the largest and richest clubs. For example, four of the six clubs upon which the voluntary sector was aggregated in the UK in 1990 (Henley Centre for Forecasting, 1992), were listed in the ten largest spenders of all sports in 1990 (Centre for Leisure Research, 1991). Although adjustments were made for smaller clubs, the national estimates are undoubtedly biased towards clubs and activities that generated above average income and expenditure.

Further evidence which supports the explanation that the national estimates are incorrect, concerns the sampling framework used for the voluntary clubs. In this research, 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 where available. The uncertainty of the number of clubs that actually exist at the national level has undoubtedly contributed to the inaccuracy of national studies.

A second explanation for the difference in the data presented, is that the voluntary sector in Sheffield is genuinely smaller than at the national level. This could be relative to the other sectors, or it could be that sport-related goods and services holistically generate less economic activity in Sheffield than at the national level. Obviously it is necessary to analyse the other sectors to evaluate this explanation further. However, it is possible that sport-related economic activity was smaller than expected in Sheffield compared with the UK due to the below average GDP of the South Yorkshire region.

The GDP of South Yorkshire currently stands at around 74% of the UK GDP and it is possible that this ratio transfers to the relative size of the sports industry.

A third possible reason for the difference in the primary data and the base model is that sport-related economic activity at the local level is quite different to the national level. To recall, the base model data was founded upon national data and all previous UK studies with the exception of the Bracknell and Wirral study, were carried out at either regional or national level. The Sheffield data is thus unique, given that it is the first study to be carried out at the city level and it may be, that the structure of sport-related economic activity is quite different to that shown at the regional and national level. Nevertheless, the spatial distribution of sport-related economic activity is beyond the scope of this research and will not therefore not be discussed any further.

5.2.2.1 Comparison between types of voluntary club

Analysis of the income and expenditure profiles by type of sports club shown in Table 5.18, revealed that as anticipated, core voluntary clubs created the largest amount of economic activity, accounting for approximately 60% of total income and expenditure. Two points can be made regarding this finding. Firstly, the university, WMC and SSC accounted for approximately 40% of total income and current expenditure to the voluntary sector. Given that the research which the base model was derived from did not include these aspects of the voluntary sector, it can be seen that there is an even greater difference between the economic activity recorded by the voluntary sector in Sheffield compared with estimates at the national level.

A second point to be made with regard to the breakdown of income and expenditure in the different types of club is, although it was emphasised earlier that the characteristics of these clubs were considerably different, this was further highlighted when analysing the aggregated profiles for all clubs. For example, although there were only 19 SSC and 865 core voluntary clubs, SSC accounted for over 65% of all income received from bar, clothing and food sales. If an average had been taken across all clubs, SSC would have recorded a negligible amount in this category due to their small number. Similar

analysis of the aggregated expenditure shows different profiles for each type, thus reinforcing the justification for analysing each type of club separately.

Focusing on the aggregated profiles for core voluntary clubs, shown fully in Appendix 8.11 and 8.12, it can be seen from Table 5.22 that although many of the smaller clubs, previously classified as Cluster 1 sports have below average membership, income and expenditure, due to high participation, they play an important role in the voluntary sector. Therefore, while cricket and football clubs were negligible in terms of the individual activity profile, as a consequence of the large numbers of clubs which existed in Sheffield, they represented an important part of the voluntary sector as shown from the Table 5.22, which ranks them second and third in terms of aggregated income and expenditure. This re-emphasises the need to take account of smaller clubs when measuring the voluntary sector and provides further support for investigating and aggregating core voluntary clubs by sporting activity.

TABLE 5.22. CORE VOLUNTARY CLUBS: AGGREGATED INCOME AND EXPENDITURE

<i>Rank</i>	<i>Income</i>	<i>Current Expenditure</i>
1	Golf (£2,077,511)	Golf (£1,996,991)
2	*Cricket (£768,952)	*Football (£819,029)
3	*Football (£840,750)	*Cricket (£689,567)
4	Climbing (£371,000)	Climbing (£460,000)
5	Rugby (£340,393)	Rugby (£313,243)

* *Cluster 1 sports*

Source: Voluntary sector questionnaire (Core)

5.2.3 Valuing Volunteers in Sheffield

As discussed earlier in the chapter, the task of quantifying the value of volunteers to the sports industry is not an easy task. There is no widely accepted method for doing this and as a consequence, comparisons of the contribution of volunteer labour to the sports economy should be treated with caution. Nevertheless, it is relatively straightforward to make comparisons of volunteer time and numbers, as already discussed for core voluntary clubs. In this section, the value of the volunteer labour force in Sheffield will be examined by assigning a shadow wage equivalent to the average hourly earnings for 1996/97 of £9.13. As noted previously, this marks a move away from conventional

measures used such as the shadow wage adopted in previous UK studies of 50% average manual workers earnings.

Table 5.23 shows the total number of volunteers and hours worked in sports clubs in Sheffield. The total value of volunteers to the sports industry in Sheffield was £9,178,790. When compared to the flows of income and expenditure this was greater than the total income accruing to the voluntary sector and just less than the total current and capital expenditure of the voluntary sector. Even given the different shadow wage allocated to volunteer time, this supports the finding of LIRC (1996a) that previous estimates of the size and value of the voluntary labour market in sport have been seriously underestimated.

TABLE 5.23. VOLUNTEERS IN SHEFFIELD: ALL SPORTS CLUBS

	<i>Core</i>	<i>University</i>	<i>SSC</i>	<i>WMC</i>	<i>Total</i>
All volunteers	8,344	716	186	366	9,611
Av. hrs per vol. PW	1.97	2.67	1.25	1.96	2.01
Av. hrs per vol. PA	102.67	138.64	65.02	102.11	104.60
Total hours PW (all)	16,475.19	1,906.64	232.51	719.20	19,333.54
Total hours PA (all)	856,709.72	99,145.28	12,090.31	37,398.57	1,005,343.88
Value (£)	7,821,759.78	905,196.41	110,384.53	341,448.91	9,178,789.63

Source: Voluntary sector questionnaire (Core; University; SSC/WMC)

The National Survey of Voluntary Activity (Lynn and Davis Smith, 1992) findings on volunteer time were the most comparable with the Sheffield data, estimating that volunteers contribute 2.3 hours per week. The average hours worked per volunteer per week in Sheffield was found to be 2.01 and the average hours per year were 104.60. Comparison of these results with LIRC (1996a) revealed that the average hours worked by volunteers in Sheffield was lower than the UK which averaged 2.9 hours per week and 139 hours per year. This finding is consistent with the results discussed earlier on the number of hours worked and the total volunteers of specific sporting activities, where it was again found that the averages for volunteer labour were slightly lower for Sheffield than at the national level. However, even the UK level is lower than

in some European countries as shown by Ibsen (1992) who found that voluntary work in Denmark averaged between 157 and 166 hours per a year per person.

5.2.4 Sample Bias in the Voluntary Sector

As noted in Chapter Four, non response in questionnaire research can lead to sample bias and thus a reduction in the reliability and validity of estimates. The use of such a sample to aggregate up for a total population can further enhance sample bias and thus lessen data reliability and validity. This was obviously an important issue in the voluntary sector, but also in the other sectors of primary data collection.

Data in the voluntary sector is notoriously weak as highlighted earlier. Gratton and Taylor (1985: 129) also comment that

“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”

This research attempted to improve upon the quality of data. However, inevitably it was impossible to remove sample bias totally from the economic impact assessment in which data was collected using primary methods. Attempts were made to keep any sample bias to a minimum in the aggregation process, in particular by grossing up according to the distinctive characteristics of the categories of sports clubs, for example aggregating by sporting activity and type of club. Despite this, it should be noted that the aggregation process discussed above does not necessarily remove sample bias and although attempts were made to reduce this, the voluntary sector is susceptible to large levels of statistical error given the small response rates in some sporting categories. Ultimately, it is widely recognised as noted by the Henley Centre for Forecasting (1992a: 76) that

“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”.

Nevertheless, the data presented in this chapter represents the best estimate to date, in terms of data reliability and validity and information on the income and expenditure flows of the voluntary sector.

5.3 SUMMARY

This chapter has presented and analysed the findings of the questionnaires carried out on voluntary sports clubs and organisations in Sheffield. It was found that while the majority of income and expenditure was generated by core voluntary clubs, approximately 40% of revenue was also generated by university clubs, SSC and WMC. The chapter has revealed that the voluntary sector is highly diverse, with the income and expenditure profiles of the different clubs and organisations in this sector showing considerable variation in turnover, income, expenditure and the total number of volunteers and employees.

The main finding of the chapter was that the sport-related economic activity generated from the voluntary sector in Sheffield was considerably smaller than predicted using the base model. While the reasons for this are yet to be discussed, several explanations for the findings have been suggested. Firstly, it has been suggested that studies at the national level and thus the data upon which the base model was derived are incorrect. Secondly, it has been suggested that sport-related economic activity in Sheffield as a whole, is below the national average and thirdly, it has been suggested that the structure of sport-related economic activity at the local level may be significantly different to the national level. These explanations will be explored further in Chapter Ten. The following chapter will now present the findings of the data collected in the consumer sector.

CHAPTER SIX. CONSUMER EXPENDITURE ON SPORT

Consumer spending on sport is the fastest growing sector of the leisure industry, which accounts for over a quarter of all consumer spending in the UK (Gratton, 1998). Between 1985 and 1995, real consumers' expenditure on sport has grown by 30% (LIRC, 1997). Consumers and their expenditure are thus a key element of sport-related economic activity however, as discussed previously, the literature suggests that this sector has been largely underestimated in the UK.

It was highlighted in Chapter Two, that with the exception of the Scottish study (Pieda, 1991), all studies on the economic importance of sport in the UK have used secondary data sources to derive estimates of consumer expenditure on sport. However, the use of secondary sources to measure consumer expenditure on sport in Sheffield created two problems. Firstly, the majority of data sources were only available at the regional and national level and secondly, as with previous studies, many of the expenditure categories in sources such as the FES were not exclusively related to sport therefore requiring an assumption to derive sport-related spending. Furthermore, the literature reviewed in Chapter Two suggested that estimates of consumer spending on sport which have been derived from non sport-specific secondary sources, have underestimated consumer expenditure. For these reasons and those outlined in Chapter Four, a consumer expenditure survey was carried out to measure spending by local residents on sport in Sheffield.

This chapter will analyse consumer expenditure on sport in Sheffield. The first part will present the results of the questionnaires discussed in Chapter Four and the second part, will focus on the aggregated profiles of consumer expenditure for the resident population of Sheffield. Throughout the chapter, comparisons will be made between the aggregated data and the base model and the results presented, will be used to derive the sectoral accounts in Chapter Nine.

6.1 PROFILING CONSUMER EXPENDITURE: RESULTS

As explained in Chapter Four, given the high level of expenditure detail required for the National Income Accounting Framework, the questionnaire for the consumer sector was carried out in two parts. To estimate consumer expenditure on sport, Part A, the random sample of Sheffield residents, was used to determine the behavioural patterns of residents in terms of their frequency of sports participation and spectating in Sheffield. Part B, a sub-sample of Part A, was then used to create profiles of expenditure for residents based on frequency of participation. Together, the expenditure profiles from Part B were used in conjunction with the participation rates recorded in Part A, to calculate total consumer expenditure on sport in Sheffield. The following section will therefore firstly, focus on the findings of Part A and secondly, present the results of Part B.

6.1.1 Part A: The Sheffield Leisure Survey

The purpose of Part A, which was included in the Sheffield Leisure Survey, was to determine the level of participation and spectating in the Sheffield population. All the data collected in Part A was measured at the nominal and ordinal level therefore analysis of the questionnaire was essentially descriptive.

6.1.1.1 Demographic characteristics of the respondents

As noted in Chapter Four, 1162 responses were obtained from the Sheffield Leisure Survey representing a response rate of 23%. From Table 6.1, it can be seen that there was a significant imbalance in the sex representation of the survey respondents, with almost twice as many male as female respondents. As women's aggregate participation rates are approximately 70% of those for men (Coalter, 1999), the response rate to the questionnaire possibly reflected the level of interest in sport, expressed by males and females. Similar levels of response were also obtained in the Belgian French study (Les Pratique Sportives En Communaute Francaise 1985), which as discussed in Chapter Two, found that of the sports participants who responded to a consumer expenditure questionnaire, 62% were male and 38% were female.

TABLE 6.1. SEX OF RESPONDENTS: PART A

	<i>Frequency</i>	<i>%</i>
Male	748	65.7
Female	390	34.3
<i>Total</i>	<i>1138</i>	<i>100.0</i>

Source: Consumer sector questionnaire (Part A)

Comparison of the age profile of respondents with the 1991 census data for Sheffield (Census for Population, 1991), as shown in Table 6.2, revealed that there was a particularly low response from those aged 18-24 and an above average response from those aged 35-44 and 45-59. As with sex, age is an important determinant in the level of sports participation (Office for National Statistics, 1997) therefore consideration of the profile of respondents was an important consideration for the analysis of data.

TABLE 6.2. AGE OF RESPONDENTS: PART A AND THE 1991 CENSUS

<i>Age category</i>	<i>Frequency</i>	<i>%</i>	<i>Frequency</i>	<i>%</i>
	<i>Part A</i>		<i>1991 Census</i>	
18-24	49	4.3	55046	13.8
25-34	218	19.0	75498	19.0
35-44	235	20.5	65159	16.4
45-59	309	27.0	84380	21.2
60+	335	29.2	117437	29.5
<i>Total</i>	<i>1146</i>	<i>100.0</i>	<i>397520</i>	<i>100.0</i>

Source: Consumer sector questionnaire (Part A); Census of Population (1991)

The two other demographic characteristics against which the Part A respondents were analysed were ethnic origin and social class based on occupation. In terms of ethnic origin, the majority of Part A respondents were white (97%) and the profile of ethnic origin strongly represented that exemplified by the 1991 Census for Sheffield, of which 95% were also white. A breakdown of ethnicity of Part A respondents can be found in Appendix 9.1.

With regard to socio-economic status, the nomenclature of Standard Social Grade Definitions, as agreed for JICNARS (Joint Industry Committee for National Readership Surveys) was used to classify respondents. The vagueness of some answers in Part A meant that some occupations were difficult to code. The most problematic occupations were the self-employed occupations and managerial positions, which seldom gave the level of responsibility or number of persons employed. Despite these problems, the

social grading of the respondents broadly represented the social structure of Sheffield, with a slightly higher proportion of respondents in Social Class A, representing higher managerial, administrative or professional occupations. The full classification of respondents can be found in Appendix 9.2.

It is widely recognised that certain demographic variables such as age, sex and social class influence the level of participation in sport (Coalter, 1999). It was fundamental for aggregation of data in the consumer sector therefore that any sample used for aggregation purposes was representative of the population from which it was drawn. As will be seen later, the profiles of respondents discussed above were considered and an adjustment was made for the demographic characteristics of the Part A respondents.

6.1.1.2 Behavioural patterns: sports participation

From Part A, it was found that 64% of respondents had participated in sport within Sheffield at some stage in the last 12 months and that 61% of all respondents were found to have participated at some point in the last 4 weeks. Comparison with the 1996 General Household Survey (GHS) (Office for National Statistics, 1997) in Table 6.3, revealed that participation rates were lower in Sheffield than for GB as a whole. The GHS found that 81% of adults (aged 16 and above) had participated in sport in the last 12 months and 64% in the last 4 weeks, whereas this research found that only 64% had participated in the last 12 months and 61% in the last 4 weeks.

TABLE 6.3. SPORTS PARTICIPATION RATES (%)

	<i>Last 12 months</i>	<i>Last 4 weeks</i>
Sheffield (Part A)	64.0	61.0
GHS 1996 (GB)	81.0	64.0

Source: Consumer sector questionnaire (Part A); Office for National Statistics (1997)

There were several possible explanations for the differences shown in the table. Firstly, the Sheffield Leisure Survey and the GHS used different methodologies to collect the data, with the former using a postal questionnaires and the latter collecting data using face to face interviews and prompt cards. Secondly, the Yorkshire and Humberside region, along with the North and West Midlands have below average participation in sport. The GHS found that 61% of adults living in the Yorkshire and Humberside

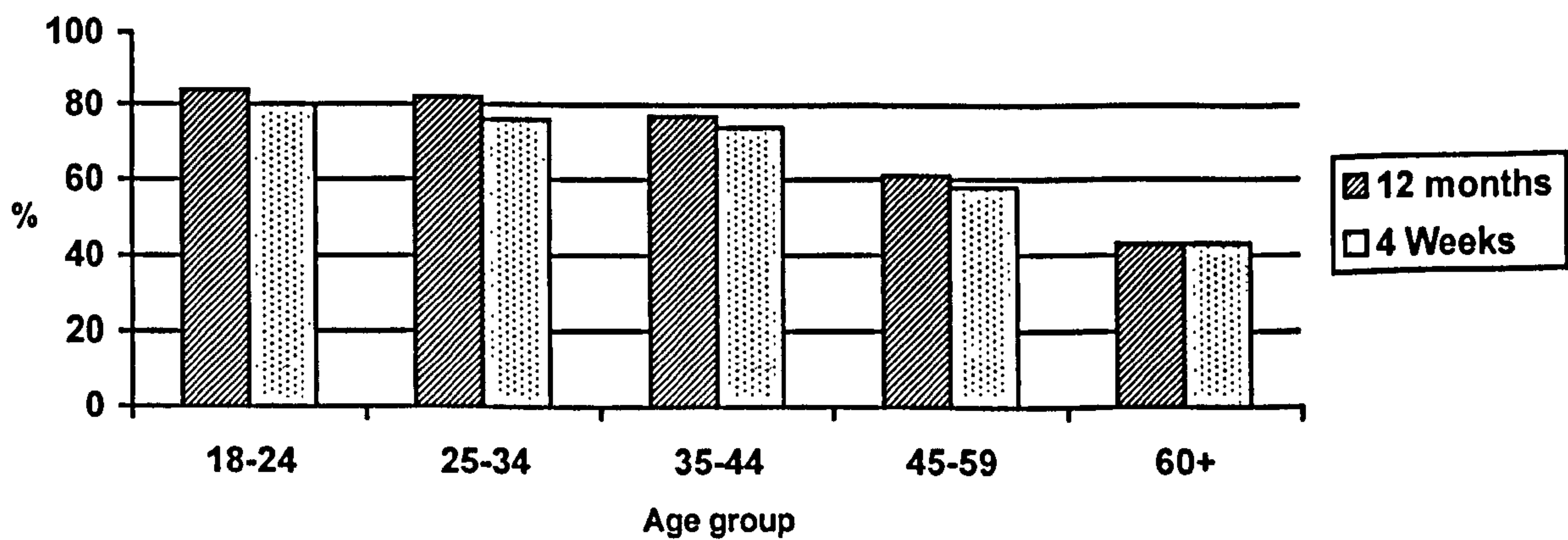
region had participated in sport or physical activity during the four weeks before the interview, which was actually the same as the four weekly participation rate for Sheffield.

A further reason for the different levels of participation in sport recorded by Part A and the GHS, were the demographic characteristics of the sample. As noted above, sex and age influence the level of participation in sport and the sample of respondents were not representative of the Sheffield population. The following discussion will now examine participation according to these variables.

Participation rates by age

The GHS found that the proportion of adults who take part in sport decreases with each successive age group. Figure 6.1 shows the percentage of Part A respondents participating in sport according to age. As it can be seen, the proportion of Sheffield residents participating in sport also decreased with successive age groups. Eighty four per cent and 80% of those aged 18-24 participated in sport sometime in the last 12 months and 4 weeks respectively and this decreased in each age group, with 43% of residents aged 60+ participating in sport over the last 12 months and 4 weeks.

FIGURE 6.1. PARTICIPATION OF PART A RESPONDENTS: AGE



Source: Consumer sector questionnaire (Part A)

As shown in Table 6.4, the GHS used different age categories to this research therefore it was not possible to compare participation rates for the GHS and Part A respondents

directly nevertheless, it should be noted that the GHS included participation for those aged 16 and over, whereas this research only measured those aged 18 and over. Given that participation rates decreased successively with each age group and that the participation rate for 16-19 years was 86%, this is a further explanation for the lower than average participation rate of the Sheffield respondents. In addition, as noted from Table 6.2, given the Sheffield sample had a lower proportion of 18-24 year olds than the GHS, this further accounts for overall lower participation rates recorded in the Sheffield adult population.

TABLE 6.4. PARTICIPATION RATES ACCORDING TO AGE: 1996 GHS (%)

	16-19	20-24	25-29	30-44	45-59	60-69	70+
Last 4 weeks	86.0	81.0	77.0	73.0	63.0	55.0	31.0

Office for National Statistics (1997)

It can be seen from Table 6.5, that although there was a relationship between the age of respondents and the sporting activities participated in, the relationship was more tenuous. For example, the participation rates in all the selected sports was higher for those aged 18-24, than those aged 60+. However, comparison of the participation rates of different activities in the 25-34 age group and the 35-44 age group were very similar. Comparison of the trends shown in Table 6.5 with those from the GHS (Table 13.7) revealed similar patterns, for example the GHS participation rate for walking, persons aged 20-24 years was 49%, compared to 51% in Sheffield. Similarly, 11% of the Part A respondents aged 45-59 participated in keep fit or yoga during the last 4 weeks, compared with 10% in the GHS. Participation in football was higher at all age levels in this research, but this can largely be explained by the sex imbalance of the sample which will be discussed next.

TABLE 6.5. PARTICIPATION IN VARIOUS SPORTS ACTIVITIES DURING THE LAST 4 WEEKS: AGE (%)

	18-24	25-34	35-44	45-59	60+
Walking	51.0	44.0	45.0	40.0	28.0
Swimming	20.0	32.0	33.0	19.0	13.0
Snooker	25.0	15.0	15.0	7.0	6.0
Keep fit/yoga	14.0	19.0	13.0	11.0	6.0
Cycling	18.0	12.0	19.0	8.0	2.0
Gym/weight training	14.0	21.0	16.0	5.0	2.0
Running	10.0	13.0	17.0	7.0	1.0
Football	20.0	19.0	13.0	2.0	1.0

Source: Consumer sector questionnaire (Part A)

Participation rates by sex

As discussed previously, it is widely acknowledged that sports participation also varies according to sex. From Table 6.6 it can be seen that 67% of men and 58% of women had participated in sport sometime in the last 12 months and that 65% and 54% of men and women respectively had participated in at least one sport, sometime in the 4 weeks prior to the questionnaire being completed. Comparison of the Sheffield figures with those from the GHS revealed that again Sheffield was lower than the national average.

TABLE 6.6. PARTICIPATION IN SPORT: SEX (%)

	<i>Male</i>	<i>Female</i>
<i>Sheffield</i>		
12 months	67.0	58.0
4 weeks	65.0	54.0
<i>GHS (GB)</i>		
12 months	87.0	77.0
4 weeks	71.0	58.0

Source: Consumer sector questionnaire (Part A); Office for National Statistics (1997)

It was also found that men had higher participation rates than women in most sporting activities. The exception to this, as shown in Table 6.7, was swimming and keep fit/yoga which was the same trend as revealed in the GHS.

TABLE 6.7. PARTICIPATION IN VARIOUS SPORTS ACTIVITIES DURING THE LAST 4 WEEKS IN SHEFFIELD: SEX (%)

	<i>Male</i>	<i>Female</i>
Walking	40.0	37.0
Swimming	20.0	29.0
Snooker	15.0	4.0
Keep fit/yoga	6.0	22.0
Cycling	12.0	6.0
Gym/weight training	11.0	8.0
Running	10.0	5.0
Football	12.0	2.0

Source: Consumer sector questionnaire (Part A)

The discussion above has focused on whether adults in Sheffield participate or not. Further analysis of the data by intensity of participation revealed that while the absolute participation rates varied according to age and sex, the relative rates of participation were broadly similar for both males and females. For example, it can be seen from Table 6.8 that while the number of males participating in sport was higher than females,

of all the residents who participated in sport in the last 4 weeks, 39.2% of males and 37.8% of females participated between 2-4 occasions during this period. This trend was similarly found for age categories, as shown in Appendix 9.3.

TABLE 6.8. PARTICIPATION IN THE LAST 4 WEEKS: SEX

	<i>Male</i>		<i>Female</i>	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
1 occasion	23	4.8	8	3.8
2-4 occasions	187	39.2	79	37.8
5-10 occasions	145	30.4	71	34.0
> 10 occasions	122	25.6	51	24.4
Total	477	100.0	209	100.0

Source: Consumer sector questionnaire (Part A)

Despite the lower than average participation levels recorded in Sheffield, the data from the Sheffield Leisure Survey broadly revealed similar trends to those shown by the GHS, especially when analysing the Sheffield data by age and sex. This indicated that the findings were valid. Considering the different methodologies and resources used to collect the Sheffield and the GHS data, this indicates a strength of the data collected.

6.1.1.3 Behavioural patterns: sports spectating

It was highlighted in earlier chapters that previous estimates of consumer expenditure on sport, with the exception of Pieda (1991), have not reflected fully all expenditure on watching sports events. Given that there is an increasing demand to watch sporting competitions (Gratton, 1998), an important part of the consumer survey in Sheffield was the behaviour of residents watching sports events. The following section will report on sports spectating behaviour in Sheffield.

It was found that 35% of Part A respondents had attended a live sporting event in the last 12 months, of which 47%¹ (or 17% of total Part A respondents) had watched an event sometime in the last 4 weeks. Although the GHS does not provide comparable data on sports spectating, Social Trends (Office for National Statistics, 1998b) revealed

¹ As with the sports participation data, this rate does not take into account the age and sex profile of the sample

that 22% of adults in the UK watched a live sporting event in the last 3 months. Although these figures are not directly comparable, this was lower than the questionnaire revealed, nonetheless, given that Sheffield has five professional sports teams, it was expected that sports spectating in the city would be higher than average.

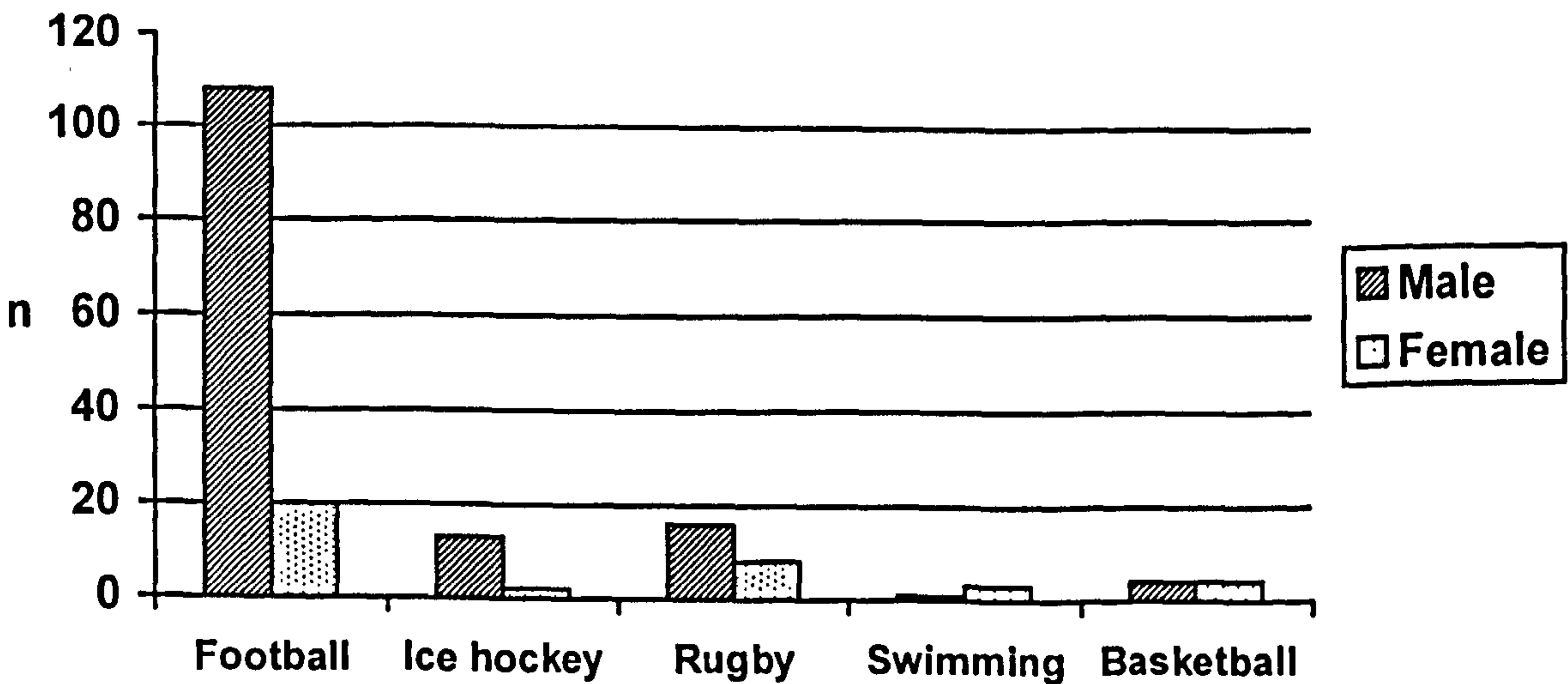
Taking into account the sex profile of the sample, it can be seen from Table 6.9 that as with sports participation, women in Sheffield were less likely to attend a sports event in the 12 months and 4 weeks prior to the questionnaire being completed. Of all the respondents to Part A, 43% of men and 22% of women had watched a sporting event in the last 12 months and 21% men and 9% of women had attended a sporting event in the last 4 weeks. This can be explained partly by Figure 6.2 which shows that the majority of events attended were football. The majority of spectators watching football events were male, thus mirroring participation rates in football discussed earlier.

TABLE 6.9. SPORTS SPECTATING: PART A RESPONDANTS (%)

	12 months	4 Weeks
Male	42.6	21.0
Female	22.1	8.5

Source: Consumer sector questionnaire (Part A)

FIGURE 6.2. EVENTS WATCHED DURING THE LAST 4 WEEKS: PART A RESPONDENTS



Source: Consumer sector questionnaire (Part A)

In Sheffield, it was also found that age influenced sports spectating behaviour, although not in the same way as with participation. Whereas the proportion of adults taking part in sport decreased in each successive age group, it can be seen from Table 6.10 that the pattern of sports spectating was different, with those aged 18-24 attending fewer sports events than those aged 25-34 and 35-44, over both the last 12 months and the last 4 weeks. It can also be seen from the table that between 45% and 48% of the adult population aged 18-44 had watched a live sporting event during the previous 12 months and that the difference between age groups was less significant for spectating than participation as discussed previously.

TABLE 6.10. ATTENDING A SPORTING EVENT: AGE (%)

	<i>12 months</i>	<i>4 Weeks</i>
18-24	44.9	16.3
25-34	47.7	20.6
35-44	45.5	23.4
45-59	35.6	15.9
60+	18.2	9.3

Source: Consumer sector questionnaire (Part A)

The discussion so far in this chapter has shown that the behavioural patterns of Sheffield residents in terms of participating and spectating was influenced by both age and sex. Although the Part A sample was over representative of male residents and the higher age groups, when the participation rates of the sample were analysed according to sex and age, the rates of participation in sport were slightly lower than those found in the GHS. As noted earlier, the purpose of Part A was essentially to profile the sports behaviour of Sheffield residents. Obviously because sports behaviour was dependent on sex and age as shown, when aggregating the primary data for the whole of the consumer sector in Sheffield, an allowance was made for those residents who were under represented. This will be discussed in further detail later in the chapter.

6.1.1.4 The typology of sports behaviour

It was originally intended to profile the sports behaviour of Sheffield residents on both participation and spectating behaviour. However, this was rejected primarily because the number of permutations would have been too great and the number of Part A and Part B respondents satisfying the criteria of each type, too small. It was not feasible

within the constraints of this study to derive profiles for both spectating and participation therefore the typology of sports behaviour was based on participation.

There were several reasons for the derivation of a typology based on sports participation. Firstly, as shown in the chapter so far, a larger proportion of the population participate in, rather than watch sport, consequently there was likely to be a greater diversity of expenditures associated with participation rather than spectating. Furthermore, the literature suggests that while spectator sport has become a major domain of the sports industry, the majority of household expenditure is for active participation in sport rather than spectating (Chelladurai, 1999; Taks and Kesenne, 1999). In addition, Taks *et al* (1999) who outlined other literature where a positive relationship between expenses and sports participation were found, showed statistically that time spent doing sport was the strongest determinant of expenditure on sport. Although the typology was based on participation, expenditures associated with spectating were still included.

The classification of Sheffield residents was as follows:

- Type 1 (T1) Not participated in sport in the last 12 months;
- Type 2 (T2) Participated sometime in the last 12 months, but not in the last 4 weeks;
- Type 3 (T3) Participated on one occasion in the last 4 weeks;
- Type 4 (T4) Participated on 2-4 occasions in the last 4 weeks;
- Type 5 (T5) Participated on 5-10 occasions in the last 4 weeks;
- Type 6 (T6) Participated on more than 10 occasions in the last 4 weeks.

Table 6.11 shows the number of each Type represented in the sample of Part A respondents. The typology represents the trends in participation shown previously in terms of sex and age. When aggregating, the sample was adjusted for age and sex to make it representative of the population. This obviously changed the number of each type in the population and will be discussed later.

TABLE 6.11. TYPOLOGY OF PART A RESPONDENTS

<i>Part A respondents</i>	<i>Total*</i>	<i>Male</i>	<i>Female</i>	<i>18-24</i>	<i>25-34</i>	<i>35-44</i>	<i>45-59</i>	<i>60+</i>
T1	419	244	163	8	39	54	121	190
T2	32	17	15	2	13	6	9	2
T3	31	23	8	4	10	9	7	1
T4	270	187	79	14	66	69	72	44
T5	219	145	71	13	53	60	46	44
T6	178	122	51	8	36	35	52	46
Total	1149	738	387	49	217	233	307	327

**may be greater than total of sex and age due to missing values*

Source: Consumer sector questionnaire (Part A)

The typology outlined above was similar to that adopted by the Belgian French study (Les Pratique Sportives En Communaute Francaise 1985), which similarly categorised sports participants according to their frequency of participation into intermittent (once a month), occasional (once a week), regular (twice a week) and intensive (4 times a week). The Belgian French study similarly used these profiles to examine consumer expenditure. The next part of the chapter will now go on to derive a sports expenditure profile based on the typology outlined above.

6.1.2 Part B: The Consumer Expenditure Survey

The aim of the data collected in Part B, was to derive sports expenditure profiles for Sheffield residents, based on their frequency of participation in sport using the typology above. The intention was to use these expenditure profiles along with the behavioural patterns identified in Part A, to estimate consumer expenditure on sport by Sheffield residents in the city. Given that the population of Part B were a sub-set of the respondents from Part A, cross referencing of the interval level data from the consumer survey, with the ordinal and nominal data on participating and spectating from Part A was undertaken to ensure the reliability and validity of the questionnaire.

Table 6.12 shows the profile of Part B respondents, classified using the typology outlined above. Given that there was a low number of T3 respondents, it was decided for reliability purposes, to combine the expenditure data of this category with T2. The new category represented those adults who had participated in sport sometime in the last 12 months, but not more than once in the last 4 weeks.

TABLE 6.12. TYPOLOGY OF PART B RESPONDENTS

	<i>T1</i>	<i>T2</i>	<i>T3</i>	<i>T4</i>	<i>T5</i>	<i>T6</i>	<i>Total</i>
Part B	55	29	9	71	48	37	249

Source: Consumer sector questionnaire (Part B)

As with the voluntary sector, although consumer expenditure tends not to be normally distributed, it was decided that the mean was the most appropriate measure of central tendency to derive the profiles of consumer spending on sport for several reasons. Firstly, although the mean is affected by extreme cases, it was decided that the outlying values of expenditure on sport, particularly those clusters of high and low expenditure were an important part of consumer expenditure and that to use a measure of central tendency such as the median which effectively ignores these, would lead to a serious underestimation of expenditure on sport. Secondly, because the aggregation of consumer expenditure was based on the typology of participation rather than across all sports participants, any over-estimations using the mean would be minimised. Finally, while it was feasible to use other measures of central tendency, the majority of previous studies which have estimated consumer expenditure have also used mean values (Pieda, 1991; Lamb *et al*, 1992; Coalter, 1993). Consequently the mean was also used in this research.

As discussed previously, it was decided to base the profile of consumer expenditure on frequency of participation in sport. From Table 6.13, it can be seen that while sports participation was correlated significantly with expenditure on participation, sports goods and total personal expenditure on sport, it was not related to attending or spending money at sports events. This indicated that those people who watched sporting events were not necessarily the same as those who take part in sporting events. As will be seen later, although expenditure on sporting events was included in the consumer profile, a future consideration may be a detailed investigation into the consumer spending of spectators in sport.

TABLE 6.13. PEARSON'S BIVARIATE CORRELATION AND SIGNIFICANCE
LEVEL MATRIX

	p = → (significance level) r = ↓ (correlation coefficient)					
	VAR1	VAR2	VAR3	VAR4	VAR5	VAR6
VAR1		**0.000	0.859	0.089	**0.000	**0.000
VAR2	0.525		*0.016	**0.000	**0.000	**0.000
VAR3	0.011	0.153		**0.000	**0.001	**0.000
VAR4	0.109	0.289	0.692		**0.00	**0.000
VAR5	0.249	0.360	0.201	0.324		**0.000
VAR6	0.453	0.792	0.434	0.615	0.737	

* = Correlation is significant at the 0.05 level (2 - tailed)

** = Correlation is significant at the 0.01 level (2 - tailed)

VAR1 = Frequency of participation

VAR2 = Expenditure on participation

VAR3 = Frequency of events attended

VAR4 = Expenditure on events

VAR5 = Expenditure on sports goods

VAR6 = Total expenditure on sport (personal)

A further point to make is that the results presented in this section represent those from the respondents of Part B. The total estimate for consumer expenditure on sport in Sheffield will be discussed in 6.2.

6.1.2.1. Sports participation

The questions on sports participation in the consumer survey related to expenditure on sport in Sheffield. As shown in Table 6.14 the average expenditure on participating increased with the frequency of participation, with the most infrequent participants spending on average £84.59 per year (£1.63 per week) and those who participated most frequently spending £255.70 per year (£4.92 per week). These findings were similar to those presented in Table 2.1 and discussed in Chapter Two, from the Belgian French study on the distribution of expenditure by sports participants (Les Pratique Sportives En Communaute Francaise, 1985).

TABLE 6.14. AVERAGE EXPENDITURE ON PARTICIPATING IN SPORT WITHIN SHEFFIELD DURING THE LAST 12 MONTHS (£)

	<i>T1</i>	<i>T2 & T3</i>	<i>T4</i>	<i>T5</i>	<i>T6</i>	<i>Average</i>
Admissions/ hire of facilities	0.00	30.99	126.73	128.95	250.90	102.83
Hire of equipment	0.00	.0.11	1.04	11.01	1.06	2.62
Food & drink	0.00	16.92	32.86	80.89	140.88	48.63
Travel	0.00	12.27	54.27	67.34	159.17	53.96
Other items	0.00	1.19	4.29	8.76	22.31	6.42
Membership	0.00	23.12	35.57	57.90	112.35	41.24
Total	0.00	84.59	254.76	354.83	686.65	255.70

Source: Consumer sector questionnaire (Part B)

In addition, the Belgian French study found that the more intensely a sport is practised, the more travel costs account for an increasingly large proportion of the sports person's budget (Jones, 1989). In this research, it was also found as shown in Table 6.15, that travel accounted for a larger proportion of T6 expenditure (23%) than any of the other types nevertheless, it was not significantly greater. This can be explained by the fact that the consumer survey was only concerned with expenditure on sport in Sheffield therefore travel expenses would be limited. Excluding T1, membership fees and subscriptions accounted for between 14 - 16% of total expenditure on participating across all types, with the exception of the infrequent participants (T2 and T3) where it accounted for 27%.

TABLE 6.15. AVERAGE EXPENDITURE ON PARTICIPATING IN SPORT WITHIN SHEFFIELD DURING THE LAST 12 MONTHS (%)

	<i>T1</i>	<i>T2 & T3</i>	<i>T4</i>	<i>T5</i>	<i>T6</i>	<i>Average</i>
Admissions/ hire of facilities	0.0	0.4	0.5	0.4	0.4	0.4
Hire of equipment	0.0	0.0	0.0	0.0	0.0	0.0
Food & drink	0.0	0.2	0.1	0.2	0.2	0.2
Travel	0.0	0.2	0.2	0.2	0.2	0.2
Other items	0.0	0.0	0.0	0.0	0.0	0.0
Membership	0.0	0.3	0.1	0.2	0.2	0.2
Total (£)	0.0	84..59	254.76	354.83	686.65	255.70

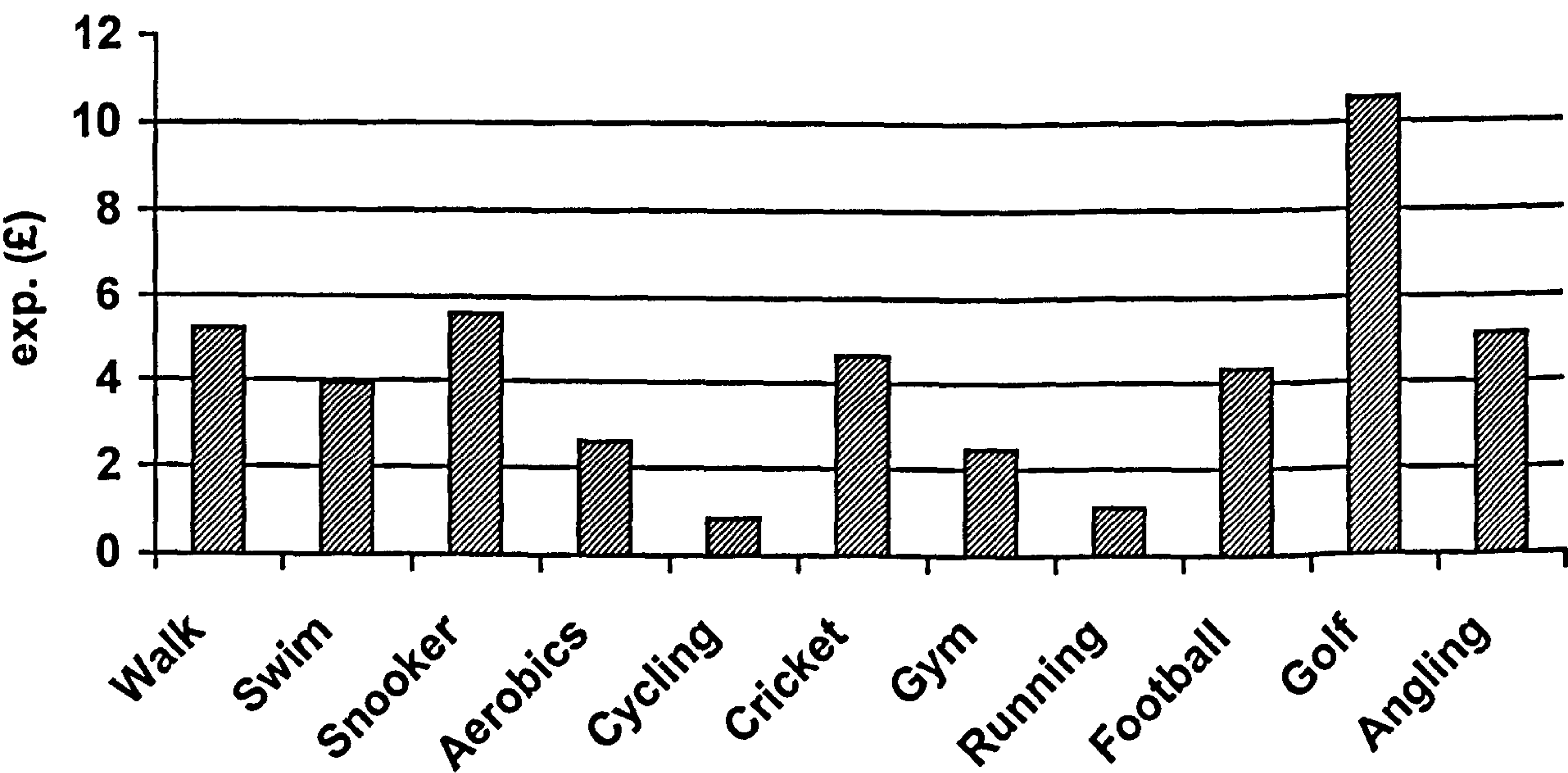
Source: Consumer sector questionnaire (Part B)

Coalter (1993) analysed the annual expenditure patterns of participants in eight selected sports and found that entrance fees were the largest single item of reoccurring expenditure, accounting for approximately a third of all expenditure, with 25% of expenditure on transport and 17% on food and drink. Comparison with the average

annual expenditure of all participants on items in Table 6.15, similarly found that admissions accounted for just over a third of total expenditure (40%) and that travel and food and drink accounted for 21% and 19% respectively. Although the average figures in Sheffield were similar to those found in Coalter (1993), as shown in Table 6.15, these trends mask a considerable variation in expenditure across the various types of participants and non participants. Table 6.15 provides further evidence to support the use of a participation typology for aggregating consumer expenditure.

The distribution of sport-related expenditure on participation by consumers varied not only by frequency of participation, but also by sporting activity. Figure 6.3 shows the average expenditure by consumers on selected sporting activities. It can be seen that there was a large difference in terms of expenditure on various sporting activities, for example, average expenditure participating in golf was double that of the any other activity. Other activities which averaged over £5 were walking, snooker and angling, with cycling and running averaging the lowest expenditure.

FIGURE 6.3. MEAN EXPENDITURE ON PARTICIPATION BY SPORTING ACTIVITY (£)



Source: Consumer sector questionnaire (Part B)

Further examination of average expenditures on types of sporting activities revealed distinct differences in the distribution of components of expenditure. As shown in

Table 6.16, it can be seen that the majority of consumers expenditure on golf (78%) was on admission fees. Other sports which had a high proportion of expenditure on admission fees were swimming (56%), keepfit (73%) and weight training (51%). It was surprising from the results that average consumers' expenditure on walking was high (£5.22), but as shown in Table 6.16, this can be explained from the high proportion of expenditure on food & drink (£2.07) and travel (£2.22). Other sports where food and drink accounted for a large proportion of total consumer expenditure were snooker (63%) and football (38%).

Lamb *et al* (1992) provide some data on consumers' expenditure on sporting activities. However, it was not directly comparable to the data in Table 6.16, as it focused predominantly on total weekly expenditure of selected indoor sports and the effect of gender, age and social class on these. Nevertheless, in more general terms, it was found that of those consumers who participated once a week in indoor sports, martial arts and snooker were the sports on which consumers made the highest expenditure. From Table 6.16, it can also be seen that snooker had the highest average expenditure of all indoor sports analysed. Although Lamb *et al* (1992) analysed expenditures on indoor and outdoor sports, limited data was given on the latter and furthermore, while expenditures included admissions to sports facilities and travel, it did not include equipment and food and drink as in this research.

TABLE 6.16. AVERAGE EXPENDITURE BY SPORTING ACTIVITY ON LAST OCCASION (£)

	<i>Admissions</i>	<i>Equipment</i>	<i>Food & drink</i>	<i>Travel</i>	<i>Other</i>	<i>Total</i>
Walking	0.13	0.00	2.07	2.22	0.80	5.22
Swimming	2.21	0.00	0.71	0.89	0.12	3.93
Snooker	1.48	0.14	3.53	0.44	0.00	5.59
Keep fit	1.89	0.00	0.11	0.59	0.01	2.60
Cycling	0.14	0.00	0.20	0.48	0.01	0.83
Weight/gym	1.25	0.00	0.27	0.55	0.39	2.46
Cricket	1.40	0.00	2.16	1.10	0.00	4.66
Running	0.01	0.00	0.47	0.62	0.00	1.11
Football	1.56	0.00	1.65	0.95	0.17	4.33
Golf	8.25	0.00	1.20	1.00	0.11	10.56
Angling	2.09	0.77	1.00	0.91	0.36	5.13

Source: Consumer sector questionnaire (Part B)

6.1.2.2 Sports spectating

It was discussed at the start of 6.1.2 that attendance and expenditure on sports events was not related to participation in sport. As shown in Table 6.17, the highest expenditure on sporting events was from T1 respondents (non-participants) who spent on average £112.27 per year (£2.16 per week) on sporting events. In terms of sports participants, it can be seen that as participation increased, so did expenditure on events, with the most infrequent participants spending on average £54.53 per year (£1.05 per week) and the most frequent participants spending £107.77 per year (£2.07 per week).

Although T1 respondents were randomly selected from all respondents of the Sheffield Leisure Survey, the high expenditure of T1 respondents on watching sport can be explained by the fact that 46% of those who responded to Part B in this category had attended an event at some point in the last 12 months. This average was higher than the population average of 35% attendance at sporting events in the last 12 months, which was highlighted earlier in the chapter. As with the overall response rate to the Sheffield Leisure Survey, it is possible that T1 respondents were under-representative of non participants who do not watch sport, because the survey was less interesting to this subgroup who neither watched or attended sports events. Nevertheless, the fact that non participants who watch sport have a larger expenditure on events than active sports participants who watch events merits further investigation, as this is a highly under researched area of consumer expenditure. The fact that the profile of T1 respondents was over representative of those who watched events will be examined further at the aggregation stage.

TABLE 6.17. AVERAGE EXPENDITURE ON ATTENDING SPORTING EVENTS WITHIN SHEFFIELD DURING THE LAST 12 MONTHS £ (%)

	<i>T1</i>	<i>T2 & T3</i>	<i>T4</i>	<i>T5</i>	<i>T6</i>	<i>Average</i>
Admissions	32.3 (29.0)	7.13 (13.0)	27.86 (33.0)	44.04 (62.0)	38.76 (36.0)	30.43 (35.0)
Food & drink	17.38 (15.0)	14.79 (27.0)	9.06 (11.0)	12.85 (18.0)	25.28 (23.0)	14.91 (17.0)
Travel	7.74 (7.0)	7.66 (14.0)	11.88 (14.0)	5.74 (8.0)	13.97 (13.0)	9.45 (11.0)
Other items	5.88 (5.0)	2.29 (4.0)	9.35 (11.0)	4.45 (6.0)	16.22 (15.0)	7.59 (9.0)
Membership	48.89 (44.0)	22.66 (42.0)	25.90 (31.0)	4.47 (6.0)	13.54 (13.0)	24.52 (28.0)
Total	112.27 (100.0)	54.53 (100.0)	84.05 (100.0)	71.55 (100.0)	107.77 (100.0)	86.9 (100.0)

Source: Consumer sector questionnaire (Part B)

Examination of the components of expenditure on watching sports events revealed that on average, 35% of total expenditure on spectating during the last 12 months was on admissions. As discussed in Chapter two, with the exception of Pieda (1991) all other studies in the UK have used FES data on entrance fees as the only measure of expenditure on sporting events. Clearly from the data presented in Table 6.17, this highlights how previous studies have significantly underestimated consumers' expenditure on sport in this area.

Other major items of expenditure on events included membership fees to spectating clubs, which on average accounted for 28% of expenditure and food and drink, which accounted for approximately 17% of total expenditure. The percentage of expenditure on food and drink while watching sport was similar to the proportion of all expenditure spent on food and drink while participating in sport (19%), discussed in 6.1.2.1. Furthermore, as with expenditure on participation, each of the components of average expenditure on events disguised significant fluctuations across the different types of sports participant, for example, although membership accounted for an average 28% of all expenditure on sporting events, this actually varied between 6% for T6 participants and 44% for T1 participants.

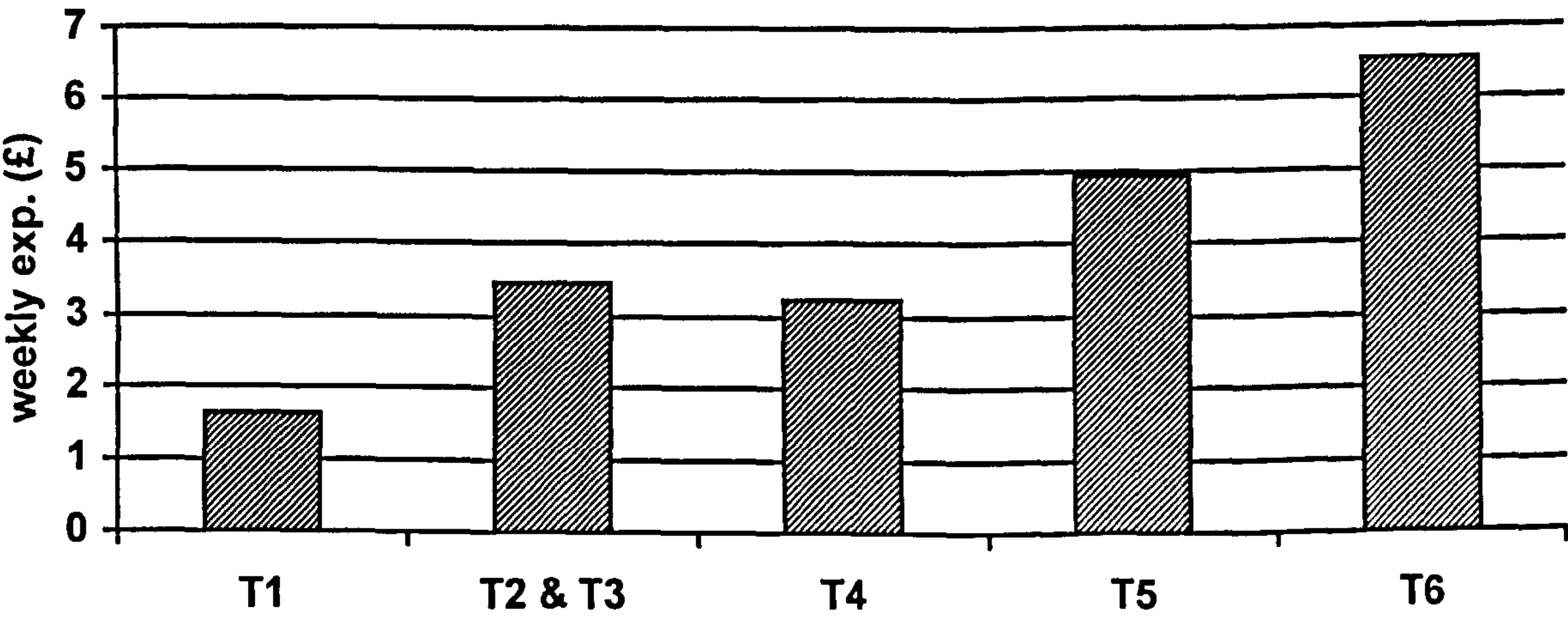
As with the discussion on sports participation, the expenditure figures discussed above refer only to money spent on watching events in Sheffield. Expenditure on attending

sporting events outside Sheffield was included in sporting holidays, discussed in 6.1.2.5.

6.1.2.3 Sports goods

Figure 6.4 shows that generally as participation increased, so did expenditure on sports goods. The most frequent participants (T6) spent almost twice as much per week (£6.55) on sports goods in Sheffield as the least frequent participants (T2& T3), who spent approximately £3.45 per week.

FIGURE 6.4. WEEKLY AVERAGE EXPENDITURE ON SPORTS GOODS (£)



Source: Consumer sector questionnaire (Part B)

Table 6.18 shows actual expenditure on sports goods in Sheffield during the last 12 months and a breakdown of the components of this. It can be seen from the table and Figure 6.4, that residents who did not participate in sport (T1) still spent on average £85.13 per year (£1.64 per week). When analysing the components of this expenditure, it can be seen that an above average proportion of expenditure was spent on clothing (37%), which was likely to represent expenditure on clothing for watching sport such as replica sports kits. Alternatively spending on sports goods by non-participants predominantly for the purpose of sport may represent expenditure on behalf of others such as children.

TABLE 6.18. EXPENDITURE ON SPORTS GOODS IN SHEFFIELD DURING THE LAST 12 MONTHS £ (%)

	<i>T1</i>	<i>T2 & T3</i>	<i>T4</i>	<i>T5</i>	<i>T6</i>	<i>Average</i>
Clothing	31.48 (37.0)	38.89 (22.0)	42.45 (25.0)	64.57 (25.0)	135.97 (40.0)	57.69 (30.0)
Footwear	18.64 (0.22)	37.97 (0.21)	38.03 (0.23)	48.56 (0.19)	76.32 (0.22)	41.44 (0.21)
Equipment	21.27 (0.25)	89.41 (0.50)	76.63 (0.46)	130.13 (0.51)	106.05 (0.31)	80.80 (0.42)
Videos	10.00 (0.12)	6.78 (0.04)	3.31 (0.02)	6.00 (0.02)	8.78 (0.03)	6.65 (0.03)
Magazines/books	3.74 (0.04)	6.31 (0.04)	7.18 (0.04)	7.10 (0.03)	13.53 (0.04)	7.23 (0.04)
Total	85.13 (100.0)	179.36 (100.0)	167.6 (100.0)	256.36 (100.0)	340.65 (100.0)	193.81 (100.0)

Source: Consumer sector questionnaire (Part B)

In terms of sports participants (T2-T6), equipment accounted for the largest proportion of expenditure on goods. However, as it can be seen from the table, this item generally accounted for a smaller proportion of total expenditure on sport for the more regular participants (31%) and a larger proportion of total expenditure on sport for the less intensive participants. In contrast, the proportion of expenditure on clothing, the second largest component of sports goods expenditure, tended to increase with participation, accounting for 40% of total expenditure for T6 residents, but only 22% of total expenditure for T2 & T3 participants.

Expenditure on footwear and magazines tended to be approximately evenly distributed across the different types accounting for 21% and 4% of total expenditure respectively. Expenditure on sports videos was also similarly proportional across all sports participants although it was noticeable that non-participants spent a disproportionate amount on videos in comparison to the other types, thus providing evidence to support the results presented in 6.1.2.2, that T1 respondents spend more on watching sport than those who participate in sport.

6.1.2.4 Expenditure on others doing and watching sport

The results presented so far on participating and watching sport have focused on personal expenditure. A further important element of consumer expenditure was

spending on behalf of others doing and watching sport. In the Sheffield study, this was divided into expenditure on children and expenditure on other adults and although the latter was fairly minimal, expenditure on children was found to be quite significant..

Expenditure on children and sport was calculated using only the data from the 89 Part B respondents with children. It was found using Pearson's correlation, that there was no relationship between the amount adults participate and the amount they spend on their children watching and taking part in sport. Consequently, it was decided that to calculate a figure for expenditure on children doing and watching sport in Sheffield, which was linked to the profile of adult expenditure based on participation was inappropriate. As a result, an estimate of how much adults in Sheffield spent on their children watching and doing sport, was calculated independently of adults' frequency of participation. It was found that the average expenditure per child on participating and spectating per year in Sheffield was £167.65 and £42.10 respectively. This data will be used to estimate expenditure on children in 6.2.

In addition to expenditure on children, Part B respondents were asked estimate how much their children spent of their own money taking part in sport, attending sporting events and sports goods in Sheffield. This was considered worthy of investigation, particularly given the high participation rates of children aged 16-17, highlighted earlier in the chapter. It was found that children spent approximately £56.43 per year (£1.09 per week) of their own money on participating and spectating and £15.29 on sports goods (£0.29 per week).

Measuring children's own expenditure on sport was always going to be problematic, particularly for those aged 16-17. Although it was thought that expenditure on sport by this age-group would be largely independent of parental expenditure on sport, since the electoral register was used as the population for drawing the Part A sample, it was not possible to survey this sub-set independently. It should be noted therefore that expenditure recorded on behalf of children may be under-represented, particularly for the 16-17 age group.

6.1.2.5 Expenditure on sport outside the area: sporting holidays

It was highlighted in Chapter Two that in terms of previous research, sports tourism has been treated inconsistently if at all. Although the more recent studies in the UK (Pieda, 1994; Centre for Advanced Studies in the Social Sciences, 1995) have paid increasing attention to expenditure on sporting holidays, this is an aspect of sport-related economic activity which is still under represented.

As outlined in the methodology chapter, Part B asked for details of expenditures by Sheffield residents on sporting holidays. Although these expenditures were not relevant to the Sheffield economy, they represented a flow out of the economy which was relevant to the National Income Accounting Framework. Table 6.19 shows expenditure on various sporting holidays during the last 12 months according to the typology outlined previously (the expenditure data also includes expenditure on behalf of others). It can be seen that non-participants were the second largest spenders on sports holidays averaging £438.96 per year. This suggests that those residents who go on sporting holidays for the purpose of doing and watching sport, whether it is for a day trip or a longer holiday, are different to those residents who participate regularly in sport.

TABLE 6.19. AVERAGE EXPENDITURE ON SPORTING HOLIDAYS DURING THE LAST 12 MONTHS (£)

	<i>T1</i>	<i>T2 & T3</i>	<i>T4</i>	<i>T5</i>	<i>T6</i>	<i>Average</i>
Day trips	113.33	105.39	92.51	117.17	211.77	121.55
Short breaks	114.72	86.58	49.10	104.27	63.11	82.03
Longer trips	210.91	42.11	162.32	87.92	336.76	166.29
Total	438.96	234.08	303.93	309.36	611.64	369.87

Source: Consumer sector questionnaire (Part B)

Unlike the consumer expenditure discussed previously in the chapter, analysis of expenditure on sporting holidays did not reveal any clear trends with levels of participation. This could be because the expenditure on holidays also included that on behalf of others. Although further investigation into this area of consumer expenditure is required, it was not a priority for this research and will therefore not be discussed any more here.

6.2 AGGREGATING THE CONSUMER SECTOR

The following discussion will focus on estimating total consumers expenditure on sport in Sheffield by residents and expenditure on sporting holidays. Firstly, the method used to estimate total consumer expenditure on sport in Sheffield will be discussed and secondly, the aggregated results will be presented. These will be compared to the base model and previous studies which have estimated consumer expenditure on sport. As with Chapter Five, this section will provide the basis for discussion in Chapter Ten.

6.2.1 Methodology

It was noted previously in the chapter, that the expenditure profiles derived from Part B and presented in 6.1.2, were used in conjunction with the participation rates recorded in Part A, to calculate total consumer expenditure on sport. It was also noted that while the typology used to categorise participants was based on frequency of participation, it was also inextricably linked to the sex and gender profile of respondents. However, it was revealed using the Chi Squared test (shown in Appendix 9.4), that Part A was not representative of the Sheffield population in terms of these variables. Thus, the first stage of aggregating consumer expenditure on sport was to estimate the profile of the Sheffield resident population in terms of the typology outlined in 6.1.1.3, making adjustments for the sample bias in Part A.

To adjust Part A for non-response bias, the sample of respondents were weighted using the age and sex categories. The weightings were derived by dividing the expected percentages of sex and age in Part A respondents (from the 1991 Census) by the observed (actual) percentages of respondents from Part A in terms of age and sex. The calculations of the weightings and a summary of these can be found in Appendix 9.5. The adjusted typology for Part A respondents, according to age and sex is shown in Table 6.20.

TABLE 6.20. WEIGHTED TYPOLOGIES FOR AGE AND SEX: PART A RESPONDENTS

	<i>Before weighting</i>	<i>After weighting</i>
T1	403	410
T2 & T3	63	71
T4	262	252
T5	214	217
T6	172	166
Total	*1114	1116

(*lower than Table 6.11 due to missing values)

The profile of the Sheffield resident population was calculated by dividing the total population aged over 18, obtained from Sheffield census data (Census for Population, 1991), by the weighted typologies of Part A. As it can be seen from Table 6.21, which shows the total number of residents in each category, the overall participation rate after weighting for age and gender was still below the regional average, at 63% during the last 12 months. It can also be seen that the largest category of participants were Type 4 (those who have participated in sport on 2-4 occasions in the last 12 months). The percentage of residents in each category only changed marginally with the weighting and while the participation rate remained at a similar level, there were slightly less T6 participants.

TABLE 6.21. PROFILE OF SHEFFIELD RESIDENT POPULATION

	<i>Number of residents</i>	<i>%</i>
Type 1	145,994	36.7
Type 2 & 3	25,500	6.4
Type 4	89,843	22.6
Type 5	77,214	19.4
Type 6	58,969	14.8
Total	397,520	100.0

Total consumer expenditure on sport in 1996/97 was calculated by multiplying the consumer expenditure profiles, presented earlier for each type of sports participant, by the number of each type in the Sheffield population, as shown in Table 6.21. The process of using profiles of expenditure and multiplying by the total population has been used previously to estimate consumers' expenditure on sport (Pieda, 1991; Tak and Kesenne, 1999), although these studies did not use a participation typology and instead multiplied the average consumer expenditure profile by the total population.

Expenditure on behalf of children was calculated by multiplying average expenditure per child by the total number of children in Sheffield.

Although measures have been taken to reduce non-response in the research design and implementation, it was inevitable in this type of survey research that non-response and bias would occur. As discussed above, steps were taken when aggregating the data to ensure that the sample of respondents were representative of the Sheffield population and adjustments were made to the gender and sex profile of the respondents where necessary. Despite this, as discussed in Chapter Five, it is probable that sample bias still exists nevertheless, the following results represent the best possible estimate for expenditure on sport by residents in Sheffield, given the resource constraints of the research.

6.2.2 Consumer Expenditure on Sport by Sheffield Residents

Although the following discussion refers to consumer expenditure by Sheffield residents, it should be noted that with the exception of expenditure on sporting holidays, this relates to expenditure in Sheffield. Furthermore, the discussion within this section only represents consumer expenditure which was measured by primary data collection. Other consumer expenditure such as the sport-related component of newspapers and gambling was estimated using secondary data sources such as the FES and various annual reports, for example the H. M. Customs and Excise Annual Report. This will be discussed in Chapter Eight. The data in following discussion will be compared with the base model and Pieda (1991), as the latter study was the only one in the UK to carry out a similar consumer survey.

6.2.1.1 Expenditure on participation in Sheffield

In terms of consumer expenditure on sport, Taks *et al* (1999: 15) concluded that

“Time spent on sports seems to be the most important determinant: the more time one spends in active participation, the greater the chance of being a big spender on sports”

Table 6.22 expresses consumers' expenditure on sport by residents in Sheffield. It can be seen that as levels of participation in sport increased, so did expenditure on sport.

It was found that residents spent approximately £92,937,334 participating in sport in Sheffield and that the largest item of expenditure was on admissions (£36,928,116), followed by travel (£19,774,351), food & drink (£17,937,094) and membership (£14,881,133). Furthermore, analysis of the distribution of expenditure across the categories of residents revealed that the most frequent participants (T6), who accounted for approximately 15% of the resident population in Sheffield (or 23% of all sports participants), were responsible for 44% (£40,492,243) of all expenditure on participation.

While Table 6.22 shows that the average expenditure per person was £233.79, it can be seen that this was heavy skewed towards those who participated in sport most frequently. This finding was consistent with the Belgian French study (Les Pratique Sportives En Communaute Francaise 1985), which similarly found that nearly half of the total sport-related consumers expenditure in their study was by intensive participants and furthermore, that regular and intensive participants who accounted for 50% of sports people accounted for 70% of consumer spending (Jones, 1989). Similarly, T5 and T6 residents together accounted for 73% of all expenditure on participation in Sheffield and 54% of all sports participants.

Comparison with the base model revealed that consumer expenditure in Sheffield was considerably higher than predicted using the national data on a pro rata basis. It can be seen from Table 6.23 that the base model estimated that consumer expenditure on sport in Sheffield would be £91.85 million, which was significantly smaller than the £202,091,857 recorded from the consumer survey. Nevertheless, from Table 6.23 it can be seen that many of the items measured in the consumer survey, for example food and drink, were omitted from the base model calculations.

Table 6.22. CONSUMER EXPENDITURE BY RESIDENTS IN SHEFFIELD: PRIMARY DATA (LAST 12 MONTHS) (£)

	T1	T2/T3	T4	T5	T6	TOTAL	Av. exp.
<u>Participation</u>							
Admissions/ hire of facilities	-	790,245	11,385,803	9,956,745	14,795,322	36,928,116	92.90
Hire of equipment	-	2,805	93,437	850,126	62,507	1,008,875	2.54
Food & drink	-	431,460	2,952,241	6,245,840	8,307,553	17,937,094	45.12
Travel	-	312,885	4,875,780	5,199,591	9,386,096	19,774,351	49.74
Other items	-	30,345	385,426	676,395	1,315,598	2,407,765	6.06
Membership	-	589,560	3,195,716	4,470,691	6,625,167	14,881,133	37.43
Total	-	2,157,300	22,888,403	27,399,388	40,492,243	92,937,334	233.79
<u>Spectating</u>							
Admissions	4,727,286	181,815	2,503,026	3,400,505	2,285,638	13,098,270	32.95
Food & drink	2,537,376	377,145	813,978	992,200	1,490,736	6,211,435	15.63
Travel	1,129,994	195,330	1,067,335	443,208	823,797	3,659,664	9.21
Other items	858,445	58,395	840,032	343,602	956,477	3,056,951	7.69
Membership	7,137,647	577,830	2,326,934	345,147	798,440	11,185,997	28.14
Total	16,390,746	1,390,515	7,551,304	5,524,662	6,355,089	37,212,316	93.61
<u>Sports goods</u>							
Clothing	4,595,891	991,695	3,813,835	4,985,708	8,018,015	22,405,144	56.36
Footwear	2,721,328	968,235	3,416,729	3,749,512	4,500,514	15,356,318	38.63
Equipment	3,105,292	2,279,955	6,884,669	10,047,858	6,253,662	28,571,437	71.87
Videos	1,459,940	172,890	297,380	463,284	517,748	2,911,242	7.32
Magazines/books	546,018	160,905	645,073	548,219	797,851	2,698,065	6.79
Total	12,428,469	4,573,680	15,057,687	19,794,581	20,087,790	71,942,207	180.98
Total Expenditure	28,819,216	8,121,495	45,497,394	52,718,631	66,935,122	202,091,857	508.38

Source: Consumer sector questionnaire (Part A; Part B)

The only item of consumer expenditure which was directly comparable in terms of participation data were subscriptions and fees. The base model predicted that these were £18.61 million compared with the consumer survey that found admissions were £36,928,115 and membership fees were a further £14,881,133. Therefore actual consumer expenditure on ‘subscriptions and fees’ was found to be approximately 2.8 times larger from the consumer survey than predicted by the base model.

TABLE 6.23. CONSUMER EXPENDITURE: BASE MODEL - SELECTED ITEMS

	(£ million)	Expenditure PP* (£)
<i>Participation</i>		
Subscriptions and fees	18.61	37.11
<i>Spectating</i>		
Admissions	3.56	7.11
<i>Travel</i>	4.36	8.68
<i>All items</i>	91.85	183.27

* per person
Source: The Base Model

It can be seen from Table 6.23, that the base model predicted consumers would spend £4.36 million on sport-related travel. While the base model figure included both participation and spectating, it was still found to be significantly smaller than the individual estimates of sport-related travel for participation and spectating found in this research, which were £19,774,351 and £3,659,664 respectively. This item of expenditure represented a large difference between the base model and the primary data and a possible explanation was the methods used to collect the data. The national data, upon which the base model was derived, was estimated using several secondary sources such as the National Travel Survey (NTS) and the CSO National Accounts Blue Book. Many of these sources do not include sport as a sub-category for expenditure and thus assumptions were made to derive the sport-related component of the expenditure categories. The Sheffield consumer survey on the contrary, asked specifically for expenditure on travel while doing and watching sport and was thus likely to be more accurate.

The third largest item of expenditure on sports participation in Sheffield was food and drink, which accounted for almost 20% of all expenditure. The base model did not include this item and therefore this was a further explanation for the overall difference in the two estimates of consumer expenditure on sport. As highlighted in Chapter Two,

none of the previous UK studies on the economic importance of sport have included food and drink, other than the Scottish study (Pieda 1991), although many of the equivalent European studies in particular the Netherlands (Oldenbroom *et al* 1996) and the Belgian Flemish study (Taks and Kesenne, 1999) have. Pieda (1991), the only UK study found food and drink accounted for 31% of all expenditure on participation thus highlighting the importance of including this item.

In summary then, while the estimates of expenditure on participation in Sheffield were almost three times larger than the base model, the latter only really included admissions. Food and drink and hire of equipment were omitted and inclusion of travel was significantly underestimated. Undoubtedly a contributing factor to the overall differences revealed by comparing the base model and the primary data were the methods used to collect the data. This supports the findings of Pieda (1991), who suggested that the consumer survey was a primary reason for above average expenditure on participation in Scotland.

6.2.1.2 Expenditure on spectating in Sheffield

From Table 6.22, it can be seen that residents in Sheffield spent £37,212,316 on watching sport in the city in 1996/97, suggesting that consumer expenditure on sport in this area is an important aspect of spending that has previously been seriously underestimated. As with the participation data, although the average expenditure per person, per year on spectating was £93.61, the distribution was not equal throughout the population. From the aggregated figures in Table 6.22, it can be seen that the largest sub group of spenders on watching sport were those who did not participate in sport (T1), who spent approximately £16,390,746 and that the most frequent participants were only the third largest sub group of spenders.

The largest item of spectating expenditures were admissions (£13,098,270), followed by membership of spectating clubs (£11,185,997) and food and drink (£6,211,435). Although the base model shown in Table 6.23 only included expenditure on admissions, recent evidence suggests that food and drink are major items of expenditure at sports events (LIRC, 1997; Taks and Kesenne, 1999) and should not be excluded from

estimates of the economic importance of sport in the future. The base model predicted that consumers would spend £3.56 million on admissions, which was found to be over three times smaller than expenditure estimates derived from primary data collection.

The Scottish study (Pieda, 1991), which is the only UK study to have considered other aspects of spectating expenditure, found that spectating accounted for 8% or £119 million of all consumer expenditure on watching and doing sport, with admissions accounting for £30 million of this. Similarly European studies such as the Flanders study (Taks and Kesenne, 1999) have found consumer expenditure on spectating accounted for approximately 15% of expenditure on participant and spectator sport. This research found that spectating accounted for 29%, thus representing a far more important element of consumer expenditure than previously discovered, supporting the suggestion of Gratton (1998) that consumer expenditure statistics do not reflect total expenditure on sports events.

An explanation for the high level of consumer expenditure on spectating in Sheffield is firstly, that previous studies have largely underestimated the impact of sports events and local spending on these. Given the large growth in watching sports events during the 1990s (Gratton, 1998; Chelladurai, 1999), it is possible that expenditure on spectating has grown significantly since the Scottish data was collected in the early 1990s. Furthermore, given Sheffield has five professional sports teams it is also likely that spectating and associated spending will be higher than average in both Scotland and the UK anyway. Interestingly, while the Scottish study recorded admissions of £30 million, the original survey results actually found admissions to be £60 million. However, given these were some five times greater than anticipated using secondary sources, Pieda reduced these estimates by half. Therefore consumers' expenditure on spectating was actually found to be much greater than the level recorded.

Although these are feasible explanations for why levels of expenditure on spectating were higher than those recorded in previous studies, the expenditure on spectating should nevertheless be dealt with caution, given that the T1 respondents had a slightly above average attendance at sporting events as noted earlier. In addition, there is a distinct absence of research in this area to support these findings.

6.2.1.3 Expenditure on sports goods in Sheffield

Total expenditure on sports goods bought in Sheffield by residents was £71,942,207. Table 6.22 expresses a breakdown of this according to the types of sports participants and as it can be seen, spending on goods increased with the intensity of participant. Type 6 participants spent the largest amount on goods (£20,087,790), although this was only a marginally greater than the amount spent by T5 participants. Residents who did not participate in sport also spent £12,428,469. The largest item of expenditure was on sports equipment (£28,571,437) followed by sports clothing (£22,405,144) and footwear (£15,356,318).

Table 6.24 shows expenditure by Sheffield residents on sports goods as predicted from the base model and the primary data collection. As it can be seen, the estimates derived from the primary data were more than double those predicted from the base model. A comparison of the items revealed that expenditure on equipment was found to be more than three times larger than predicted by the base model and that actual expenditure on the remaining sports goods were each found to be approximately twice as large as in the base model. Although not relevant to the economic impact generated with the Sheffield economy, it was also found that Sheffield residents spent approximately £16,282,996 on sports goods outside the city, or 18% of total expenditure on sports goods.

TABLE 6.24. EXPENDITURE ON SPORTS GOODS IN SHEFFIELD (£ MILLION)

	<i>Primary data</i>	<i>Base Model</i>
Clothing	22.41	12.97
Footwear	15.36	8.44
Equipment	28.57	8.26
Videos	2.91	0.16
Magazines/books	2.70	1.34
Total	71.94	31.27

Source: Consumer sector questionnaire (Part A; Part B)

The most apparent explanation for the difference in results between the base model and the primary data is again the method used for collecting the data. As with expenditure on participating and spectating, expenditure on sports goods have traditionally been estimated using secondary sources such as FES, CSO consumer spending estimates and Mintel. Nevertheless, as suggested in Chapter Two, many of the estimates produced were questionable. Many of the sources used do not have sub-categories for sports

goods so to estimate spending on bicycles for sporting purposes for example, the Henley Centre for Forecasting (1992) assumed that 20% of all expenditure was for sport. There was no academic justification for this assumption thus raising issues about the reliability and validity of estimates.

6.2.2.4 Other consumer expenditure in Sheffield

It was estimated from the number of children in Sheffield and the average expenditure per child that consumers spent approximately £19,987,816 on children participating and spectating in sport in Sheffield and that children themselves spent a further £7,370,753 on sports goods, watching and doing sport. It was also found that expenditure on behalf of other adults doing and watching sport which was estimated to be £1.18 per person per week, was approximately 24,419,653.60 per year.

It was not possible to compare these figures with the base model as expenditure on behalf of others was aggregated within the total estimates in the majority of previous studies. The notable exception was Pieda (1991) who considered consumer expenditure on children separately and found that it accounted for 7% of total expenditure on sports participating, spectating and goods. This research found that the equivalent expenditure on children was approximately 9%. Despite this, the Scottish study, as with other studies did not consider expenditure on behalf of other adults or children's own expenditure as a separate category of analysis.

6.2.2.5 Expenditure on sporting holidays

It was commented earlier in the chapter that while sports tourism, or spending on sport by Sheffield residents outside the city had little relevance to the economy of Sheffield, it represented an important flow of expenditure out of the city and one which has been little investigated in previous studies. Given that total expenditure on participating, spectating and goods in Sheffield together totalled £202,091,857, expenditure on sporting holidays which equalled £157,315,271, as shown in Table 6.25, represented a sizeable monetary flow out of the economy of Sheffield and a major omission in previous research.

TABLE 6.25. CONSUMER EXPENDITURE ON SPORTING HOLIDAYS (£ MILLION)

	<i>Expenditure</i>
Day Trips	49.08
Short breaks	35.14
Longer trips	73.10
Total	157.32

Source: Consumer sector questionnaire (Part A; Part B)

The only expenditure on sporting holidays included in the base model was skiing and it was estimated that consumers spent £2.37 million on this. Immediately it can be seen from Table 6.25, that expenditure on holidays primarily for the purposes of sport were found to be significantly larger than suggested in previous research. As identified in Chapter Two, other studies on the economic importance of sport have similarly underestimated the size of consumers' expenditure on sporting holidays. For example the Scottish study (Pieda, 1991) estimated through secondary sources that sporting holidays abroad accounted for only £45 million. However, this estimate was highly questionable given that estimates of inward tourism in the same study were essentially confined to golf tourism with no mention of walking, skiing, climbing and fishing. The second Welsh study (Centre for Advanced Studies in the Social Sciences, 1995) which represents one of the more recent attempts at estimating consumers' expenditure on sporting holidays using secondary sources, found that total consumer expenditure on sporting holidays in Wales alone was £53 million and that combined with spending on skiing (£19.77 million), was still £84.55 million less than the estimated expenditure on sporting holidays by Sheffield residents. The Northern Region study (Pieda 1994), which estimated that consumers spent approximately £92.5 million on hotel and holiday expenses was probably the closest estimate to the figure derived for Sheffield consumers, but even this was much less than revealed by the consumer survey.

The consumer survey has provided evidence to suggest that previous studies have largely underestimated spending on sport tourism. Nevertheless, care should be taken when interpreting and comparing these results as this research included items such as food and drink and aspects of travel, which previous studies may not have included. Although sport tourism has been treated in a rather piecemeal approach in previous studies on sport, LIRC (1997) argue that evidence emerging from the tourist field which suggests that sport-related tourism is an increasing part of the tourism market. Again

this represents an area of research which merits further attention, but which is beyond the scope of the objectives of this research. In any case, sports tourism within Sheffield is predominantly generated through sports events, which were included within this research.

6.2.3 Explaining Consumer Expenditure on Sport in Sheffield

Clearly from the results presented in this chapter, as with the voluntary sector there were large differences in the predicted and actual data collected in the consumer sector in Sheffield. However, in contrast to the voluntary sector, the consumer expenditure data measured was found to be between two and three times greater than the base model in most cases. The following discussion will explore reasons for this, some of which have already been raised.

It was initially thought that the method of aggregation, whereby consumer expenditure was calculated for each type of sports participant and then multiplied by the respective number of residents in each type, would produce a larger estimate for consumer expenditure on sport, than if an average figure was taken for each expenditure item and multiplied by the whole population. Nevertheless, as Table 6.26 reveals, using the typology to aggregate data actually resulted in a lower estimate of consumers' expenditure, than would have been obtained had the average value across each expenditure category been taken. The technique used for aggregation was therefore not a reason for the large differences between the actual and predicted data.

TABLE 6.26. CONSUMERS EXPENDITURE ON SPORT USING THE TYPOLOGY AND AVERAGE VALUES (£ MILLION)

	<i>Typology</i>	<i>Average values</i>
Participation	92.94	101.65
Spectating	37.21	34.54
Goods	71.94	77.04
Total	202.09	213.23

Source: Consumer sector questionnaire (Part A; Part B)

The most obvious reason for the difference between the primary data and the base model was that many expenditure items were not included in the estimates from which the base model was derived. In particular as discussed above, the main aspects which

were not included in the base model, but were included in the primary data estimates were food and drink consumed while watching and participating in sport and expenditure on hire of equipment when doing sport.

A second explanation for the difference in the primary data and the base model was that previous studies using secondary sources such as the FES have largely underestimated consumer expenditure on sport. The literature reviewed in Chapter Two, suggested that those studies which collected data by means of a consumer survey (Les Pratique Sportives En Communaute Francasie 1985; Piedad, 1991; Taks and Kesenne, 1999) found expenditure to be considerably higher than those using published sources such as the national UK and Dutch studies (Henley Centre for Forecasting, 1992; Oldenbroom *et al*, 1996). The evidence suggests that if consumers are specifically asked how much they spend on sport, the results are significantly greater than if sport-related expenditure is obtained from general consumer surveys or from aggregated expenditure data.

A further explanation for why consumer expenditure was found to be greater using primary sources, which has not been discussed previously was proposed by Lamb *et al* (1992), who argued that the few studies which have attempted to provide quantitative data on consumer expenditure on sport have largely underestimated this because they have not examined the cost of sports participation to those people who are actually participating. The paper argues that studies such as Jones (1989) and Gratton and Taylor (1985) provide figures which represent spending by the general population and average household expenditure on sport. It provides evidence from research undertaken on the expenditure of a sporting sample, that consumers expenditure is considerably greater than previous research suggests. Although the Sheffield study examined expenditure for the resident population, much of the data was based on consumers who participate in sport. This may account for larger estimates than otherwise predicted using average data for the whole population.

Finally, although various explanations have been suggested as to why the primary data was greater than the base model, it is possible that in addition, consumers in Sheffield actually spend more than average on sport. This proposition will be examined along with the other explanations in later chapters.

6.3 Summary

This chapter has presented the findings of two questionnaires which were used to derive estimates of consumer spending on sport by residents in Sheffield. The results have shown that spending on sport in Sheffield was approximately 2-3 times greater than predicted from the base model, which was derived from previous estimates of consumer spending on sport in England.

The chapter has presented evidence to suggest that when sports expenditure is targeted and consumers are specifically asked how much they spend on participating and watching sport, as in the Sheffield consumer sport survey, higher levels of expenditure are revealed than otherwise found using a general survey such as the FES. This research supports the findings of other studies which have also targeted consumers expenditure on sport using a similar approach, such as Les Pratique Sportives En Communaute Francaise (1985), Piedad (1991), Lamb *et al* (1992) and Taks and Kesenne (1999). The literature and the results of the primary data in Sheffield therefore suggest that previous estimates of spending on sport, derived from secondary sources have seriously underestimated consumer expenditure on sport.

Despite the problems with sample bias as discussed earlier, the results of the Sheffield consumer survey were sufficiently different from the base model estimates to suggest that the methodology used for measuring consumer expenditure on sport at the national level needs reviewing. The chapter has produced ample evidence to indicate that there are serious problems with the way in which consumer expenditure on sport has been estimated at the national level and that further investigation on consumers' expenditure on sport and the methods used to estimate is required. The following chapter will now present and analyse the results of data collected in the commercial sport sector.

CHAPTER SEVEN. ANALYSIS OF THE COMMERCIAL SPORT SECTOR

The previous two chapters have presented the primary data collected in the voluntary and consumer sectors. This chapter will analyse and discuss the results from the commercial sport sector, the third and final sector in which primary data was collected. As with the previous chapters, the aggregated data presented will be used to derive the sectoral accounts and estimates of value-added in later chapters.

Historically, the supply side of the sports industry has been dominated by the voluntary and government sectors. However, the growth of the commercial sport sector in recent years has undoubtedly made it one of the most important and dynamic aspects of the sports industry (Collins, 1991; Gratton, 1998; Lincoln and Stone, 1999). In 1995, the commercial sport sector was estimated to account for over 21% of the total value-added to the UK sports economy (LIRC 1997), with professional sports clubs, the commercial provision of sports services and the sports goods industry representing major stakeholders. Nevertheless, as noted in Chapter Two the reliability and validity of data in this sector has been notoriously poor in previous studies on the economic importance of sport, particularly at the sub-national level and primary data collection has been largely unsuccessful. While more published data sources exist for this sector than the consumer and voluntary sectors, these sources tend only to be available at the national level and were thus limited for the Sheffield study.

The analysis of the commercial sport sector is divided into two parts. The first part, will present the results of the questionnaires and the second part, will aggregate the data to provide an estimate for the income and expenditure of sports services and sports goods in Sheffield. Again, throughout the chapter, comparisons will be made between the aggregated data and the base model.

7.1 PROFILING THE COMMERCIAL SPORT SECTOR

It was discussed in Chapter Three, that the commercial sport sector can be divided into sports goods, which consist of manufacturing and distribution and sports services which

include spectator events, commercial leisure, business services, media and sports sponsorship. This chapter will discuss those aspects of the commercial sport sector in which primary data was collected, namely sports manufacturing and retailing in the former category and professional clubs (spectator events) and commercial leisure in the latter. The remaining parts of the commercial sport sector were estimated using secondary published data and the base model. These will be used, together with the estimates derived from primary sources to form the sectoral accounts in Chapter Nine.

As highlighted already, given the poor number of responses received from postal questionnaires in the commercial sport sector in the past, primary data in Sheffield was collected using a variety of methods. Professional sports clubs and commercial leisure were still sampled using a postal questionnaire. However, manufacturing companies were sampled either by personal interview or postal questionnaire and retailing outlets were sampled by telephone or face to face (personal) interview. As shown in Table 7.1, the response rate varied between 32.3% for commercial leisure and 84.6% for retailing, with an average response rate of 51.9% for all primary data collected in the commercial sport sector.

TABLE 7.1. RESPONSES TO THE COMMERCIAL SPORT SECTOR SURVEYS

	<i>Population</i>	<i>Response</i>	<i>%</i>
Professional Clubs	5	3	60.0
Commercial Leisure	65	21	32.3
Manufacturing	26	12	46.2
Retailing	*39	33	84.6
Total	135	69	51.1

* *Sample (50% of population)*

As expected, due to the different methods used to collect data, the response rates in this research were considerably better than those recorded previously. For example, taking the commercial leisure category, Piedad (1991) received just 12 responses from 76 commercial leisure facilities in Scotland and less than 10% of the 51 questionnaires sent to sports clubs and facilities in the private sector in the Northern Region study (Piedad, 1994). This research in comparison, obtained some 21 responses from the equivalent category representing a response rate of over 30%. Furthermore, the Centre for Advanced Studies in the Social Sciences (1995), received just 6 out of 20 sports goods

and manufacturing questionnaires for the whole of Wales, which was half the number received for Sheffield alone.

While the improved response rates in the commercial sport sector can undoubtedly be attributed to the different methodologies used to collect the data, care must be taken when comparing the results with previous studies which have collected information using different techniques. Furthermore, despite the improved response rates in this research, the actual number of responses at 24, 12 and 33 for professional clubs and commercial leisure, manufacturing and retailing respectively, remains fairly low, particularly in comparison to the voluntary and consumer sectors discussed previously. As discussed in Chapter Four, this has implications for the accuracy of the data obtained, but to a certain extent this is an inherent problem with data of this nature and the fact that the populations from which the samples were drawn, were relatively small anyway. Nevertheless, the aim of the data analysis in this sector was to obtain estimates to the level of detail necessary, to predict the income and expenditure flows in the commercial sport sector and subsequently value-added. While the data presented in this chapter was the weakest of the three sectors in which primary data was collected, it nevertheless achieves this purpose and was better than the existing secondary sources which were available for Sheffield.

7.1.1 Sports Services

The two categories of sports services analysed in this chapter are professional sports clubs and commercial leisure, both of which were sampled using a postal questionnaire. The Mann-Whitney U statistical test was used to determine whether or not there was a difference between the monetary flows of income and expenditure of the professional sports clubs and those clubs and facilities under the auspices of commercial leisure. The details of the test can be found in Appendix 10.1. Given that there was found to be a significant difference between the flows of income and expenditure, it was consequently decided to analyse and aggregate professional clubs and commercial leisure separately.

7.1.1.1 Professional sports clubs

Previous studies have shown that the monetary flows of income and expenditure generated by professional sports clubs in the commercial sport sector have varied from as little as 3% of the total commercial sport sector in Scotland (Pieda, 1991) and Bracknell and the Wirral (Henley Centre for Forecasting, 1989), to approximately 12% of the total commercial sport sector in the UK (LIRC, 1997). Clearly there are considerable variations associated with the economic activity generated by professional clubs and while they make up only a small proportion of the commercial sport sector in terms of the number sports businesses, they can represent a relatively large proportion of the economic activity generated in this sector. As shown already from the consumer survey, professional clubs represent an important aspect of the sports economy in Sheffield.

Three of the five professional sports clubs in Sheffield responded to the questionnaire and the annual accounts were obtained for all of the clubs. Table 7.2 shows the turnover of the professional clubs and as it can be seen, they were not a homogenous category, with the turnover of the largest professional club, Sheffield Wednesday Football Club at £14.34 million, being significantly greater than the Sheffield Sharks basketball club, the smallest club with a turnover of just £132,280. In addition, as will be seen later in the chapter, the monetary flows of income and expenditure were also considerably different.

TABLE 7.2. TURNOVER OF PROFESSIONAL SPORTS CLUBS IN SHEFFIELD (£)

	<i>Turnover (1996/1997)</i>
Sheffield Wednesday Football Club	14,335,000
Sheffield United Football Club	8,896,000
Sheffield Steelers Ice Hockey Club	2,273,314
Sheffield Eagles Rugby League Club	1,431,040
Sheffield Sharks Basketball Club	132,280

Source: Annual accounts

While three of the clubs listed in the table completed the questionnaire, the financial data of all professional clubs was essentially derived from the annual accounts. However, there were several difficulties with this. As highlighted by Deloitte and Touche (1998), comparison of published statutory accounts can often be problematic

due to firstly, different levels of disclosure, particularly of commercial activities and secondly, the accounting policies adopted by clubs which can vary significantly. While both of these factors present problems when comparing the accounts of football teams as in the Deloitte and Touche report, they were particularly problematic when comparing data across different professional sports. Furthermore, three of the clubs in Table 7.2 were classified as small companies¹, which meant their reporting requirements were much lower than the football clubs therefore, they were required to publish less information in their accounts, thus limiting the scope for analysis of these.

Nevertheless, given that the annual accounts were available for each of the professional clubs and also that there were significant differences between these, particularly the turnover of football clubs and other professional clubs, these were analysed separately. The following discussion will therefore firstly examine the monetary flows of income and expenditure to Sheffield Wednesday Football Club (SWFC) and Sheffield United Football Club (SUFC), before going on to examine how these compare to the three other professional clubs in the city and previous estimates derived for professional sports clubs.

Professional football clubs

Since the early 1990s, the economics of professional football clubs in the UK has changed significantly. The development of the English Premier League in football in 1992, together with the flotation of various football clubs on the stock market and the increased commercialisation of the sport in terms of sponsorship, merchandising and broadcasting (principally driven by BSkyB), has led to significant changes in the financial structures and monetary flows of income and expenditure of professional football clubs in the UK.

Sheffield has one Premier League Club (SWFC) and a Division One club (SUFC) and although similarities exist between these, as Deloitte and Touche (1998) comment, there is a growing gap between Premier League clubs and other clubs in the Football League.

¹ This means they satisfy two of the following three criteria: turnover of less no more than £2.8 million; total balance sheet assets of no more than £1.4 million; no more than 50 employees (Marsh *et al*, 1996)

The gap in average operating profits between the Premier League and Division One grew from £3.8 million in 1995/96 to £4.8 million in 1996/97. However, equally there are immense differences in the level of turnover between clubs in the Premier League, as shown by comparing the turnover of SWFC at £14,435,000 with the turnover of Manchester United, the club with the highest turnover in the Premier League in 1996/97 at £87,939,000.

While Sheffield Wednesday Football Club is one of the poorer clubs in the Premier League, it is nevertheless a major generator of economic activity in the commercial sport sector in Sheffield. Table 7.3 shows a breakdown of the income and expenditure to SWFC. As it can be seen, total income to SWFC in 1996/97 was approximately £14,400,000 and expenditure was £13,287,000. The figures presented exclude transfer fees, which is consistent with the Deloitte and Touche (1998) annual review of football finance. It is unclear whether previous studies in the UK have included sales and purchases of players in estimates of the economic activity generated by professional clubs therefore to avoid overestimation in this research, these were excluded. SWFC is actually a buying club and in the financial year 1996/97 spent £4,355,000 on transfers.

TABLE 7.3. INCOME AND EXPENDITURE PROFILE: SWFC 1996/97

	£	%
<u>Income</u>		
Match receipts	6,223,000	43.2
Commercial activities	8,085,000	56.2
Other	92,000	0.6
Total income	14,400,000	100.0
<u>Current Expenditure</u>		
Direct football expenses	8,840,000	66.5
Ground and property expenses	707,000	5.3
Administrative expenses	828,000	6.2
Commercial activities expenses	2,117,000	15.9
Other	795,000	6.0
Total current expenditure	13,287,000	100.0

Source: SWFC Annual Accounts

The two major sources of revenue were match receipts and commercial activities, which accounted for 43.2% and 56.2% of income respectively. Although commercial activities were not dis-aggregated in the published accounts any further, this category

included corporate entertainment, broadcasting, revenue from advertising, sponsorship, promotion work and catering.

Previous studies in the UK have found that match receipts have traditionally been the largest item of income to professional sports clubs, accounting for approximately 78% of income to such clubs in Wales (Centre for Advanced Studies in the Social Sciences, 1995) and Northern Ireland (Henley Centre for Forecasting, 1992) and 52% in the UK (LIRC, 1997). While income from admissions were the second largest item in SWFC, they only accounted for 43.2% of all income, a significantly smaller proportion than in the other studies mentioned. This can be partly explained by the large proportion of revenue received from the broadcasting rights of the Premier League. As shown by the Monopolies and Mergers Commission (1999), SWFC received 28.9% of its total revenue from BSkyB's coverage of the Premier League. In comparison, TV revenue from BSkyB's coverage of the Premier League accounted for just 7.2% of Manchester United's revenue (the smallest proportion of all clubs).

It can be seen from Table 7.3, that the major items of current expenditure to SWFC were direct football expenses, which accounted for 66.5% of income and commercial activities which accounted for 15.9% of all expenditure. The data presented in the table was taken directly from the published annual accounts therefore it was not possible to breakdown these categories further. Staff costs for 1996/97, which were included within the sub-categories of expenditure identified in the table, were £7,571,000, which was approximately 57% of all expenditure. In previous studies in the UK, although this item has ranged quite widely between 39.6% in Wales (Centre for Advanced Studies in the Social Sciences 1995) and 61.3% in Scotland (Pieda, 1991), the estimate for SWFC was found to be largely consistent with the most recent UK estimate (LIRC, 1997) of 54.5%.

Deloitte and Touche (1998) found that there was a considerable difference in the average turnover of Premier League clubs (£23,197,000) and Division One clubs (£5,471,000). Although the turnover of Sheffield United Football Club at £8,896,000 was lower than that of SWFC, it was nevertheless one of the largest organisations in the commercial sport sector in Sheffield. It should be noted that the financial accounts for SUFC in 1996/97 included 'discontinued activities'. However, it was not possible to

separate these from continuing activities and acquisitions therefore these figures have been included as an economic activity for the year 1996/97, but in subsequent years will not be. The turnover value of these activities was approximately £3,763,000.

Table 7.4 shows a breakdown of the income and expenditure profile of SUFC. As it can be seen, the total income excluding transfers was £9,922,000 and the total current expenditure was £9,971,000. SUFC was one of the growing number of net buyers in Division One, spending £2,966,000 on transfer fees in the year 1996/97. However, as with SWFC, these are not included in the table below and the economic impact calculation of this study.

TABLE 7.4. INCOME AND EXPENDITURE PROFILE: SUFC 1996/97

	£	%
<u>Income</u>		
Professional football activities	2,349,000	23.7
Merchandising, promotion, consultancy and corporate hospitality	2,551,000	25.7
Design, sourcing and distribution of fashion and leisure garments	3,706,000	37.4
Other income	1,316,000	13.3
Total income	9,922,000	100.0
<u>Current Expenditure</u>		
Cost of sales	7,229,000	72.5
Administrative expenses	2,389,000	24.0
Other expenditure	353,000	3.5
Total expenditure	9,971,000	100.0

Source: SUFC annual accounts

The categories of income and expenditure were different to those used for SWFC and therefore comparison between clubs was difficult. Nevertheless, it can be seen that only 23.7% of all revenue was generated through professional football activities compared with 56.2% for SWFC. Again these figures should be compared cautiously as it was not possible to ensure consistency between the clubs' accounting policies and the items included within these categories. It can also be seen from the table that 37.4% of income was generated through the design, sourcing and distribution of fashion and leisure garments. These were the economic activities that were discontinued after the financial year 1996/97.

In terms of current expenditure, it can be seen that the largest category of expenditure of SUFC was cost of sales, but without further details this category was virtually meaningless. Nevertheless, included within this category were staff costs which accounted for £3,560,000, or approximately 35.7% of all current expenditure in 1996/97. This was much lower proportion than SWFC, who spent approximately 57% of all current expenditure on staff costs. Again the figures provided by SUFC are likely to be distorted by discontinued activities. However, the annual accounts did not break down staff costs according to type of economic activity therefore it is not possible to comment on these figures further.

Other professional clubs

The other professional sports clubs in Sheffield, namely the ice hockey (Sheffield Steelers), rugby league (Sheffield Eagles) and basketball (Sheffield Sharks) teams will now be discussed. As highlighted above, only limited information was available in the published accounts for these clubs, given their small company status therefore comparison between these and with the football clubs was limited.

The combined turnover of the three professional clubs highlighted in Table 7.5 was £3,836,634, this was less than half the turnover of Sheffield United and almost four times smaller than the turnover of Sheffield Wednesday Football Club. Clearly the economic activity generated by professional sports clubs in Sheffield is dominated, as in the rest of the UK, by football.

Table 7.5 shows the income and expenditure flowing to and from the other professional clubs. As it can be seen, the ice hockey team was the third largest club financially in Sheffield, followed by the rugby league and finally the basketball team. The total income figure for all three clubs included sales of tickets, merchandise, programmes and sponsorship, though the total income figure in the annual accounts of these clubs was not broken down into these sub-categories. All of the clubs had a small operating profit, with the exception of the basketball team which operated at a loss of £444,359 in 1996/97. The club was subsequently refinanced at the end of the financial year.

Although more detail was given about expenditure flows, this was again limited. While all clubs included administrative expenses, it was not possible to identify which expenditures were included in this. Furthermore, as with the football clubs, staff costs were identified as a separate expenditure item in the Eagles and Sharks accounts, but it was not possible to identify which category in Table 7.5 staff costs were in and indeed whether this was consistent between all the clubs. It was found that staff costs accounted for 63% of all expenditure in the Eagles, which was approximately 10% higher than average figures for professional clubs (LIRC, 1997). However, it was found that staff costs only accounted for 27% of all expenditure in the basketball team. No staff costs were identified for the Sheffield Steelers.

TABLE 7.5. INCOME AND EXPENDITURE PROFILE: OTHER PROFESSIONAL CLUBS (£)

	<i>Steelers (Ice Hockey)</i>	<i>Eagles (Rugby League)</i>	<i>Sharks (Basketball)</i>
<u>Income</u>	2,273,314	1,431,840	132,410
<u>Expenditure</u>			
Administrative expenditure	2,196,079	256,457	538,696
Interest	6,594	9,696	864
Cost of sales		1,162,372	11,947
Other		11	25,262
Total expenditure	2,202,673	1,428,535	576,796

Source: Annual Accounts 1996/97

Despite the minimal level of detail given in the accounts of the other professional clubs, as will be seen later in the chapter, the information collected was sufficient to enable an estimation of the economic activity generated by professional clubs in Sheffield to be derived.

With regard to other information provided by the questionnaire, it was found that approximately 45% of current expenditure from all professional sports clubs in Sheffield was spent within the local area, with 42% elsewhere in the UK and 12.5% overseas. This was in contrast to the findings of the voluntary sector, in which the majority of expenditure from clubs was spent within the local area. Also, in terms of capital expenditure professional clubs in Sheffield spent on average £1,722,475 on construction, of which 90% was spent in Sheffield and 10% in the rest of the UK and

£82,679 on capital equipment, of which 50% was spent in Sheffield and 50% in the rest of the UK.

7.1.1.2 Commercial leisure

The main categories which define commercial leisure in Sheffield, as highlighted in Chapter Four, were private participation clubs, health and fitness centres, generic sporting facilities, snooker and pool centres and riding schools. Table 7.6 shows the number of responses received from each of these to the postal questionnaire. As it can be seen, some categories produced better responses than others. However, while low numbers in each category were problematic in terms of data reliability, the issue was minimised by the fact that the categories were combined and analysed together. This was because the Kruskal-Wallis statistical test, as shown in Appendix 10.2, found that there was no significant difference between the income and current expenditure of the different categories.

TABLE 7.6 RESPONSES: COMMERCIAL LEISURE

<i>Category</i>	<i>Population</i>	<i>Sample</i>
Private participation clubs	3	2
Health and fitness centres	19	6
Generic sporting facilities	18	3
Snooker and pool centres	12	6
Riding schools	10	2
Other	3	2
Total	65	21

In many of the previous studies on the economic importance of sport, discussed in Chapter Two, all aspects of the commercial leisure sub-sector have been omitted, with the exception of private participation clubs. As shown in Table 7.6, commercial leisure incorporates several types of facilities and clubs, yet many of the previous UK studies have only taken sports services to incorporate spectator and participation clubs while ignoring the other categories listed in the table (Henley Centre for Forecasting, 1986, 1992, 1992a; Centre for Advanced Studies in the Social Sciences, 1995; LIRC, 1997). This has further implications for the validity of data used in previous research and represents an under-estimate of the economic activity generated by sport-related goods and services in the commercial sport sector.

Table 7.7 summarises the average income and current expenditure to facilities and clubs within commercial leisure. As it can be seen, the average revenue generated by a club or facility was £360,517 and current expenditure was £279,610. Comparison with the equivalent figures for professional sports clubs in Sheffield, which were £6,526,479 and £5,977,847 for income and current expenditure respectively, further highlights the difference between these types of sports services and the need to aggregate and analyse data separately.

TABLE 7.7. AVERAGE INCOME AND EXPENDITURE: COMMERCIAL LEISURE

	£	%
<u>Income</u>		
Membership & participation charges	183,794.	51.0
Catering/bar	102,658.	28.5
Equipment hire	22,784	6.3
Rent/hire of facilities	19,167	5.3
Other	32,114	8.9
Average Income	360,517	100.0
<u>Current Expenditure</u>		
Wages and salaries	125,799	45.0
Catering	41,191	14.7
Rent/hire of facilities	14,050	5.0
Advertising	21,742	7.8
VAT	26,700	9.6
Other	50,129	17.9
Average Current Expenditure	279,610	100.0

Source: Commercial sport questionnaire (Professional clubs/Commercial Leisure)

Investigation of the income profile also shown in Table 7.7, revealed that membership and participation fees were the largest item accounting for 51% of all income to commercial leisure, followed by revenue from food and drinks sales which accounted for 28.5%. Comparison of these figures with data from previous studies was again difficult, given that several studies recorded subscriptions and fees as the only item of income (Henley Centre for Forecasting, 1986; 1992; LIRC, 1997). Nevertheless, comparison of the data from the commercial leisure sub-sector with the data from professional clubs in Sheffield, revealed that the latter generated a much smaller proportion of income from admissions (31.5%).

In terms of current expenditure to commercial leisure companies, the single largest item by far, was wages and salaries, which accounted for approximately 45% of all current

expenditure. This was approximately 10% lower than the equivalent figure for professional clubs. Previous research in the UK has found that wages varied between 28.1% (Henley Centre for Forecasting, 1992a) to 59.8% (Henley Centre for Forecasting, 1990) therefore the Sheffield figure was roughly mid way between these. In terms of capital expenditure, average expenditure on construction was £58,100, of which 28% was to companies in Sheffield, with 52% to companies in the rest of the UK and 20% to companies overseas. In terms of capital equipment, £12,607 was spent on average, with 28% in Sheffield and 72% in the rest of the UK. As these figures show, the majority of capital expenditure was outside the area, in contrast to current expenditure of whereby 72% of all expenditure was in the local area.

7.1.2 Sports Goods

As discussed in Chapter Three, the sports goods sector can be divided into manufacturing and distribution. There were no sports footwear manufacturing companies in Sheffield, so the data collected was based on companies producing equipment and clothing. In the latter category, sports distribution, there were no warehouse distribution companies in Sheffield trading sports goods, consequently the subsequent data presented, relates solely to sport retailing.

7.1.2.1 Manufacturing

Consumer spending on sports goods in the UK has grown by 25% in real terms between 1989 and 1997 (DTI, 1999). Manufacturing of sports goods including footwear, clothing and equipment is big business, yet despite this, there is a large trade deficit in sports manufacturing nationally. (DTI, 1999).

In 1995, sports manufacturing in the UK accounted for approximately 8.7% of the total income and expenditure in the commercial sport sector (LIRC, 1997), representing a relatively small part of sports economy. Similarly in Sheffield, manufacturing was a small part of the commercial sport sector with just 26 companies producing manufactured goods in the city, the majority of which were equipment manufacturers.

This compares with approximately 415 firms in the UK supplying sports equipment (DTI, 1999).

The DTI (1999) found that the sports manufacturing sector in the UK is characterised by a wide range of size and a predominance of small companies. It found that 75% of The Sports Industry Federation supplier members had sport-related turnover of less than £1 million. Table 7.8 shows a comparison of the sports equipment manufacturers in the UK and Sheffield by turnover size-band, using data supplied by ONS (DTI, 1999). As it can be seen, there is a wide range of manufacturing companies in Sheffield, with 70% of the firms which responded to the questionnaire having a turnover of less than £1 million.

TABLE 7.8. ANALYSIS OF SPORTS EQUIPMENT MANUFACTURERS BY TURNOVER (%)

<i>Turnover (£)</i>	<i>Sheffield</i>	<i>UK*</i>
1,000 - 49,999	20.0	10.8
50,000 –99,999	10.0	18.1
100,000 – 249,999	10.0	21.7
250,000 – 499,999	10.0	15.7
500,000 – 999,999	20.0	13.3
1,000,000 – 4,999,999	30.0	15.7
5,000,000 +	0.0	4.8
Total (number)	26	415

**Source : DTI (1999): equipment manufactures only*
Source: Commercial sport questionnaire (Manufacturing)

From the primary data collected in this sector, it was found that the average income generated by firms manufacturing sports goods in Sheffield was £948,133. However, while this was predominantly generated through sales, only 17.3% of this was from customers in Sheffield, with 68.4% from customers in the rest of the UK and 14.3% from customers overseas. This provides evidence to support the notion that sports equipment producers in the UK consist largely of small companies producing niche products (Regional Sports Science, Engineering and Technology Network, 1999), thus requiring a wide distribution.

Table 7.9 shows the average current expenditure by manufacturing companies in Sheffield. As it can be seen average current expenditure was £467,173. Comparison of the expenditure profile in this research, with other UK studies was limited due to the

fact that many of these found sports manufacturing to be negligible or non existent (Henley Centre for Forecasting, 1989, 1990, 1992a). In Sheffield, it was found that there were two main items of current expenditure, these were wages and materials, which accounted for 36.7% and 39.1% of total current expenditure respectively. The other UK studies which did measure sports manufacturing, only differentiated between wages and other inputs and found that expenditure on wages varied between 26.4% (Henley Centre for Forecasting, 1992) and 31.6% (Centre for Advanced Studies in the Social Sciences, 1995). Both of these estimates were lower than the average proportion of current expenditure on wages and salaries revealed from the primary data in Sheffield.

TABLE 7.9. AVERAGE CURRENT EXPENDITURE: SPORTS MANUFACTURING

<i>Expenditure item</i>	<i>£</i>	<i>%</i>
Wages	171,655	36.7
Materials	182,583	39.1
Advertising	11,429	2.5
Operating costs	18,644	4.0
Other	82,862	17.8
Total	467,173	100.0

Source: Commercial sport questionnaire (Manufacturing)

The primary data in the manufacturing sector also revealed that 32.7% of current expenditures were to individuals and companies in Sheffield, with 56.4% to other companies in the UK and 10.9% overseas. This represented a fairly large leakage outside the Sheffield economy. This was in contrast to capital expenditure where it was found that 75% of spending on construction (£100,909) and 78.8% of spending on capital equipment (£12,573) was in the local area. Capital spending nonetheless was significantly lower than current spending.

7.1.2.2 Retailing

Retailing of sport-related goods such as clothing, footwear and equipment has traditionally been the largest part of the commercial sport sector, accounting for over 60% of income and expenditure nationally (LIRC, 1997). It is also a sub-sector in which little primary data has been collected and figures have in the majority of cases been derived from existing published data sources.

Table 7.10 shows the retail structure of the UK sports goods market and the channels of distribution. As it can be seen, only 50.7% of sport-related sales are through sports shops, of which 29.1% are through multiple outlets and 21.6% through independents (single shops or very small chains). The remaining 49.3% of sports retailing sales are through a variety of channels including department stores, clothing and shoe stores and home shopping. In Sheffield there were 59 independent sports shops and 28 multiples, indicating a larger concentration of independent retailers, in comparison to the rest of the UK. Furthermore, given that only approximately a half of all sales in the UK are through sports retailers, the Sheffield estimate, which was based only on retailing through sports shops, represents a conservative estimate.

TABLE 7.10. SPORTS GOODS MARKET: CHANNELS OF RETAIL DISTRIBUTION IN THE UK (1996)

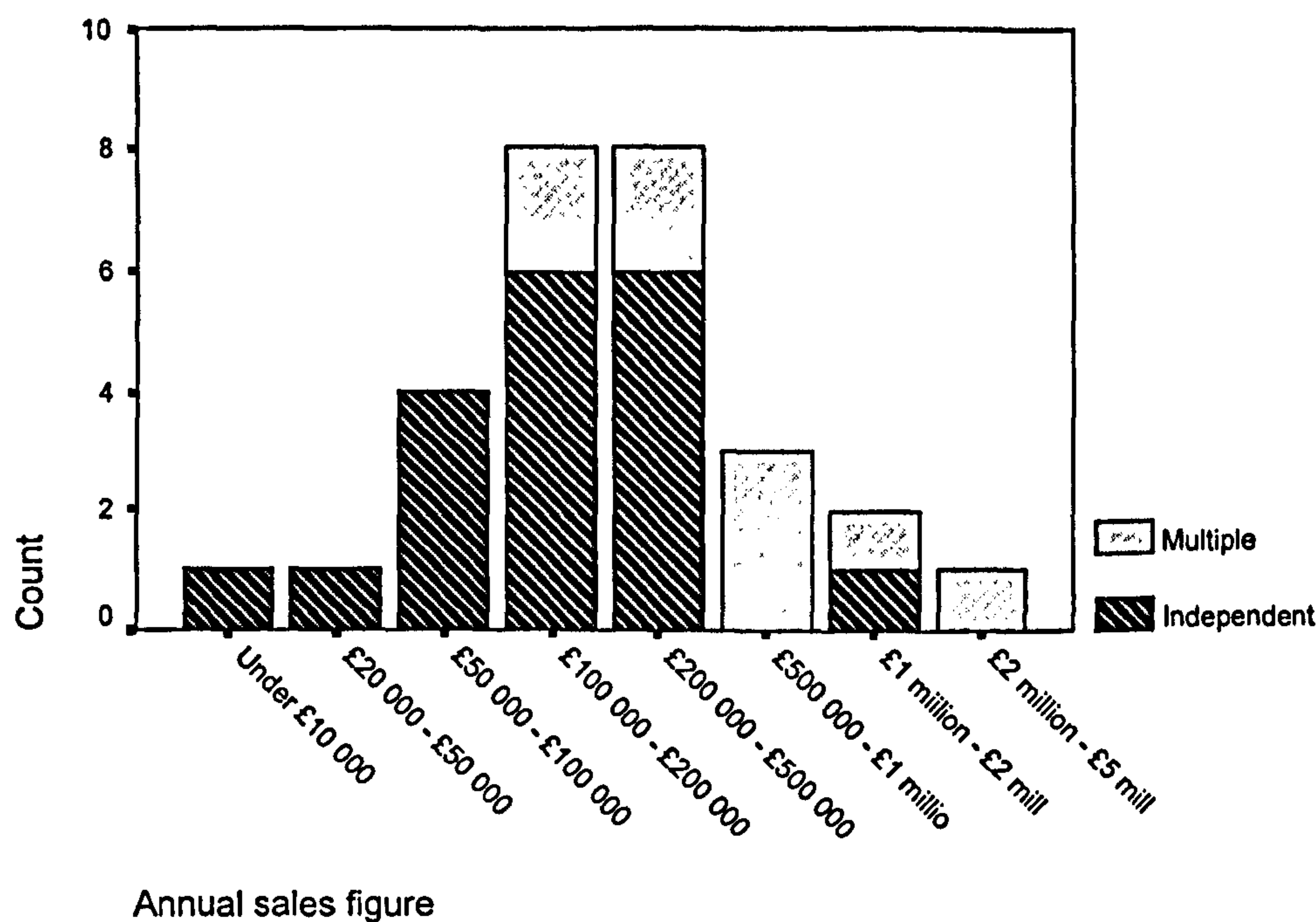
	<i>Total (£ million)</i>	<i>%</i>
All sports shops of which:	1,369	50.7
<i>Multiples</i>	786	29.1
<i>Independents</i>	583	21.6
Home shopping	302	11.2
Clothing stores	196	7.2
Club shops	250	9.2
Department stores	169	6.3
Shoe stores	190	7.0
Mixed goods stores	180	6.7
Others	45	1.7
Total	2,701	100.0

Source: DTI (1999)

The Mann-Whitney U test was used to test whether there was a significant difference between the annual sales and current expenditure of independent and multiple sports retailing outlets. Given that the financial structure of these were found to be significantly different (the results of this test can be found in Appendix 10.3), independent and multiple retailers were analysed and aggregated separately. This was in contrast to the previous studies in the UK which have traditionally grouped all retailers together, assuming homogeneity in this category.

The difference between independent and multiple retailers is clearly shown from Figure 7.1 below. As it can be seen, the turnover of multiple retailers tended to be much larger than independents in Sheffield.

FIGURE 7.1. ALL SPORTS RETAIL SHOPS IN SHEFFIELD: SALES TURNOVER



Source: Commercial sport questionnaire (Retailing)

Table 7.11 shows average current expenditure for independent and multiple sports retailers in Sheffield. These estimates should be used cautiously for two reasons. Firstly, the figures were given by telephone interview and secondly, 80% of the multiple retailers who participated in the interview were unable to give an accurate breakdown of expenditure, because the information was only available from head office. Regardless of these limitations, the data nonetheless provided some interesting comparisons.

It can be seen from the table that there was a significant different between the total current expenditure and the breakdown of this between independent and multiple retailers. The average expenditure by independent retailers was £169,765 in comparison to £1,120,000 by the multiples, which was over six times greater.

TABLE 7.11. CURRENT EXPENDITURE: SPORTS RETAILERS IN SHEFFIELD

	<i>Independents (£)</i>	<i>%</i>	<i>Multiples (£)</i>	<i>%</i>
Stock for resale	104,249	61.4	778,000	69.5
Wages	31,571	18.6	124,200	11.1
Rent	9,719	5.7	55,800	5.0
Operating costs	6,321	3.7	31,000	2.8
Other	17,906	10.6	131,000	11.7
Total	169,765	100.0	1,120,000	100.0

Source: Commercial sport questionnaire (Retailing)

Stock for resale was the most important item of expenditure for both types of sports shop, accounting for 61.4% and 69.5% of current expenditure for the independents and multiples respectively. Similarly, wages and salaries were the second largest item of expenditure for both, accounting for 18.6% and 11.1% of all current expenditure respectively. It is possible that the wage bill was lower for multiples given the larger proportion of Part Time (PT) staff found to be employed in these shops, also shown from the primary data.

Comparison of the Sheffield expenditure figures with those from previous studies in the UK found that wages and salaries in general accounted for a much smaller proportion of total expenditure. Expenditure on wages and salaries in previous studies in the UK have varied between 16.5% in the UK in 1990 (Henley Centre for Forecasting, 1992) and 32.5% in Scotland (Pieda, 1991). However, the most recent estimates in the UK found wages to account for 30.6% of all current expenditure (LIRC, 1997), which was almost twice as large as that recorded by independent retailers and three times larger than that recorded by the multiple retailers in Sheffield.

In terms of expenditure flows out of the area, it was found that 42.5% of expenditure by independent retailers and 35% of expenditure by multiple retailers was retained within the city and that the remainder of expenditure was spent within the rest of the UK. Again, as with sports manufacturing, this represents a high level of leakage outside the local economy.

Levels of capital expenditure in the sports retailing sector were low. Average expenditure on construction by independent and multiple retailers was just £9,752 and £5,250 respectively and average expenditure on capital equipment was £3,335 for

independent retailers and £8,500 for multiple retailers. Again similar levels of leakage outside the economy were recorded.

7.2 AGGREGATING THE COMMERCIAL SPORT SECTOR

The chapter so far has presented the results of the commercial sport sector questionnaires, drawing out the information and the level of detail required to estimate the income and expenditure profiles for this sector. The following section will firstly, outline the method used to aggregate the data presented hitherto and secondly, compare the aggregated profiles of income and expenditure for sports services and sports goods, to the base model estimates. As highlighted previously, the aggregated data presented in this section, will be used to estimate value-added in the commercial sport sector.

7.2.1 Methodology

The data for the commercial sport sector was aggregated for sports services and sports goods separately. The method used for aggregation was determined by non parametric statistical tests, highlighted earlier in the chapter, which were basically used to investigate whether there was a significant difference between the income and expenditure of the various components of the commercial sport sector. The purpose of these was to improve the accuracy of aggregation by using mean values for each specific category, rather than an average value across the whole of the commercial sport sector, where appropriate.

In terms of sports services, professional clubs and those facilities and clubs under commercial leisure, were aggregated separately as a result of the significant difference between the income and expenditure of the two categories. Given that the total income and expenditure was available for each of the five professional sports clubs, it was not necessary to aggregate the figures presented earlier in the chapter.

With regard to the commercial leisure category, the non parametric tests found there was no significant difference between the income and expenditure of private

participation clubs, health and fitness centres, generic sporting facilities, snooker and pool centres and riding schools. Consequently, the average values presented in Table 7.7 were multiplied by the number of commercial leisure venues and clubs in Sheffield.

Sports manufacturing companies and sports retailing outlets were also aggregated as separate categories. In terms of sports manufacturing, there was found to be no significant difference between the income and expenditure of the various types of manufacturers in Sheffield therefore the average values presented in 7.1.2.1 were multiplied by the total number of manufacturing companies in the city.

Finally, with regard to sports retailing, there was found to be a significant difference between the financial profiles of independent and multiple sports retailers. Consequently, the average profiles of current and capital expenditure were calculated for each of these separately and subsequently multiplied by the total number of independent and multiple retailers in the city. This method diverges from traditional methods used in the previous UK studies whereby the retail sector has always been treated as a homogenous sector for the purposes of primary research. A particular weakness of the primary data collected in the retail sector was that companies were reluctant to disclose exact sales figures and as a result, these were calculated using data provided by the Business Monitor (SDO 25). Using the assumption of the Henley Centre for Forecasting (1992) and LIRC (1997), that the calculated ratios of wages, purchases of other inputs and profits in retailing are 14%, 71% and 15% respectively, it was therefore possible to estimate aggregated income.

7.2.2 Income and Expenditure Profile: sports services

Focusing firstly on professional sports clubs, Table 7.12 shows the aggregated monetary flows of income and expenditure derived from the primary data collection and the base model. As discussed earlier in the chapter, the primary data presented in the table was derived essentially from published annual accounts. It was noted earlier that given each set of the accounts had different levels of disclosure and used different accounting policies, it was difficult to aggregate equivalent categories across all the clubs. Therefore, the number of aggregated categories were reduced to include only those

which were clearly defined within the published accounts. The remaining income and expenditure categories which were not clearly defined were amalgamated into the 'other' category.

From the table it can be seen that the total income and current expenditure figures obtained from primary sources were considerably larger than predicted using the base model. The primary research found that the total earnings of the five professional sports clubs in Sheffield for 1996/97 was £28,224,564, compared with £6.18 million predicted from the base model. Similarly, it was found that current expenditure was £27,465,977, compared with £5.36 million predicted by the base model. The actual figures for Sheffield were almost five times greater than those predicted by the base model.

Furthermore, comparison of the income profile between the primary data and the base model, revealed that a larger proportion of income in Sheffield was generated through commercial activities such as corporate entertainment, advertising, sponsorship and broadcasting rights. This was in contrast to the base model data, which found that admissions were the principal component of income. This can be primarily explained by the large proportion of revenue received by Sheffield Wednesday Football Club, from broadcasting rights of the Premier League and other commercial activities. As discussed earlier, approximately half of all economic activity from professional clubs was generated by SWFC, of which 56.2% was from the commercial activities aforementioned.

In terms of the expenditure profile, it can be seen from Table 7.12 that wages accounted for approximately 48.7% of expenditure which was largely comparable with the 54.5% found by the base model. However, it was not possible to compare the capital expenditure in Sheffield with the base model as only one estimate for investment was given for the whole of the commercial sport sector.

TABLE 7.12. INCOME AND EXPENDITURE PROFILE: PROFESSIONAL SPORTS CLUBS IN SHEFFIELD (N=5)

	<i>Primary data</i> (£)	<i>%</i>	<i>Base model</i> (£ million)	<i>%</i>
<u>Income</u>				
Commercial activities	14,342,000	50.8	2.26	36.6
Match receipts	6,223,000	22.1	3.35	54.2
Other	7,659,564	27.1	0.57	9.2
Total income	28,224,564	100.0	6.18	100.0
<u>Expenditure</u>				
Wages	13,382,545	48.7	2.92	54.5
Other inputs	14,083,432	51.3	2.44	45.5
Total current expenditure	27,465,977	100.0	5.36	100.0

Source: Commercial sport questionnaire (Professional clubs/Commercial Leisure); Annual Accounts; The Base Model

The primary data collection has revealed that the income and expenditure generated from professional sports clubs in Sheffield was much larger than predicted using the base model. There were several possible explanations for these findings. Firstly, the most probable explanation for this, was the larger than average number of professional sports clubs in the city. The base model figures derived for Sheffield were averaged for England and it is reasonable to suggest therefore that a greater proportion of this economic activity would be concentrated in urban areas, rather than geographically evenly distributed across England.

Secondly, leading on from the first point, Sheffield is one of only several cities in the UK to have a representative team in each of the four professional sports in the UK, namely football, rugby league, basketball and ice hockey. Furthermore, it has both a Premier League and Division One football club consequently, economic activity associated with professional clubs was likely to be higher than average for this reason alone.

Finally, a third reason for the large difference between the primary data and the base model was that the UK estimates upon which the base model were derived (LIRC 1997), have not adequately adjusted for the increasing commercialisation of professional sport and the increased revenues and expenditures resulting from broadcasting and other commercial activities such as sponsorship and advertising. Each of these explanations will be examined further in Chapter Ten.

Table 7.13 similarly shows the aggregated income and expenditure profile for the commercial leisure facilities and clubs. The figures show there was an even larger difference between the primary data and base model estimates in the commercial leisure category, than shown previously for professional clubs, with the primary estimates over five times greater. It can be seen from the table that actual income and current expenditure flowing to and from commercial leisure facilities were estimated to be £23,433,578 and £18,174,657 respectively, compared to the predicted estimates of £3.47 million for income and £3.30 million for current expenditure.

TABLE 7.13. INCOME AND EXPENDITURE PROFILE :COMMERCIAL LEISURE(N=65)

	<i>Primary data (£)</i>	<i>%</i>	<i>Base model (£ million)</i>	<i>%</i>
<u>Income</u>				
Membership & participation charges	11,946,621	51.0	3.47	100.0
Catering/bar	6,672,791	28.5	-	-
Equipment hire	1,480,936	6.3	-	-
Rent/hire of facilities	1,245,833	5.3	-	-
Other	2,087,396	8.9	-	-
Total Income	23,433,578	100.0	3.47	100.0
<u>Current Expenditure</u>				
Wages and salaries	8,176,908	45.0	1.74	52.7
Catering	2,677,415	14.7	-	-
Rent/hire of facilities	913,245	5.0	-	-
Advertising	1,413,230	7.8	-	-
VAT	1,735,500	9.6	-	-
Other	3,258,359	17.9	1.56	47.3
Total Current Expenditure	18,174,657	100.0	3.30	100.0

Source: Commercial sport questionnaire (Professional clubs/Commercial Leisure)

There are various explanations for the differences shown between the actual and predicted values in the table. Firstly, according to the figures presented for the base model, the only item of income to be recorded was membership and participation charges, yet this was found to account for only 51% of total income in Sheffield. Failure to measure and record the other items shown in the table, in previous national studies, have resulted in the omission of at least half of all income in this sector.

Secondly, while the commercial leisure category in Sheffield included private participation clubs, health and fitness centres, generic sporting facilities, snooker and pool centres and riding schools, it was noted earlier in the chapter that many previous studies in the UK have only included participation clubs (Henley Centre for Forecasting 1986, 1990, 1992, 1992a; Centre for Advanced Studies in the Social Sciences, 1995; LIRC, 1997). This was also the case for the base model. Given that only 3 out of the 65 venues and clubs within the commercial leisure category in Sheffield were defined as ‘private participation clubs’, it is clear that these studies have largely under-estimated the value of commercial leisure.

Finally, a possible reason that the commercial leisure sub-category was unusually large in Sheffield was that some of the participation clubs included in the commercial sport sector, might have otherwise been classified as the voluntary sector in the national studies. This would also partly explain why the voluntary sector was lower than anticipated. However, this explanation is unlikely as only three clubs were defined as participation clubs in Sheffield, with the remaining clubs such as golf and tennis already included in the voluntary sector.

7.2.3 Income and Expenditure profile: sports goods

It was highlighted earlier in the chapter that the majority of sports manufacturers in Sheffield were producers of sports equipment and that Sheffield has no footwear or major sportswear manufacturers. Regardless of this, Table 7.14 reveals that total sales which were £24,651,450 and total current expenditure which was £12,146,498 were five and three times greater than the base model estimates of £4.45 million and £4.02 million for income and current expenditure respectively.

Given that the primary data estimates for manufacturing in Sheffield were based only on companies producing sports goods and no account was taken of other companies in Sheffield producing sports goods as a smaller part of total turnover, the figures presented again represent a conservative estimate. Despite this, there remains a large difference between the data derived from primary methods and the base model. Furthermore, comparison of the turnover size-bands of the manufacturing companies in

Sheffield with those in the rest of the UK, revealed that Sheffield was typically average for the UK. The results presented therefore provide evidence to suggest, that the base model and previous studies have underrepresented the sports manufacturing sector in the UK. Care should be taken when interpreting these results though, as they were derived on a small sample of data.

TABLE 7.14. INCOME AND EXPENDITURE PROFILE: SPORTS MANUFACTURERS (N=26)

	<i>Primary data (£)</i>	<i>%</i>	<i>Base model (£ million)</i>	<i>%</i>
<u>Income</u>				
Sales	24,651,450	100.0	4.45	100.0
<u>Expenditure</u>				
Wages	4,463,028	36.7	1.06	26.4
Materials	4,747,171	39.1	-	-
Advertising	297,143	2.5	-	-
Operating costs	484,754	4.0	-	-
Other	2,154,403	17.8	2.96	73.6
Total current expenditure	12,146,498	100.0	4.02	100.0

Source: Commercial sport questionnaire (Manufacturing)

Estimates of income and expenditure for sports retailing, traditionally the largest component of the commercial sport sector, also revealed similar trends to those highlighted in the other categories. As shown in Table 7.15, it was found that sales revenue to retailers in Sheffield was approximately £55,168,157, which was more than twice as large as predicted from the base model. In addition, it was revealed that current expenditure was £41,376,118, which was almost twice as large as the base model. It is noticeable nevertheless, that wages were a much lower proportion of total current expenditure in Sheffield, than found by the base model.

TABLE 7.15. INCOME AND EXPENDITURE: SPORTS RETAILERS* (N=87)

	<i>Primary (£)</i>	<i>%</i>	<i>Base model (£ million)</i>	<i>%</i>
<u>Income</u>				
Sales	55,168,157	100.0	25.62	100.0
<u>Expenditure</u>				
Stock for resale	27,934,681	67.5	-	-
Wages	5,340,265	12.9	6.90	30.3
Rent	2,135,811	5.2	-	-
Operating costs	1,240,915	3.0	-	-
Other	4,724,447	11.4	15.90	69.7
Total current expenditure	41,376,118	100.0	22.80	100.0

**clothing, footwear and equipment retailers only*
Source: Commercial sport questionnaire (Retailing)

While the income and expenditure in Sheffield was found to be approximately twice the amount predicted from the base model, it was noticeable from Table 7.15 that the difference between the actual and predicted values of sports retailing were not as large as found in the other categories of the commercial sport sector. As discussed earlier in the chapter, a possible reason for this could be that Sheffield has a greater proportion of independent retailers than average, which as highlighted already in the chapter, generate less economic activity than multiple retailers.

A further explanation for the retailing estimates being lower than the other categories of the commercial sport sector, in comparison to the base model, was that as discussed previously, the Sheffield primary data only measured income and expenditure through sports shops. Given that sports retailing outlets only account for approximately a half of all sales in the UK, again the primary data estimate derived for Sheffield was likely to be conservative. However, regardless of this, the primary estimate was still larger than the base model. The evidence presented therefore suggests that either the national studies have under-estimated the sports retailing sector or that Sheffield is above the national average.

7.2.4 Capital Expenditure in the Commercial Sport Sector

Table 7.16 shows a breakdown of the total capital expenditure by the components of the commercial sport sector which were analysed in this chapter. As shown, capital expenditure was estimated to be approximately £10,200,815, with the largest expenditure from commercial leisure and the lowest from sports retailers. Previous studies in the UK have not recorded capital expenditure by category therefore the base model predicted that total capital expenditure in the commercial sport sector in Sheffield would be approximately £2,459,210. Again, the actual primary data was approximately four times greater than this estimate.

TABLE 7.16. CAPITAL EXPENDITURE: COMMERCIAL SPORT SECTOR

	<i>Capital expenditure (£)</i>
Professional sports clubs	1,805,154
Commercial leisure	4,595,964
Manufacturing	2,950,527
Retailing	849,170
Total	10,200,815

Source: Commercial sport questionnaire (Professional clubs/Commercial Leisure; Manufacturing; Retailing)

7.2.5 Employment in the Commercial Sport Sector

Table 7.17 shows the number of permanent jobs created by the categories of the commercial sport sector analysed through primary data. As the table shows, the total number of jobs created in the categories investigated was 2,866, compared to the 1,046 jobs predicted from the base model.

TABLE 7.17. EMPLOYMENT: COMMERCIAL SPORT SECTOR

	<i>FT</i>	<i>PT</i>	<i>Total</i>
Professional clubs	-	-	458
Commercial leisure	388	961	1349
Manufacturing	380	41	421
Retailing	308	330	638
Total			2866

Source: Commercial sport questionnaire (Professional clubs/Commercial Leisure; Manufacturing; Retailing)

From the data it was calculated that excluding professional clubs, 55.3% of all sport-related jobs in Sheffield were part time. While the largest number of jobs were created

in the commercial leisure sector, the majority of these were Part Time (PT) positions, which was in contrast to the manufacturing sector whereby over 90% of jobs were full time. The majority of employment generated through the commercial sport sector was for people living in the Sheffield area, with approximately 87% of employees in multiple retailers, professional sports clubs and commercial leisure living in the Sheffield area and 95% of those employed in independent retailers and in sports manufacturing.

7.3 SUMMARY

This chapter has presented the findings of the primary data collected in the commercial sport sector in Sheffield. It has revealed that the income and expenditure generated by professional sports clubs, commercial leisure companies, sports manufacturing and sports retailing outlets in the city was considerably greater than predicted from the base model, with the commercial leisure and professional sports clubs showing the largest differences.

Within the discussion, two main reasons for these findings have been proposed. Firstly, it has been suggested that various categories of the commercial sport sector in Sheffield, actually generated above average economic activity. This was particularly found for professional sports clubs, whereby the amount of economic activity measured was approximately five times greater than at the national level. Secondly, the findings also suggest that previous studies particularly at the national level have also under-estimated sport-related economic activity. This was especially found in the commercial leisure sector, through omitting various sports services and items of income and expenditure. These explanations will be discussed further in Chapter Ten. The following chapter will now discuss the findings of the secondary data collected in Sheffield.

CHAPTER EIGHT. SECONDARY DATA ANALYSIS

The previous three chapters have examined the results of the primary data collection which was undertaken in the voluntary, consumer and commercial sectors. This chapter will present and analyse the secondary data collected in Sheffield. As highlighted in Chapter Four, there were two types of secondary data; the first type was data collected using published secondary sources and the second type was data derived through the base model.

This chapter will primarily focus on analysing the published data sources, which were mainly collected on the local government sector and on sports events. It will also discuss the estimation of additional consumer expenditure data on sport-related goods and services which was not collected through primary methods. In accordance with the previous analyses chapters, the published data for Sheffield will be compared to the equivalent base model estimates. The remaining secondary data, derived from the base model to satisfy the data requirements of the National Income Accounting Framework (NIA) will also be highlighted. However, given the purpose of this data was essentially to complete the sectoral accounts and to provide a benchmark with which to compare primary and published sources, rather than to collect any new data for Sheffield, this will constitute a lesser part of the chapter.

8.1 THE LOCAL GOVERNMENT SECTOR

Historically, local authorities have been largely responsible for the provision of sports services such as swimming pools, parks and indoor sports facilities (Gratton and Taylor, 1985). The local government sector has therefore traditionally been a net provider to the sports industry. This can be seen clearly from Table 8.1, which shows the total income and expenditure of the local government sector in previous studies in the UK. As it can be seen from all of the studies listed, this sector spends more on sport-related activities than it receives in revenue and nationally, the local government sector spends on average 31% more than it receives from sport (LIRC, 1997).

TABLE 8.1. UK STUDIES: LOCAL GOVERNMENT INCOME AND EXPENDITURE

	<i>Income (£ million)</i>	<i>Expenditure (£ million)</i>	<i>Expenditure as a % of income</i>
UK (LIRC, 1997)	1,351.26	1,769.98	131.0%
Bracknell (Henley Centre, 1989)	1.28	2.17	169.0%
Wirral (Henley Centre, 1989)	4.79	8.07	168.0%
Wales (Centre for Advanced Studies in the Social Sciences, 1995)	74.83	92.22	123.0%
Scotland (Pieda, 1991)	197.60	320.20	162.0%
Northern Ireland (Henley Centre, 1992a)	16.12	28.23	175.0%

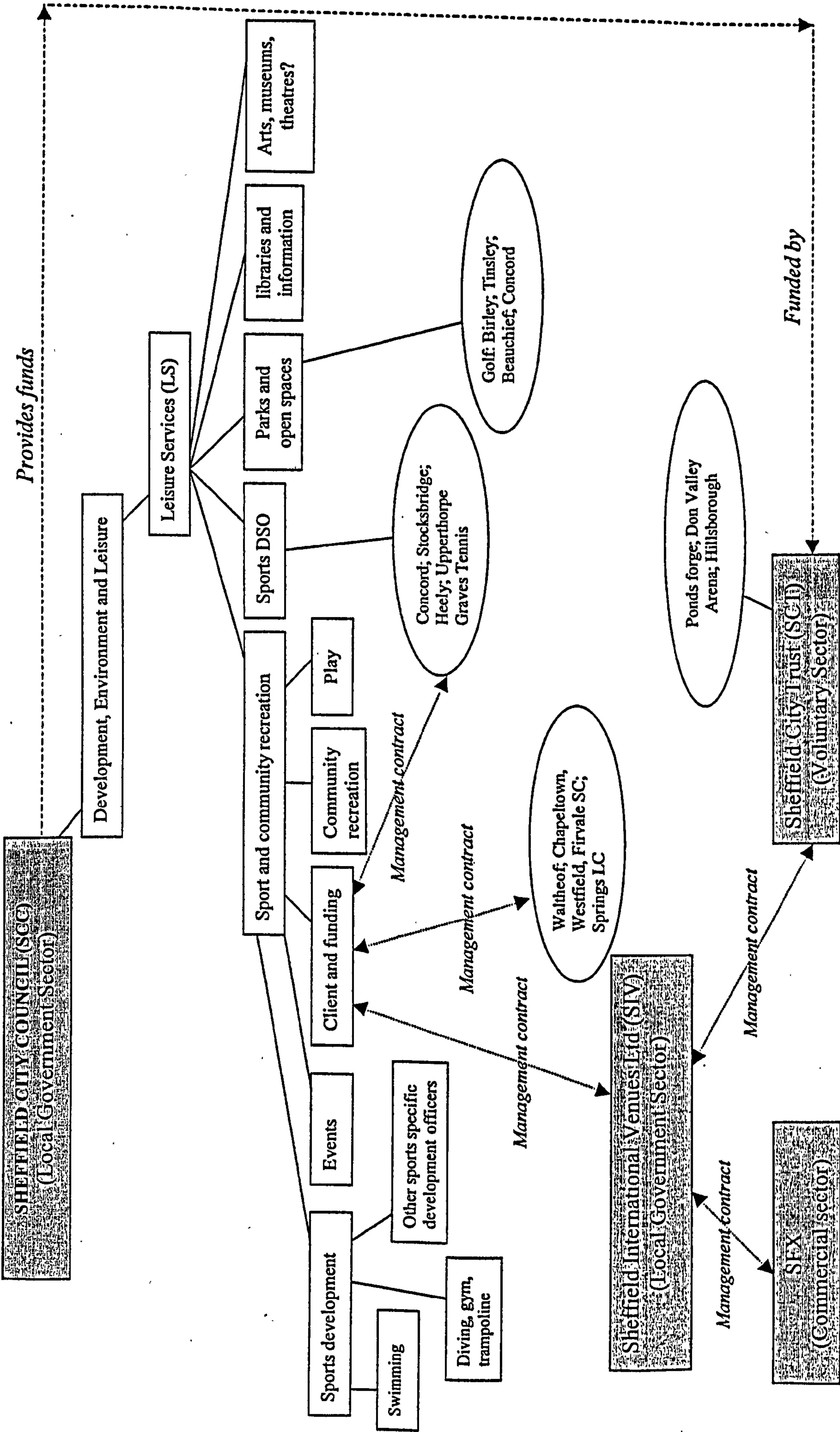
The local government sector in Sheffield was a complex sector to define and measure. Figure 8.1 shows the internal structure of the Leisure Services Department of Sheffield City Council in 1999/2000¹ and the relationship it has with Sheffield City Trust (SCT) and Sheffield International Venues (SIV) Ltd.

SCT is a charitable organisation which, in addition to other business interests in the city, owns the World Student Games facilities, namely Ponds Forge, Don Valley, the Sheffield Arena and Hillsborough Leisure Centre. These are operated and managed by the subsidiary operating company Sheffield International Venue Ltd (formally Sheffield for Health Ltd). Although the local authority are not directly responsible for the management of these facilities, Leisure Services provide a substantial annual subsidy and underwrite any financial deficit. Leisure Services also have representatives on the boards of SIV and SCT.

Although SIV essentially operates as a commercial provider, the local authority provides substantial public funding and ultimately underwrites any financial deficit of the company therefore SIV was also included in the local government sector in Sheffield for the purposes of the NIA framework. As a result, the following sections will discuss the income and expenditure flows of both SCC and SIV.

¹ The internal structure of SLS shown is different to that which existed in 1996/97. However, the relationships between the organisations discussed remains the same.

FIGURE 8.1. THE INTRA AND INTER RELATIONSHIPS WITHIN LOCAL GOVERNMENT AND BETWEEN OTHER SECTORS OF THE SPORTS INDUSTRY IN SHEFFIELD 1999/2000



8.1.1 Sheffield City Council (SCC)

The main source used to estimate flows of income and expenditure to SSC was the Sheffield City Council Revenue Budget Booklet 1996/97 (Sheffield City Council, 1998). Previous studies have used the Leisure and Recreation Statistics Estimates, produced by the Chartered Institute of Public Finance and Accountancy (CIPFA). However, the figures were not available for Sheffield in the year 1996/97 and are derived from local authorities' budget estimates anyway. It should be noted that the local authority data used, represented predicted expenditure rather than actual expenditure, nevertheless, as discussed in the other studies which have used these sources, it is presumed that the estimates bear a close relationship to the outcomes (Henley Centre for Forecasting, 1992; Pida, 1994).

Two categories of data from the City of Sheffield Revenue Booklet (Sheffield City Council, 1998) were relevant to sport-related spending; these were Sport and Recreation and Parks and Open Spaces. All of the sub-categories of activities within the Sport and Recreation category, with the exception of Community Recreation, were included and 40% of the income and expenditure in the Parks and Open Spaces category was assumed to be sport-related. The latter category covers income and costs from sports facilities which were an integral part of the parks, including golf courses, bowling greens and sports pitches. As it was not possible to investigate the exact amount of income and expenditure which was sport-related in the parks and open spaces category, the same percentage that was used in the national studies (Henley Centre for Forecasting, 1986, 1992; LIRC, 1997), which was 40%, was adopted. This figure was considered by Sheffield Leisure Services to be a fair, if not conservative estimate.

Table 8.2 shows the total income received by Sheffield Leisure Services (SLS) from sport-related activities and a breakdown of the income sources. As shown, total income from sport-related activities was £1,615,400. The largest source of income was from fees and charges which accounted for approximately 70% of all income, followed by rents, which accounted for almost 20%. It can also be seen from the table that of the five categories which generated revenue, Sport and Development created the largest amount of income, followed by SCC facilities. As noted above, the facilities managed

by SIV will be analysed separately therefore the table does not include any of the turnover from these facilities.

TABLE 8.2. INCOME RECEIVED BY SHEFFIELD LEISURE SERVICES FROM SPORT-RELATED ACTIVITIES (£ 000)

	<i>Major sports events</i>	<i>Facilities (SLS)</i>	<i>Facilities (SIV)</i>	<i>Sport and Dev.</i>	<i>Parks/ Open Spaces</i>	<i>Total</i>
Fees and charges	132	381		603	17.6	1133.6
Rents		58	128		127.2	313.2
Gov. grants: <i>sports grants</i>				14		14
<i>other grants</i>				60	20	80
Other income	27	32			15.6	74.6
Total	159	471	128	677	180.4	1615.4

Source: Sheffield City Council, (1998)

Table 8.3 shows a breakdown of expenditure by SLS on sport-related activities. As it can be seen, total current expenditure by SLS on sport-related goods and services was £6,482,800, resulting in a large public deficit. From the table, it was calculated that wages accounted for only 19.6% of all expenditure which was considerably lower than previous studies and the base model, which found that wages accounted for over 50% of all current expenditure for local authority sports facilities (Pieda, 1991; Centre for Advanced Studies in the Social Sciences, 1995; LIRC, 1997). It was also considerably lower than the commercial leisure sector discussed in the previous chapter, where wages and salaries accounted for approximately 45% of all current expenditure. Nevertheless, it is possible that the proportional current expenditure for Sheffield Leisure Services was distorted by the £1,657,000 subsidy paid to SIV.

TABLE 8.3. EXPENDITURE BY SHEFFIELD LEISURE SERVICES ON SPORT-RELATED ACTIVITIES (£ 000)

	<i>Major sports events</i>	<i>Facilities (SLSC)</i>	<i>Facilities (SIV)</i>	<i>Sport and dev.</i>	<i>Parks & open spaces</i>	<i>Total</i>
Wages	124	401		420	323.6	1268.6
Running expenses	233	1399	1657	716	1209.2	5214.2
Total	357	1800	1657	1136	1532.8	6482.8

Source: Sheffield City Council (1998)

The other item of current expenditure shown in the table, which accounted for the majority of expenditure by Leisure Services, was running expenses, which included heating and lighting costs for premises, transport and moveable plant, supplies and services, recharges for DSOs and third party payments.

A major item of local government expenditure on sport outside the budget of the Leisure Services department and Sheffield International Venues, was the sports component of education. This was twofold. Firstly, expenditure on schools swimming and secondly, expenditure on the sport-related component of teachers' salaries. Expenditure on schools swimming was obtained from the City of Sheffield Revenue Booklet (Sheffield City Council, 1998), which estimated that expenditure on schools swimming was approximately £120,000. However, the other component of education expenditure which was included in previous studies was more difficult to estimate.

National studies have assumed that 5% of teachers' time (2 teaching periods in 40) is sport-related (Henley Centre for Forecasting, 1992) therefore an equal proportion of total wages for secondary and special needs teachers was also sport-related. Given that it was not possible to investigate this through primary means, 5% of expenditure on employees in the aggregated schools budget², was also allocated as sport-related expenditure for Sheffield. This figure was similarly adjusted to include only secondary and special needs teachers as with previous studies. It was therefore estimated that the sport-related component of teachers' wages was £2,346,325. This compared to the base model estimate of £2,371,426.

8.1.2 Sheffield International Venues (SIV)

The flows of income and expenditure to Sheffield International Venues Ltd were analysed using the Directors' report and financial statements of SIV Ltd, obtained from Companies House. From Table 8.4, it can be seen that total income and current expenditure to SIV was £9,015,000.

² Source: Sheffield City Council, 1998

As noted previously, the company has an agreement with Sheffield City Council, which entitles it to receive income from the council to enable it to make neither a profit nor a loss for the year, until 31 March 2014. During the financial year 1996/97, it can be seen from Table 8.4 that the council reimbursed £2,646,000 under the shortfall agreements, to cover losses incurred by the company. This was actually £989,000 more than Sheffield Leisure Services budgeted for in 1996/97, as shown in Table 8.3. Other sources of income include revenue generated from the provision of goods and services at the venues. This included fees and charges and other commercial activities such as catering, bar sales and sponsorship.

In terms of current expenditure, it can be seen that wages and salaries accounted for £1,500,000, which was approximately 16.6% of total expenditure. In proportional terms, this was even lower than the amount spent on staff costs for SLS, discussed above and again considerably lower than the proportion of current expenditure spent on wages and salaries in the commercial sector. A possible explanation for this was the high expenditures on other items such as establishment running expenses. Unfortunately, the financial accounts for SIV did not itemise all expenditure therefore it was not possible to comment on the reasons for this any further.

TABLE 8.4. INCOME AND EXPENDITURE: SHEFFIELD INTERNATIONAL VENUES (£)

<i>Item</i>	
<u>Income</u>	
Provision of goods and services	5,410,000
Grants received from SCC	2,646,000
Management and other recharges	365,000
Bank interest	594,000
Total income	9,015,000
<u>Current Expenditure</u>	
Cost of sales	2,452,000
Wages and salaries	1,500,000
Other establishment and administrative expenses	5,005,000
Interest payable	58,000
Total current expenditure	9,015,000

Source: Annual Accounts

It was possible to compare the income and expenditure of SLS and SIV, with the base model estimates of income and expenditure on local authority sports facilities. As

shown in Table 8.5, there is clear evidence to suggest that income and expenditure flows generated through the provision of sports facilities by the local authority in Sheffield, were considerably different to other local authorities in the UK.

TABLE 8.5. INCOME AND EXPENDITURE: SLS, SIV, BASE MODEL (£)

	<i>SCC</i>	<i>SIV</i>	<i>Base model*</i>
Income	1,615,400	9,015,000	2,390,000
Expenditure			
<i>Wages</i>	1,268,600	1,500,000	3,940,000
<i>Other</i>	5,214,200	7,515,000	3,360,000

** local authority sports facilities only*

Several observations were made from the data presented in Table 8.5. Firstly, it can be seen that the majority of economic activity associated with the provision of sports facilities in the local government sector is channelled through Sheffield International Venues. It can also be seen that, while Sheffield International Venues Ltd break even in financial terms, SLS has a large deficit, partly as a result of subsidising SIV, thus the local government sector is again a net provider to sport in the city, as shown outlined earlier in the chapter. Secondly, it can be seen from the table that in comparison to the base model, which gives a benchmark estimate of local government expenditure if Sheffield were typical of other local authorities in the England, the local government sector in Sheffield received and spent considerably more on sport than predicted.

Despite the overall turnover of the local government sector being larger than predicted, expenditure on wages and salaries for SLS and SIV combined was £2,768,600 compared with £3,940,000 from the base model. While the expenditure on operating costs and running expenses has risen considerably in recent years with the opening of new sporting facilities in the city, the relative amount of expenditure on wages, as a proportion of all current expenditure in the local government sector, appears to have declined. Therefore, although the overall turnover of the local government sector in Sheffield appeared to be above average, in terms of wages and salaries and thus value-added, the local government sector was actually below average. The reasons for this are unclear; but it may be that when the new facilities opened, staff were relocated from facilities which were closed, so although overall expenditures on operating the facilities increased, the staff costs did not.

A further point to make is that the expenditures of SIV and SLS, outlined in the tables above, relate to current rather than investment flows. Therefore, while the capital expenditure on the World Student Games Facilities is still being repaid by Sheffield City Council through debt charges, these were not included in the evaluation of economic activity generated in 1996/97.

8.2 ECONOMIC IMPACT OF SPORTS EVENTS

It was highlighted in Chapter Two that one of the major omissions from previous estimates of sport-related expenditure in the UK was sports events (LIRC, 1997). Given that the local authority in Sheffield actively promotes a major sports event programme, it was essential that events were included in the economic impact assessment.

Two sources of secondary data were used to estimate the economic impact generated by major sports events. Firstly, a report commissioned by Sheffield City Council on the economic impact of sports events in Sheffield (KRONOS, 1997) and secondly, five economic impact studies carried out by LIRC in Sheffield³ (LIRC, 1996). The KRONOS report provided estimates for the economic impact of all sports events staged in Sheffield between 1990-97, based on 20 ex-post economic impact studies of events in Sheffield and elsewhere in the UK. This was broadly used as the main source to estimate the impact of events in Sheffield, although data from the LIRC reports was also used for the five events measured, as this was deemed to be a more reliable source.

The additional expenditure generated by all sports events in Sheffield in the financial year 1996/97, was found to be approximately £11,126,835⁴ (the impact of each event during this period is listed in Appendix 11.1). There are several points which need to be made about this estimate. Firstly, it should be noted that the year of events measured, was an exceptional year for sports events in Sheffield. Table 8.6, which reveals the average additional expenditure generated by sports events in Sheffield per year between

³ Euro 96; V1 World Masters Swimming Championships; International Lacrosse Match; English schools athletics championships; ASA water-polo championships

1990-1997 shows that the average expenditure generated per year was approximately £3,767,000. The high level of economic activity generated in 1996/97 can be explained by the staging of two major events in 1996. These were Euro 96 and the World Masters Swimming Championships and together they accounted for approximately £9.42 million of additional expenditure in the local economy (LIRC, 1996). As it can be seen, this was the majority of additional expenditure generated in 1996/97.

TABLE 8.6. THE ECONOMIC IMPACT OF SPORTS EVENTS STAGED IN SHEFFIELD

<i>Year</i>	<i>Number of events</i>	<i>Gross additional expenditure (£) 1997 prices</i>
1991/92	55	2,519,000
1992/93	30	2,718,000
1993/94	47	3,827,000
1994/95	49	2,608,000
1995/96	41	1,532,000
1996/97	43	11,340,000
Average year	42.9	3,767,000

Source: KRONOS (1997)

Secondly, the economic impact of the World Championship Snooker, held annually in Sheffield, was not included in the KRONOS report. According to the Sheffield Events Unit, this event is organised and managed by an organisation outside the city and the impact of the event is unknown. While this omission obviously represents an underestimation of the impact of events in Sheffield, there were no reliable sources which could be used to estimate the economic impact of this, therefore this event was not included in the overall estimates. Nevertheless, it does mean that the additional expenditure generated in 1996/97 could have been even larger than estimated in this research.

Thirdly, the estimate of events in 1996/97 (£11,126,835) refers to the economic impact generated by additional visitor expenditure. However, sports events actually generate further economic activity through the expenditure of residents. This was largely evaluated through consumers' expenditure on sports spectating, which has already been shown to be above average.

⁴ This was different to the KRONOS figure in Table 8.6 as it includes data from LIRC (1996). It also takes a different starting point within the financial year 1996/97

In summary therefore it is clear that events contribute a large amount to the economy. The impact discussed above refers largely to that generated from outside the area, yet events also generate considerable economic activity from within the city. While the estimate of events in Sheffield presented above used the most legitimate source available, it was far from statistically reliable and further investigation is needed into the economic impact generated by sports events and the methodologies used to measure them.

8.3 CONSUMER EXPENDITURE

As discussed in Chapter Six, the majority of consumer expenditure data was collected using the consumer expenditure survey, nevertheless, not all aspects were estimated using primary data. The Family Expenditure Survey (Office for National Statistics, 1998a), in addition to other secondary sources such as the British Video Association Yearbook, 1998, the BBC Annual Report and Accounts, 1996/97 and the H.M. Customs and Excise Annual Report 96/97 was used to estimate consumer spending on sport by Sheffield residents.

The items of sport-related expenditure which were included in previous estimates of consumer spending in the UK, but not in the Sheffield consumer survey were as follows:

- repairs and laundry;
- newspapers;
- video cassette rental;
- TV and video rental;
- the BBC licence;
- public schools;
- gambling.

In a similar manner to previous studies, these items were estimated by multiplying the appropriate category in the Family Expenditure Survey (FES) by the number of households in Sheffield (210,973). Where possible, the Yorkshire and Humberside FES

data was used. Given that the majority of expenditure items in the FES are not separated into sport-related spending, many of the items needed adjusting to account for the sport-related component. As the resources were not available to investigate each of the above categories within Sheffield, adjustments were made using the assumptions of the LIRC (1997) and the Henley Centre for Forecasting (1992). A list of the adjustments made to each category can be found in Appendix 11.2.

Table 8.7 shows estimated consumer expenditure on sport, in the above categories and a comparison with the equivalent estimates from the base model. Expenditure on the sport-related component of newspapers, public schools, and gambling was broadly similar to the base model estimate. Nevertheless, there were larger differences in the actual and predicted expenditure of the other categories.

TABLE 8.7. SECONDARY DATA COLLECTION: CONSUMER EXPENDITURE ON SPORT (£)

	<i>Secondary data estimates)</i>	<i>Base model estimates</i>
Repairs & laundry	155,782	405,716
Newspapers	3,389,914	3,376,567
Video cassette rental	105,987	*160,607
BBC licence	1,320,328	1,111,910
TV and video rental (inc. subscriptions to satellite and cable)	3,818,271	926,157
Public schools	600,530	626,147
Gambling.		
Football pools	2,119,519	3,715,857
Horseracing	20,938,940	19,573,288
Raffles and gaming	2,198,589	2,055,195

* *video cassette rental and purchase*

Source: Secondary data collection (various); The Base Model

In terms of repairs and laundry, it can be seen that expenditure on this item was found to be much smaller using secondary data than the base model predicted. However, comparison of the Yorkshire and Humberside FES with the UK estimates revealed average weekly expenditure across the whole of the UK was between two and three times greater than in Yorkshire and Humberside, therefore logically explaining the difference in this category.

Although expenditure on the purchase of sport-related videos was estimated through the consumer survey to be approximately £2,911,242, spending on video cassette rental was not measured. Using the FES survey and British Video Association Yearbook, it was estimated that consumers in Sheffield spent approximately £105,987 on rental of sports videos. The base model, in comparison, predicted that both video cassette rental and purchase combined was £160,607. Clearly, the Sheffield data was considerably higher than the equivalent combined category from the base model, largely as a result of the element estimated through primary data collection. The significant difference shown between the data derived through primary methods and that from the FES in Sheffield, when compared to the base model, suggests that the assumption of 2% for the sport-related component of video rental and retail used in previous studies, rather underestimates the amount consumers actually spend on sports videos and thus needs to be reviewed in future studies.

The other category of consumers' expenditure in which there was found to be a considerable difference between the estimated expenditure, using secondary sources and the predicted expenditure, using the base model was TV and video rental. This category also included expenditure on subscriptions to satellite and cable television. It was found that the sport-related component of this category was approximately £3,818,271, compared with just £926,157 predicted from the base model. There are two possible reasons for this difference. Firstly, it can be explained by the increasing numbers of people subscribing to cable and satellite TV, between 1995, when the base model data was derived and 1996/97 when the secondary data was collected. Secondly, it can be explained by the different methods used to estimate the sport-related component of subscriptions to satellite and cable TV. It is the latter reason which is most likely to explain the difference between the base model estimate and the one derived from secondary sources.

In previous studies, the proportion of TV and video rental, including expenditure on satellite and cable, was based on the sport-related component of the BBC licence fee (7%). However, a recent report by the Leisure Industries Research Centre (LIRC, 2000) for the Sports Council argues that this represents a considerable underestimate for cable and satellite subscriptions. A survey of BSkyB subscribers, carried out by Research Services Limited (RSL) in April 1997 found that 52% of respondents said their main

reason for subscribing to BSkyB was for greater coverage of sport (Monopolies and Mergers Commission, 1999). Furthermore, it was calculated from the Monopolies and Mergers Commission (1999) that on cost grounds, sports programming accounted for 28.6% of total programming costs of BSkyB in 1997. As in the LIRC report, it is this percentage of FES expenditure on satellite and cable subscriptions which was allocated to sport-related consumer expenditure in this research (£3,259,671), with 7% of expenditure on terrestrial TV (£558,600), thus representing a large increase from the base model estimate.

The data discussed in this section now completes the estimate of consumer expenditure by Sheffield residents. The secondary data estimates will be added to those from the consumer survey to form the sectoral accounts in the next chapter.

8.4 SECONDARY DATA COLLECTION: THE BASE MODEL

Finally, it was noted at the start of the chapter, that there were two types of secondary data collection carried out in Sheffield. Firstly, data which emanated from published sources and secondly, that derived from the base model. The data derived from the base model will now be discussed briefly.

The purpose of using estimates derived from the base model was to satisfy the data requirements of the NIA framework. It was not to generate any new information, but rather to enable the economic impact of sport to be calculated. This was largely as a result of not having the necessary resources to investigate these sectors through primary and secondary methods.

The flows of income and expenditure were estimated using data from the base model in the central government and commercial non-sport sectors, and in the sector which represented flows to and from the economy outside Sheffield. In each of these sectors no primary or secondary data was collected.

Base model data was also used to complete the income and expenditure profiles in the local government and commercial sector. In terms of the local government sector, there

were three aspects of income to the Sheffield local authority, outside Sheffield Leisure Services which were not measured through primary or secondary data collection, but were included in the local government sector of previous studies. These were:

- Income received for police attendance within the grounds of sports events;
- Income for the provision of local transport for spectating and participating;
- Income from sport in the form of council tax paid by voluntary sports clubs, the commercial sport and commercial non-sport sector.

In terms of the commercial sector, there were two categories which were not covered, these were income and expenditure of sport-related TV and radio and retailers of sport-related books, magazines, newspapers, videos.

The estimates of income and expenditure derived from the base model were essentially academic and purely obtained for the purposes of completing the data for the NIA framework. They will not therefore be discussed any further.

8.5 SUMMARY

In conclusion to the chapter, it has been found that the sectors investigated using published secondary sources, as with those investigated using primary sources, were also considerably different than predicted from the base model. In particular, it was discovered that overall income and expenditure in the local government sector was considerably larger than predicted, but that expenditure on wages and salaries was actually below average. It was also illustrates that the economic impact of events in Sheffield, for the financial year 1996/97 was particularly large and the omission of this from earlier studies represents a significant underestimate of sport-related economic activity.

The data collection and analysis for the seven sectors of the National Income Accounting Framework is now complete. In terms of the income and expenditure profiles generated for each sector, a large proportion of these have been derived from either primary or published secondary sources. The following chapter will use this data to estimate the economic importance of sport in Sheffield.

CHAPTER NINE. THE ECONOMIC SIGNIFICANCE OF SPORT IN SHEFFIELD

It was highlighted previously that there are two stages to the process of measuring the economic importance of sport using the NIA framework. The first is the identification and estimation of sport-related economic activity and the second is the derivation of the sectoral accounts, calculation of value-added and employment. This chapter will use the estimates of income and expenditure generated by sport-related activity, which were presented in the previous four chapters, to estimate value-added and employment, the second stage of measuring the economic importance of sport in Sheffield.

The chapter is divided into three parts. The first part will essentially focus on the derivation of the sectoral accounts and the monetary flows of income and expenditure to each sector of the sports 'industry' in Sheffield. The second part will go on to present the estimates of value-added from sport and compare these with other industrial sectors in the city. Finally, part three will discuss the employment generated through sport-related activities in Sheffield. In a similar manner to the analyses chapters, estimates of value-added and employment will be compared to the base model and the likely reasons for the differences shown will be explored. This will provide the platform for the discussion in the Chapter Ten.

9.1 THE SECTORAL ACCOUNTS

As highlighted in Chapter Three, the main output of the National Income Accounting framework is the sectoral accounts. The sectoral accounts basically show the total income and expenditure pertaining to each of the seven sectors of sport-related economic activity, in addition to showing the sources and destinations of the flows to and from each sector. The sectoral accounts were exhaustive, mutually exclusive and in combination covered all of the sports economy in Sheffield. The accounts therefore summarised the results of the data collection and analysis in the previous chapters and provided the basis for calculating value-added and employment. They were therefore crucial to the process of estimating the economic importance of sport.

Table 9.1 summarises the actual income and expenditure flowing to and from the seven sectors of the sports economy in Sheffield, as determined using the primary and secondary data discussed in the previous chapters. It also shows the predicted values from the base model. It should be noted that the values in the table represent several types of flows, including final and intermediate expenditures, factor and transfer incomes transfers and intra-sectoral flows. It is not therefore a measure of the value-added generated by sport-related activity, rather a summary of the gross flows of income and expenditure to each sector.

TABLE 9.1. SPORT-RELATED INCOME AND EXPENDITURE FLOWS IN SHEFFIELD (£)

	<i>Income</i>		<i>Expenditure</i>	
	<i>Sheffield data</i>	<i>Base model</i>	<i>Sheffield data</i>	<i>Base model</i>
CONS	52,420,500	45,225,207	236,739,718	91,854,438
CS	137,367,255	46,957,889	114,907,463	45,924,434
VOL	9,619,814	22,435,476	11,531,837	17,288,249
CNS	110,082,570	59,265,896	55,155,897	56,196,546
CG	77,392,779	36,729,328	535,040	7,510,733
LG	10,619,181	11,764,535	17,095,048	15,278,048
OUT	67,972,471	21,887,019	29,509,567	5,701,048

Source: Primary and secondary data; The Base Model

The table reveals that the commercial sport, commercial non-sport and central government were net recipients of sport-related economic activity in Sheffield and that the voluntary and local government sectors were net providers, which means they spent more on sport-related activities than they received in revenue. It can also be seen that the consumer expenditure on sports goods and services in Sheffield was £236,739,718, which was approximately 2.5 times greater than the base model. The table also shows that Sheffield imported more sport-related goods and services from outside the city, than it exported in 1996/97. With the exception of the voluntary sector, these trends were the same as those predicted from the base model.

It was noted, above that in addition to showing total income and expenditure, the sectoral accounts also recorded the destination and sources of the flows of expenditure and income to and from each sector. The accounts therefore identified the flows of funds between sectors, as shown from the example of sectoral accounts from the voluntary sector in Table 9.2 and Table 9.3. Table 9.2 illustrates that £9,619,820

income was generated in the voluntary sector, of which £8,865,040 was from consumer expenditure in Sheffield, £466,120 from commercial non-sport expenditure and £288,650 from central government expenditure. Similarly, Table 9.3 shows that the voluntary sector spent £11,531,840 and the largest sector to which this flowed was the commercial non-sport sector. It also shows that £1,122,640 was spent on goods and services from outside the area. Both of the tables also show the components of income and expenditure and the individual flows of funds for each item. The complete sectoral accounts for all the sectors in Sheffield can be found in Appendix 12.

TABLE 9.2. SECTORAL ACCOUNTS: VOLUNTARY SECTOR INCOME (£ 000)

	<i>Total</i>	<i>CG</i>	<i>CONS</i>	<i>CS</i>	<i>CNS</i>	<i>LG</i>	<i>OUT</i>
<i>Factor income</i>							
Bar/ clothing sales	3,615.91		3,615.91				
Facility hire	659.02		659.02				
Fundraising	626.95		626.95				
Match & training fees	865.79		865.79				
Membership	2,482.73		2,482.73				
Other	1,073.58		614.65		458.93		
<i>Other income</i>							
Grants	288.65	288.65					
Interest	7.19				7.19		
Total Income	9,619.81	288.65	8,865.04	0.00	466.12	0.00	0.00

Source: Voluntary sector questionnaires (Core; University; SSC/WMC)

TABLE 9.3. SECTORAL ACCOUNTS: VOLUNTARY SECTOR EXPENDITURE (£ 000)

	<i>Total</i>	<i>CG</i>	<i>CONS</i>	<i>CS</i>	<i>CNS</i>	<i>LG</i>	<i>OUT</i>
<i>Factor exp.</i>							
Goods for resale	2,079.30	363.88		1,715.42			
Ground maintenance	998.76	174.78			823.98		
Hire facilities	654.49					654.49	
Operating costs	908.60	159.00			749.59		
Wages	2,122.10	634.72	1,487.38				
Other	1,783.00	312.03		210.79	1,260.18		
<i>Other monetary exp.</i>							
Capital exp.	2,494.76	436.58			935.54		1,122.64
Council tax	490.82					490.82	
Total	11,531.84	2,080.99	1,487.38	1,926.22	3,769.29	1,145.31	1,122.64

Source: Voluntary sector questionnaires (Core; University; SSC/WMC)

While the primary and secondary data collection provided estimates of total income and expenditure to each sector, it only provided limited information about the flows of income and expenditure between the sectors. The sectoral accounts were therefore essentially estimated using the percentage flows recorded in the base model, unless information from the primary and secondary data collection suggested otherwise. For example, in the voluntary sector the percentage of expenditure outside the area was determined from the voluntary club questionnaire. From the primary data collected in Sheffield, it was found that 45% of all capital expenditure in the voluntary sector was to outside the Sheffield economy therefore the accounts were adjusted accordingly to show this. The process of deriving the sectoral accounts was consequently a balancing exercise between the primary and secondary data and the percentage flows of income and expenditure between them, as found by the base model. The Bracknell and Wirral study (Henley Centre for Forecasting, 1989), as the only other research to be carried out at the local level, was also used to estimate flows out of the area.

There are obvious problems with using this technique to estimate the flows of income and expenditure to the various sectors. Firstly, it assumes that the monetary flows of income and expenditure between the sectors of sport-related economic activity in Sheffield, were the same as those predicted for England, from which the base model was derived. However, it is likely that there will be a greater outflow of expenditure from a local city economy than there would be from a regional or national economy (Armstrong and Taylor, 1993). Consequently, the England flows were adjusted using the information provided by the primary data questionnaires where possible. While this is not an entirely satisfactory method for estimating the flows between the sectors, it is also the technique used by the Henley Centre for Forecasting (1989), in the only other study undertaken at the local level. The Bracknell and Wirral study essentially used the monetary flows of income and expenditure predicted for the national study (Henley Centre for Forecasting, 1986) as a base and made *ad-hoc* assumptions for the local economy based on questionnaire returns and speculation. Furthermore, although primary data was used to adjust the flows in this research where possible, it was somewhat limited, as in the Bracknell and Wirral study to those sectors in which primary data was undertaken.

Table 9.4 shows the total flows of expenditure between the seven sectors of the NIA framework, derived from the sectoral accounts. Again, it does not provide estimates of value-added by each sector, rather it gives information about the linkages between the different sectors of sport-related economic activity. It should be noted that the expenditure outside the area which is recorded by consumers in the table, relates to the estimates of consumer expenditure made from the secondary sources. The consumer survey carried out in Sheffield was primarily concerned with expenditure within the city therefore the actual amount of consumer expenditure on sport-related goods and services outside the area could in fact be much higher than the £9.88 million recorded in the table, particularly if estimates of sports tourism were included.

TABLE 9.4. THE EXPENDITURE FLOWS MATRIX (£ MILLION)

	<i>CONS</i>	<i>CS</i>	<i>VOL</i>	<i>CNS</i>	<i>CG</i>	<i>LG</i>	<i>OUT</i>	<i>Total</i>
CONS		109.77	8.87	56.26	46.24	5.72	9.88	236.74
CS	23.19		0.00	33.42	13.79	1.55	42.95	114.91
VOL	1.49	1.93		3.77	2.08	1.15	1.12	11.53
CNS	22.38	5.05	0.47		11.26	1.98	14.01	55.16
CG	0.10	0.00	0.29	0.05		0.09	0.00	0.54
LG	4.22	0.71	0.00	8.14	4.02		0.00	17.10
OV	1.04	19.90	0.00	8.43	0.00	0.13		29.51

Source: Primary and secondary data

In terms of expenditure outside the area, it can be seen that the largest flow was £42.95 million from the commercial sport sector, which was approximately 37% of all expenditure in this sector. This was largely from manufacturing and retailing who purchased a large proportion of stock and materials from outside the area. As discussed in earlier chapters, economic development in the local economy is reliant not only upon generating income from outside the area, but also upon preventing leakage. Flows of expenditure outside the area are therefore an important consideration for economic regeneration and will be discussed further with regard to using sport for local economic development in the next chapter.

In addition to showing the leakage outside the area, Table 9.4 also shows the linkages between the various sectors. A further important aspect of using sport for local economic development is the use of local suppliers to the sports industry, thus

circulating and retaining money within the local economy and enhancing inter linkages within the economy. As shown, although there was leakage outside the economy, the sports industry had extensive inter-linkages with the rest of the economy, demonstrated by the commercial non-sport sector. This point will also be discussed in further detail in Chapter Ten.

9.2 VALUE-ADDED

It was highlighted in Chapter Three that the sectoral accounts presented are essentially a flow-of-funds framework and not a calculation for measuring sport-related economic activity. To calculate this, value-added was estimated in each output-creating sector. To recall, 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.

It was calculated by:

$$\textit{Value-added} = \textit{wages and salaries} + \textit{factor surplus (profit)}$$

where

$$\textit{Factor surplus} = \textit{factor income} - \textit{factor expenditure}$$

Value-added is therefore wages and salaries plus any further excess of output value over production costs.

Table 9.5 gives the actual value-added for the sport-related economic activity in Sheffield and the predicted value-added from the base model. As shown, it can be seen that the actual value-added was £165,607,987 which was approximately twice as large as the base model predicted. A number of explanations for this will be examined in the following chapter. However, given that consumer expenditure is one of the principal driving forces of the sports industry and that this was found to be approximately 2.5 times greater than predicted, this is a likely explanation. The reasons for such high levels of consumer expenditure will nonetheless be explored in the next chapter.

TABLE 9.5. VALUE-ADDED FROM SPORT-RELATED ECONOMIC ACTIVITY IN SHEFFIELD: ACTUAL AND PREDICTED FIGURES

	<i>Value-added (£)</i>		<i>Value-added (£)</i>	
	<i>Actual</i>	<i>%</i>	<i>Predicted</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

Source: Primary and secondary data; The Base Model

In terms of the actual data collected for Sheffield, the commercial non-sport sector was the largest sector of sport-related economic activity, generating £89,909,968 or approximately 54.3% of all value-added from the 'sports' industry. The second largest sector was the commercial sport sector, generating approximately £66,677,790. Together, the commercial sectors accounted for almost 95% of all value-added, which was considerably greater than the base model predicted and greater than recorded in previous studies.

In comparison to the base model, it can be seen that the actual value-added and the relative percentage of value-added were larger in the commercial sport and commercial non-sport sectors, but lower than the base model in the voluntary, local government and central government sectors. There were several reasons for this, which have been raised in previous chapters and will be discussed further in the following chapter. Firstly, in terms of the commercial sport sector, there was evidence to suggest that Sheffield was larger than average in certain sub-sectors, particularly professional sports clubs. However, there was also evidence that various items of income and expenditure in this sector, together with specific sport-related goods and services have been omitted from previous research.

The commercial non-sport sector was also found to be greater than predicted in the base model, although as there was no primary data undertaken in this sector, it is likely that

this was largely a result of the 'knock on effect' generated from increased consumer expenditure and economic activity in the commercial sport sector. However, in this sector the inclusion of additional items of sport-related final expenditure such as food and drink and sports events, which were excluded from previous studies, were also likely explanations for above average results.

A further interesting finding, shown in Table 9.5 was the decreased importance in both absolute and relative terms of the value-added by the voluntary sector. It can be seen from the table that the base model predicted that the voluntary sector would account for approximately £13,342,299, or 15.5% of total value-added. In actual fact, the primary data found that the voluntary sector in Sheffield contributed only £2,899,808 value-added which was just 1.8%. As discussed in earlier chapters, this was largely explained by the fact that previous studies and the data upon which the base model was calculated, was biased towards the larger and richer voluntary clubs and that the top down approach used in previous studies to measure the voluntary sector resulted in smaller clubs being ignored. Again this will be explored further in Chapter Ten.

Despite significant public spending on sport in Sheffield in the late 1980s and early 1990s in preparation for the World Student Games in 1991, the value-added generated from the local government sector was smaller than predicted from the base model in both relative and absolute terms. As shown in Table 9.5, the local government sector generated £6,022,848 of sport-related value-added, which was slightly below the predicted sum of £7,623,586. As discussed in the previous chapter, while total income and expenditure flowing into and out of this sector were much larger than expected, the actual expenditure on sport-related wages and salaries in SCC and SIV were below the predicted level from the base model. Given that value-added in the local government sector is equal to wages, this explains why the value-added of this sector in Sheffield was below average. Nonetheless, the precise reasons for the low expenditure on wages in the local government sector are unknown, though it is clear that since 1991, Sheffield Leisure Services have had their operating budgets cut considerably.

Various explanations for value-added being larger than the base model in some sectors and smaller in others have been suggested and these will be expanded upon in the next chapter. With regard to sport-related value-added in Sheffield, in relation to other

industries, Table 9.6 shows the GDP of Sheffield in 1996/1997 and the total output of several industrial categories. The total GDP of Sheffield in 1996/97 was £4,030.48 million, thus sport-related activities accounted for approximately 4.11% of GDP. This was larger than the proportion of sport-related value-added to the UK economy in 1995, which was 1.61% of GDP.

TABLE 9.6. OUTPUT BY INDUSTRIAL CATEGORY IN SHEFFIELD £(M) 1996/97

<i>Industrial Category¹</i>	<i>Output (GDP)</i>
Paper, printing and publishing	50.32
Food, Drink and Tobacco	110.57
Transport	142.07
Retailing	217.58
Financial services	282.91
Construction	289.07
Wholesaling, hotels and catering	361.88
Metals manufacturing	411.02
Total GDP	4030.48

Source: Business Strategies (1998)

It can also be seen from the table that sport has a similar output to many other industries which have traditionally been the focal point of local economic policy in Sheffield. The value-added of sport-related economic activity at £165.61 million is greater than industries such as transport and food, drink and tobacco, but less than retailing which has a value-added of £217.58 million.

While the purpose of Table 9.6 is to put the size of sport-related value-added into perspective, caution should be exercised when comparing the value of sport-related output with other industries, as these may also include an element of sport-related output in their total figures. Furthermore, whether the relative importance of sport is due to the strength of sport-related economic activity in the city, or as a result of the economy in Sheffield being weaker in other industrial sectors areas, thus making sport relatively more important, is debatable.

¹ It should be noted that the source used does not define the sports industry as a separate industrial category.

9.3 EMPLOYMENT

As with value-added, the sectoral accounts do not directly generate estimates of employment. These were generated using the methodology of LIRC (1997), by dividing total expenditure on wages in each sector by average wages in the relevant sector taken from the New Earnings Survey 1997 (Office for National Statistics, 1998). This gave an estimate of the number of Full Time Equivalent (FTE) jobs in each respective sector, as shown in Table 9.7.

TABLE 9.7. TOTAL EMPLOYED IN SPORT-RELATED ECONOMIC ACTIVITY IN SHEFFIELD (FTE)

	<i>Actual</i>	<i>%</i>	<i>Base model</i>	<i>%</i>
Commercial sport	1,550	42.7	1,046	28.6
Commercial non-sport	1,637	45.1	1,702	46.5
Voluntary	117	3.2	442	12.1
Local Government	322	8.9	453	12.4
Central government	5	0.1	16	0.4
Total	3,631	100.0	3,659	100.0

Source: Primary and secondary data; The Base Model

As it can be seen from the table, approximately 3,631 jobs were created through sport-related activity in Sheffield with 45.1% of jobs created in the commercial non-sport sector and 42.7% jobs created in the commercial sport sector. The total number of jobs generated through sport in Sheffield was broadly similar to the number predicted from the base model.

Although the predicted and actual number employed were broadly similar, it can be seen that the distribution of employees across the various sectors was different. The table shows that the actual number employed in the commercial sport sector was higher than predicted, but in all the remaining categories employment was lower than the base model predicted.

Based on the figures presented in Table 9.8, it was calculated that sport-related employment accounted for approximately 1.77% of all employment in Sheffield, which was slightly higher than the 1.61% of employment which sport accounted for at the national level (LIRC, 1997). Comparison with other sectors shown in Table 9.8, revealed that sport was equivalent to the food, drink and tobacco industries as an

employer in the city, although again, caution should be exercised with these figures as the industrial sectors in the table may also include sport-related employment.

TABLE 9.8. EMPLOYMENT BY INDUSTRIAL SECTOR IN SHEFFIELD, 1997 (£ 000)

<i>Industrial Sector</i>	<i>Employees</i>
Financial services	6.81
Food, drink and tobacco	3.81
Communications	7.88
Transport	4.65
Metals Engineering	20.11
Construction	8.44
Total	204.81

Source: Business Strategies (1998)

It was unusual that the proportion of sport-related employment was lower than sport-related value-added, although this has been found in other studies (Pieda, 1991). Nevertheless, it is likely that this was partly as a result of the way in which the data in Sheffield was collected, using a combination of primary and secondary methods and partly using information from the base model.

In terms of value-added, the commercial sport and commercial non-sport sectors were both considerably greater than the base model predicted. However, with regard to employment, while the commercial sport sector which was estimated using primary data was also larger than predicted, the commercial non-sport sector generated less employment than the base model. Although the majority of income flowing to the commercial non-sport sector was estimated from the flows of expenditure from other studies which had collected primary data, the expenditure in the commercial non-sport sector was derived using information from the base model. Therefore, wages and salaries, from which estimates of employment in the commercial non-sport sector were calculated used the base model, whereas profits, which were used in calculating value-added were estimated using primary data, which in many cases was larger than the base model. This was particularly significant for the commercial non-sport sector, as it was the largest sector of both sport-related value-added and employment in Sheffield.

9.4 SUMMARY

It is evident from the discussion in this chapter that where primary and secondary research has been undertaken, the value-added of sport-related economic activity in Sheffield, was significantly different in both relative and absolute terms to the national model and previous studies undertaken on the economic importance of sport.

In summary, the total value-added by sport-related economic activity in Sheffield was approximately twice as large as predicted by the base model. It was found that consumer expenditure was higher than anticipated and also that the commercial sport and commercial non-sport sectors were more important in terms of value-added. In contrast, the value-added of the voluntary, central government and local government sectors were all found to be less important in Sheffield than the base model predicted.

A number of explanations for the differences shown between the value-added of the actual data in Sheffield and the base model have been raised and the following chapter will now go on to explore these in greater detail. Chapter Ten will also link this research to broader debates on the role of sport in local economic development and examine the implications of the findings presented in this chapter, for policy makers working within the field of economic regeneration.

CHAPTER TEN. DISCUSSION

In 1995, the Leisure Industries Research Centre estimated that the value-added to the UK economy from sport-related economic activity was £9.8 billion, or 1.61% of Gross Domestic Product (LIRC, 1997). The previous chapter, which presented the findings of the economic importance of sport in Sheffield, estimated that sport-related value-added in 1996/97 in Sheffield, was £165.61 million, or 4.11% of GDP. This was approximately twice the amount predicted from the base model in absolute terms and almost three times the predicted contribution of sport to the local economy in relative terms. This chapter will now consider the overall findings of the research in the context of literature discussed in Chapter Two. It is divided into four parts as outlined below.

The first part of the chapter will seek to explain the significance of sport in Sheffield. While the previous analyses chapters have suggested various explanations for the findings of the research, in terms of the individual sectors of sport-related economic activity, the first part of the chapter will endeavour to draw together the cross cutting themes throughout these chapters and attempt to provide a holistic account of the economic importance of sport in Sheffield.

Having established the reasons for the significance of sport in Sheffield, the second part of the chapter will go on to explore the role of sport in economic regeneration. Despite the scarcity of literature in this area and the lack of empirical data at the local level, sport, along with other cultural industries is being used to stimulate regeneration in declining areas. This part of the chapter will argue, using the evidence presented in the previous chapter, that sport not only has the ability to create wealth in the local economy, but also that it can generate external income and thus perform the function of a base industry. However, it will also suggest that economic growth through sport can be enhanced by preventing the leakage of money outside the local economy.

The third part of the chapter will focus on sport and local economic development in Sheffield. It will argue that while sport contributes considerable output to the local economy, the future development of the sports industry in Sheffield should be integrated with other cultural and consumer services in the city. It will suggest that the Local Cultural Strategy, which each Local Authority in England must have in place by

2002, provides the framework and the opportunity to pursue an integrated approach to local economic development in the city.

The final part of the chapter will evaluate the merits of carrying out economic impact studies at the local level and particularly the city level. It will argue that despite the problems with collecting data for the commercial sector, research at the local level provides valuable information for planners and policy makers on the role of sport in the economy which is just not available from previous studies at the national level.

10.1 EXPLAINING THE ECONOMIC SIGNIFICANCE OF SPORT IN SHEFFIELD

As outlined in the introduction, this part of the chapter will essentially explain the economic significance of sport in Sheffield. It will argue that sport-related economic activity was larger in Sheffield for the following reasons. Firstly, the previous estimates that have been established in other studies on the economic importance of sport in the UK, have been inaccurate and have essentially underestimated the value of the sports industry. Secondly, this research was the first study to be carried out in a city, in contrast to previous studies in the UK, which have incorporated both urban and rural areas within the geographical boundaries of the research. Thirdly, sport-related economic activity in the commercial sectors was above the national average in Sheffield, largely as a consequence of above average consumer spending on sport in the city.

10.1.1 Measuring the Economic Importance of Sport

Although the overall importance of sport in Sheffield was greater than the base model predicted, the findings presented in Chapter Nine indicated that while some sectors, namely the commercial sport and commercial non-sport sectors were found to be considerably more important than predicted, others particularly the local government, central government and voluntary sectors emerged to be less important than previous research indicated. It was suggested in earlier chapters, that one of the reasons for the

differences found between the Sheffield data and the base model was that the previous estimates, which were derived from the national study, were inaccurate. The first part of this chapter will therefore re-examine the UK economic impact studies discussed in Chapter Two, in light of the findings presented in Chapter Nine and evaluate whether estimates of sport-related economic activity, as recorded in previous studies, are an accurate reflection of the contribution of sport to the economy. The first section, will compare the reliability and validity of data used in this research, with the data used in previous studies and the second section, will investigate the omission of certain aspects of sport-related economic activity, which were found to be an important part of the sports industry in Sheffield, from current estimates of the economic importance of sport.

10.1.1.1 Data reliability and validity

It was discussed in Chapter Two, that one of the longstanding problems of studies on the economic importance of sport, both within the UK and throughout Europe, has been the reliability and validity of data used to estimate sport-related economic activity (Jones 1989; LIRC, 1997). As discussed in Chapter Two, while studies carried out at the national level in the UK have the advantage that some published data are available, particularly in the commercial sector; in other sectors and in the regional and local studies, much of the data used to estimate the economic importance of sport in the past has been derived from either primary sources or from published sources using *ad-hoc* assumptions.

The information from the sectors in which primary data was carried out in this research, represented a considerable improvement on previous studies. In comparison to primary research in other studies, samples were larger, responses were higher and the methods used to collect data and the techniques used for aggregation were more appropriate. As a consequence of these improvements, the findings of this research suggest that the estimates of sport-related activity derived from previous studies have been inaccurate.

Samples and responses

It was highlighted in Chapter Two, that one of the major weaknesses of previous studies on the economic importance of sport in the UK, was the reliability of the primary data used to estimate sport-related economic activity. Such studies have been criticised for using data which was taken from small, unrepresentative samples and for aggregating data based upon a low number of responses. The data used in this research, represented a marked improvement, particularly in the voluntary and the commercial sport sector, whereby primary data collection in the past has been notoriously weak.

In terms of the voluntary sector, it was noted in Chapter Two that the largest number of clubs previously sampled was 600 in the second national study (Henley Centre for Forecasting, 1992). Other studies have sampled between 425 clubs (Pieda, 1994) and 37 (Bracknell: Henley Centre for Forecasting, 1989). In comparison, this research sampled 1046 clubs, which represents a much larger sample than any of the other studies. Furthermore, in terms of the number of sports sampled, previous studies have ranged from 6 sports (Henley Centre for Forecasting, 1992) to 38 sports (Wirral: Henley Centre for Forecasting, 1989). In this research, 34 sports were sampled. Moreover, although the response rate in this sector remained fairly low at 25%, which was broadly comparable with the other studies, 262 actual responses were obtained for Sheffield, which was more than any other UK study.

Although much data in the commercial sport sector is collected from published sources, particularly at the national level, in comparison to studies which have collected primary data in this sector, the data used to estimate sport-related economic activity in this research, was far more rigorous. While different methods were used in several of the sub-sectors of the commercial sport sector in Sheffield, the postal questionnaire in the commercial leisure sector, obtained a response rate of 32%. This compares with similar research undertaken in Scotland, whereby 12 responses from a sample of 76 commercial leisure facilities surveys were obtained (Pieda, 1991) and in the Northern region study, where 51 questionnaires were sent out to sports clubs and facilities operated by the private sector and it was not possible to exceed a response rate of 10% (Pieda, 1994).

Clearly, the examples above show that although there remains scope for further improvement, the data collected in this research represents a considerable improvement on the reliability of primary data used in previous studies.

Methods used for collecting data

Given that this study was carried out at the local level, the research provided the opportunity to collect data using different methods to those traditionally used in previous regional and national studies. Although one study had been undertaken at the local level (Henley Centre for Forecasting, 1989), the Bracknell and Wirral study used the same methods as the national studies. As discussed in earlier chapters, different methods were used to collect data in the consumer and the commercial sport sector. In both of these, but particularly the consumer sector, the findings of this research provided evidence to suggest that the estimates derived in previous studies, particularly the national studies, have underestimated sport-related economic activity.

It was highlighted in earlier chapters that consumer spending in Sheffield was measured using a household postal questionnaire. The only other study on the economic importance of sport in the UK, to use an expenditure survey to measure consumer spending on sport, was the Scottish study (Pieda, 1991). In contrast, all other studies have used published data sources such as the Family Expenditure Survey. The data collected in Sheffield, revealed that consumer expenditure on sport was approximately 2.5 times greater than predicted using the base model and as highlighted in Chapter Two, the Scottish study also found that

“sport-related value-added was over twice the level that would be implied by the UK study when allowance is made for inflation and Scotland’s share of the UK national economy” (Pieda, 1991: 18).

The evidence from both of these studies suggests that when spending on sport is investigated using a consumer survey, it is found to be much larger than when estimated using published sources.

Although there were other reasons for the differences shown in the consumer sector between the data collected in Sheffield and the base model, which will be discussed later, such as the inclusion of items previously not included as sport-related expenditure,

there is clearly evidence to suggest that the methods used to measure consumer spending on sport in previous studies, have underestimated this sector considerably. This finding was also supported by other studies which have collected data on consumer expenditure, using survey methods. Similar results were also found in the Belgian French community study on the expenditure by sports participants (Les Pratique Sportives En Communaute Francaise, 1985) and the second economic impact study in the Flanders (Taks and Kesenne, 1999). Both of these studies found that expenditure was considerably greater than previous studies using published sources. The second Flanders study (Taks and Kesenne, 1999) was undertaken 15 years after the initial study and found that household consumption in real terms, was almost 4.7 times higher than previously measured (Kesenne *et al*, 1987). While there was no doubting that consumer spending on sport had risen both within the UK (Gratton, 1998) and in Europe over this period, Taks and Kesenne (1999) acknowledge that part of the reason for the spectacular growth was partly methodological.

The evidence provided by the Sheffield consumer survey and the other consumer surveys noted above, suggests that when consumers are actually asked how much they spend on sport, it is found to be considerably more than when estimated using secondary sources. Although many of the sources used to estimate consumer spending on sport such as FES are reliable data sources, it is clear from the findings of this research that these sources are not actually a valid measure of consumer expenditure on sport. This is arguably as a result of the methods used to extrapolate sports spending from secondary sources. For example, expenditure on sport-related travel for watching sports events was not directly available from the National Travel Survey in the national study (Henley Centre for Forecasting, 1992) therefore it was assumed that consumer expenditure on this item, which was included in the 'entertainment/public activity' sub category would have the same weighting as 'spectator sports admissions charges' in the FES spending category 'theatres, sports events and other entertainments (Henley Centre for Forecasting, 1992). Clearly the validity of using such data is questionable and likely to yield quite different results to those obtained directly from a consumer survey.

Techniques for aggregation

While the evidence from the consumer sector in Sheffield strongly supports the notion that estimates in previous studies have been incorrect as a result of the methods used to collect data, evidence was also provided in the voluntary sector that the techniques used for aggregation in previous studies, have also contributed to inaccurate estimates. However, in contrast to the consumer sector, the findings of this research indicated that the voluntary sector has been largely overestimated, particularly at the national level.

The discussion in earlier chapters has suggested that one of the reasons the voluntary sector has been overestimated at the national level, is because larger and richer clubs have been over represented through the aggregation of data. For example, the second national study (Henley Centre for Forecasting, 1992), which sampled 600 clubs in the voluntary sector, but just six 'major' sporting activities, aggregated the entire voluntary sector by multiplying the number of clubs in each of the six activities by the profiles derived for each sport sampled and 'added on' an additional 20% for 'other' sports. It was previously discussed that the six sports chosen were biased towards larger and richer clubs. The selected sports were chosen for their high level of expenditure and the popularity of the activity. In addition, they were sampled from governing body handbooks. These procedures for sampling therefore did not reflect the diversity of the voluntary sector shown within this research, or the smaller clubs, shown to constitute a large part of the overall sector in Sheffield.

This research, in contrast to the national study, sampled all sporting activities which were represented in the city and given there was found to be a statistical difference between the income and expenditure of the 27 sporting activities which responded, the voluntary sector was aggregated up on a sport by sport basis, to ensure that the sector was fully represented. As a result of the techniques used for aggregation, the voluntary sector in Sheffield was found to be significantly smaller than the base model suggested, providing evidence that previous estimates of the voluntary sector have been largely exaggerated. As will be discussed later, these findings indicate that there is a need to carry out a comprehensive review of the voluntary sector.

While the discussion in this section has indicated that much of the primary data collected in Sheffield was more reliable and valid than data used in other studies, as will be shown later in the chapter, there were problems with collecting information at the local level, particularly in the commercial sport sector where confidentiality was an issue.

10.1.1.2 Estimating sport-related economic activity

The chapter has so far provided evidence to suggest that in previous studies, the techniques used to aggregate data and the methods used to measure sport-related income and expenditure, have contributed to inaccurate estimates of the economic activity generated by sport. This section will now go on to discuss how the omission of items of sport-related economic activity from previous studies has further contributed to the differences shown between the base model and the data collected in Sheffield.

As discussed in Chapter Two, previous studies have excluded a number of items of sport-related economic activity, which are widely considered to be part of the sports industry. Two items in particular, sports events and consumer spending on food and drink while participating and spectating in sport, were both included in this research, but largely excluded from other studies in the UK. As the following discussion shows, these items represent areas which have led previous studies to underestimate the economic importance of sport.

Although other studies in Europe have included food and drink within the boundaries of sport-related expenditure (Les Pratique Sportives En Communaute Francasie 1985; Oldenbroom *et al*, 1996; Taks and Kesenne, 1999), with the exception of the Scottish study (Pieda, 1991) which measured, but did not include food and drink in the sectoral accounts, no study in the UK has incorporated this item, despite travel costs being included as a sport-related final expenditure. Nevertheless, as discussed in Chapter Three, for the purposes of this study, this was considered to be a valid item of sport-related economic activity therefore it was included within the research. As the results revealed, consumer spending on food and drink was found to be considerable. It was found that Sheffield residents spent approximately £17.94 million and £6.21 million on

food and drink while participating and watching sport respectively. This therefore represents a large difference between the data collected in Sheffield and the base model figures.

With regard to sports events, the only aspect of economic activity recorded in the previous UK studies, were from the FES estimates of expenditure on entrance charges at sports events. However, as various studies on the economic importance of sport have shown, admissions are only a small element of the actual income generated by a sports event (LIRC, 1996). Additional expenditure on items such as food and drink, accommodation and merchandise all together account for a much larger proportion of the economic activity generated. The Sheffield study actually found that events accounted for approximately £11.13 million of additional expenditure from outside the city, of which the majority flowed as income to the commercial non-sport sector. This represents a significant amount of economic activity which has otherwise been excluded from previous estimates.

It highlighted in Chapter Two, that sports tourism has also been omitted from previous studies on the economic importance of sport. With the exception of visitors attending sports events, economic activity generated through sports tourism in Sheffield was likely to be minimal. Nevertheless, expenditure by Sheffield consumers on sports tourism outside the city, as shown from the consumer survey in Chapter Six, represented a large part of the sports industry which has previously been underestimated. It was discussed in Chapter Two, that the national studies (Henley Centre for Forecasting, 1986, 1992; LIRC, 1997) have largely ignored sports tourism and while more recent studies such as the Centre for Advanced Studies in the Social Sciences (1995) and Pieda (1994) have paid increasing attention to sports tourism, this is still largely underestimated. The indication that Sheffield residents alone spend approximately £49.08 million and £35.14 million on sport-related day trips and short breaks outside Sheffield, provides evidence to support this. As with sports events, the omission of sports tourism from economic impact studies represents a serious underestimate of the economic activity generated through sport.

The commercial sport sector is a further example of how previous estimates have excluded sport-related activity. For example, in this research, the commercial leisure

sector covered several categories of sports services including health and fitness clubs, riding schools, snooker and pool centres and generic sporting facilities. The national study in contrast, only included participation clubs, with none of the former listed categories, which were found to contribute a considerable amount of value-added to the commercial sport sector in Sheffield. Furthermore, the national study recorded subscriptions and fees as the only item of income generated, whereas this research showed clearly that this item only accounted for 51% of all income to the commercial sport sector, with the remaining revenue generated from items such as food and drink, equipment hire and rental of facilities. Again, this represents an area where previous studies have underestimated the economic importance of the sports industry.

10.1.2 The Spatial Distribution of Sport-related Economic Activity

Within the chapter so far, the discussion has focused on how previous estimates of sport-related activity have been incorrectly measured. While this was undoubtedly an explanation for the differences shown between the base model and the data collected in Sheffield, it has also been suggested in previous chapters, that sport was more important to the economy in Sheffield because the research was the first of this kind to be carried out in a city. This is in contrast to previous studies which have incorporated both urban and rural areas within the geographical boundaries of the research. The following discussion will argue that given service-related activity is concentrated in urban areas, this partly explains why sport-related activity was greater in Sheffield than anticipated from the base model which was derived from the national data.

It has long been central to many of the social sciences that urban places are important not only in the distribution of population within countries, but also in the organisation of economic production, distribution and exchange, political power and in the structuring of social reproduction and cultural life (Johnston *et al*, 2000). It was suggested by Marshall and Wood (1995), that the UK still presents a dominant pattern of spatial centralisation in the location of services, with a clear concentration of services in urban areas. This is arguably, also the case for sport-related economic activity in the UK.

As highlighted above, this research is the first study of sport-related economic activity to be carried out in a major city in the UK. The studies which have been undertaken in the UK at the national (Henley Centre for Forecasting 1985, 1992), regional (Henley Centre for Forecasting 1990, 1992a; Pineda 1991, 1994; Centre for Advanced Studies in the Social Sciences 1995) and local level (Henley Centre for Forecasting, 1989), have focused upon areas which have incorporated both urban and rural places, within the geographical boundaries of the research. Even the local level study of Bracknell and the Wirral (Henley Centre for Forecasting, 1989) did not include a major city within the boundaries of the study.

It is widely recognised that towns and cities differ from rural areas in many ways, not least in their industrial and economic composition. Consumer services like sport, as noted by Marshall and Wood (1995), are generally more important in cities and urban areas. Given that the base model data was derived from national estimates, which effectively averaged the contribution of sport in urban and rural areas, it is therefore inevitable that sport will account for a larger percentage of the urban economy. The base model, by simply scaling down national estimates to represent the population of the city, does not take account of the spatial distribution of associated service-related activity. It essentially ignores the fact that urban economies have a much larger service base.

Although no research has been carried out on the spatial distribution of sport in the UK, it is highly likely that sport-related economic activity is concentrated in urban areas. For example, as Chapter Two highlighted, every year in the UK there is an annual programme of major events, some of which are of global significance. The majority of these events are held in cities within the UK and thus generate significant economic benefits, particularly for the areas concerned. This is also the case for the economic activity generated by professional sports teams in the UK. The majority of top Premiership football clubs are based in cities and therefore generate more economic activity than would otherwise accrue to rural areas.

Although Williams (1997) argues that consumer services are increasingly playing an active and beneficial role in the development of rural economies, the majority share of consumer service industries and employment remain in urban areas. Therefore one

would clearly expect the economic activity generated in Sheffield through sport to be greater than base model estimates, which were derived by averaging all sport-related economic activity in the UK.

10.1.3 The Importance of the Commercial Sector

As discussed in the introduction, although the overall performance of the sports economy in Sheffield was above the national average, for some sectors sport-related value-added was below the national level, while in other sectors it was greater than the national level. One of the sectors in which there was strong evidence that the sports industry in Sheffield was genuinely performing above the national average, was in the commercial sport sector.

It was revealed in Chapter Seven that economic activity generated by professional sports clubs in Sheffield was approximately five times greater than anticipated. The main reason for this was that Sheffield is one of only several cities in the UK to have a representative team in each of the four professional sports in the UK, which are football, rugby league, basketball and ice hockey. In addition, it has both a Premier League Club and a Division One side. Previous studies have shown that the monetary flows of income and expenditure generated by spectator clubs in the commercial sport sector have varied from as little as 3% of the total commercial sport sector in Scotland (Pieda, 1991) to 12% in the UK (LIRC, 1997). The economic activity of professional clubs in Sheffield, accounted for approximately 20% and 24% of income and expenditure respectively, in this sector and clearly represented an aspect of the sports industry that was considerably more important to Sheffield than to the rest of the UK.

While professional sports teams represented one of the largest differences between the base model data and the data collected in Sheffield, other sections of the commercial sport sector were also found to generate above average economic activity. For example, in the sports retailing sector, only the economic activity generated by sports shops was measured and this was still found to be almost two times greater than the predicted economic activity of this sector. This is despite the fact that sports shops only account for 50.7% of all sports retailing sales (DTI, 1999), with the remaining channels of

distribution for sports goods such as department, shoe and clothing stores, excluded from the Sheffield results. Similarly, the sports manufacturing sub-sector was found to be approximately three times larger than the base model predicted, even though only those companies producing solely sports products were included.

While investment in the sports industry in Sheffield has largely been led by the public sector, it is clear from the findings presented in the previous chapter, that the economic activity generated by the sports industry has been created in the commercial sectors. Not only was there evidence that the commercial sport sector was performing above the national average, but that the commercial non-sport sector was also. This was largely as a consequence of the knock on effect of increased activity in the commercial sport sector, but also as mentioned previously, due to the inclusion of sports events and food and drink as sport-related economic activity.

One of the reasons for the strong performance of the commercial sectors in Sheffield was due to the high level of consumer spending on sport by Sheffield residents. As noted above, consumer expenditure was found to be larger than the base model mainly as a result of the different methods used to collect the data, nevertheless, previous studies have found that when consumer spending was measured using a survey, it was approximately double that estimated using secondary sources. However, in this research, spending on sport by Sheffield residents was more than 2.5 times greater than anticipated. This indicated that Sheffield residents actually spent more on sport than average. Given that approximately 70% of all consumer expenditure flowed to either the commercial sport or commercial non-sport sectors, this explains why these sectors were larger than average. Despite this, it is not clear whether residents in Sheffield have always spent more on sport or whether this demand has developed as a consequence of increased sports provision in the city.

As highlighted in the previous chapter, approximately 95% of the value-added by sport-related economic activity in Sheffield was generated by the commercial sectors. This was considerably more than in previous UK studies, where value-added in the commercial sport and commercial non-sport sectors has varied between 53% in the Wirral (Henley Centre for Forecasting, 1989) and 74% in the most recent UK study (LIRC, 1997). This represents a maturing of the sports industry, as traditionally the

sports industry has been heavily dependent upon the voluntary and the government sector. Furthermore, if sport is to be used for regeneration purposes, as will be discussed in the next part of the chapter, it is fundamental that it has a strong commercial base.

Given that the main reasons for the importance of sport in Sheffield have been established, the following section will now go on to discuss the wider issue of sport and economic regeneration.

10.2 THE ROLE OF SPORT IN ECONOMIC REGENERATION

As discussed in Chapter Two, the development of urban cultural strategies for economic regeneration has become increasingly prominent throughout cities in the UK and elsewhere in Europe (Bassett, 1993). With the emergence of Local Cultural Strategies, sport is now firmly on the regeneration agenda in the UK and is widely considered to be a viable option for urban renewal. Regardless of this, the literature on sport and economic regeneration is limited. Using the findings presented in the previous chapters, the following discussion will argue that sport has the potential to be used for regeneration purposes. It will demonstrate that sport has the ability to generate wealth in the local economy and to perform the function of a base industry. Within this section, the notion of sport as a 'dependent' industry reliant on other sectors of the economy will be challenged and it will be argued that sport can generate net income through drawing people into the city, while also providing goods and services for the local population.

10.2.1 Sport as a Wealth Creator

For an industry to contribute to local economic development and revitalisation, it is fundamental that the industry concerned can generate wealth in the form of income and employment to the respective economy. As the previous chapter and the economic impact studies reviewed in Chapter Two have shown, sport generates a considerable

amount of wealth to the economy. In the UK, this is currently estimated at approximately 1.61% of GDP (LIRC, 1997). However, as the discussion earlier in the chapter revealed, it is likely that sport actually generates considerably more than this. The research carried out in Sheffield has revealed that the value-added through sport-related economic activity in the city, was approximately £165.61 million or 4.11% of GDP in 1996/97. Clearly, as evident from these figures, sport can create wealth.

While research on measuring the economic importance of sport in the UK has been carried out since the mid 1980s (Henley Centre for Forecasting, 1986), the idea of developing sport as an industrial sector and using it for economic regeneration has never been seriously considered. As discussed in Chapter Two, the literature on sport and economic regeneration has largely focused on hosting sporting events (Bramwell, 1997) or the development of prestigious stadiums for professional sports teams (Baade and Dye, 1988; 1990; Loftmen and Spirou, 1996). Nevertheless, as the findings of this research revealed, although events and professional teams have an important role to play in the generation of jobs and other aspects of economic development, value-added was generated from a far wider range of activities.

While it is widely perceived that professional sports clubs are the major generators of economic activity in the commercial sport sector, it can be seen from Table 10.1 that, in fact, sports retailing and sports manufacturing both generated more value-added than professional sports clubs in Sheffield. Professional sports clubs are undoubtedly an important part of the commercial sport sector, accounting for 21.4% of value-added. Nevertheless, there are other sectors which are equally important in terms of the wealth created, yet are seldom considered to be an integral part of the sports industry for regeneration purposes.

TABLE 10.1. VALUE-ADDED IN THE COMMERCIAL SPORT SECTOR

	<i>Value-added (£)</i>	<i>%</i>
Professional Sports Clubs	14,251,733	21.4
Commercial Leisure	13,514,344	20.3
Retailing	20,840,006	31.3
Manufacturing	17,028,320	25.5
Other	1,043,387	1.6
Total	66,677,790	100.0

Source: Commercial sport questionnaire (Professional clubs/Commercial Leisure; Manufacturing; Retailing)

This research has shown that sport can contribute significant wealth to the local economy and furthermore, that professional sports teams and sports events are only one part of the broader sports industry. The following section will now go on to examine whether the economic activity generated by the sports industry as a whole can be used for regeneration purposes.

10.2.2 Sport as a Base Industry

As discussed in the literature review, although this research and various other studies have shown that the sports industry has the ability to generate economic activity, sport is still largely regarded by practitioners and academics as a dependant activity, reliant upon other industries to generate wealth (Williams, 1997). The following discussion will argue, using the data collected in Sheffield, that in addition to creating wealth in the local economy, sport can also satisfy the requirements of a base industry.

To recap the discussion in Chapter Two, economic base theory which has traditionally been used to formulate local economic policy and to conceptualise local economic development, argues that the economic base of an area is divided into basic and dependant activities (Illeris, 1996). Basic activities, which are essentially defined as those sectors which are able to sell their products outside the economic base, are primarily goods producing sectors, agriculture and manufacturing. They are assumed to bring money into an area which is subsequently redistributed, thus producing a multiplier effect. Dependant or non basic activities are assumed to circulate money within the economy and play a passive role. They are also perceived as being reliant upon the basic sector.

Although producer services have increasingly been recognised alongside manufacturing as a basic sector activity over the last decade, consumer services such as sport are widely assumed to be deeply entrenched in the 'dependent' sector (Williams, 1997). The following discussion will argue, using the evidence presented in the previous chapter, that sport does in fact fulfil an external income generating role and thus functions as a basic sector activity. It will also suggest that sport has the ability to generate 'net' income through providing sport-related goods and services for residents of Sheffield, thus preventing leakage to outside city. In addition, it will argue that the linkages with other industries in the economy provide a strong case for using sport as a motor for local economic development.

10.2.2.1 External generating capacity

One of the underlying rationales for defining a basic sector activity, is the ability of an industry to generate external income to an area. In terms of local economic policy, this has resulted in a focus on developing export orientated activity (Persky *et al* 1993). Although producer services such as finance, are now more widely accepted as exporting their products; in contrast, consumer services such as sport are often viewed as producing goods and services for the local and regional economy. However, Williams (1997) argues that consumer services generate external income through importing consumers rather than exporting a particular product. As the following examples show, the results of this research reveal that the sports industry does in fact export products, in addition to importing consumers.

The sectoral accounts which were derived to calculate value-added in the previous chapter and which are shown in Appendix 13, reveal that approximately £29.51 million was 'exported' from the sports economy in Sheffield in 1996/97. The largest exporting sector of sport-related economic activity was the commercial sport sector (£19.90 million), followed by the commercial non-sport sector (£8.43 million). In terms of the economic activities which generated external income, the export of manufactured sports products generated approximately £16.30 million for the commercial sport sector, while the importing of consumers to sporting events generated £11.13 million, primarily for the commercial non-sport sector. Clearly it can be seen from these figures, that sport-

related economic activity in Sheffield generated external income primarily through two sources. Firstly, manufactured sports goods and secondly, imported consumers. Both of these activities generated external income to the local economy and consequently it could be argued that sport is performing as a base industry.

If economic development is dependant upon the external generating capacity of an industry, whether it is through exporting products or importing consumers, for sport to be successfully utilised for economic regeneration it is necessary to maximise external income generating potential. With regard to sports events therefore those which span over a period of several days which require visitors to stay in the city and spend additional money in the commercial non-sport sector should be prioritised. For example, although a one off event, the World Masters Swimming Championships held in 1996 is a classic example of the type of event, cities using an events led strategy for economic regeneration should attempt to attract. The external income generating capacity of this event was large, despite only having 4,500 participants, because most competitors stayed on average for 7 to 8 days and consequently spent money in the local economy. In total it was estimated that this event generated £3.9 million additional expenditure in the city (LIRC, 1996).

Although the example given above was a special event, similar principles apply to regular sporting events. To maximise the external generating capacity of professional sports teams to the local economy, spectators should be encouraged to spend money elsewhere in the city. For example, visiting supporters to football games are often transported directly to the ground and immediately escorted out without an opportunity to spend currency within the locality. Williams (1997) uses the example provided by Baade and Dye (1988) in the US, whereby visiting sports spectators are ushered through 'commercial corridors' to maximise local spending. If sport is to be seriously considered for economic regeneration, opportunities to generate external income particularly from visitors to sporting events must be capitalised upon.

10.2.2.2 Enhancing economic growth in the local economy

While the need to generate external income is arguably a central feature of local economic development, Williams (1997:239) argues that “for an economy to grow, it is not the rise in external income alone, but rather, an increase in net income which is required”. As highlighted in the literature review, Persky *et al* (1993) suggest that this can be achieved by preventing leakage of money outside the local area. The following discussion will therefore outline those aspects of the sports industry where local suppliers were used in Sheffield and investigate where leakage in the sports industry was most apparent.

With regard to leakage, it was shown in the previous chapter that while sport-related economic activity in Sheffield exported £29.51 million of goods and services, it imported approximately £67.97 million of goods and services from outside the local economy. This represents a considerable leakage of money out of the city. In Sheffield, the largest sector through which leakage occurred was the commercial sport sector, which was responsible for £42.95 million of all imports. The largest items which were imported were materials for manufacturing, stock for resale in sports retailing and inputs to professional clubs. To maximise the contribution of sport to economic regeneration it is necessary to minimise these leakages.

As discussed in Chapter Nine, the leakage from the sports industry in the local economy was likely to be greater than found in previous studies at the regional and national level, essentially because the inputs required by the sports industry were not available within the local economy. This is supported by Marshall and Wood (1995: 222) who state that

“at smaller scales, the share of service inputs purchased ‘locally’ would be expected to be progressively lower since the capacity to provide for a full range of specialist needs declines”.

Given that the reasons for purchasing inputs from outside the area were not investigated fully, it is not possible to comment on the reasons for leakage in the Sheffield sports economy any further. However, it is likely that one of the reasons for leakage through stock for retail was through multiple ownership. Although Sheffield had an above average number of locally owned retailers, the significant turnover of the multiple retailers was a large source of leakage and loss of money in the Sheffield economy.

Nevertheless, this is also likely to be a source of leakage in both regional and national economies.

An additional aspect of leakage that was not measured within this research, was expenditure by residents on sport-related goods and services outside the city, particularly on participating and watching sport. Although the estimates of consumer spending, which were derived from secondary sources, included expenditure outside the area, the estimates made from the consumer survey only related to expenditure within Sheffield. As discussed previously, consumer spending on sport in Sheffield was approximately 2.5 times larger than the base model predicted and although investigation of expenditure outside the city would not have influenced the value-added by sport in Sheffield, it would have given an indication of the amount of leakage and thus potential net income that could be generated.

The discussion so far has focused on how sport can perform as a basic sector activity and how wealth created in the economy can be maximised by preventing leakage. However, to perform the latter function, linkage between the sports industry and other sectors of the economy is important. The degree of inter-dependence in the sports economy was particularly shown in the previous chapter by the commercial non-sport sector. The commercial non-sport sector represents the part of the sports industry which supplies goods and services directly to the sports sector. Essentially it is those economic activities which are strictly outside the definition of the sports industry as discussed in Chapter Three, but which are directly dependent upon spending within it. The commercial non-sport sector in Sheffield represented 54.3% of all value-added by the sports industry.

As shown from the expenditure flows matrix in Table 9.4 in the previous chapter, the sports industry showed fairly extensive inter-linkages, particularly between the commercial sport sector and commercial non-sport sector. The commercial sport sector spent approximately £33.42 million on inputs from the commercial non-sport sector, on capital items and current inputs such as food and drink, materials for manufacturing and advertising. This represented approximately 29.1% of all expenditure from the commercial sport sector. The purchase of these inputs from local suppliers rather than from outside the city means that additional income was thus circulated and retained

within the local economy. If sport is to be used for economic regeneration then the inter-linkage with other aspects of the sports industry and the relationships and exchanges with other economic functions within the local economy are important and need to be enhanced.

From the discussion in this section, it is clear that sport has the potential to be used for economic regeneration. It has been argued that an important aspect of using sport-related economic activity for local economic development is not only the ability to draw people from outside the locality to use sporting services and to generate external income, but also the ability to provide such sport-related goods and services for consumers to prevent the local population from going outside the city to obtain these. The importance of linkages within the economy has also been highlighted to minimise leakage and to maximise the circulation of money.

Given that the ability of sport to create wealth and fulfil the role of a basic sector activity has been shown, the following section of this chapter will now examine whether sport can be used for local economic development in Sheffield.

10.3 Sport and Local Economic Development in Sheffield

As a result of the economic problems facing Sheffield following the collapse of manufacturing in the 1980s, the City Council, in a bid to develop a viable strategy for economic regeneration turned to sport. As illustrated by Taylor *et al* (1996: 67)

“the marketing of Sheffield (with the set of sports stadia that would then have been built) as the City of Sport would help redirect, reposition and reorganise the local economy, with potentially significant benefits in respect of economic growth and job creation”.

However, despite these intentions, until now no evaluation of the impact of developing sport was ever undertaken in the city. Although an economic impact study of the WSG was undertaken prior to the event in 1991 (Sheffield City Council, 1990), no research on the wider impact of sport as an industrial sector was carried out, regardless of the fact that the intention was to use sport as a catalyst for economic regeneration in the

city. Furthermore, even though sport remains central to economic and social regeneration strategies in the city at present (Sheffield First Partnership, 1999), policy makers still know little about the economic importance of sport.

In the light of the findings presented in Chapter Nine and the preceding discussion on sport and economic regeneration, the following part of this chapter will reflect upon the decision by Sheffield City Council to pursue local economic development through sport and other consumer services. It will also investigate the future role for sport in economic regeneration in Sheffield and the contribution of this research to informing this process.

10.3.1 A Review of Sheffield's Sports led Strategy

Sport has featured prominently within the local economic development policies of Sheffield in the 1990s. As the previous chapter has shown, the economic importance of sport in Sheffield was approximately twice as large as the economic activity generated through sport-related activities at the national level. However, as there were no previous estimates against which to measure this in Sheffield, other than national figures, it is not possible to evaluate whether investment in sport has contributed to local economic development in Sheffield at the present time. Although a benchmark for measuring the economic importance of sport exists for the future, at present the data reflects only a snapshot view of sport in the economy, during 1996/97. Nevertheless, the discussion in 10.2 indicates that from this snapshot, sport has the potential to fulfil the role of a regenerating industry. The following discussion will now review the sports led strategy adopted by Sheffield, in the wider context of regeneration and consumer services in the city.

Although there are indications from the research carried out in Sheffield, that sport is a viable industry for economic regeneration, many cities in the UK are reluctant to turn to consumer services for redevelopment. As Williams (1997: 238) notes

“it is more than mere coincidence however, that the localities which have most heavily turned towards consumer services as their saviour are those which felt they had little other option open to them following the severe restructuring of their manufacturing base”.

Although Williams (1997) revealed that consumer services such as tourism, the cultural industries, retailing and universities have the ability to create wealth and to generate external income to local economies, consumer services holistically continue to be viewed by planners and policy makers alike, as a solution to economic regeneration if other regeneration initiatives fail. Arguably, the only reason Sheffield turned to the development of consumer services and sport was because of failing to attract producer services. Unlike Leeds which successfully attracted producer services and financial services in particular, Sheffield was left with no option, but to look towards consumer services for economic development (Taylor *et al*, 1996).

Despite the evidence emerging to suggest that consumer services are not dependent activities, but are capable of contributing to economic development, they are equally perceived by the general public as incapable of fulfilling a regenerating role. Nonetheless, this is largely exacerbated by the media, as shown in Sheffield during and in the aftermath of the World Student Games in 1991. Reports of substantial financial losses to the council and speculation of increased local taxes and decreased council services, all contributed to widespread criticism of the sports led strategy, regardless of the fact that no research has been carried out on the medium and long term impacts of investment in sport on the city. The financial loss of £10.4 million on the WSG is still used today as a criticism of any further attempts to develop the sports industry.

One of the clear indications from this research is that although the sports strategy has been led by the public sector, the returns to local government from this have been minimal. The results presented in the previous chapter indicate that the return on investment in sport has been to the commercial sectors, which were found to capture almost 95% of all value-added by sport-related economic activity in Sheffield. One of the major criticisms of public investment in sport in Sheffield, has been that local taxpayers are in effect subsidising the economic benefits that accrue to commercial leisure and tourism operators. However, as LIRC (2000a) argue, the rationale for this is that the local community benefits from increased employment opportunities.

Nevertheless, one of the main concerns expressed about the development of sport to replace the decline in manufacturing is the type and number of jobs which the industry generates. It is frequently argued in Sheffield that sport has done little to compensate

the heavy job losses experienced in the 1980s and that jobs created from sport, leisure and other services are low paid, part time and insufficient to counteract the jobs lost through the decline in manufacturing (Lawless and Ramsden, 1990; Dabinett 1991). As shown from the Census of Employment (Central Statistical Office, 1995), 25.6% of sports jobs are managerial and professional (33% for the UK economy as a whole) and just 31% are part-time compared with 28% of all UK jobs (Central Statistical Office, 1995). Furthermore, sport is a rapid growth area in the overall economy (Gratton, 1998), unlike manufacturing activities.

It was highlighted in the previous chapter that as a result of the sports led strategy employed by the city, sport-related activities in Sheffield accounted for approximately 4.11% of GDP in the city. Although this was a similar output to many other industries which have traditionally been the focal point of local economic policy in Sheffield, sport is only a small part of the consumer service sector. Furthermore, although it is one of the fastest growing sectors of the leisure industry, it is arguably not large enough at the present time to be used as an industrial sector in its own right for regeneration. The remaining discussion in this section will therefore suggest, that sport should be strategically developed in Sheffield, together with other consumer services in the city.

10.3.2 Developing Sport in the Future

It has been shown throughout this chapter that sport can play an important role in the revitalisation of the Sheffield economy. Nevertheless, as suggested above, it is not large enough on its own to replace the large number of jobs lost in manufacturing in recent years. One solution is to develop an integrated strategy which incorporates other cultural industries in the city. An ideal platform on which to build such a policy is the Local Cultural Strategy (LCS).

As discussed previously, in June 1999, the Department of Culture, Media and Sport (DCMS) published a guidance document for Local Authorities in England on developing Local Cultural Strategies (DCMS, 1999). By 2002, all local authorities are expected to have a strategy in place, which is essentially a vision of how the local area intends to develop its cultural services. Although the development of Local Cultural

Strategies are intended to address a wide range of national cross cutting themes including social inclusion, regeneration and life long learning; cultural services including sport are also viewed as playing an important role in the economic development of local areas. It is envisaged that the LCS should relate to the strategies of the Regional Development Agency (RDA) and the Regional Cultural Consortium (RCC). In addition, they should link in with the other plans and strategies in the local authority, including the service strategy plans for each of the cultural services.

Critics of the consumer-led strategy approach in Sheffield have in the past, pointed to the lack of co-ordination between development of these industries and the fragmented approach to developing a strategy to incorporate sport and other cultural industries. While the city has managed to transform its economic base from one dominated by traditional manufacturing industries, to service based activities, many argue that the development of the universities, the cultural industries quarter, retailing, sport and tourism remains fragmented. The LCS provides an opportunity to develop a holistic approach to the cultural industries in Sheffield, which should incorporate both economic and social objectives and should link to the wider spectrum of consumer services in the city.

In the future, ways to forge links between consumer industries should be encouraged. For example, there is scope to develop the technological side of the sports industry by using the expertise which exists in the two universities. Previous discussion has shown that the sports manufacturing sector in Sheffield has the ability to draw external income into the local economy therefore there is a need to enhance linkage between the International Sports Engineering Association based at the University of Sheffield and the sports production sector in the city.

A further consideration for the development of sport in the future is European Structural Funds. The South Yorkshire Region has recently been designated an Objective One region, which means there are funds available to promote the economic development of regions which are lagging behind other areas in Europe, by improving the infrastructure and encouraging new industries. The South Yorkshire region has qualified for this as the per capita GDP is less than 75% of the EU average. Sheffield needs to investigate how these funds can be accessed to develop sport and other cultural industries in the

city. One area of the sports industry which has the ability to generate external income, but is currently only a small part of the commercial sport sector, is sports manufacturing. If policy makers within Sheffield continue to target sport as a potential growth area for regeneration (Sheffield First Partnership, 1999), then there is a need to investigate the various ways in which Objective One funds can be used to develop this sector, within the regeneration strategy of the city further.

To develop sport in the future, those aspects of sport-related economic activity which generate a large net income need to be targeted. At present, professional clubs fall into this category, but from the football season 2000/2001, Sheffield no longer has a Premier League football side. As shown in previous chapters, Sheffield Wednesday Football Club was responsible for a large proportion of the income generated in the commercial sport sector and the relegation of the club, will undoubtedly reduce the value-added of this sector in the future.

The events programme should remain an important part of the sports strategy for Sheffield. It has been shown in this research that sporting events generate considerable income to the local economy. Nevertheless, the year in which the study was undertaken represented an exceptional year for events and future projections should not be based on the figures given for 1996/97. However, events do generate external income and funds should be made available to allow the city to compete against other contenders in the UK for international and world class sporting events.

With more cities like Manchester, also developing world class facilities, attracting major events is likely to become increasingly difficult. Nevertheless, emerging evidence suggests that events not only stimulate economic activity in the commercial sector, but they are also important for the marketing and imaging of Sheffield. Such intangible benefits are crucial to the success of service based regeneration strategies. In addition, to maximise the external income generated through sporting events, visitors should be encouraged to stay in the city and spend additional money. Where possible, sporting events should be planned to coincide with other cultural activities in the city which visitors should be encouraged to attend.

The Local Cultural Strategy should be used as a way of synthesising the development of consumer services in the city. While the LCS should be based on the needs, demands and aspirations of the communities which the local authority serves, it should also address the economic needs of the city. The development of partnerships between various cultural industries such as sport, the arts, and creative industries with other consumer services such as universities and retailing are paramount if Sheffield is to successfully pursue a consumer orientated approach to development in the future.

10.4 THE VALUE OF RESEARCH AT THE CITY LEVEL

As a way of summarising the discussion within this chapter, the final part will evaluate the merits of carrying out research on the economic importance of sport at the city level and examine how useful this research has been for informing policy makers on the role of sport in economic regeneration.

10.4.1 Data Collection

Firstly, with regard to data collection, as discussed at the beginning of the chapter, much of the data collected in the Sheffield study was more inclusive and legitimate than the primary data used in previous studies in the UK. Nevertheless, while some sectors of the sports industry were easier to investigate at the city level, others were more problematic.

The voluntary sector was one area of data collection which benefited from being investigated at the local level. No published data sources exist for this sector at the national level therefore data collection at the local level significantly improved existing knowledge in this area. The voluntary sector benefited particularly from being investigated at the city level because information such as the number of clubs and organisations in the area was readily available and it was possible to sample the whole population. Nevertheless, data collection could have been improved in the Sheffield study with increased resources, which could be used to enhance response rates and reduce sample bias.

In terms of consumer spending, although reliable published data sources such as the Family Expenditure Survey (FES) are available at the national level, research at the local level has revealed that the use of these sources are not a valid measure of sport-related spending in the UK. Research at the city level has revealed that consumer spending on sport was considerably higher than predicted using published sources and that a review of how this sector is estimated at the national level is required. Although there were problems with investigating the consumer sector at the city level in Sheffield, for example with response bias in the questionnaire returns, as with the voluntary sector, many of these issues could be resolved with increased resources. If the consumer survey was to be repeated in the future, the data would be much improved by targeting those respondents that were under represented in this research, for example, T2 and T3 respondents, who were those who persons that had participated in sport sometime in the last 12 months, but not more than once in the last 4 weeks. The data would also be improved by investigating further, the spending patterns of those who had not participated in sport in last 12 months, but who may have spent money on sport on behalf of others, particularly on sports goods and also on sports events.

In contrast to the voluntary and consumer sector, data on the commercial sector was on the whole, considerably more difficult to collect at the city level. There were exceptions to this, for example, this was not the case for professional sports clubs or for those parts of the commercial sport sector for which published sources were available. However, by and large, data collection in this sector was problematic. While the primary data collected in the sports retailing and manufacturing sectors represented an improvement on previous studies which had carried out primary data, such as the Henley Centre for Forecasting (1989) and Piedad, (1991), the data which was collected at the city level, was generally less reliable than published sources. Studies at the national level benefit from the availability of data from the Office for National Statistics, Mintel, UK Markets, the DTI and so on, which provide information on the commercial sports sector at the national level. Unfortunately at the local level, such statistics are not available and the only solution is to either collect primary data or to pro-rata figures as in the base model, which is invariably detrimental to the quality of estimates which are subsequently produced.

As the discussion has shown, there were clear merits to collecting data at the local level. The voluntary sector, local government and the consumer sector all benefited from being investigated at the city level and with increased resources, data collection in the voluntary and the consumer sector could certainly be improved. Nevertheless, data collection in the commercial sector remains problematic and even with additional resources it is unlikely that the quality of data collected in this sector could be improved at the city level. Instead, the legislative powers of government are required to improve data collection in the commercial sport sector and this, invariably, is only likely to occur at the national level.

10.4.2 Providing Information for Policy Makers

Research at the local level has the advantage that it provides policy makers with information at the spatial level where policy is formulated. Although research at the regional and national level has broader policy implications, it is at the local level where the type of information collected in an economic impact study such as the one carried out in this research, can be utilised.

Undertaking research at the city level in Sheffield has proved to be an invaluable exercise in several ways. First and foremost, it has enabled a benchmark estimate for the economic activity generated by the sports industry in Sheffield to be established. This not only provides information for policy makers on the level of economic activity generated in 1996/97, but it provides a platform from which to develop further research on the economic importance of sport. By carrying out similar research at regular intervals in the future, it will be possible to evaluate the role of sport in local economic development. Secondly, it has provided valuable information on wealth and job creation and the strengths and weakness of the sports industry in Sheffield, which can be used by the Chamber of Commerce to bid for Objective One funding to develop further the sports industry in the city. This information could not have been provided by regional and national studies.

Although this research has provided an assessment of the size and nature of the sports industry in Sheffield, the information presented within this thesis is a snapshot of the

role of sport in the economy. The NIA framework has provided a static measure of the economic activity generated by sport in Sheffield in 1996/97. It is basically a static stock evaluation of the economic value of sport in Sheffield and thus while providing useful information for policy makers, it has limited forecasting potential. For the model of economic activity generated by sport to be a useful tool for regeneration purposes, there is a need to develop a policy driven dynamic or flow analysis. Rather than just providing a static benchmark estimate of the economic importance of sport in Sheffield, there is a need to develop a model to look at the marginal implications for economic activity and employment, of an injection of investment money in particular areas of the sports industry.

At present, the information provided in this research does not indicate to policy makers which sectors of the sports industry would benefit from additional investment and which sectors would produce optimal output to the Sheffield economy. Therefore, for policy makers in the future, there is a need for a more effective system for monitoring and evaluating sport-related investment at the local level. There is a need for greater clarity about the nature of relationships between inputs and outputs of the sports industry. This will enable policy makers to identify those aspects of the sports industry which should be invested in. Such an approach would permit a more precise identification of the role of sport in economic development and possibly lead to a more coherent approach and integrated allocation of resources in the future.

It was noted in Chapter Two, that the idea of treating sport as an industrial sector in its own right has never been seriously considered, as has happened in other cultural industries (Lincoln and Stone, 1999). Arguably, a reason for this is that research has never been carried out at the local level. In tourism, the arts and other cultural industries, economic impact analysis has nearly always been undertaken at the local level. Therefore, a further advantage of carrying out research at the city level is that it allows the sports industry to be compared to other industries widely used for regeneration purposes. Furthermore, research at the city level provides the opportunity to study various aspects of the sports industry in depth, such as labour market dimensions. As outlined earlier in the chapter, the sports industry is largely perceived to create low paid, part time work and an analysis of sport-related employment at the city level would provide an insight into whether this perception is correct.

In summary, despite the problems which exist with collecting data in the commercial sector, research at the city level does provide information for policy developers which can not be provided by any other level of study in the UK. This research has essentially provided a snapshot of the economic characteristics of the sports industry and a benchmark of the economic importance of sport in Sheffield. Furthermore, it has presented information which can be used to evaluate the role of sport in economic regeneration in the future, in addition to providing the basic information required for the development of a sport-led regeneration strategy. Although it is beyond the scope of this research, there is now a need to further develop a model for the sports industry which can be used to aid policy makers with the allocation of resources in the future.

CHAPTER ELEVEN. CONCLUSION

This study set out to examine the economic importance of sport at the local level. The research aimed to estimate the economic importance of sport in Sheffield and in doing so, sought to become the first comprehensive assessment of the economic activity generated by sport-related goods and services at the city level. The final chapter of this thesis will now consider the outcomes of the research in the context of the objectives outlined in Chapter One. It will then go on to outline a number of recommendations for further research.

11.1 FINDINGS OF THE STUDY

While the previous chapter sought to explain the findings of the research in the context of the literature, the following discussion will now examine whether the objectives of the research, established in Chapter One were achieved.

The first objective of the research was to consider and to critically evaluate, the alternative economic methodologies that may be used for the estimation of the economic importance of sport. Three methodologies were considered. These were:

- Multiplier Analysis;
- Input-Output Analysis;
- National Income Accounting (NIA) framework.

The literature review concluded that given the resources available, the objectives of the research, time constraints and the economy in question, the NIA framework was the most appropriate methodology for measuring the economic importance of sport at the local level. The NIA framework was the most transparent method of those considered, therefore the possibility of double counting was minimised. Although at the national level a large proportion of the data required for this framework was obtained from the UK national accounts, data collection at the local level was nevertheless considered to be feasible. Furthermore, while the application of this framework at the national level required a number of assumptions to derive the required data from published accounts, the collection of data using primary sources eliminated this weakness to a certain extent.

Although the Input-Output method was considered to be an appropriate method at the national level, Input-Output tables were not available for the local economy in Sheffield. This method would have therefore required the derivation of tables for the local economy, which would have been expensive and data demanding. Furthermore, the industrial categories used in the national tables are broad and only 12 of the 123 categories relate to sport. In addition, a review of the alternative methodologies for measuring the economic importance of sport at the national level by LIRC (1997) concluded that the Input-Output method, a more conceptually difficult methodology anyway, gives very similar results to the NIA framework. This method was therefore not considered to be appropriate for a local study.

Similarly, Multiplier Analysis was not considered to be an appropriate method to measure the economic importance of sport. While this method is more applicable for local and regional economies, no evidence was found of multiplier analysis being used to measure the economic activity generated by industrial sectors. This technique is more commonly used for measuring the direct, indirect and induced effects of additional (visitor) expenditure, such as that generated by sporting events. It was therefore questionable whether it was appropriate for measuring the economic activity generated by the whole sports industry and thus was not considered a viable option.

The second objective of the research was to follow through to empirical investigation, those methodologies found to be appropriate and feasible for measuring the impact of sport at the local level, in order to estimate the economic importance of sport in Sheffield. As the National Income Accounting framework was the only method considered suitable, the economic importance of sport was estimated using this technique.

The value-added by sport-related economic activity was found to be £165.61 million, which was approximately 4.11% of GDP in Sheffield in 1996/97. Furthermore, it was also found that approximately 3,631 jobs were created through sport. The research revealed that in absolute terms, the economic importance of sport in Sheffield was approximately twice that at the national level, but in relative terms, given that the Sheffield economy is performing below the national average, sport was found to account for almost three times the amount of GDP at the national level.

The study found that consumer spending on sport was far higher than previous estimates have shown. It also revealed that the commercial sport and commercial non-sport sectors were notably more important at the local level in Sheffield, but that the voluntary sector in particular was considerably smaller than predicted, accounting for only 1.75% of sport-related value-added, compared to 15.49% in the base model. However, this research provided evidence to suggest that the previous estimates established in the national studies and other economic impact evaluations in the UK were incorrect and that there is a need to re-evaluate these.

The final objective of the research was to evaluate the potential role of sport in local economic development and regeneration. As discussed in the previous chapter, the research revealed that sport can generate a considerable amount of wealth, not only through sports events and professional sports teams, which are traditionally considered to be those aspects of sport-related economic activity which contribute to economic regeneration, but through a whole host of other commercial activities.

The research found that sport can perform as a base industry and thus has the potential to be used as a regenerating industry. It showed that in Sheffield, sport has the ability to generate external wealth from outside the local economy, one of the underlying rationale for defining a basic sector activity. It also showed that the sports industry has a fairly high level of linkage with other parts of the economy in the city, a fundamental feature for a regenerating industry. The research suggested that if sport is to be used for economic regeneration, in Sheffield or in any other city, linkages between the sectors of the sports industry and other parts of the economy need to be enhanced and leakage needs to be minimised. In addition, the opportunities to generate external income need to be capitalised upon. Finally, the research suggested that although sport has the potential to be used for local economic development, particularly in Sheffield, this can only be fully evaluated by deriving time series data, to monitor future investment.

11.2 IMPLICATIONS AND RECOMMENDATIONS FOR FURTHER WORK

Research of this type inevitably throws up issues which go beyond the objectives of the immediate study and identifies areas for further investigation. The following discussion will therefore outline recommendations for future research, firstly at the national level and then at the local level.

One of the most significant findings of the research was the evidence that suggested that previous estimates of the sport-related economic activity at the national level have been incorrect. **The first recommendation for further research therefore is a re-evaluation of the way in which the economic importance of sport is measured at the national level.** The sources of data and the methods used to collect data at the national level need to be fully reviewed, as do the techniques used for aggregating sport-related economic activity.

Given that there are considerable problems with data reliability and validity when carrying out economic impact studies of this type at the national level (LIRC, 1997), the feasibility of deriving a bottom up, rather than top down estimate should be investigated. This may 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 the arts. However, it should be based on a larger number of case studies. This approach would allow the collection of reliable quantitative data to support existing published data and also make possible the collection of in-depth qualitative information on the sports industry.

Regardless of the approach adopted to future research at the national level, particular attention needs to be given to the voluntary sector. As shown in previous chapters, this research revealed that the current estimates of the economic activity generated by the voluntary sector at the national level are incorrect. **The second recommendation of this research is that an comprehensive investigation of the economic activity generated by the voluntary sector in sport in the UK is undertaken.** At the present time, this is clearly the weakest part of the national study and for the annual estimates of the economic importance of sport, which are now being undertaken for The Sports

Council, to retain any credibility, a revision of the way in which the voluntary sector is estimated is urgently required. The research should aim to set up a current database of the financial accounts of voluntary clubs and the total number of volunteers and time worked. It could either be undertaken as 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 which has arisen in previous studies, by only recording information from larger and more affluent clubs.

With regard to the other sectors at the national level, this research showed that current estimates of consumer spending on sport are well below the actual level of expenditure. As discussed in the previous chapter, although many of the sources of data used to estimate consumer spending, such as the Family Expenditure Survey are reliable data sources, it is clear from the findings of this research and other studies which have carried out consumer surveys, that these sources are not in fact a valid measure of spending on sport. **Therefore The third recommendation of this research is that a full evaluation of the sources used to estimate consumer spending on sport in the UK is carried out.** In particular, this research should investigate the reasons why estimates of spending on sport are much higher when a consumer survey is used and why sources such as the FES are not adequately measuring levels of spending on sport. An outcome of this review may be that an independent survey of consumer spending on sport in the UK needs to be undertaken.

The first three recommendations for further research have so far focused on research at the national level. The remaining three suggestions are concerned with research at the local level.

While the potential role of sport in local economic development was acknowledged in earlier chapters, for this to be evaluated in the future there is a need to build up time series data to enable the implications of investment in the sports industry to be monitored. **The fourth recommendation of this research therefore is that the economic importance of sport in Sheffield should be estimated on a regular basis, for example, every 1-2 years, using the spreadsheet model which has been developed in this research.** Given that a benchmark estimate of the economic activity generated by sport-related goods and services has been established, data should now be

collected on a regular basis to allow the role of sport in economic regeneration to be assessed. The collection of this data will provide valuable information for policy makers in the city and should inform initiatives such as the Local Cultural Strategy. Furthermore, as highlighted in the previous chapter, it will provide a base of information on sport-related economic activity which can be used to support bids for Objective One funding, for future investment in the sports industry. Nevertheless, there is a need to reduce the amount of primary data required by the spreadsheet model, to ensure that the collection of data on a regular basis is a manageable task.

Although the fourth recommendation above relates to Sheffield, the economic importance of sport should be measured on a regular basis in any city or town in the UK which intends to use sport for regeneration purposes. Only then will evidence be provided to support investment into consumer services such as sport for economic development.

Future research on the economic importance of sport at the local level should continue to use the National Income Accounting framework. However, the basic model which was used for Sheffield is still very much in its early stages. Consequently, **The fifth recommendation of this research is to further develop the spreadsheet model derived for Sheffield, to enable it to be used as a blueprint for measuring the impact of sport in any local economy.** It was highlighted previously that the study essentially focused on measuring the income and expenditure flows of sport-related economic activity and subsequently value-added and employment. Further research is nevertheless required on the flows of funds between the various sectors of sport-related economic activity and on the linkage between sport and other industries in the local economy. In addition, a comprehensive investigation of the leakage of expenditure out of the local economy is required. These developments would make the model more rigorous and sophisticated. As with the national spreadsheet model (LIRC, 1997), the applicability of the local model should be reviewed every five years, with any revisions needed, being implemented accordingly. This is particularly important given the continuing commercialisation of sport which has been observed in recent years.

Finally, it was suggested in Chapter Ten that the development of sport in Sheffield should be pursued in conjunction with other cultural industries in the city. **The final**

recommendation of this study is therefore that research on the economic activity generated by the other cultural industries, as defined by the DCMS, should be undertaken throughout the UK, using a similar model to the one used to evaluate the economic importance of sport in Sheffield. Such research would provide a comprehensive model of the economic activity generated by the cultural industries, that could be used to feed into initiatives such as the Local Cultural Strategy. The research should also provide information on the interaction of the cultural industries with each other and with other industries in the local economy.

This thesis has focused on measuring the narrower economic importance of sport in Sheffield. However, as noted in Chapter Two, the economic benefits of sport extend beyond the creation of value-added and employment to include the wider implications and intangible benefits of sport, including productivity returns to individuals and organisations, quality of life returns to individuals and society, indirect health care savings and reductions in anti social behaviour such as crime and vandalism. These, in addition to the direct economic impacts discussed in this research, are important considerations and equally merit attention from any city considering using sport for urban regeneration. Nevertheless, in an economic climate whereby accountability is paramount, the need to measure the narrower economic impacts outlined within this research, will continue to be important in the future.

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APPENDICES

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APPENDIX 1

Input-Output Analysis

A hypothetical transactions (Input-Output) table and technical coefficients matrix

Input-Output Analysis

Transactions table

The Input-Output transactions table shown below, records all the production flows occurring within a hypothetical two industry economy. The transactions table shows where the inputs from an industry come from and where the outputs of an industry go to.

The first row of the table shows the output produced by the car industry. From this, it can be seen that the car industry produces a gross output of £200, £20 of which is sold to the steel industry as intermediate demand. The remaining £180 is sold to the final demand sector, which comprises households, the government and exports outside the economy.

The first column of the table shows the inputs required by the car industry to produce a gross output of £200. The car industry purchases £100 worth of steel, £50 worth of labour services, £10 worth of government services and £40 worth of imports.

In the transactions matrix, the output is always equal to the input. The entire output of each industry must be accounted for by the inputs used during production. This includes the return to the entrepreneur, which represents the residual left over when all other factor inputs have been paid for. This is included in the household row of the payments sector.

An input-output transactions table for a hypothetical two-industry economy

Output produced by:	Inputs purchased by:		Final demand:			Gross output
	Car industry	Steel industry	House- holds	Govern- ment	Exports	
Car industry	0	20	90	30	60	200
Steel industry	100	0	20	50	50	220
Payments sector:						
Households	50	150	0	0	0	200
Government	10	20	10	0	0	40
Imports	40	30	20	0	0	90
Gross outlay	200	220	140	80	110	750

Source: Armstrong and Taylor (1978)

Technical coefficients matrix

The input-output table can be used to determine the effects of expected changes in demand. However, to become an operation model rather than a set of accounts showing the interdependencies of an economy, the technical coefficients matrix needs to be constructed

The technical coefficients matrix expresses the inputs of each industry as a ratio of the gross output of that industry. It is constructed using the information provided by the input-output or transactions table. For example, taking the table above, it can be seen that the steel industry buys inputs worth £20 from the car industry to produce £220 worth of steel. In this case the technical coefficient would be $20/220 = 0.09$. The technical coefficients matrix for the hypothetical two-industry economy are shown below.

$$\begin{bmatrix} \frac{0}{200} & \frac{20}{220} \\ \frac{100}{200} & \frac{0}{220} \end{bmatrix} = \begin{bmatrix} 0.00 & 0.09 \\ 0.50 & 0.00 \end{bmatrix}$$

Source: Armstrong and Taylor (1978)

This technical coefficients matrix can be used to estimate the effects of any change in final demand for an industries output. For example, to raise exports from £60 to £260 the car industry has to purchase an extra £100 of steel (0.50×200). This indicates that we can obtain the required change in inputs by multiplying the change in final demand by the relevant technical coefficient. The technical coefficients table therefore shows the proportion of inputs that must be purchased by each sector in order to produce one unit of output.

This technical coefficients matrix only measures the direct effect. The direct and indirect effects are calculated by the Leontief inverse. For further discussion on these concepts discussed above of input-output analysis see Armstrong and Taylor, (1978; 1993); Fletcher, 1989; Hefner, 1990.

APPENDIX 2

Activities included in the definition of sport

Activities included in the definition of sport

Source: The UK Sports Council

ACTIVITY	DISCIPLINE	ACTIVITY	DISCIPLINE
<u>Aikido</u>		<u>Boxing</u>	
<u>American Football</u>		<u>Camogie</u>	
<u>Angling</u>	Coarse	<u>Canoeing</u>	Marathon
Angling	Game	Canoeing	Polo
Angling	Sea	Canoeing	Rafting (White water)
Angling	Casting	Canoeing	Racing (wild water)
<u>Archery</u>	Field	Canoeing	Rodeo/Squirt
Archery	Target	Canoeing	Sailing
<u>Association Football</u>		Canoeing	Slalom
		Canoeing	Sprint
		Canoeing	Surfing
<u>Athletics</u>	Fell/Hill	Canoeing	Touring
Athletics	Road	<u>Chinese martial arts</u>	
Athletics	Track & Field	<u>Cricket</u>	
Athletics	X Country	Cricket	Disability
<u>Badminton</u>		<u>Croquet</u>	
<u>Balloning</u>		<u>Curling</u>	
<u>Baseball</u>		<u>Cycling</u>	Bicycle polo
<u>Basketball</u>		Cycling	BMX
Basketball	Disability	Cycling	Cycle Touring
<u>Billiards & Snooker</u>		Cycling	Cyclo cross
		Cycling	Mountain Biking
<u>Bobsleigh</u>	2 & 4 Man	Cycling	Road Racing
<u>Bowls</u>	Crown	Cycling	Speedway
Bowls	Federation	Cycling	Time Trialing
Bowls	Association	<u>Disability Sport</u>	Track
Bowls	Short Mat	Disability sport	Blind Sport
Bowls	Disability	Disability sport	Cerebral Palsy
		Disability sport	Deaf Sport
		Disability sport	Learning Difficulty
		Disability sport	L. Autres/Aputee

ACTIVITY	DISCIPLINE	ACTIVITY	DISCIPLINE
Disability sport	Mini Olympics	<u>Hang/Para Gliding</u>	
Disability sport	Special Olympics	<u>Highland Games</u>	
Disability sport	Paralympics		
Disability sport	Physical Disability		
Disability sport	Wheelchair Sport	<u>Hockey</u>	Field
<u>Dragon Boat Racing</u>		<u>Horseracing</u>	
		<u>Hovering</u>	
<u>Equestrian</u>	Dressage	<u>Hurling</u>	
Equestrian	Horse trials		
Equestrian	Horse Driving	<u>Ice Hockey</u>	
Equestrian	Endurance		
Equestrian	Vaulting	<u>Ice Skating</u>	Dance
Equestrian	Show Jumping	Ice Skating	Figure
Equestrian	Disability	Ice Skating	Speed
		Ice Skating	Precision
<u>Fencing</u>	Epee	<u>Judo</u>	
Fencing	Foil		
Fencing	Sabre	<u>Ju Jitsu</u>	
Fencing	Disability		
<u>Fives</u>	Eton	<u>Karate</u>	
	Rugby		
<u>Flying</u>	Aeromodel flying*	<u>Kendo</u>	
Flying	Popular*		
Flying	Microlight*	<u>Korfball</u>	
<u>Gaelic Football</u>		<u>Lacrosse</u>	
<u>Gliding</u>		<u>Lawn Tennis</u>	
		Lawn Tennis	Disability
<u>Golf</u>		Life Saving	
<u>Gymnastics</u>	Artistic	Luge	
Gymnastics	Recreational		
Gymnastics	Rhythmic	<u>Modern Pentathlon</u>	Modern Biathlon
Gymnastics	Sports Acro	Modern Pentathlon	Modern Tetrathlon
<u>Handball</u>	Irish Olympic		

ACTIVITY	DISCIPLINE	ACTIVITY	DISCIPLINE
<u>Motor Cycling</u>	Road Racing	<u>Pool</u>	
Motor Cycling	Trials		
Motor Cycling	Grass Track Racing	<u>Quoits</u>	
Motor Cycling	Enduro		
Motor Cycling	Speedway	<u>Racketball</u>	
Motor Cycling	Trail Riding		
Motor Cycling	Motocross	<u>Rambling</u>	
Motor Cycling	All-Terrain	Rambling	Long Distance. Walking
 <u>Motor Sports</u>	 Road Racing	 <u>Real Tennis and Rackets</u>	
Motor Sports	Rallying		
Motor Sports	Climbs	<u>Roller Hockey</u>	
Motor Sports	Trials		
Motor Sports	Karting	<u>Roller Skating</u>	Artistic
Motor Sports	Sprints	Roller Skating	Speed
Motor Sports	Rallycross		
Motor Sports	Autocross	<u>Rounders</u>	
 <u>Mountaineering</u>	 Competitive	 <u>Rowing</u>	
Mountaineering	Recreational		
 <u>Movement and Dance (M & D)</u>	 Ballroom Dancing*	 <u>Rugby League</u>	
M & D	Exercise and fitness	<u>Rugby Union</u>	
M & D	Folk Dancing*	Rugby Union	Women
M & D	Health and Beauty Exercise*		
M & D	Highland Dancing*	<u>Sailing/Yachting</u>	Dinghy /Keelboard
M & D	Keep Fit	Sailing/Yachting	Off Shore
M & D	Laban Movement*	Sailing/Yachting	Powerboating
M & D	Margaret Morris Mov't*	Sailing/Yachting	Windsurfing
M & D	Medau*		
M & D	Scottish Country*	<u>Sand and Land Yachting</u>	
 <u>Netball</u>		 <u>Shinty</u>	
 <u>Orienteering</u>		 <u>Shooting</u>	Air
<u>Parachuting</u>		Shooting	Clay Target
		Shooting	Pistol
<u>Petanque</u>		Shooting	Rifle
<u>Polo</u>		Shooting	Crossbow

ACTIVITY	DISCIPLINE	ACTIVITY	DISCIPLINE
<u>Skiing</u>	Alpine	<u>Tang Soo Do</u>	
Skiing	Artificial Slope		
Skiing	Biathlon	<u>Tenpin Bowling</u>	
Skiing	Freestyle		
Skiing	Grass	<u>Trampolining</u>	
Skiing	Nordic		
Skiing	Speed	<u>Triathlon</u>	
		Triathlon	Duathlon
<u>Softball</u>			Triathlon
<u>Sombo</u>		<u>Tug of War</u>	
<u>Squash</u>		<u>Volleyball</u>	
<u>Sub Aqua</u>		<u>Water-skiing</u>	Barefoot
		Water-skiing	Cable ski
		Water-skiing	Kneeboard
<u>Surfing</u>		Water-skiing	Racing
		Water-skiing	Tournament
<u>Surf Life saving</u>		Water-skiing	Disability
<u>Swimming</u>	Diving		
Swimming	Long Distance	<u>Weightlifting</u>	Olympic
Swimming	Swimming	Weightlifting	Power
Swimming	Synchronised		
	Swimming		
Swimming	Water polo	<u>Wrestling</u>	Cumberland
		Wrestling	Freestyle
<u>Table Tennis</u>		Wrestling	Olympic
Table Tennis	Disability		
		<u>Yoga</u>	
<u>Taekwondo</u>			

(* denotes sport not included in definition)

APPENDIX 3

The Base Model

CONSUMER SECTOR INCOME: SOURCES

£ million 1996/97

	Total	CG	LG	CS	CNS	VOL	OUT
Net wages & salaries from:							
commercial sport	10.86			10.86			
voluntary sector	5.20					5.20	
commercial non-sport	22.38				22.38		
local government	5.44			5.44			
central government	0.30		0.30				
Prize income from overseas	1.04						1.04
Total income	45.23	0.30	0.30	5.44	10.86	22.38	5.20
							1.04

CONSUMER SECTOR EXPENDITURE: DESTINATIONS
1996/97 £ million

	Total	CG	LG	CS	CNS	VOL	OUT
Spectating: admissions	3.56	0.62		2.94			
Participation: subscription & fees	18.61	1.11	1.75	3.47		12.28	
sports goods	6.56						
bicycles	0.04						
boats	1.66						
equipment (total)	8.26	1.44	0.40	6.38		0.04	
sports clothing	12.97						
sports footwear	8.44						
repairs and laundry	0.41						
clothing & footwear (tot)	21.81	2.62		19.20			0.88
skiing	2.37	0.42			1.08		
Travel:							
cars	3.14	2.32			0.82		
buses	0.59	0.10	0.49				
rail	0.63	0.63					
books & magazines	1.34						
newspapers	3.38						
Books, magazines & newspapers (total)	4.71			4.71			
Video cassette purchase and rental	0.16	0.03		0.13			
TV: licence fee	1.11			1.11		0.76	
TV rental	0.93	0.16				0.52	
Public school fees	0.63	0.11					
Subtotal	66.51						

COMMERCIAL SPORT INCOME: SOURCES

1996/97

£ million

	Total	CONS	CG	LG	CNS	VOL	OUT
Spectator clubs:							
admissions	3.35	2.94					0.41
sponsorship	0.97				0.97		
advertising	0.50				0.50		
CNS entertainment	0.79				0.79		
grants							
Football Trust	0.15				0.15		
Horserace Betting Levy	0.42				0.42		
Participation clubs:							
subscriptions & fees	3.47	3.47					
Retailers:							
equipment	6.42	6.38				0.04	
clothing & footwear	19.20	19.20					
books, magazines, newspapers, video	4.85	4.85					
Manufacturers:							
equipment (exports)							
clothing & footwear							
equipment, clothing & footwear (exports)	4.45			0.09	0.31		4.05
TV and radio:							
BBC	1.11	1.11					
commercial	1.04				1.04		
exports	0.12						0.12
Lottery awards	0.01				0.01		
Lottery partnerships							
Total income	46.96	37.95		0.19	0.31	3.89	4.57

COMMERCIAL SPORT EXPENDITURE: DESTINATIONS

£ million - 1996/97

	Total	CONS	CG	LG	CNS	VOL	OUT
Spectator clubs:							
wages	2.92	2.05	0.87				
policing	0.08			0.08			
other inputs	2.36				1.32		1.04
(factor surplus)	0.34						
(value-added)	3.26						
Participation clubs:							
wages	1.74	1.22	0.52				
inputs	1.56				1.56		
(factor surplus)	0.17						
(value-added)	1.91						
Retailers:							
equipment							
wages	2.14						
other inputs	4.09						
factor surplus	0.19						
clothing & footwear							
wages	4.76						
other inputs	11.81						
factor surplus	2.62						
books, magazines, newspapers, video							
wages	1.78						
other inputs	3.56						
factor surplus	-0.49						

Total for retailers	8.68	6.09	2.60	14.86	4.60
wages	19.46				
other inputs	2.32				
(factor surplus)	11.01				
(value added)					
Manufacturers (exports):					
wages	1.06	0.74	0.32	2.26	0.70
inputs	2.96				
(factor surplus)	0.42				
(value-added)	1.49				
TV and radio:					
wages	1.09	0.76	0.33	0.46	0.14
inputs	0.61				
(factor surplus)	0.05				
(value-added)	1.14				
Corporation tax	0.38		0.38		
Rates	0.56		0.56		
Capital expenditure					
Spectator clubs	0.49				
Participation clubs	0.29				
Retailers	1.23				
Manufacturing	0.28				
TV and radio	0.17				
Total investment	2.46		0.43	1.52	0.51
Total expenditure	45.92	10.86	5.45	21.98	6.99
Wages	15.49				
Factor surplus	3.31				
Value-added	18.80				

COMMERCIAL NON-SPORT INCOME: SOURCES

£ million
1996/97

	Total	CONS	CG	LG	CS	VOL	OUT
Sales of current inputs to:							
central government	0.26		0.26				
local government	2.46			2.46			
commercial sport	20.46				20.46		
voluntary sport	4.93					4.93	
Sales of capital inputs to:							
local government	3.25			3.25			
commercial sport	1.52				1.52		
voluntary sector	2.41					2.41	
Consumer spending:							
skiing	1.08	1.08					
travel	0.82	0.82					
gambling	20.56	20.56					
public schools	0.52	0.52					
TV rental	0.76	0.76					
Interest from:							
voluntary sector	0.24					0.24	
Promotion expenditure for sponsorship (intra-sectoral flow within CNS sector)	2.28						
Total income	59.27	23.74	0.26	5.71	21.98	7.58	0.00

COMMERCIAL NON-SPORT EXPENDITURE: DESTINATIONS

£ million - 1996/97

	Total	CONS	CG	LG	CS	VOL	OUT
Producers of sport related inputs:							
Wages	31.29	21.93	9.36				
imports	14.01						14.01
corporation tax	1.71		1.71				
rates	1.38				1.38		
Purchases of inputs from sport:							
sponsorship	2.28	0.45	0.19		0.97	0.66	
advertising	0.50				0.50		
ITV and radio advertising	1.04				1.04		
CNS entertainment	0.79				0.79		
	0.00						
Company sports subsidy	0.43					0.43	
Football Trust	0.20				0.15	0.05	
Horserace Betting Levy	0.42				0.42		
Interest payments to voluntary sector	0.37					0.37	
Promotion expenditure for sponsorship (intra-sectoral flow within CNS sector)	2.28						
Lottery awards via Sports Council	0.96		0.19		0.01	0.32	
Lottery partnerships	0.80		0.13		0.29	0.38	
Total expenditure leaving sector	56.20	22.38	11.59		3.89	2.21	14.01
Wages	31.29						
Factor surplus	14.79						
Value-added	46.08						

VOLUNTARY SECTOR INCOME: SOURCES

£ million 1996/97

	Total	CONS	CG	LG	CS	CNS	OUT
Factor income (monetary)							
Subscriptions and fees	12.28	12.28					
Equipment	0.04	0.04					
Sponsorship & advertising	0.66					0.66	
Raffles & gaming	2.06	2.06					
Bar receipts	15.04						
Subtotal (factor income)	30.08						
Other income (monetary)							
Grants	0.64			0.42	0.22		
Employers' subsidies	0.78			0.35		0.43	
Interest	0.37					0.37	
Foundation for Sport and Arts	0.34			0.34		0.00	
Football Trust	0.05					0.05	
Lottery Awards	0.32					0.32	
Lottery partnerships	0.38					0.38	
Total monetary income (excluding bar receipts)	17.92	14.38		1.12	0.22	0.00	0.00

VOLUNTARY SECTOR EXPENDITURE: DESTINATIONS

£ million 1996/97

	Total	CONS	CG	LG	CS	CNS	OUT
Factor expenditure							
Wages	7.42	5.20	2.22				
Ground hire and rents	0.49			0.24		0.24	
Equipment	0.05		0.01		0.04		
Other	5.67		0.99			4.68	
(Bar purchases)	10.53						
Subtotal	24.16						
(factor surplus)	5.92						
Other monetary expenditure							
Capital expenditure	2.93		0.51			2.41	
Rates	0.49			0.49			
Interest	0.24					0.24	
Total monetary expenditure (excluding bar purchases)	17.29	5.20	3.73	0.74	0.04	7.58	0.00
Wages	7.42						
Factor surplus	5.92						
Value-added	13.34						

LOCAL GOVERNMENT INCOME: SOURCE
£ million - 1996/97

	Total	CONS	CG	CS	VOL	CNS	OUT
Factor income							
Local authority sports facilities: fees and charges	1.75	1.75					
sales of equipment	0.40	0.40					
payments for policing	0.08			0.08			
Local transport	0.49	0.49					
Ground hire	0.24				0.24		
Transfer income							
Central government grants: LG net exp on sport	3.08			3.08			
sport education	2.37			2.37			
Urban Programme	0.00			0.00			
Sports Councils grants	0.07			0.07			
FSA	0.11			0.11			
Rates received from: commercial sport	0.56				0.56		
voluntary sector	0.49				0.49		
commercial non-sport	1.38					1.38	
Lottery awards	0.44					0.44	
Lottery partnerships	0.29					0.29	
Total income	11.76	2.63	5.64	0.64	0.74	2.11	0.00

LOCAL GOVERNMENT EXPENDITURE: DESTINATIONS

£ million - 1996/97

	Total	CONS	CG	CS	VOL	CNS	OUT
Local authority sports facilities:							
wages	3.94	2.76	1.18				
other inputs	3.36		0.59	0.31		2.46	
Education:							
wages	2.90	2.03	0.87				
research	0.13	0.09	0.04				
Transp. ,police: wages	0.79	0.55	0.24				
Grants to voluntary clubs	0.22				0.22		
Capital expenditure	3.95		0.69			3.25	
Total expenditure	15.28	5.44	3.60	0.31	0.22	5.71	0.00
Wages	7.62						
Factor surplus	0.00						
Value-added	7.62						

CENTRAL GOVERNMENT INCOME: SOURCE

£ million - 1996/97

	Total	CONS	LG	CS	VOL	CNS	OUT
Taxes :							
on expenditure	15.00	11.76	1.32	0.32	1.51		0.09
on incomes generated in:							
commercial sport	5.13			5.13			
voluntary sector	2.22				2.22		
commercial non-sport	11.59					11.59	
local government	2.28		2.28				
Factor income (excl VAT):							
rail receipts	0.52	0.52					
Total income	36.73	12.28	3.60	5.45	3.73	11.59	0.09

CENTRAL GOVERNMENT EXPENDITURE: DESTINATIONS

£ million - 1996/97

TotalCONS LGVOLCNSOUT

Transfers

Grants to Sports Councils
Urban Programme
Foundation for Sport and Arts
Football Trust
Grant support for:
LG net exp on sport
LG exp on education
Subsidy to CG
employees

0.500.070.42
0.460.110.34
0.100.10
3.083.08
2.372.37
0.350.35

Factor expenditure

Prison service, MOD, royal parks:

Wages
Equipment
British rail:
wages
other inputs
(net of tax)
Sports Councils:
wages
other inputs
capital spending

0.080.08
0.090.09
0.210.21
0.20
0.11
0.020.02
0.03
0.030.03
0.03

0.20

Total expenditure

7.515.641.120.260.00

Wages
Factor surplus
Value-added

0.30
0.00
0.30

OUTSIDE SHEFFIELD INCOME ("imports")

£ million - 1996/97

	Total	CONS	CG	LG	CS	VOL	CNS
Sports equipment, clothing and footwear	4.60				4.60		
Import content of skiing	0.88	0.88					
TV imports	0.14				0.14		
Factor inputs by commercial sectors	15.22				1.21		14.01
prize income	1.04				1.04		
Total current income	21.89	0.88	0.00	0.00	6.99	0.00	14.01

OUTSIDE SHEFFIELD EXPENDITURE ("Exports")

£ million - 1996/97	Total	CONS	CG	LG	CS	VOL	CNS
Admissions	0.49			0.09		0.41	
Sports equipment, clothing & footwear	4.05					4.05	
TV exports	0.12					0.12	
Prize income	1.04	1.04					
Total expenditure	5.70	1.04	0.09	0.00	4.57	0.00	0.00

SUMMARY

SPORT-RELATED INCOME AND EXPENDITURE FLOWS 1996/7

	Income £m	Expenditure £m
Consumer	45.23	91.85
Commercial sport	46.96	45.92
Voluntary	17.92	17.29
Commercial non-sport	59.27	56.20
Central government	36.73	7.51
Local government	11.76	15.28
Outside	21.89	5.70

THE EXPENDITURE FLOWS MATRIX (£m)

Flows from	Flows to:							Total exp.
	CON	CS	VOL	CNS	CG	LG	OUT	
Consumer sector	0.00	37.95	14.38	23.74	12.28	2.63	0.88	91.85
Commercial sport	10.86	0.00	0.00	21.98	5.45	0.64	6.99	45.92
Voluntary sector	5.20	0.04	0.00	7.58	3.73	0.74	0.00	17.29
Comm non-sport	22.38	3.89	2.21	0.00	11.59	2.11	14.01	56.20
Central government	0.30	0.19	1.12	0.26	0.00	5.64	0.00	7.51
Local government	5.44	0.31	0.22	5.71	3.60	0.00	0.00	15.28
Overseas	1.04	4.57	0.00	0.00	0.09	0.00	0.00	5.70
Total inc.	45.23	46.96	17.92	59.27	36.73	11.76	21.89	

VALUE ADDED BY SPORT RELATED ECONOMIC ACTIVITY 1996/7

	£m	%
Commercial sport:		
Wages	15.49	
Surplus	3.31	
Total	18.80	21.82
Voluntary sector		
Wages	7.42	
Surplus	5.92	
Total	13.34	15.49
Commercial non-sport		
Wages	31.29	
Surplus	14.79	
Total	46.08	53.49
Central Government		
Wages	0.30	
Total	0.30	0.35
Local Government		
Wages (education)	2.90	
Wages (sports facilities)	3.94	
Wages (transport and policing)	0.79	
Total	7.62	8.85
TOTAL VALUE ADDED	86.15	100.00

EMPLOYMENT	1996/97	
	Employment	%
COMMERCIAL SPORT		
Spectator clubs	198.91	
Participation clubs	118.35	
Retailers	609.08	
Manufacturing (exports)	71.02	
TV and Radio	48.61	
Subtotal	1,045.97	28.59
Voluntary sport	441.59	12.07
Commercial non-sport	1,702.34	46.53
CENTRAL GOVERNMENT		
Transport	10.58	
Administration	5.21	
Subtotal	15.79	0.43
LOCAL GOVERNMENT		
Sports facilities	268.53	
Education	147.55	
Transport/police	37.03	
Subtotal	453.11	12.38
TOTAL	3,658.80	100.00

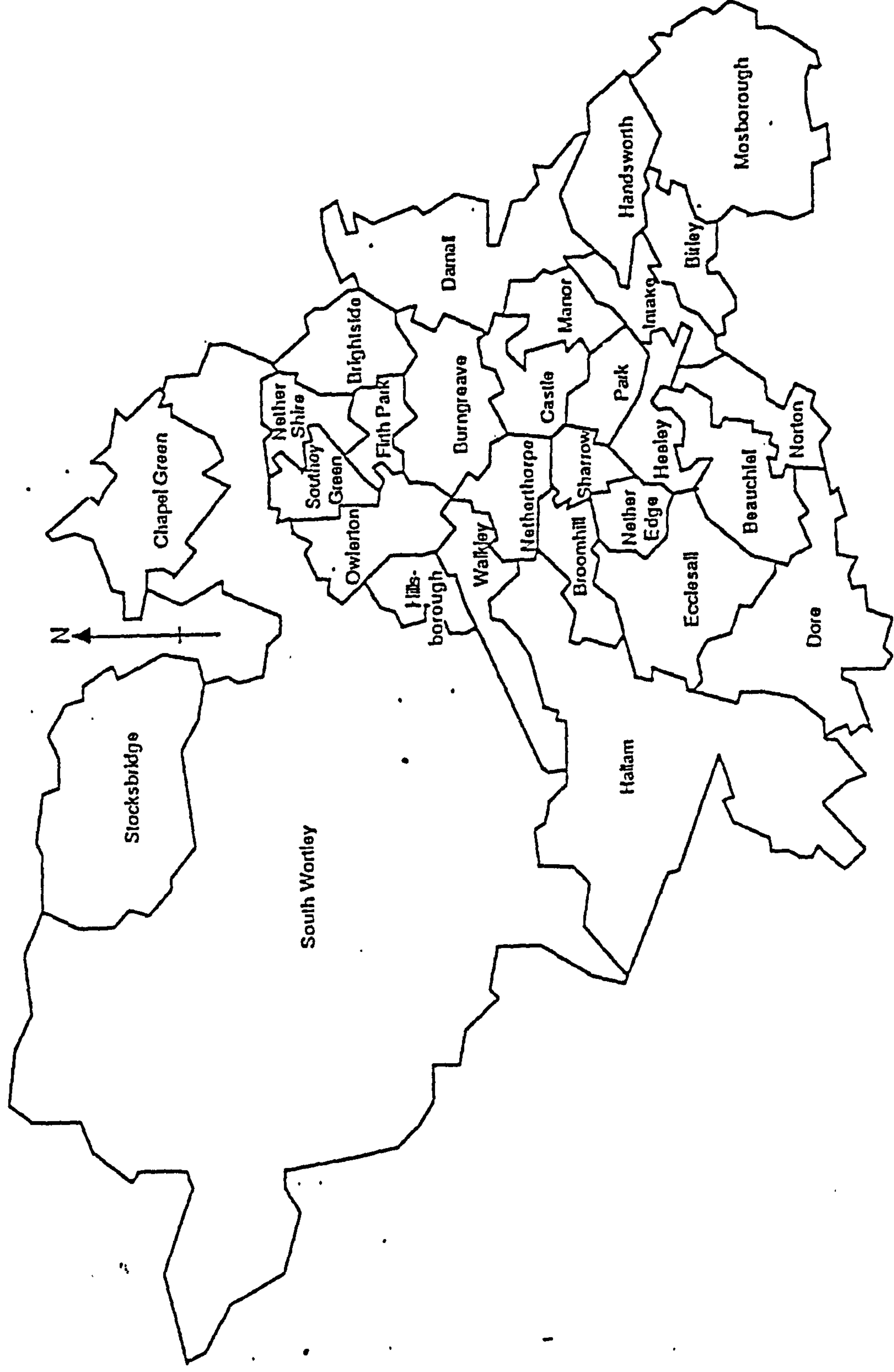
APPENDIX 4

Maps of Sheffield

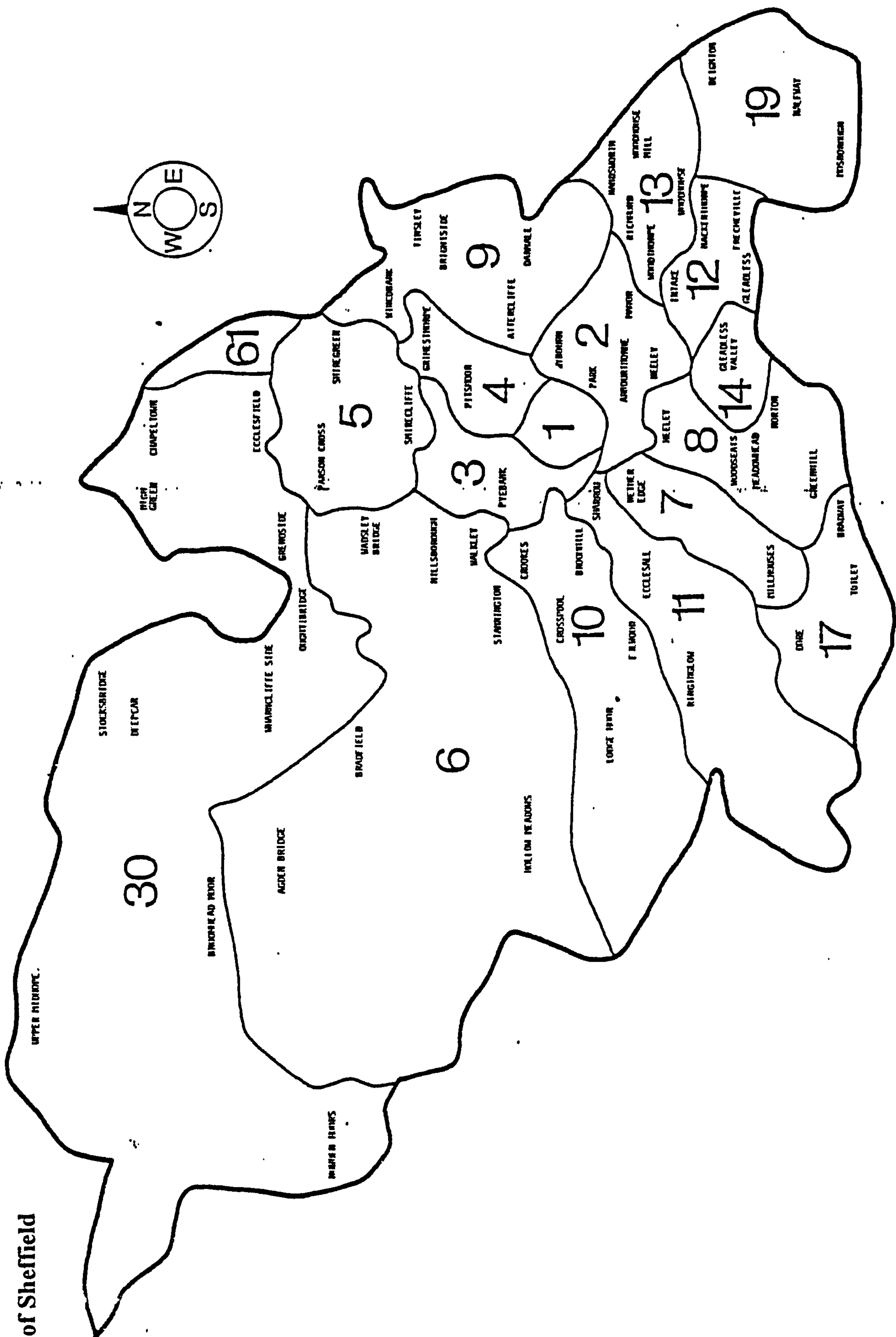
Wards of Sheffield

Postal districts of Sheffield

Wards of Sheffield



Postal districts of Sheffield



APPENDIX 5

Voluntary sector questionnaires

Core voluntary clubs

University clubs

SSC and WMC



Sheffield Voluntary Sports Club Questionnaire

Please note before completing the questionnaire:

- All replies will be treated as *confidential*
- Where necessary if exact figures are not known please give an approximation rather than not answering at all
- If a question is not relevant please answer N/A

Section 1:

The first few questions ask for general information about the club

1. What is the name of the club?

2. How many teams does the club have (e.g. 1st, 2nd, junior, male/female etc.)?

TOTAL =

3a. What is the total membership of the club?

3b. Approximately what proportion of the club's total members live in Sheffield?%

4a. Where is the home ground/facility of the club?
(name of ground and area/city)

4b. Does the club own or lease the grounds/buildings/facilities? YES/NO
please delete as appropriate. If YES go to Q 5

4c. If NO, who does?

5a. Is the club independent or is it part of a larger parent club/umbrella organisation?
Please give details
.....
.....
.....
.....
.....

5b. What is the name of the club's regional and national governing body?
.....
.....

Section 2:

The following questions relate to income and expenditure within the club. The information may be found in the club's annual accounts.

Your club accounts will be treated in the strictest of confidence. They will only be used for aggregation purposes, and the club will remain anonymous

6. Would you be willing to enclose a copy of the annual club accounts?

YES/NO

please delete as appropriate

If YES, please enclose with the completed questionnaire.

For the following questions, where possible please give information for the latest financial year available. If the figures given vary from the stated year please note this at the appropriate point

7. State the latest year for which financial data is available:

.....

Turnover

8. What is the annual turnover of the club? please tick the appropriate box

Under £1 000	<input type="checkbox"/>	£10 000-£15 000	<input type="checkbox"/>	£100 000-£200 000	<input type="checkbox"/>
£1 000-£2 000	<input type="checkbox"/>	£15 000-£25 000	<input type="checkbox"/>	£200 000-£500 000	<input type="checkbox"/>
£2 000-£5 000	<input type="checkbox"/>	£25 000-£50 000	<input type="checkbox"/>	Over £500 000	<input type="checkbox"/>
£5 000-£10 000	<input type="checkbox"/>	£50 000-£100 000	<input type="checkbox"/>		

9. Is the club VAT registered?

YES/NO

please delete as appropriate

Income

10a. What is the total **annual gross income** of the club for the latest financial year?

£.....

10b. What are the **main elements** of the annual gross income (e.g. membership fees, participation charges, bar/food sales, gaming machines, sponsorship, advertising, grants etc.) and what **percentage (%)** of the total gross income do they account for?

e.g. Membership fees 30%; Bar sales 25%; Match fees 20%; Donations/fund-raising 15%; Other 10%

.....

.....

.....

.....

11a. Has the club received income from any grants over the last three years?

YES/NO
please delete as appropriate. If N go to Q 12

11b. Please state (1) the source of the grants awarded (e.g. National Lottery, Central/Local Government, Sports Council); (2) the **total amount**; and (3) the date awarded:

.....

.....

.....

.....

Current Expenditure

12a. What is the total **gross annual current expenditure** of the club for the latest financial year?

£.....

12b. What are the **main elements** of the annual current expenditure (e.g. wages and salaries, rent, VAT, gas/electricity/water, payments to governing bodies, ground hire, travel, food and drink etc.) and what **percentage (%)** of the total gross expenditure do they account for?

e.g. Umpires/referees 30%; ground hire 25% etc.

.....

.....

.....

.....

Current Expenditure (continued)

- 12c. Approximately what proportion of these current expenditures (12a) were purchased from/produced by/paid to individuals/companies:
- | | |
|-----------------------------------|---------------|
| (1) In Sheffield |% |
| (2) In the UK (outside Sheffield) |% |
| (3) Overseas. |% |
| TOTAL | = 100% |

Capital Expenditure

- 13a. What has been the **average annual gross expenditure** by the club on the construction of buildings/grounds/ facilities over the **last three years**?
- £.....
- 13b. Approximately what proportion of this expenditure was to companies:
- | | |
|-----------------------------------|---------------|
| (1) In Sheffield |% |
| (2) In the UK (outside Sheffield) |% |
| (3) Overseas. |% |
| TOTAL | = 100% |
- 13c. What has been the **average annual gross expenditure** by the club on capital equipment over the **last three years**?
- £.....
- 13d. Approximately what proportion of this expenditure was on items manufactured by companies:
- | | |
|-----------------------------------|---------------|
| (1) In Sheffield |% |
| (2) In the UK (outside Sheffield) |% |
| (3) Overseas. |% |
| TOTAL | = 100% |

Section 3a:

The following questions relate to *voluntary employment* (unpaid) within the club

14. Approximately how many volunteers in total does the club have?

.....

15a. How many people are on the committee?

.....

15b. How many of the committee are volunteers (unpaid officers)?

.....

15c. What is the **average** number of hours spent **per volunteer per week** by the committee on club affairs?

.....

16a. Are there any other volunteers in the club (i.e. not on the committee)?

YES/NO

please delete as appropriate. If NO go to Q 17

16b. How many other volunteers does the club have?

.....

16c. What is the **average** number of hours spent **per volunteer per week** by the other volunteers on club affairs?

.....

17. Approximately what proportion of the **total volunteers** within the club live in Sheffield?

.....%

Section 3b:

The following questions relate to *paid employment* within the club

18. Does the club have any employees?

YES/NO

please delete as appropriate. If NO go to Q 22

19. How many paid employees are:

Please complete the table

Full Time females	
Full Time males	
Part Time females	
Part Time males	
TOTAL EMPLOYEES	

(Part Time = less than 25 hours per week)

20. How many of the total employees are on temporary contracts (less than 6 months)?

.....

21. Approximately what proportion of the total employees live in Sheffield?

.....%

Section 4:
Miscellaneous

22. Please list below the name of each league/competition that the club plays in and the level of competition e.g. LOCAL/REGIONAL/NATIONAL. Start with the local leagues and continue on the back of this sheet if necessary.

League name	Level
1.	
2.	
3.	
4.	
5.	

23. Would you be prepared to participate in a follow-up interview if necessary to clarify any information given?

YES/NO

please delete as appropriate

Name of person in the club completing the questionnaire:

.....

Position in the club:

.....

Telephone number/address for further correspondence:

Treasurers name/contact (if different from above):

.....

Date of completion of questionnaire:

.....

Thank you for your assistance and time

Please return this questionnaire in the pre-paid reply envelope to Larissa Davies,
LIRC, Sheffield Hallam University, Pond Street, Sheffield, S1 1AY



Sheffield Voluntary Sports Club Questionnaire:
University Clubs

Section 1: General Information

1. What is the name of the club?
2. How many teams does the club have (e.g. 1st, 2nd, male/female etc.)?
- 3a. What is the total membership of the club?
- 3b. Does the club have any members external to the university? YES/NO
- 3c. If YES, how many?
- 4a. Please name the sports facilities used by the club
.....
.....
.....
- 4b. Are the facilities owned by the university? YES/NO
- 4c. If NO, who owns the facilities?
.....
.....
.....
5. Is the club independent or is the club linked to another club/organisation external to the university?
Please give details:
.....
.....
.....
6. Please complete the table below for each league/competition that the club plays in:

League name	Level (local, regional, national)
1.	
2.	
3.	
4.	
5.	

Continue over if necessary

Section 2: Income/Expenditure

The following information may be found in the club's annual accounts.

7. Please tick the latest academic year for which financial information is available for the club:
- 1997/98

☐
- 1996/97

☐
- 1995/96

☐

Turnover

8. Approximately what is the annual turnover of the club? (please tick the appropriate box)
- Under £1 000

☐

£1 000-£2 000

☐

£2 000-£5 000

☐

£5 000-£10 000

☐
- £10 000-£15 000

☐

£15 000-£25 000

☐

£25 000-£50 000

☐

£50 000-£100 000

☐
- Over £100 000

☐

Income

- 9a. What was the total gross income of the club for the academic year stated? £.....
- 9b. What were the main elements of the annual income (e.g. membership fees; grant from AU; match fees, clothing/equipment for resale, fund-raising etc.) and what percentage (%) of the total gross income did they account for?

e.g. Membership fees 50%; clothing/equip sales 25%; Match fees 10%; grant from AU 10%; other 5%

.....

.....

.....

.....

Current Expenditure

- 10a. What was the total current expenditure of the club for the academic year stated? £.....
- 10b. What were the main elements of the current expenditure and what percentage (%) of the total expenditure do they account for?

e.g. Umpires/referees 15%; facility hire 25%; travel 35%; coaching expenses 10%, equipment 10%, other 5% etc.

.....

.....

.....

.....

- 10c. Approximately what proportion of these current expenditures (10a) were purchased from/produced by/paid to individuals/companies:
- (1) In Sheffield

.....%
- (2) In the UK (outside Sheffield)

.....%
- (3) Overseas.

.....%
- TOTAL

= 100%

11. Would you be willing to send a copy of the annual club accounts? YES/NO
- If YES, please enclose with the completed questionnaire.

Section 3: Voluntary (Unpaid)/Paid Employment

12. Approximately how many volunteers in total does the club have?

Committee volunteers

13a. How many people are on the committee?

13b. What is the average number of hours spent per volunteer per week by the committee on club affairs?
.....

Other volunteers

14a. Are there any other volunteers in the club (i.e. not on the committee)? YES/NO

14b. How many other volunteers does the club have?

14c. What is the average number of hours spent per volunteer per week by the other volunteers on club affairs?
.....

15. Does the club have any employees? YES/NO

15b. If YES, (1) how many employees does the club have and (2)how many hours in total do they work?
(1)
(2)

16. Would you be prepared to participate in a follow-up interview if necessary to clarify any information given?
YES/NO

Name of person in the club completing the questionnaire:

Position in the club:

Telephone number/address for further correspondence:

Date of completion of questionnaire:

Thank you for your assistance and time

**Please return this questionnaire in the pre-paid reply envelope to Larissa Davies, LIRC,
Sheffield Hallam University, Pond Street, Sheffield, S1 1AY**



The Economic Importance of sport in Sheffield:
WMC/SSC

Section 1: General Information

1. Name of the club:

2a. Status of the club: Sole trader/Partnership ☐ Private Limited ☐
(please tick) Public Limited ☐ Local Authority ☐
 Charitable trust/Non-profit making body ☐ Other (please state below) ☐

2b. Is the club independent? YES/NO (Please circle)
If NO please state which organisation the club belongs to:
.....
.....

3a. Please list the sports are played at the club (e.g. snooker/pool, darts, football, cricket etc.)?
.....
.....

3b. Please list the names of the sports teams associated with the club:
.....
.....
.....Continue over if necessary

4. Does the club own any sports facilities/grounds/buildings? YES/NO (Please circle)
If YES please list:
.....
.....
.....

5a. What is the total membership of the club?

5b. Approximately what proportion of the club's total members live in Sheffield?%

5c. Approximately what proportion of the club's total members take part in one or more sports?

6. Please list below the name of each league/competition that the club plays in, the sport and the number of teams.

League name	Sport	Number of teams
1.		
2.		
3.		
4.		
5.		
6.		

Continue over if necessary

Section 2: Employment

7a. Does the club have any employees? YES/NO (Please circle)
IF NO go to question 10

7b. If YES please state the breakdown:

Please complete the table

Type of employment	Number of Employees
Full Time Female	
Full Time Male	
Part-time Female	
Part-time Male	

Part-time is defined here as less than 25 hours per week

8. How many of the above employees are on temporary/seasonal contracts (i.e. less than 6 months)?

.....

9. Approximately how many of the above employees live in Sheffield?%

Section 3: Volunteers

10a. Does the club have a committee? YES/NO (Please circle)

10b. If YES, how many people are on the committee?

10c. How many of the committee are volunteers (unpaid officers)?

10d. What is the average number of hours spent per volunteer per week by the committee on club affairs?
.....

11a. Are there any other volunteers in the club (i.e. not on the committee)? YES/NO

11b. If YES how many other volunteers does the club have?

11c. What is the average number of hours spent per volunteer per week by the other volunteers on club affairs?
.....

12. Approximately what proportion of the total volunteers within the club live in Sheffield?%

Section 4: Financial (Any information given will be kept strictly confidential)

Where possible please answer all questions for the same financial year

13. Would you be willing to enclose a copy of the club's annual accounts? YES/NO (Please circle)

IF YES please enclose with the completed questionnaire

14. Please state the latest year for which financial data is available:

15. What was the club's annual turnover in the stated year (overall turnover of club NOT only sport-related turnover):

(please tick)

Under £1 000 ☐ £1 000-£2 000 ☐ £2 000-£5 000 ☐ £5 000-£10 000 ☐
£10 000-£15 000 ☐ £15 000-£25 000 ☐ £25 000-£50 000 ☐ £50 000-100 000 ☐
Over £100 000 ☐

16. Approximately what percentage of turnover for the club was sports-related?
.....%

a) Income

17a. Approximately what was the club's annual income from sport related activities in the stated year ?

£.....

17b. What are the main elements of the sport-related income (e.g. Membership fees, participation charges, bar/food sales, gaming machines, fund-raising, etc.) and what percentage (%) of the total income do they account for?

e.g. Membership fees 30%; Bar sales 25%; Match fees 20%; Fund-raising, 15%; Other 10%

.....
.....
.....

b) Current Expenditure

18a. Approximately what was the club's current expenditure on sport related activities in the stated year?

£.....

18b. What are the main elements of sport-related expenditure (e.g. Match expenses, league fees gas/electricity/water, ground hire, insurance, food and drink, kit wash etc.) and what percentage (%) of the total expenditure do they account for?

e.g. Match fees 30%; ground hire 25%, league fees 15%, Insurance 15%, Kit wash 5% Other 10%

.....
.....
.....

c) Capital Expenditure

19. What has been the club's average annual expenditure on construction over the last 3 years?

£.....

20. What has been the club's average annual expenditure on capital equipment over the last 3 years?

£.....

21. Have any major items of sport-related income or expenditure been excluded from the questionnaire? **YES/NO**
If YES please give details:

.....
.....
.....

22. Would you be prepared to participate in a follow-up interview if necessary to clarify any information given?

YES/NO

Name of person completing the questionnaire:

Position in the club:

Date of completion:

Thank you for your assistance and time.
Please return this questionnaire in the pre-paid reply envelope to Larissa Davies, LIRC, Sheffield Hallam University, Pond Street, Sheffield, S1 1AY

APPENDIX 6

Consumer sector questionnaires

Sheffield Leisure Survey (Part A)

The Consumer Expenditure Survey (Part B)

Sheffield Leisure Survey 1997

Leisure Industries Research Centre

Please answer all the questions applicable to you by placing a tick in the corresponding box or by writing in the space provided. If a particular section is not applicable please complete the first question of that section and then go to the next section. Please return your questionnaire in the envelope provided by 30 June 1997.

Section Ai: Sports Participation

Please tell us more about your participation in sports activities

Q1a. Have you participated in sports activities in the *last 12 months*?

Yes

☐ 1

If yes go to question 1b.

No

☐ 2

If no go to Section Aii: Spectating at Sports Events

Q1b. Please indicate, in order of frequency, sports activities you have undertaken in the *last 12 months*.

1. _____ 3. _____

2. _____ 4. _____

Q2a. Please indicate which of the following sports activities you have undertaken in the *last 4 weeks*. (please go to Section Aii if you have not undertaken any sports activities in the last 4 weeks)

Walking (2 miles or more)

☐ 1

Cycling (excluding exercise bikes)

☐ 5

Swimming

☐ 2

Gym/Weight training

☐ 6

Snooker, pool, billiards

☐ 3

Running

☐ 7

Keep fit, aerobics, yoga

☐ 4

Soccer

☐ 8

Other

☐ 9

If other please specify in the spaces below

Please Specify

1.

2.

3.

Q2b. Which of the above activities did you undertake most frequently in the *last 4 weeks*?

Please Specify:

Q2c. How often in the *last 4 weeks* have you participated in the activity identified in question 2b?

On 1 occasion

☐ 1

On 5-10 occasions

☐ 3

On 2-4 occasions

☐ 2

On more than 10 occasions

☐ 4

Q2d. Where do you most frequently undertake this activity?

Please name the venue:

city/town:

Q3a. Are you a member of a club or society, particularly so you can participate in this activity?

Yes

☐ 1

If yes go to question 3b.

No

☐ 2

If no go to Section Aii: Spectating at Sports Events

Q3b. What club/society is this?

Please name the club/society:

Please Go to Section Aii

Section Aii: Spectating at Sports Events

Please tell us more about your attendance at sports events e.g. soccer matches.

Q4a. Have you attended live sports events in the *last 12 months*?

Yes

☐ 1

If yes go to question 4b.

No

☐ 2

If no go to Section B: The Arts

Q4b. Please indicate, in order of frequency, sports events you have attended in the *last 12 months*.

1. _____ 3. _____

2. _____ 4. _____

Q5a. Have you attended a live sports event during the *last 4 weeks*?

Yes

☐ 1

If yes go to question 5b.

No

☐ 2

If no go to Section B: The Arts

Q5b. Please indicate which major sports events you have attended in the *last 4 weeks*.

Soccer Matches

☐ 1

Swimming Events

☐ 4

Ice Hockey Matches

☐ 2

Basketball Games

☐ 5

Rugby Matches

☐ 3

Other

☐ 6

If other please specify in the space below

Please Specify 1. _____ 2. _____ 3. _____

Q5c. Which of the above activities did you undertake most frequently in the *last 4 weeks*?

Please Specify: _____

Q5d. How often in the *last 4 weeks* have you attended the activity identified in question 5c?

On 1 occasion

☐ 1

On 5-10 occasions

☐ 3

On 2-4 occasions

☐ 2

On more than 10 occasions

☐ 4

Q5e. Where do you most frequently attend this type of event?

Please name the venue: _____ city/town: _____

Q6a. Are you a member of a club or society, particularly so you can attend this type of event?

Yes

☐ 1

If yes go to question 6b.

No

☐ 2

If no go to Section B: The Arts

Q6b. What type of club/society is this?

Please name the club/society: _____

Q7. Do you act as a volunteer or officiate during sports events?

Volunteer

Yes

☐ 1

No

☐ 2

Officiate

Yes

☐ 1

No

☐ 2

If other please specify: _____

Section B: The Arts

*Please tell us more about your participation in & attendance at the arts
e.g. theatre, concerts, live performance, museums, galleries, art & craft.*

Q8a. Have you participated in or attended any arts activities in the *last 12 months*?

Yes

☐ 1

If yes go to question 8b.

No

☐ 2

If no go to Section C: Tourism

Q8b. Please indicate, in order of frequency, arts activities you have attended or participated in during the *last 12 months*.

1. _____ 3. _____

2. _____ 4. _____

Q9a. Please indicate which of the following arts activities you have attended or participated in during the *last 4 weeks*? (please go to Section C if you have not undertaken any arts activities in the last 4 weeks)

Theatre

☐ 1

Museums

☐ 4

Other live performance

☐ 2

Galleries

☐ 5

Musical performance (concerts, dance)

☐ 3

Art & craft

☐ 6

Other

☐ 7

If other please specify in the space below

Please Specify 1. _____ 2. _____

Q9b. Which of the above activities did you undertake most frequently in the *last 4 weeks*?

Please Specify: _____

Q9c. How often in the *last 4 weeks* have you attended/participated in the activity identified in question 9b?

On 1 occasion

☐ 1

On 5-10 occasions

☐ 3

On 2-4 occasions

☐ 2

More than 10 occasions

☐ 4

Q9d. Where do you most frequently undertake this activity?

Please name the venue: _____ city/town: _____

Q10a. Over the *last 4 weeks* have you been a member of a club/society, particularly so you can participate in or attend the arts?

Yes

☐ 1

If yes go to question 10b.

No

☐ 2

If no go to Section C: Tourism

Q10b. What club/society is this?

Please name the club/society: _____

Section C: Tourism

Please tell us more about your tourism behaviour e.g. holidays, short breaks, day trips.

Q11a. Have you been on either a short break (2-3 nights away from home) or a longer holiday (away from home for 4 nights or more) in the *last 12 months*?

Short break	Yes	<input type="checkbox"/> 1	If yes go to question 11b.	No	<input type="checkbox"/> 2	
Longer Holiday	Yes	<input type="checkbox"/> 1	If yes go to question 11b.	No	<input type="checkbox"/> 2	If no go to question 12a.

Q11b. How often have you been on short breaks or longer holidays in the *last 12 months*?

On 1 occasion	<input type="checkbox"/> 1	On 5-10 occasions	<input type="checkbox"/> 3
On 2-4 occasions	<input type="checkbox"/> 2	More than 10 occasions	<input type="checkbox"/> 4

Q11c. Did you go on short breaks or longer holidays in the UK, abroad or both?

UK	<input type="checkbox"/> 1
Abroad	<input type="checkbox"/> 2
Both	<input type="checkbox"/> 3

Q11d. Were any of your short breaks or holidays in the last *12 months* undertaken primarily for the purpose of sports or arts activities.

Sports Activities

Yes	<input type="checkbox"/> 1	if yes please specify below
No	<input type="checkbox"/> 1	

Arts Activities

Yes	<input type="checkbox"/> 2	if yes please specify below
No	<input type="checkbox"/> 2	

Please Specify:	1. _____	1. _____
	2. _____	2. _____

Q12a. Have you undertaken any of the following tourism activities in the *last 4 weeks*?

A holiday	(4 or more nights away from home)	<input type="checkbox"/> 1
A short break	(2-3 nights away from home)	<input type="checkbox"/> 2
A day trip		<input type="checkbox"/> 3
None of the above		<input type="checkbox"/> 4 go to Section D.

Q12b. Which of the above tourism activities did you undertake most frequently in the *last 4 weeks*?

Please Specify: _____

Q12c. Were any of your tourism trips undertaken primarily for the purpose of sports or arts activities?

Sports Activities

Yes	<input type="checkbox"/> 1	if yes please specify below
No	<input type="checkbox"/> 1	

Arts Activities

Yes	<input type="checkbox"/> 2	if yes please specify below
No	<input type="checkbox"/> 2	

Please Specify:	1. _____	1. _____
	2. _____	2. _____

Section D: General Leisure Activities

Please tell us about your participation in general leisure activities, e.g. eating out, going to the cinema, visiting friends, hobbies.

Q13a. Please indicate which of the following leisure activities you have undertaken in the *last 4 weeks*. (please go to question 14a if you have not undertaken any leisure activities in the last 4 weeks)

- | | | | |
|--------------------------|-----------------------------|---|-----------------------------|
| Eating Out | <input type="checkbox"/> 1 | Visiting Friends | <input type="checkbox"/> 7 |
| Going to the Cinema | <input type="checkbox"/> 2 | Renting a video | <input type="checkbox"/> 8 |
| Dancing or Nightclubbing | <input type="checkbox"/> 3 | Listening to music | <input type="checkbox"/> 9 |
| DIY | <input type="checkbox"/> 4 | Going to pubs/bars | <input type="checkbox"/> 10 |
| Gardening | <input type="checkbox"/> 5 | Reading (books, magazines) | <input type="checkbox"/> 11 |
| Hobbies | <input type="checkbox"/> 6 | Other (if other please specify in the spaces below) | <input type="checkbox"/> 12 |
| None | <input type="checkbox"/> 13 | go to question 14a. | |

Please Specify 1. _____ 2. _____

Q13b. Which of the above activities did you undertake most frequently in the *last 4 weeks*?

Please Specify: _____

Q13c. Over the *last 4 weeks* have you been a member of a club/society or class particularly so you can participate in this activity?

- | | | |
|-----|----------------------------|----------------------------|
| Yes | <input type="checkbox"/> 1 | If yes go to question 13d. |
| No | <input type="checkbox"/> 2 | If no go to question 14a. |

Q13d. What club/society or class is this?

Please name the club/society or class: _____

Q14a. Do you feel that you have enough leisure time?

- | | |
|------------|----------------------------|
| Yes | <input type="checkbox"/> 1 |
| No | <input type="checkbox"/> 2 |
| Don't Know | <input type="checkbox"/> 3 |

Q14b. Do you feel that your leisure time has increased or decreased in the last five years?

- | | | |
|-----------|----------------------------|--|
| Increased | <input type="checkbox"/> 1 | please go to question 14c. |
| Decreased | <input type="checkbox"/> 2 | please go to question 14c. |
| Unchanged | <input type="checkbox"/> 3 | please go to Section E: Personal Profile |

Q14c. What do you feel is the primary reason for this?

Please Specify: _____

Section E: Personal Profile

Please complete this section to tell us a little bit more about yourself

- Q15. Are you? Male ☐1 Female ☐2
- Q16. Are you? 18-24 ☐1 45-59 ☐4
25-34 ☐2 60+ ☐5
35-44 ☐3
- Q17. Are you?
White ☐1 Indian ☐5
Black Caribbean ☐2 Pakistani ☐6
Black African ☐3 Bangladeshi ☐7
Black Other ☐4 Chinese ☐8
Other ☐9 If other please specify in the spaces below
Please Specify: 1. _____

Q18. What is your current occupation (or previous occupation if retired)?

Please Specify: _____

Q19. Are you the main income earner in your household?

Yes ☐1 No ☐2

Q20. Do you have any children under the age of 18 living at home?

Yes ☐1 No ☐2

Q21. Do you have any long-term illness, health problems or disability which limits your daily activities?

Yes ☐1 No ☐2

Q22. Do you currently hold a *Sheffield Leisure Card*?

Yes ☐1
No ☐2

Q23. Would you be prepared to take part in a follow-up interview in the near future?

Yes ☐1 No ☐2

Contact Number: _____

Thank You Very Much For Your Assistance

Don't forget to enclose this questionnaire in the reply envelope and return in the post by Thursday March 27th to enter the prize draw.



Sheffield Leisure Survey: Expenditure on sport

Section 1: Sports Participation

The following questions relate to how often you participate in sporting activities within Sheffield and how much you spend whilst participating

1. In the last 12 months have you taken part in any sporting activities in Sheffield?

YES ☐/NO ☐

Please tick. If NO go to Q4

Please complete Table 1 below following the example given.

The table requires you to list the sports you have participated in most frequently in the last 12 months in Sheffield (up to 5). It then requires you to give details of how often you participate and how much you spent on the last occasion you participated in each of these sports.

Please state only the amount you have spent on yourself taking part in these sporting activities. Do not include any money that you may have spent on others with you e.g. children, friends, spouse etc. as this will be asked about later in the questionnaire. If on the last occasion someone else paid for you please indicate spend/cost as £0.

Table 1. Sports Participation in Sheffield.

				← ON THE LAST OCCASION →				
a) Name the sports you participate in most frequently (up to 5)	b) How many times in the last week	c) How many times in the last 4 weeks	d) How many times in the last 12 months	e) Cost of admission /hire of facilities (£)	f) Cost of hire of equipment (£)	g) Cost of food and drink (£)	h) Cost of travelling to and from the venue (£)	i) Spend on other items (£) e.g. car park
e.g. Swimming	1	3	30	£2	0	£1.50	£1 (petrol)	£1
1								
2								
3								
4								
5								

2a. Have you taken part in any other sporting activities in Sheffield over the last 12 months not already listed in Table 1?

YES ☐/NO ☐

Please tick. If NO go to Q 3

2b. Approximately what has been your total expenditure on these other sporting activities over the last 12 months (excluding club membership/subscription)?

£.....

3a. Are you a member of any sports participation club?

YES ☐/NO ☐

Please tick. If NO go to Q 4

3b. Please name the club(s)?

.....
.....
.....
.....

3c. How much have you paid in total annual membership/subscription?

£.....

Section 2: Sports Spectating

The following questions relate to how often you attend sports events in Sheffield e.g. football, basketball etc. and how much you spend whilst spectating

4. In the last 12 months have you been to watch any sporting events/activities in Sheffield?

YES ☐/NO ☐

Please tick. If NO go to Q 7

Please complete Table 2 below following the example given.

The table requires you to list the main sports you have been to watch/spectate at in the last 12 months in Sheffield (up to 5). It then requires you to give details of how often you have spectated at these events and how much you spent on the last occasion you watched each of these sports.

Please state only the amount you have spent on yourself. Do not include any money that you may have spent on others with you e.g. children, friends etc. as this will be asked about later in the questionnaire. If on the last occasion someone else paid for you please indicate spend/cost as £0.

Table 2. Sports Spectating in Sheffield.

			← ON THE LAST OCCASION →			
a) Name of sporting event (up to 5)	b) How many times in the last 4 weeks	c) How many times in the last 12 months	d) Spend on entrance/admission at the last event (£)	e) Spend on food and drink at the event (£)	f) Spend on travelling to and from the event (£)	g) Spend on other items at the last event e.g. programmes etc.
e.g. Football	1	10	£10	£2	£2 (bus)	£1
1						
2						
3						
4						
5						

5a. Have you attended more than five different sporting events in Sheffield over the last 12 months?

YES ☐/NO ☐
Please tick. If NO go to Q 6

5b. Approximately what has been your total expenditure on these other sporting events over the last 12 months?

£.....

6a. Are you a member or a season ticket holder of any sports spectator clubs in Sheffield?

YES ☐/NO ☐
Please tick. If NO go to Q 7

6b. Please name the club(s)?

.....
.....
.....
.....

6c. How much have you paid in annual membership/subscription/season ticket to the club(s)?

£.....

Section 3:

The following questions relate to how much you spend on others doing and/or watching sport e.g. children, friends, spouse, partner etc.

7a. Are there any children under 18 living in your household?

YES ☐/NO ☐

Please tick. If NO go to Q 10

7b. How many children are there?

7c. On average, how much do you spend in total on your children participating in sport in Sheffield per week? (Please include how much you spend on entrance fees, equipment hire, food and drink transport etc.)

TOTAL = £.....per week

7d. Are there any other activities that your children have participated in over the last 12 months in Sheffield which are predominantly sports based (e.g. sports/summer camps, water-sports, skiing courses etc.) and are not necessarily included in the weekly figure above?

YES ☐/NO ☐

Please tick. If NO go to Q 8

7e. Please state in the table below:

- (1) briefly the type of sporting activity and where it took place and
 - (2) approximately how much you have spent on behalf of your children participating in each of these additional activities over the last 12 months
- (Do not include any activities outside the Sheffield area).

(1) Activity description and venue	(2) Approximate expenditure (£)
1.	
2.	
3.	
4.	

Continue on the back of this sheet if necessary

8. On average, how much do you spend in total on behalf of your children watching sporting events in Sheffield per month? *(Please include how much you spend on entrance fees, food and drink transport etc.)*

TOTAL = £.....per week

9a. Do your children spend any of their own money on doing and/or watching sport?

YES ☐/NO ☐
Please tick. If NO go to Q10

9b. How much on average per week do your children spend?

TOTAL = £.....per week

10. How much on average do you spend on behalf of others (excluding children) e.g. partner, spouse, friends etc. per week doing and/or watching sport?
(This expenditure may be one large expenditure such as a season ticket, or regular smaller expenditures such as admission fees when they are with you)

TOTAL = £.....per week

Section 4: Sports Goods

The following questions relate to expenditure on sports goods purchased over the last 12 months. In this section please include expenditure on sports goods purchased for yourself and on behalf of friends and family

11. How much have you spent on the following items (*on yourself or anyone else e.g. children/family/friends*) from retailers in Sheffield over the last 12 months:

- a) Clothing used mainly for sport £.....
- b) Footwear used mainly for sport £.....
- c) Equipment purchased for sport (including bicycles) £.....
- d) Sports videos/books £.....
- e) Sports magazines £.....

12. In total approximately how much have you spent on the above sports goods (a-e) purchased from retailers outside Sheffield over the last 12 months?

£.....

If you have no children go to question 14

13a. How much have your children spent of their own money on the above sports goods in the last 12 months?

£.....

13b. What percentage of this was spent on sports goods in Sheffield?

.....%

Section 5 - Sporting Holidays

The following questions relate to day trips, short breaks, and longer holidays that have been taken predominantly for the purpose of watching or participating in sport.

***Please include the amount you spent on behalf of yourself and others with you e.g. children.** If on the last occasion that you took a day trip/short break/longer holiday, someone paid for you, indicate spend/cost where appropriate as zero (£0).

Day Trips

- 14a. Have you taken any day trips away from Sheffield in the last 12 months predominantly for the purpose of watching *or* participating in sport? *e.g. to watch football; to play a match etc.*

YES ☐/NO ☐

Please tick. If NO go to Q 15

- 14b. How many times in the last 12 months have you been on day trips predominantly for the purpose of sport?

.....

- 14c. On the last occasion you went on such a day trip, please state: (1) approximately how much you spent (including travel, food and drink etc. *) and (2) the number of people this expenditure covers (e.g. one adult one child = 2).

(1) £.....

(2) number of people

Short Breaks

- 15a. Have you taken any short-breaks (*1-3 nights*) away from Sheffield in the last 12 months predominantly for the purpose of watching or participating in sport? *e.g. activity/outdoor weekends - walking, competitions etc.*

YES ☐/NO ☐

Please tick. If NO go to Q 16

- 15b. How many times in the last 12 months have you been on short break holidays predominantly for the purpose of sport?

.....

- 15c. On the last occasion you went on such a short break, please state: (1) approximately how much you spent (including activities, travel, food and drink, accommodation etc*) and (2) the number of people this expenditure covers (e.g. two adults, one child = 3).

(1) £.....

(2) number of people

Longer Holidays

16a. Have you taken any longer holidays (*more than 4 nights*) away from Sheffield in the last 12 months predominantly for the purpose of watching or participating in sport? *e.g. skiing, golfing, walking, boating holidays.*

YES ☐/NO ☐
Please tick. If NO go to Q 17

16b. How many times in the last 12 months have you been on a longer holiday predominantly for the purpose of sport?

.....

16c. On the last occasion you went on a longer sports holiday, please state: (1) approximately how much you spent (including activities, travel, food and drink, accommodation etc*)and (2) the number of people this expenditure covers (e.g. two adults, two children = 4).

(1) £.....
(2) number of people

17. Have any of the day trips, short-breaks or longer holidays mentioned above been booked from a travel agent in Sheffield?

YES ☐/NO ☐/ N/A ☐
Please tick

18a. Have your children been on any day trips/short breaks/longer holidays away from Sheffield in the last 12 months primarily for the purpose of taking part in or watching sport, when you have not been with them?

YES ☐/NO ☐/N/A ☐
Please tick. If YES go to Q 18b

18b. Approximately what has been your total expenditure in the last 12 months on your children taking part in these sport-related holidays.

£.....

Thank you for your assistance and time
Please return this questionnaire in the pre-paid reply envelope to Larissa Davies, LIRC,
Sheffield Hallam University, Pond Street, Sheffield, S1 1AY

APPENDIX 7

Commercial sport sector questionnaires

Professional clubs and Commercial Leisure

Sports Manufacturing

Sports Retailing



The Economic Importance of sport in Sheffield: Commercial Sport

Section 1: General Information

1. Name of the establishment/club:
2. Status of the establishment: Sole trader/Partnership ☐ Private Limited ☐
(please tick) Public Limited ☐ Local Authority ☐
Charitable trust/Non-profit making body ☐ Other (please state below) ☐
-
-
3. Are there any other establishments in Sheffield which are part of your company? YES/NO (Please circle)
If YES, please list:
.....
.....

Section 2: Employment

- 4a. How many people does the establishment currently employ?
- 4b. Please state the breakdown:

Please complete the table

Type of employment	Number of Employees
Full Time Female	
Full Time Male	
Part-time Female	
Part-time Male	

Part-time is defined here as less than 25 hours per week

5. How many of the above employees are on temporary/seasonal contracts (i.e. less than 6 months)?
.....
6. Approximately how many of the above employees live in Sheffield?%
- 7a. Do you have any paid coaches (self employed/freelance) not included in the above breakdown? YES/NO
(Please circle)
- 7b. If YES, how many contracted hours per week do they work in total?

Section 3: Financial (Any information given will be kept strictly confidential)

Where possible please answer all questions for the same financial year

8. Would you be willing to enclose a copy of the establishment's annual accounts? YES/NO (Please circle)
- IF YES please enclose with the completed questionnaire and go to Question 17
9. Please state the latest year for which financial data is available:
10. What was the establishment's annual turnover in the stated year: (please tick)
- | | | | |
|--|--|--|---|
| Under £10 000 <input type="checkbox"/> | £10 000-£20 000 <input type="checkbox"/> | £20 000-£50 000 <input type="checkbox"/> | £50 000-£100 000 <input type="checkbox"/> |
| £100 000-£200 000 <input type="checkbox"/> | £200 000-£500 000 <input type="checkbox"/> | £500 000-£1m <input type="checkbox"/> | £1m-£2m <input type="checkbox"/> £2m-£5m <input type="checkbox"/> |
| £5m-£10m <input type="checkbox"/> | £10m-£20m <input type="checkbox"/> | £20m- £50m <input type="checkbox"/> | £50m-£100m <input type="checkbox"/> Over £100m <input type="checkbox"/> |

11. Approximately what percentage of turnover was sports-related ?%

12. Is the establishment VAT registered? YES/NO (Please circle)

a) Income

13. What was the establishment's annual income in the stated year (please give an approximation if exact figures are not available)?
£.....

14. What were the major elements of income and approximately what percentage did they account for? e.g. Membership fees 40%, user charges 20%, bar sales 15%, lottery funding/donations 10%, hire of equipment 5%, sponsorship 5%, other 5% etc.
.....
.....
.....
.....
.....

b) Current Expenditure

15. What was the establishment's current expenditure in the stated year (i.e. excluding spending on capital equipment and on construction of buildings)?
£.....

16. What were the major elements of current expenditure and approximately what percentage did they account for? e.g. Wages and salaries 40%, rent 10%, stock for resale 30%, advertising 7%, gas, electricity, water 5%, VAT 3% other 5% etc.
.....
.....
.....
.....
.....

17. Approximately what percentage of the above current expenditures were to companies:
In Sheffield%
In the UK (outside Sheffield)%
Overseas%
TOTAL = 100%

c) Capital Expenditure

18. What has been the establishment's average annual expenditure on construction over the last 3 years?
£.....

19. Approximately what percentage of these expenditures were to companies:
In Sheffield%
In the UK (outside Sheffield)%
Overseas%

20. What has been the establishment's average annual expenditure on capital equipment over the last 3 years?
£.....

21. Approximately what percentage of these expenditures were to companies:
In Sheffield%
In the UK (outside Sheffield)%
Overseas%

Section 4: Miscellaneous

22. Does the establishment sponsor any sports events (including promotional costs)? **YES/NO** (Please circle)

If YES, what has been the average annual expenditure on sponsorship of sports events over the last 3 years:

Locally (within Sheffield) £.....
Nationally (elsewhere in the UK) £.....

23. Does the establishment advertise at sports events? **YES/NO**(Please circle)

If YES, what has been the average annual expenditure on advertising at sports events over the last 3 years:

Locally (within Sheffield) £.....
Nationally (elsewhere in the UK) £.....

24. Does the establishment have any sports provision for its employees (i.e. facilities, schemes etc.)? **YES/NO**(Please circle)

If YES, please describe and give an approximation of the establishment's annual expenditure on this.

.....
.....
..... Continue over if necessary

25. Have any major items of sport-related income or expenditure been excluded from the questionnaire? **YES/NO**
If YES please give details:

.....
.....
..... Continue over if necessary

26. Do you have any further comments to make regarding the questionnaire or your responses? **YES/NO**
.....
.....
..... Continue over if necessary

27. Would you be prepared to participate in a follow-up interview to clarify any information given? **YES/NO**

28. Would you like summary report of the Sheffield Leisure Survey? **YES/NO**

Name of person completing the questionnaire:

Position in the company:

Date of completion:

Thank you for your assistance and time.
Please return this questionnaire in the pre-paid reply envelope to Larissa Davies, LIRC, Sheffield Hallam University, Pond Street, Sheffield, S1 1AY



The Economic Importance of Sport in Sheffield: Sports Manufacturing

Section 1: General Information

1a. Name of the outlet:

2. Status of the outlet : (please tick)

a . Partnership/Sole Trader ☐ Private Limited ☐ Public Limited ☐ Other ☐ (please state)

b. Head office ☐ Divisional HQ ☐ Branch Plant ☐ Other ☐ (please state)

c. Name of parent company (if different from 1a)

3. Number of outlets in: Sheffield UK Overseas

4a. Please list the main products manufactured/produced at your outlet.

4b. Approximately what proportion of manufactured products are sport related?.....

Section 2: Employment (Please answer for your outlet not parent company)

5a. How many people does the outlet currently employ?

5b. Please state the breakdown:

Please complete the table

Type of employment	Number of Employees
Full Time Female	
Full Time Male	
Part-time Female	
Part-time Male	

Part-time is defined here as less than 25 hours per week

6. How many of the above employees are on temporary/seasonal contracts (i.e. less than 6 months)?

7. Approximately how many of the above employees live in Sheffield?%

Section 3: Financial (Any information given will be kept strictly confidential)

Where possible please answer all questions for the same financial year

8. Would you be willing to enclose a copy of the outlet's annual accounts? YES/NO (Please circle)

IF YES please enclose with the completed questionnaire and go to Question 15

9. Please state the latest year for which financial data is available:

10. What was the outlet's annual turnover in the stated year: (please tick)

Under £10 000 ☐ £10 000-£20 000 ☐ £20 000-£50 000 ☐ £50 000-£100 000 ☐

£100 000-£200 000 ☐ £200 000-£500 000 ☐ £500 000-£1m ☐ £1m-£2m ☐ £2m-£5m ☐

£5m-£10m ☐ £10m-£20m ☐ £20m- £50m ☐ £50m-£100m ☐ Over £100m ☐

11. Approximately what percentage of turnover was sports-related ?%

12. Is the outlet VAT registered? YES/NO (Please circle)

a) Income

13a. What was the outlet's annual income in the stated year (please give an approximation if exact figures are not available)?
£.....

13b. What were the major elements of income and approximately what percentage did they account for? e.g. Sales 75%, grant 15%, other 10% etc.
.....
.....
..... Continue over if necessary

13c. Approximately what proportion of total sales were to customers /companies:
In Sheffield%
In the UK (outside Sheffield)%
Overseas%
TOTAL = 100%

b) Current Expenditure

14a. What was the outlet's current expenditure in the stated year (i.e. excluding spending on capital equipment and on construction of buildings)?
£.....

14b. What were the major elements of current expenditure and approximately what percentage did they account for? e.g. Wages and salaries 30%, Materials (raw and semi finished products) 30%, rent 20%, gas, electricity, water 5%, VAT 10% other 5% etc.
.....
.....
.....
..... Continue over if necessary

14c. Approximately what percentage of the above current expenditures were to companies:
In Sheffield%
In the UK (outside Sheffield)%
Overseas%

c) Capital Expenditure

15a. What has been your average annual expenditure on construction over the last 3 years? £.....

15b. Approximately what percentage of these expenditures were to companies:
In Sheffield%
In the UK (outside Sheffield)%
Overseas%

16a. What has been your average annual expenditure on capital equipment over the last 3 years? £.....

16b. Approximately what percentage of these expenditures were to companies:
In Sheffield%
In the UK (outside Sheffield)%
Overseas%

Section 4: Miscellaneous

17. Have any major items of sport-related income or expenditure been excluded for the questionnaire (e.g. sports provision for employees; sponsorship/advertising at sports events etc.)? YES/NO (Please circle)

If YES please give details:
.....
.....
..... Continue over if necessary

18. Do you have any further comments to make regarding the questionnaire or your responses? YES/NO
.....
.....
..... Continue below if necessary

Name of person completing the questionnaire:

Position in the company:

Date of completion:

Thank you for your assistance and time.
Please return this questionnaire in the pre-paid reply envelope to Larissa Davies, LIRC, Sheffield Hallam
University, Pond Street, Sheffield, S1 1AY



The Economic Importance of Sport in Sheffield: Sports Retailing

Section 1: General Information

- 1a. Name of the outlet:
- 1b. Parent company name (if different):
2. Number of outlets in Sheffield?
3. Approximate number of outlets in the UK?
4. Status of the company: (please tick) Partnership/Sole Trader ☐ Private Limited ☐ Public Limited ☐ Other ☐
(please state)
.....
.....

Section 2: Employment (please answer questions for the outlet not the parent company)

- 5a. How many people does the outlet currently employ?
- 5b. Please state the breakdown:

Please complete the table

Type of employment	Number of Employees
Full Time Female	
Full Time Male	
Part-time Female	
Part-time Male	

Part-time is defined here as less than 25 hours per week

6. How many of the above employees are on temporary/seasonal contracts (i.e. less than 6 months)?
.....
7. Approximately how many of the above employees live in Sheffield?%

Section 3: Financial (please remember any information will be kept strictly confidential)

Please answer all questions for the same financial year.

a) Sales

8. Please state the latest year for which financial data is available:
9. What was the outlet's annual sales figure in the stated year: (please tick)
- | | | | | | | | |
|-------------------|--------------------------|-------------------|--------------------------|-----------------|--------------------------|------------------|-------------------------------------|
| Under £10 000 | <input type="checkbox"/> | £10 000-£20 000 | <input type="checkbox"/> | £20 000-£50'000 | <input type="checkbox"/> | £50 000-£100 000 | <input type="checkbox"/> |
| £100 000-£200 000 | <input type="checkbox"/> | £200 000-£500 000 | <input type="checkbox"/> | £500 000-£1m | <input type="checkbox"/> | £1m-£2m | <input type="checkbox"/> |
| £2m-£5m | <input type="checkbox"/> | £5m-£10m | <input type="checkbox"/> | £10m-£20m | <input type="checkbox"/> | £20m- £50m | <input type="checkbox"/> |
| | | | | | | £50m-£100m | <input type="checkbox"/> |
| | | | | | | | Over £100m <input type="checkbox"/> |
10. What proportion of total sales were sport-related?%
11. Approximately what proportion of total sales were to customers living in Sheffield?
.....%

b) Current Expenditure

12. What was your total current expenditure (i.e. excluding spending on capital equipment and on construction of buildings)?
£.....

13. What were the major elements of current expenditure and approximately what percentage did they account for?
e.g. Wages and salaries 40%, rent 10%, stock for resale 37%, gas, electricity, water 5%, VAT 3% other 5% etc.
.....
.....
.....Continue over if necessary
14. Approximately what percentage of the above current expenditures were to companies:
In Sheffield%
In the UK (outside Sheffield)%
Overseas%
TOTAL = 100%

c) Capital Expenditure

15. What has been your average annual expenditure on construction in the last 3 years? £.....
16. Approximately what percentage of these expenditures were to companies:
In Sheffield%
In the UK (outside Sheffield)%
Overseas%
17. What has been your average annual expenditure on capital equipment in the last 3 years? £.....
18. Approximately what percentage of these expenditures were to companies:
In Sheffield%
In the UK (outside Sheffield)%
Overseas%

Section 4: Sports related expenditures (please answer for specific outlet not the parent company)

19. What was the outlet's annual expenditure on sponsorship of sports events in the stated financial year:
Locally (within Sheffield) £.....
Nationally (elsewhere in the UK) £.....
20. What was the outlet's annual expenditure on advertising at sports events in the stated financial year:
Locally (within Sheffield) £.....
Nationally (elsewhere in the UK) £
21. Does the outlet have any sports provision (i.e. facilities, schemes etc.) for its employees YES/NO (Please circle)
If YES please describe:
.....
.....Continue over if necessary
22. Have any major items of sport-related income or expenditure been excluded for the questionnaire? YES/NO
If YES please state:
.....
.....Continue over if necessary
23. Do you have any further comments to make regarding the questionnaire or your responses? YES/NO
.....
.....Continue over if necessary
24. Would you be prepared to participate in a follow-up interview to clarify any information given? YES/NO

Name of person completing the questionnaire:

Position in the company:

Date of completion:

Thank you for your assistance and time.
Please return this questionnaire in the pre-paid reply envelope to Larissa Davies, LIRC, Sheffield Hallam University, Pond Street, Sheffield, S1 1AY

APPENDIX 8

Voluntary sector analysis

- 8.1 List of sporting 'groups' for analysis
- 8.2 One way ANOVA Test for type of sports clubs: membership; income; current expenditure
- 8.3 Mean membership: sporting activities in Sheffield
- 8.4 One way ANOVA Test for core voluntary clubs (sporting activities): membership; income; current expenditure
- 8.5 Actual income: core voluntary clubs (sporting activities)
- 8.6 Definition of 'income' and 'expenditure' categories
- 8.7 Actual current expenditure: core voluntary clubs (sporting activities)
- 8.8 Kruskal-Wallis Test for university clubs (sporting activities): membership; income; current expenditure
- 8.9 Mann-Whitney Test for university clubs (SHU; SU): membership; income; current expenditure
- 8.10 Mann-Whitney Test for SSC and WMC: membership; income; current expenditure
- 8.11 Total income: core voluntary clubs
- 8.12 Total expenditure: core voluntary clubs
- 8.13 Total capital expenditure; volunteers and employees: core voluntary clubs
- 8.14 Total income: university clubs
- 8.15 Total current expenditure: university clubs
- 8.16 Total capital expenditure; volunteers and employees: university clubs
- 8.17 Total income: SSC and WMC
- 8.18 Total current expenditure: SSC and WMC
- 8.19 Total capital expenditure; volunteers and employees: SSC and WMC

8.1 List of sporting ‘groups’

<i>Sporting group*</i>	<i>Sports included</i>
All Martial Arts	Judo; Karate; Tai Chi
Angling	Fishing
Athletics	Running; Triathlon; Athletics; Field events
Basketball	Basketball; Netball
Bowls	Crown Green Bowling; Indoor Bowling
Canoeing	Rowing; Canoeing
Climbing	Climbing; Mountaineering; Orienteering
Cricket	Cricket; Rounders; Baseball
Cycling	Road Cycling; Mountain Biking
Football	Football; Soccer; American Football
Gymnastics	Gymnastics; Trampolining
Ice sports	Ice hockey; Ice Skating; Speed-skating
Rugby	Rugby Union; Rugby League
Sailing	Sailing; Windsurfing; Jet-skiing; Water-skiing
Skiing	Skiing; Snow-boarding
Snooker	Snooker; Pool
Squash	Squash; Racquet ball
Swimming	Swimming; Diving; Water-polo; Synchronised Swimming, Octopush
Walking	Walking; Rambling
Weightlifting	Body-building

** Self explanatory sports not given*

8.2 One way ANOVA Test for type of sports clubs

1. Null hypothesis (H_0) = There is no significant difference in the membership of a club and the type of sports club (Core; University; SCC; WMC)
2. Null hypothesis (H_0) = There is no significant difference in the income of a club and the type of sports club (Core; University; SCC; WMC)
3. Null hypothesis (H_0) = There is no significant difference in the current expenditure of a club and the type of sports club (Core; University; SCC; WMC)

ANOVA

		Sum of Squares	df	Mean Square
3a. total membership of the club	Between Groups	15082333.2	3	5027444.42
	Within Groups	15124134.5	248	60984.413
	Total	30206467.7	251	
10a. gross income	Between Groups	1.940E+11	3	6.466E+10
	Within Groups	5.850E+11	234	2.500E+09
	Total	7.790E+11	237	
12a Gross expenditure	Between Groups	1.840E+11	3	6.133E+10
	Within Groups	5.527E+11	233	2.372E+09
	Total	7.367E+11	236	

Given that the p (sig.) value of F is < 0.05 for all three variables, F is statistically significant therefore, H_0 is rejected and it is concluded that there is a significant difference between membership, income and current expenditure of Core, University, WMC and SSC.

8.3 Mean membership: sporting activities in Sheffield

sports team	Mean	N	Std. Deviation
walking/rambling	225.1667	6	336.0288
swimming (incl waterpolo, diving, syncro)	335.0000	4	206.3169
snooker/pool	141.0000	8	347.7322
cycling	67.2000	5	71.4262
football/soccer	26.9194	62	14.6313
golf	615.3333	3	151.0143
cricket	63.8889	18	57.5907
fishing/angling	341.3333	3	355.9007
rugby	226.6667	3	63.5085
basketball	38.6000	5	27.3642
tennis	229.0000	3	68.2862
hockey	122.2000	5	85.2009
badminton	26.5000	10	28.0802
table tennis	18.3750	8	17.2456
Athletics	194.1667	6	179.4552
climbing/mountaineering	975.0000	1	.
bowls	50.4286	21	63.6848
skiing/snowboarding	130.0000	1	.
Volleyball	70.0000	1	.
Martial arts	76.3333	3	107.4353
fencing	15.0000	2	1.4142
boxing	32.0000	1	.
canoeing/rowing	50.0000	1	.
ice hockey/skating	17.0000	2	1.4142
shooting	25.0000	1	.
disability sports	132.0000	1	.
archery	19.0000	1	.
Total	88.5243	185	165.4356

8.4 One way ANOVA Test for core voluntary clubs (sporting activities)

1. Null hypothesis (H_0) = There is no significant difference in the membership of a club and the different sporting activities
2. Null hypothesis (H_0) = There is no significant difference in the income of a club and the different sporting activities
3. Null hypothesis (H_0) = There is no significant difference in the current expenditure of a club and the different sporting activities

ANOVA

		Sum of Squares	df	Mean Square
3a. total membership of the club	Between Groups	2784565.11	28	99448.754
	Within Groups	2251319.03	156	14431.532
	Total	5035884.14	184	
10a. gross income	Between Groups	3.495E+11	28	1.248E+10
	Within Groups	2.289E+10	146	156784702
	Total	3.724E+11	174	
12a Gross expenditure	Between Groups	3.211E+11	28	1.147E+10
	Within Groups	1.854E+10	145	127882231
	Total	3.397E+11	173	

Given that the p (sig.) value of F is < 0.05 for all three variables, F is statistically significant therefore, H_0 is rejected and it is concluded that there is a significant difference between the membership, income and current expenditure of different sporting activities of core voluntary clubs.

8.5 Actual income: core voluntary clubs (£)

Sport	Total income	Advertising	Bar/Food/ Clothing Sales	Bank Interest	Donations & Sponsorship	Facility hire	Fundraising	Grant* income*	Match fees	Membership	Players collections	Training fees	Other	Average grant income**
All Martial Arts	1,440.33	0.00	347.92	0.00	0.00	0.00	43.33	0.00	0.00	846.48	0.00	33.33	169.27	9.22
Angling	4,515.67	0.00	846.78	0.00	0.00	0.00	666.67	0.00	0.00	3,002.22	0.00	0.00	0.00	0.00
Archery	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Athletics	2,305.00	142.50	111.80	52.80	0.00	0.00	314.80	0.00	709.20	831.40	0.00	0.00	142.50	77.78
Badminton	1,622.77	197.02	0.00	0.00	15.94	6.83	109.78	10.93	227.47	971.04	2.52	66.67	14.57	3.70
Basketball	7,680.00	1,000.00	0.00	0.00	800.00	0.00	2,500.00	250.00	1,238.00	1,805.00	0.00	87.00	0.00	96.93
Bowls	882.92	0.00	16.97	5.89	48.62	0.00	221.66	0.00	201.49	254.46	42.59	39.79	51.45	9.65
Boxing	1,000.00	0.00	0.00	0.00	500.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Canoeing	1,600.00	0.00	0.00	0.00	0.00	0.00	160.00	0.00	0.00	1,120.00	0.00	320.00	0.00	0.00
Climbing	105,000.00	0.00	30,450.00	0.00	0.00	3,150.00	0.00	46,200.00	0.00	25,200.00	0.00	0.00	0.00	15,400.00
Cricket	9,366.16	12.43	2,302.50	16.68	835.11	3,497.94	881.42	0.00	493.30	1,037.86	0.00	1.05	287.87	127.08
Cycling	1,037.25	2.23	520.49	47.95	10.24	0.00	22.30	0.00	100.34	323.47	0.00	0.00	10.23	73.33
Disabled Sp.	10,447.00	417.88	0.00	0.00	522.35	0.00	8,253.13	0.00	0.00	835.76	0.00	0.00	417.88	83.33
Fencing	250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00
Football	2,126.11	155.25	1.42	0.00	366.57	0.00	794.09	2.11	227.03	426.07	13.59	2.93	137.05	4.48
Golf	296,787.25	0.00	74,193.57	0.00	1,585.00	0.00	792.50	0.00	0.00	178,731.98	0.00	31,735.21	9,748.99	0.00
Gymnastics	21,850.00	0.00	0.00	0.00	0.00	2,403.50	0.00	0.00	0.00	18,135.50	0.00	0.00	1,311.00	0.00
Hockey	10,368.59	254.74	277.80	58.40	158.74	0.00	2,559.69	0.00	2,836.44	3,580.38	0.00	0.00	642.40	33.00
Ice sports	10,184.00	0.00	0.00	0.00	0.00	0.00	2,830.20	0.00	0.00	7,353.80	0.00	0.00	0.00	0.00
Korfball	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lacrosse	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rugby	32,372.67	10,982.62	3,500.86	217.64	0.00	2,807.45	4,186.58	0.00	5,726.46	4,420.62	0.00	0.00	530.44	1,666.67
Sailing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shooting	600.00	-	-	-	-	-	-	-	-	-	-	-	-	0.00
Skiing	1,700.00	0.00	0.00	0.00	0.00	170.00	0.00	0.00	0.00	1,530.00	0.00	0.00	0.00	4,333.33
Snooker	398.43	0.00	0.00	0.00	0.00	0.00	2.86	0.00	17.79	74.14	42.86	257.14	3.64	0.00
Squash	25,961.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11,163.23	0.00	14,797.77	0.00	0.00
Sub aqua	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Swimming	15,498.75	0.00	0.00	88.35	441.73	0.00	596.43	0.00	6,593.08	6,047.98	0.00	450.00	1,281.20	83.33
Table Tennis	660.14	0.00	0.00	0.00	9.03	12.51	78.18	35.71	22.62	502.09	0.00	0.00	0.00	7.14
Tennis	32,460.85	0.00	16,549.81	0.00	0.00	0.00	1,565.16	0.00	637.50	9,012.90	0.00	0.00	4,695.48	0.00
Volleyball	15,000.00	0.00	0.00	0.00	0.00	0.00	1,500.00	1,500.00	0.00	1,500.00	0.00	10,500.00	0.00	500.00
Walking	692.80	0.00	30.94	24.54	0.00	0.00	116.93	0.00	233.74	265.36	0.00	0.00	21.29	0.00
Weightlifting	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All Sports*	11,912.27	295.11	2,416.99	13.46	293.23	444.01	771.30	284.01	568.98	5,469.87	10.96	909.40	434.95	93.13

* Grant income calculated for latest financial year

- = no data available due to missing values

** Grant income averaged over the last 3 financial years

For full definition of items included in the income categories see appendix 8.6

8.6 Definition of 'income' and 'expenditure' categories

<i>Category*</i>	<i>Income items included*</i>
Advertising	Revenue from companies advertising on club programmes etc.
Bar/clothing/food sales	Bar, food, clothing and equipment sales
Bank Interest	Financial returns e.g. bank interest etc.
Facility hire	Revenue from hire of facilities to other clubs
Fundraising	Including income from club/social events, raffles etc.
Match fees	Revenue from players for matches to cover expenses
Players collections	Any additional contributions and collections from players
Training fees	Including participation charges

<i>Category*</i>	<i>Expenditure items included*</i>
Goods for resale	Food, drink, clothing and equipment for resale
Governing bodies	Payment to local and national governing bodies for affiliation
Ground maintenance	Ground and facility annual maintenance
Hire of facilities	Ground/facility hire, rent
Insurance	For ground, facilities and members
Kit wash	Washing and repair costs to club 'kit'
League fees	Event fees and payment to enter leagues
Match expenses	Referees, umpires, match teas, trophies etc.
Operating costs	Electricity, gas, telephone, water, stationary, printing, postage etc.
Social & club events	Social and fund-raising expenses
Travel	Travel to club competitions/events
Wages and expenses	Wages, salaries, expenses

** Self explanatory items not given*

8.7 Actual current expenditure: core voluntary clubs (£)

Sport	Current Expenditure	Club Equipment	Goods for resale	Governing bodies	Ground maintenance	Hire of facilities	Insurance	League fees	Match expenses	Operating Costs	Socials & Club events	Travel	Wages and Expenses	Other
All Martial Arts	1,326.33	442.02	0.00	80.31	84.58	272.57	28.04	0.00	48.33	290.00	0.00	0.00	32.15	48.33
Angling	1,650.33	0.00	364.24	0.00	0.00	0.00	0.00	95.02	142.53	316.73	316.73	0.00	66.67	348.41
Archery	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Athletics	1,886.66	134.32	0.00	95.41	0.00	203.33	0.00	107.30	428.45	34.16	282.02	158.56	100.83	342.28
Badminton	1,356.12	114.66	0.00	34.00	0.00	1,134.33	0.00	7.24	0.00	7.57	46.48	0.00	0.00	11.84
Basketball	7,670.00	200.00	0.00	43.50	0.00	2,678.00	0.00	471.00	1,524.70	0.00	0.00	1,750.00	500.00	502.80
Bowls	814.18	16.76	22.84	90.40	30.99	94.41	1.42	50.12	112.18	55.45	220.61	0.00	71.63	47.38
Boxing	750.00	112.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	637.50	0.00	0.00	0.00	0.00
Canoeing	1,400.00	0.00	0.00	70.00	0.00	980.00	0.00	0.00	0.00	70.00	0.00	280.00	0.00	0.00
Climbing	92,000.00	0.00	60,720.00	0.00	17,480.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8,280.00	5,520.00
Cricket	8,513.17	583.16	1,142.40	11.98	282.33	1,030.61	103.91	149.97	461.29	813.45	51.60	0.00	2,625.18	1,257.29
Cycling	987.52	39.63	486.01	99.14	0.00	30.00	0.00	10.13	140.04	67.79	107.69	2.03	0.00	5.06
Disabled Sp.	9,081.00	2,724.30	0.00	0.00	0.00	2,724.30	0.00	0.00	0.00	908.10	0.00	0.00	0.00	2,724.30
Fencing	300.00	50.00	0.00	0.00	50.00	175.00	0.00	0.00	0.00	0.00	0.00	0.00	25.00	0.00
Football	2,073.49	169.96	0.38	37.41	32.77	578.51	198.58	129.02	259.25	35.51	137.00	80.65	242.99	171.46
Golf	285,284.47	0.00	57,104.98	0.00	65,404.62	0.00	0.00	0.00	0.00	31,335.45	0.00	0.00	92,331.00	39,108.42
Gymnastics	15,575.00	3,738.00	778.75	934.50	0.00	2,959.25	467.25	0.00	311.50	1,557.50	0.00	623.00	1,713.25	2,492.00
Hockey	9,114.80	367.92	367.92	859.15	0.00	2,910.70	0.00	607.85	663.50	0.00	1,135.23	0.00	36.79	2,165.74
Ice sports	9,830.50	0.00	0.00	491.53	0.00	6,064.55	0.00	0.00	467.78	0.00	0.00	935.55	1,871.09	0.00
Korfball	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lacrosse	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rugby	31,324.33	766.80	383.40	0.00	4,217.40	6,739.19	843.88	0.00	11,739.24	4,614.65	0.00	0.00	0.00	2,019.77
Sailing	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shooting	600.00	-	-	-	-	-	-	-	-	-	-	-	-	-
Skiing	1,600.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	800.00	0.00
Snooker	340.71	0.00	0.00	1.37	0.00	47.94	0.00	50.48	3.60	230.18	0.00	0.00	0.00	7.14
Squash	27,864.00	0.00	0.00	0.00	11,981.52	1,393.20	2,229.12	0.00	278.64	3,622.32	0.00	0.00	3,622.32	4,736.88
Sub aqua	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Swimming	12,591.50	15.00	0.00	3,977.07	0.00	1,845.00	440.41	0.00	1,258.30	0.00	0.00	917.49	3,005.77	1,132.47
Table Tennis	601.29	76.14	0.00	29.77	0.00	248.47	39.25	129.33	3.17	65.71	7.14	0.00	0.00	2.31
Tennis	24,668.00	335.00	12,364.44	0.00	3,867.70	0.00	1,065.90	335.00	0.00	2,405.90	0.00	0.00	1,827.26	2,466.80
Volleyball	15,000.00	750.00	0.00	3,000.00	0.00	8,250.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	1,500.00
Walking	613.80	0.00	0.00	41.85	0.00	6.34	11.41	0.00	89.90	30.99	82.47	207.20	6.00	137.64
Weightlifting	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All sports	11,177.99	221.59	1,975.10	182.23	1,845.82	877.69	129.98	111.08	483.21	1,000.39	129.61	125.47	2,711.25	1,384.57

- = no data available due to missing values

For full definition of items included in the expenditure categories see Appendix 8.6

8.8 Kruskal-Wallis Test for university clubs (sporting activities)

1. Null hypothesis (H_0) = There is no significant difference in the membership of a club and the different sporting activities
2. Null hypothesis (H_0) = There is no significant difference in the income of a club and the different sporting activities
3. Null hypothesis (H_0) = There is no significant difference in the current expenditure of a club and the different sporting activities

Ranks

	sports team	N	Mean Rank
3a. total membership of the club	walking/rambling	1	37.00
	swimming (incl waterpolo, diving, syncro)	2	22.75
	football/soccer	3	26.33
	golf	1	1.00
	cricket	1	4.50
	rugby	2	16.75
	basketball	1	22.50
	tennis	1	38.50
	squash/raquet ball	2	18.75
	hockey	3	25.17
	badminton	2	27.00
	watersports - windsurfing/waterskiing/jet skiing	2	15.50
	Athletics	1	26.50
	climbing/mountaineering	1	38.50
	Netball	1	14.00
	skiing/snowboarding	3	38.67
	Martial arts	4	16.00
	fencing	1	8.50
	canoeing/rowing	3	22.17
	gymnastics	1	12.00
	sailing	2	24.00
	Lacrosse	1	8.50
	other eg baseball, wrestling	3	22.33
	archery	1	17.00
	Total	43	

Ranks

	sports team	N	Mean Rank
10a. gross income	walking/rambling	1	14.50
	swimming (incl water polo, diving, syncro)	2	17.25
	football/soccer	3	18.50
	golf	1	3.00
	cricket	1	14.50
	rugby	2	23.75
	basketball	1	5.00
	tennis	1	28.50
	squash/raquet ball	1	20.50
	hockey	2	27.75
	badminton	2	14.75
	watersports - windsurfing/waterskiing/jet skiing	2	26.75
	climbing/mountaineering	1	28.50
	Netball	1	17.50
	skiing/snowboarding	3	30.17
	Martial arts	5	14.00
	fencing	1	32.00
	canoeing/rowing	3	28.67
	gymnastics	1	1.00
	sailing	2	35.25
	Lacrosse	2	29.50
	other eg baseball, wrestling	3	24.83
	archery	1	11.50
	Total	42	

Ranks

	sports team	N	Mean Rank
12a Gross expenditure	walking/rambling	1	13.50
	swimming (incl waterpolo, diving, syncro)	2	16.00
	football/soccer	3	18.00
	golf	1	26.50
	cricket	1	13.50
	rugby	2	23.50
	basketball	1	19.00
	tennis	1	26.50
	squash/raquet ball	1	19.00
	hockey	2	27.00
	badminton	2	12.75
	watersports - windsurfing/waterskiing/jet skiing	2	19.50
	climbing/mountaineering	1	26.50
	Netball	1	34.00
	skiing/snowboarding	3	33.67
	Martial arts	5	7.40
	fencing	1	34.00
	canoeing/rowing	3	26.33
	gymnastics	1	13.50
	sailing	2	32.00
	Lacrosse	2	28.75
	other eg baseball, wrestling	3	26.00
	archery	1	9.00
	Total	42	

Test Statistics^{a,b}

	3a. total membership of the club	10a. gross income	12a Gross expenditure
Chi-Square	21.497	19.687	19.790
df	23	22	22
Asymp. Sig.	.551	.603	.596

a. Kruskal Wallis Test

b. Grouping Variable: sports team

Given that the p (sig.) value is > 0.05 for all three variables, H_0 is accepted and it is concluded that there is no significant difference between the membership, income and current expenditure of different sporting activities (university sports clubs).

8.9 Mann-Whitney Test for university clubs (SHU; SU)

1. Null hypothesis (H_0) = There is no significant difference in the membership of SHU and SU sports clubs
2. Null hypothesis (H_0) = There is no significant difference in the income of SHU and SU sports clubs
3. Null hypothesis (H_0) = There is no significant difference in the current expenditure of SHU and SU sports clubs

Ranks

	University	N	Mean Rank	Sum of Ranks
3a. total membership of the club	Sheffield University Club	32	25.30	809.50
	Sheffield Hallam Club	12	15.04	180.50
	Total	44		
10a. gross income	Sheffield University Club	32	23.56	754.00
	Sheffield Hallam Club	11	17.45	192.00
	Total	43		
12a Gross expenditure	Sheffield University Club	32	22.48	719.50
	Sheffield Hallam Club	11	20.59	226.50
	Total	43		

Test Statistics^b

	3a. total membership of the club	10a. gross income	12a Gross expenditure
Mann-Whitney U	102.500	126.000	160.500
Wilcoxon W	180.500	192.000	226.500
Z	-2.363	-1.393	-.432
Asymp. Sig. (2-tailed)	.018	.164	.666
Exact Sig. [2*(1-tailed Sig.)]	.017 ^a	.171 ^a	.671 ^a

a. Not corrected for ties.

b. Grouping Variable: University

Given that the p (sig.) value is < 0.05 for membership, H_0 is rejected and it is concluded that there is a significant difference between the membership of SHU and SU sports clubs. However, given that the p (sig.) value is > 0.05 for income and expenditure, H_0 is accepted and it is concluded that there is no significant difference in the income and expenditure of SHU and SU sports clubs

8.10 Mann-Whitney Test for SSC and WMC

- 1. Null hypothesis (H_0) = There is no significant difference in the membership of SSC and WMC
- 2. Null hypothesis (H_0) = There is no significant difference in the income of SSC and WMC
- 3. Null hypothesis (H_0) = There is no significant difference in the current expenditure of SSC and WMC

Ranks

	Type of club	N	Mean Rank	Sum of Ranks
3a. total membership of the club	Sport and Social/Private members Club	10	12.65	126.50
	WMC club	13	11.50	149.50
	Total	23		
10a. gross income	Sport and Social/Private members Club	8	15.63	125.00
	WMC club	12	7.08	85.00
	Total	20		
12a Gross expenditure	Sport and Social/Private members Club	8	15.38	123.00
	WMC club	12	7.25	87.00
	Total	20		

Test Statistics^b

	3a. total membership of the club	10a. gross income	12a Gross expenditure
Mann-Whitney U	58.500	7.000	9.000
Wilcoxon W	149.500	85.000	87.000
Z	-.404	-3.175	-3.010
Asymp. Sig. (2-tailed)	.686	.001	.003
Exact Sig. [2*(1-tailed Sig.)]	.693 ^a	.001 ^a	.002 ^a

a. Not corrected for ties.

b. Grouping Variable: Type of club

From the results it can be seen that p (sig.) value is < 0.05 for income and expenditure therefore, H_0 is rejected for these variables and it is concluded that there is a significant difference between the income and current expenditure of SSC and WMC. However, given that the p (sig.) value is > 0.05 for membership, H_0 is accepted for this variable and it is concluded that there is no significant difference between the membership of SSC and WMC.

This can be explained by the fact that the income and expenditure variables relate to sport-related flows only, whereas the membership variable relates both sporting and non sporting members. Thus, while there is no difference in the overall size of the club, there is clearly a difference in the sport-related turnover of SSC and WMC

8.11 Total income: core voluntary clubs (£)

Sport	Number of Clubs	Advertising	Bar/Food/ Clothing Sales	Bank Interest	Donations & Sponsorship	Facility hire	Fundraising	Average grant income*	Match fees	Membership	Players collections	Training fees	Other	Total income (all clubs)
All Martial Arts	23.00	0.00	8,002.16	0.00	0.00	0.00	996.59	212.06	0.00	19,469.04	0.00	766.59	3,893.21	33,339.65
Angling	3.00	0.00	2,540.34	0.00	0.00	0.00	2,000.01	0.00	0.00	9,006.66	0.00	0.00	0.00	13,547.01
Archery**	4.00	1,180.44	9,667.96	53.84	1,172.92	1,776.04	3,085.20	372.52	2,275.92	21,879.48	43.84	3,637.60	1,739.80	46,885.56
Athletics	14.00	1,995.00	1,565.20	739.20	0.00	0.00	4,407.20	1,088.92	9,928.80	11,639.60	0.00	0.00	1,995.00	33,358.92
Badminton	35.00	6,895.70	0.00	0.00	557.90	239.05	3,842.30	129.50	7,961.45	33,986.40	88.20	2,333.45	509.95	56,543.90
Basketball	10.00	10,000.00	0.00	0.00	8,000.00	0.00	25,000.00	969.30	12,380.00	18,050.00	0.00	870.00	0.00	75,269.30
Bowls	88.00	0.00	1,493.36	518.32	4,278.56	0.00	19,506.08	849.20	17,731.12	22,392.48	3,747.92	3,501.52	4,527.60	78,546.16
Boxing	6.00	0.00	0.00	0.00	3,000.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	6,000.00
Canoeing	3.00	0.00	0.00	0.00	0.00	0.00	480.00	0.00	0.00	3,360.00	0.00	960.00	0.00	4,800.00
Climbing	5.00	0.00	152,250.00	0.00	0.00	15,750.00	0.00	77,000.00	0.00	126,000.00	0.00	0.00	0.00	371,000.00
Cricket	81.00	1,006.83	186,502.50	1,351.08	67,643.91	283,333.14	71,395.02	10,293.48	39,957.30	84,066.66	0.00	85.05	23,317.47	768,952.44
Cycling	19.00	42.37	9,889.31	911.05	194.56	0.00	423.70	1,393.27	1,906.46	6,145.93	0.00	0.00	194.37	21,101.02
Disabled Sp.	3.00	1,253.64	0.00	0.00	1,567.05	0.00	24,759.39	249.99	0.00	2,507.28	0.00	0.00	1,253.64	31,590.99
Fencing	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	500.00	0.00	0.00	0.00	500.00
Football	395.00	61,323.75	560.90	0.00	144,795.15	0.00	313,665.55	1,769.60	89,676.85	168,297.65	5,368.05	1,157.35	54,134.75	840,749.60
Golf	7.00	0.00	519,354.99	0.00	11,095.00	0.00	5,547.50	0.00	0.00	1,251,123.86	0.00	222,146.47	68,242.93	2,077,510.75
Gymnastics	4.00	0.00	0.00	0.00	0.00	9,614.00	0.00	0.00	0.00	72,542.00	0.00	0.00	5,244.00	87,400.00
Hockey	9.00	2,292.66	2,500.20	525.60	1,428.66	0.00	23,037.21	297.00	25,527.96	32,223.42	0.00	0.00	5,781.60	93,614.31
Ice sports	4.00	0.00	0.00	0.00	0.00	0.00	11,320.80	0.00	0.00	29,415.20	0.00	0.00	0.00	40,736.00
Korfball**	2.00	590.22	4,833.98	26.92	586.46	888.02	1,542.60	186.26	1,137.96	10,939.74	21.92	1,818.80	869.90	23,442.78
Lacrosse**	2.00	590.22	4,833.98	26.92	586.46	888.02	1,542.60	186.26	1,137.96	10,939.74	21.92	1,818.80	869.90	186.26
Rugby	10.00	109,826.20	35,008.60	2,176.40	0.00	28,074.50	41,865.80	16,666.70	57,264.60	44,206.20	0.00	0.00	5,304.40	340,393.40
Sailing**	4.00	1,180.44	9,667.96	53.84	1,172.92	1,776.04	3,085.20	372.52	2,275.92	21,879.48	43.84	3,637.60	1,739.80	46,885.56
Shooting**	5.00	1,475.55	12,084.95	67.30	1,466.15	2,220.05	3,856.50	465.65	2,844.90	27,349.35	54.80	4,547.00	2,174.75	58,606.95
Skating	3.00	0.00	0.00	0.00	0.00	510.00	0.00	12,999.99	0.00	4,590.00	0.00	0.00	0.00	18,099.99
Snooker	65.00	0.00	0.00	0.00	0.00	0.00	185.90	0.00	1,156.35	4,819.10	2,785.90	16,714.10	236.60	25,897.95
Squash	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55,816.15	0.00	73,988.85	0.00	129,805.00
Sub aqua**	2.00	590.22	4,833.98	26.92	586.46	888.02	1,542.60	186.26	1,137.96	10,939.74	21.92	1,818.80	869.90	186.26
Swimming	6.00	0.00	0.00	530.10	2,650.38	0.00	3,578.58	499.98	39,558.48	36,287.88	0.00	2,700.00	7,687.20	93,492.60
Table Tennis	26.00	0.00	0.00	0.00	234.78	325.26	2,032.68	185.64	588.12	13,054.34	0.00	0.00	0.00	16,420.82
Tennis	10.00	0.00	165,498.10	0.00	0.00	0.00	15,651.60	0.00	6,375.00	90,129.00	0.00	0.00	46,954.80	324,608.50
Volleyball	2.00	0.00	0.00	0.00	0.00	0.00	3,000.00	1,000.00	0.00	3,000.00	0.00	21,000.00	0.00	28,000.00
Walking	7.00	0.00	216.58	171.78	0.00	0.00	818.51	0.00	1,636.18	1,857.52	0.00	0.00	149.03	4,849.60
Weightlifting**	1.00	295.11	2,416.99	13.46	293.23	444.01	771.30	93.13	568.98	5,469.87	10.96	909.40	434.95	11,721.39
Total	865.00	200,538.35	1,133,722.04	7,192.73	251,310.55	346,726.15	591,940.42	127,467.23	323,028.27	2,253,883.77	12,209.27	364,411.38	238,125.55	5,804,042.67

* Grant income averaged over the last 3 financial years

** Estimated values using mean values from all sports

8.12 Total expenditure: core voluntary clubs (£)

Sport	Number of clubs	Club equipment	Goods for resale	Governing bodies	Ground maintenance	Hire of facilities	Insurance	League fees	Match expenses	Operating costs	Socials & Club events	Travel	Wages and Expenses	Other	Total current expenditure (all clubs)
All Martial Arts	23.00	10,166.46	0.00	1,847.13	1,945.34	6,269.11	644.92	0.00	1,111.59	6,670.00	0.00	0.00	739.45	1,111.59	30,505.59
Angling	3.00	0.00	1,092.72	0.00	0.00	0.00	0.00	285.06	427.59	950.19	950.19	0.00	200.01	1,045.23	4,950.99
Archery**	4.00	886.36	7,900.40	728.92	7,383.28	3,510.76	519.92	444.32	1,932.84	4,001.56	518.44	501.88	10,845.00	5,538.28	44,711.96
Athletics	14.00	1,880.48	0.00	1,335.74	0.00	2,846.62	0.00	1,502.20	5,998.30	478.24	3,948.28	2,219.84	1,411.62	4,791.92	26,413.24
Badminton	35.00	4,013.10	0.00	1,190.00	0.00	39,701.55	0.00	253.40	0.00	264.95	1,626.80	0.00	0.00	414.40	47,464.20
Basketball	10.00	2,000.00	0.00	435.00	0.00	26,780.00	0.00	4,710.00	15,247.00	0.00	0.00	17,500.00	5,000.00	5,028.00	76,700.00
Bowls	88.00	1,474.88	2,009.92	7,955.20	2,727.12	8,308.08	124.96	4,410.56	9,871.84	4,879.60	19,413.68	0.00	6,303.44	4,169.44	71,648.72
Boxing	6.00	675.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3,825.00	0.00	0.00	0.00	0.00	4,500.00
Canoeing	3.00	0.00	0.00	210.00	0.00	2,940.00	0.00	0.00	0.00	210.00	0.00	840.00	0.00	0.00	4,200.00
Climbing	5.00	0.00	303,600.00	0.00	87,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41,400.00	27,600.00	460,000.00
Cricket	81.00	47,235.96	92,534.40	970.38	22,868.73	83,479.41	8,416.71	12,147.57	37,364.49	65,889.45	4,179.60	0.00	212,639.58	101,840.49	689,566.77
Cycling	19.00	752.97	9,234.19	1,883.66	0.00	570.00	0.00	192.47	2,660.76	1,288.01	2,046.11	38.57	0.00	96.14	18,762.88
Disabled Sp.	3.00	8,172.90	0.00	0.00	0.00	8,172.90	0.00	0.00	0.00	2,724.30	0.00	0.00	0.00	8,172.90	27,243.00
Fencing	2.00	100.00	0.00	0.00	100.00	350.00	0.00	0.00	0.00	0.00	0.00	0.00	50.00	0.00	600.00
Football	395.00	67,134.20	150.10	14,776.95	12,944.15	228,511.45	78,439.10	50,962.90	102,403.75	14,026.45	54,115.00	31,856.75	95,981.05	67,726.70	819,028.55
Golf	7.00	0.00	399,734.86	0.00	457,832.34	0.00	0.00	0.00	0.00	219,348.15	0.00	0.00	646,317.00	273,758.94	1,996,991.29
Gymnastics	4.00	14,952.00	3,115.00	3,738.00	0.00	11,837.00	1,869.00	0.00	1,246.00	6,230.00	0.00	2,492.00	6,853.00	9,968.00	62,300.00
Hockey	9.00	3,311.28	3,311.28	7,732.33	0.00	26,196.34	0.00	5,470.63	5,971.50	0.00	10,217.09	0.00	331.13	19,491.62	82,033.20
Ice sports	4.00	0.00	0.00	1,966.12	0.00	24,258.20	0.00	0.00	1,871.12	0.00	0.00	3,742.20	7,484.36	0.00	39,322.00
Korfball**	2.00	443.18	3,950.20	364.46	3,691.64	1,755.38	259.96	222.16	966.42	2,000.78	259.22	250.94	5,422.50	2,769.14	22,355.98
Lacrosse**	2.00	443.18	3,950.20	364.46	3,691.64	1,755.38	259.96	222.16	966.42	2,000.78	259.22	250.94	5,422.50	2,769.14	22,355.98
Rugby	10.00	7,668.00	3,834.00	0.00	42,174.00	67,391.90	8,438.80	0.00	117,392.40	46,146.50	0.00	0.00	0.00	20,197.70	313,243.30
Sailing**	4.00	886.36	7,900.40	728.92	7,383.28	3,510.76	519.92	444.32	1,932.84	4,001.56	518.44	501.88	10,845.00	5,538.28	44,711.96
Shooting**	5.00	1,107.95	9,875.50	911.15	9,229.10	4,388.45	649.90	555.40	2,416.05	5,001.95	648.05	627.35	13,556.25	6,922.85	55,889.95
Skating	3.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,400.00	0.00	4,800.00
Snooker	65.00	0.00	0.00	89.05	0.00	3,116.10	0.00	3,281.20	234.00	14,961.70	0.00	0.00	0.00	464.10	22,146.15
Squash	5.00	0.00	0.00	0.00	59,907.60	6,966.00	11,145.60	0.00	1,393.20	18,111.60	0.00	0.00	18,111.60	23,684.40	139,320.00
Sub aqua**	2.00	443.18	3,950.20	364.46	3,691.64	1,755.38	259.96	222.16	966.42	2,000.78	259.22	250.94	5,422.50	2,769.14	22,355.98
Swimming	6.00	90.00	0.00	23,862.42	0.00	11,070.00	2,642.46	0.00	7,549.80	0.00	0.00	5,504.94	18,034.62	6,794.82	75,549.06
Table Tennis	26.00	1,979.64	0.00	774.02	0.00	6,460.22	1,020.50	3,362.58	82.42	1,708.46	185.64	0.00	0.00	60.06	15,633.54
Tennis	10.00	3,350.00	123,644.40	0.00	38,677.00	0.00	10,659.00	3,350.00	0.00	24,059.00	0.00	0.00	18,272.60	24,668.00	246,680.00
Volleyball	2.00	1,500.00	0.00	6,000.00	0.00	16,500.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	3,000.00	30,000.00
Walking	7.00	0.00	0.00	292.95	0.00	44.38	79.87	0.00	629.30	216.93	577.29	1,450.40	42.00	963.48	4,296.60
Weightlifting**	1.00	221.59	1,975.10	182.23	1,845.82	877.69	129.98	111.08	483.21	1,000.39	129.61	125.47	2,711.25	1,384.57	11,177.99
Total	865.00	183,288.67	981,762.87	78,703.55	763,492.68	599,323.06	126,080.52	92,150.17	324,119.26	451,996.33	99,851.88	68,154.10	1,135,796.46	632,739.33	5,537,458.88

** Estimated values using mean values from all sports

8.13 Total capital expenditure; volunteers and employees: core voluntary clubs

Sport	Total Capital Expenditure (£)	Total Volunteers	Committee Members	Total hrs Worked PW, Com. members	Other Volunteers	Total hrs Worked PW, Other volunteers	Total hrs by all volunteers	Total employees	FT Female	FT Male	PT Female	PT Male
All Martial Arts	2,683.41	107.41	46.00	107.18	61.41	92.23	199.41	0.00	0.00	0.00	0.00	0.00
Angling	4,500.00	54.00	33.99	79.20	20.01	3.39	82.59	0.00	0.00	0.00	0.00	0.00
Archery	0.00	12.00	12.00	24.00	0.00	0.00	24.00	0.00	0.00	0.00	0.00	0.00
Athletics	116.62	330.40	134.40	487.90	196.00	254.80	742.70	2.38	0.00	0.00	0.00	2.38
Badminton	1,555.40	213.50	175.00	201.25	38.50	6.65	207.90	0.00	0.00	0.00	0.00	0.00
Basketball	8,440.00	108.00	46.00	174.80	62.00	37.20	212.00	2.00	0.00	0.00	0.00	0.00
Bowls	113,857.92	893.20	550.00	852.72	343.20	292.16	1,144.88	13.20	0.00	4.40	8.80	0.00
Boxing	0.00	66.00	48.00	576.00	18.00	144.00	720.00	0.00	0.00	0.00	0.00	0.00
Canoeing	1,800.00	60.00	24.00	48.00	36.00	18.00	66.00	0.00	0.00	0.00	0.00	0.00
Climbing	95,000.00	230.00	80.00	240.00	150.00	450.00	690.00	0.00	0.00	0.00	0.00	0.00
Cricket	887,895.27	919.35	628.56	1,464.48	290.79	171.72	1,636.20	45.36	0.00	13.77	22.68	8.91
Cycling	7,125.00	235.60	133.00	319.20	102.60	51.30	370.50	0.00	0.00	0.00	0.00	0.00
Disabled Sp.	0.00	21.00	21.00	105.00	0.00	0.00	105.00	0.00	0.00	0.00	0.00	0.00
Fencing	100.00	16.00	0.00	0.00	16.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Football	175,767.10	2,966.45	1,714.30	6,154.10	1,252.15	825.55	6,979.65	7.90	0.00	7.90	0.00	0.00
Golf	271,250.00	112.00	88.69	384.03	23.31	23.31	407.34	123.20	15.40	43.40	42.00	22.40
Gymnastics	10,000.00	28.00	16.00	32.00	12.00	24.00	56.00	0.00	0.00	0.00	0.00	0.00
Hockey	16,200.00	135.00	91.80	201.96	43.20	70.74	272.70	0.00	0.00	0.00	0.00	0.00
Ice sports	3,900.00	34.00	22.00	165.00	12.00	12.00	177.00	2.00	0.00	0.00	0.00	2.00
Korfball**	5,829.46	22.66	12.48	33.82	10.18	7.46	41.28	1.36	0.15	0.40	0.50	0.32
Lacrosse**	5,829.46	22.66	12.48	33.82	10.18	7.46	41.28	1.36	0.15	0.40	0.50	0.32
Rugby	160,000.00	383.30	143.30	382.60	240.00	199.20	581.80	16.70	0.00	0.00	0.00	16.70
Sailing	11,658.92	45.32	24.96	67.64	20.36	14.92	82.56	2.73	0.29	0.80	1.00	0.64
Shooting	14,573.65	56.65	31.20	84.55	25.45	18.65	103.20	0.00	0.00	0.00	0.00	0.00
Skating	13,800.00	60.00	30.00	90.00	30.00	15.00	105.00	3.00	0.00	0.00	3.00	0.00
Snooker	5,416.45	422.50	276.25	260.00	146.25	27.30	287.30	40.95	8.45	8.13	8.13	16.25
Squash**	0.00	56.65	31.20	84.55	25.45	18.65	103.20	25.00	2.50	2.50	15.00	5.00
Sub aqua	5,829.46	22.66	12.48	33.82	10.18	7.46	41.28	1.36	0.15	0.40	0.50	0.32
Swimming	2,550.00	205.50	78.00	175.50	127.50	223.14	398.64	1.50	0.00	0.00	0.00	1.50
Table Tennis	5,630.82	163.54	63.18	72.02	100.36	0.00	72.02	0.00	0.00	0.00	0.00	0.00
Tennis	167,500.00	110.00	110.00	110.00	0.00	0.00	110.00	13.30	0.00	0.00	10.00	3.30
Volleyball	0.00	28.00	28.00	168.00	0.00	0.00	168.00	0.00	0.00	0.00	0.00	0.00
Walking	0.00	191.31	80.50	114.31	110.81	110.81	225.12	0.00	0.00	0.00	0.00	0.00
Weightlifting**	2,914.73	11.33	6.24	16.91	5.09	3.73	20.64	0.68	0.07	0.20	0.25	0.16
Total	2,001,723.67	8,343.99	4,805.01	13,344.36	3,538.98	3,130.83	16,475.19	304.00	29.16	82.28	112.36	80.20

** Estimated values using mean values from all sports

8.14 Total income: university clubs

University	Total Income	Bar/Food/Clothing	Sales	Donations & Sponsorship	Equipment Hire	Facility Hire	Fundraising	Grants	Other	Match fees	Membership	Players contributions	Training fees
SU (n =57)	130,459.32	1,977.90		890.91	356.25	427.50	0.00	43,059.51	0.00	9,031.65	50,114.97	21,396.09	2,116.98
SHU (n = 32)	48,087.36	1,920.00		5,120.00	0.00	0.00	1,396.48	25,338.24	0.00	290.88	8,203.52	5,818.24	0.00
All Universities	178,546.68	3,897.90		6,010.91	356.25	427.50	1,396.48	68,397.75	0.00	9,322.53	58,318.49	27,214.33	2,116.98

8.15 Total current expenditure: university clubs

	University	Current Expenditure											
		Club equipment	Goods for resale	Governing bodies	Ground maintenance	Hire of facilities	Insurance	League fees	Match expenses	Socials & Club events	Travel	Wages and expenses	Other
SU		22,809.69	1,659.27	355.11	91.77	6,711.18	1,929.45	6,051.12	4,878.63	1,691.76	57,316.35	15,966.84	4,632.39
SHU		30,494.72	1,566.72	348.16	0.00	3,726.72	0.00	3,677.44	4,368.00	1,440.00	11,210.88	6,556.16	510.08
All Universities		53,304.41	3,225.99	703.27	91.77	10,437.90	1,929.45	9,728.56	9,246.63	3,131.76	68,527.23	22,523.00	5,142.47

8.16 Total capital expenditure; volunteers and employees: university clubs

University	Total volunteers	No. Committee members	Total hrs worked PW (committee)	No. other volunteers	Total hrs worked PW (oth. vol)	Total hrs worked by all volunteers PW	Total employees	Total employee hrs PW
SU	507.87	336.87	1,128.60	171.00	171.00	1,299.60	30.21	33.63
SHU	209.28	162.56	549.44	46.72	57.60	607.04	4.80	0.58
All Universities	717.15	499.43	1,678.04	217.72	228.60	1,906.64	35.01	34.21

8.17 Total income: SSC and WMC

	Type	number	Total income	Bar/Food/Clothing	Sales	Donations & Sponsorship	Facility Hire	Fundraising	Grants	Match fees	Membership	Training fees	Other
SSC		19.00	3,286,646.60	2,408,630.38		1,070.46	302,264.54	14,774.78	92,789.54	1,605.69	112,993.38	24,240.96	328,276.87
WMC		75*	305,151.84	69,655.20		0.00	9,600.00	18,840.00	0.00	102,397.44	57,531.36	38,664.00	8,464.32

* WMC were multiplied by 48 (33% no sport).

This number was estimated by calculating the number of clubs with no sport, based on the non-respondents reasons and those questionnaires returned stating no sport was played

8.18 Total current expenditure: SSC and WMC

Type	Current expenditure	Club equipment	Goods for resale	Ground maintenance	Hire of facilities	Insurance	League fees	Match expenses	Operating costs	Socials & Club Events	Grants to sporting sections	Travel	Wages and expenses	Other
SSC	3,264,820.92	1,955.67	1,063,710.44	204,704.86	21,793.76	5,279.91	0.00	0.00	431,766.26	12,631.96	24,940.73	0.00	891,232.05	606,805.28
WMC	285,600.00	16,958.40	30,600.00	30,474.72	22,939.20	12,318.24	7,935.84	11,659.20	24,835.20	5,039.04	24,636.00	3,600.00	72,546.72	22,058.40

8.19 Total capital expenditure; volunteers and employees: SSC and WMC

Type	Capital expenditure	Total volunteers	No. Committee members	Total hrs worked PW (committee)	No. other volunteers	Total hrs worked PW (oth. vol)	Total hrs worked by all volunteers PW	Total employees	FT Female	FT Male	PT Female	PT Male
SSC	209,482.64	185.95	98.71	123.42	87.24	109.09	232.51	90.91	8.26	9.18	40.40	33.06
WMC	283,555.94	366.26	232.92	698.77	133.33	20.43	719.20	228.73	14.04	16.78	115.09	82.81

Given the number of volunteers and employees were for all of the clubs rather than only sport related activities, totals have been multiplied by the percentage of sport related turnover in each case which is 0.4833 and 0.38 for SSC and WMC respectively

APPENDIX 9

Consumer sector analysis

- 9.1 Ethnicity of Part A respondents
- 9.2 Social Class of Part A respondents
- 9.3 Participation in the last 4 weeks according to age and sex (Part A)
- 9.4 Chi-squared test for age and sex of Part A respondents
- 9.5 Weights used for Part A respondents

9.1 Ethnicity of Part A respondents

	<i>Frequency (Part A)</i>	<i>% (Part A)</i>	<i>1991 Census (%) (Table J) *</i>
White	1117	97.30	95.0
Black Caribbean	9	0.8	1.0
Black African	1	0.1	0.2
Indian	5	0.4	0.3
Pakistani	5	0.4	1.8
Bangladeshi	1	0.1	0.2
Chinese	3	0.3	0.3
Other	7	0.6	1.4
<i>Total</i>	<i>1148</i>	<i>100.00</i>	<i>100</i>

(*Source: Census of Population, 1991)

9.2 Social Class of Part A Respondents

	<i>Frequency</i>	<i>Percent</i>
A	94	8.3
B	218	19.4
C1	212	18.8
C2	239	21.2
D	118	10.5
E1*	51	4.5
E2*	106	9.4
H*	47	4.2
S*	41	3.6
Total	1126	100.00

Key:

A	Higher managerial, administrative or professional
B	Intermediate managerial, administrative or professional
C1	Supervisory or clerical and junior managerial
C2	Skilled manual workers
D	Semi-skilled and unskilled manual workers
E1	Casual Workers, unemployed, disabled
E2	Retired
H	House-person/Parent
S	Student

*Additional categories were created from the original JICNARS classification. Social Grade E has been divided into two categories - retired persons and casual workers/the unemployed. House-parents and students have also been divided into a separate category as they were not clearly defined in the JICNARS classification.

9.3 Participation in the last 4 weeks according to age and sex (Part A)

	Frequency (all respondents)	Male		Female		18-24		25-34		35-44		45-59		60+	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%
1 occasion	31	23	4.8	8	3.8	4	10.3	10	6.1	9	5.2	7	4.0	1	0.7
2-4 occasions	270	187	39.2	79	37.8	14	35.9	66	40.0	69	39.9	72	40.7	44	32.6
5-10 occasions	219	145	30.4	71	34.0	13	33.3	53	32.1	60	34.7	46	26.0	44	32.6
> 10 occasions	178	122	25.6	51	24.4	8	20.5	36	21.8	35	20.2	52	29.4	46	34.1
Not at all	451	261	N/A	178	N/A	10	N/A	52	N/A	60	N/A	130	N/A	192	N/A
Total	1149	738	100	387	100	49	100	217	100	233	100	307	100	327	100

9.4 The Chi-squared test

The Census for Population (1991) was used to compare the distribution of age and sex variables in Part A with those of the Sheffield resident population. The Chi-squared test was used to test if the observed frequencies (Part A) were different to the expected frequencies (Sheffield census data).

Chi-squared test

$$\chi^2 = \sum_{i=1}^k \frac{(O_i - E_i)^2}{E_i}$$

where *k* is the number of classes (1, 2, ..., *i*, ..., *k*)

Observed frequencies (Part A)

	18-24	25-34	35-44	45-59	60+	Total
M	27	129	170	216	198	740
F	22	89	65	90	121	387
Total	49	218	235	306	319	1127

Expected frequencies given a population of 1127 (Sheffield census data)

	18-24	25-34	35-44	45-59	60+	Total
M	78.84	106.99	92.91	118.84	137.80	535.38
F	77.22	107.06	91.82	120.38	195.14	591.62
Total	156.06	214.05	184.73	239.22	332.94	1127.00

Null hypothesis (*H*₀) = There is no difference between the observed frequencies in the sample population (Part A) and the Sheffield resident population.

Degrees of freedom = *k* - 1
= 9

Significance *p* = 0.05

Reject *H*₀ if $\chi^2 > 16.919$

O - E

	18-24	25-34	35-44	45-59	60+
M	-51.84	22.01	77.09	97.16	60.20
F	-55.22	-18.06	-26.82	-30.38	-74.14

(O - E)²

	18-24	25-34	35-44	45-59	60+
M	2687.46	484.56	5943.13	9439.36	3623.48
F	3049.14	326.00	719.45	922.96	5496.50

(O - E)² / E

	18-24	25-34	35-44	45-59	60+
M	34.09	4.53	63.97	79.43	26.29
F	39.49	3.05	7.84	7.67	28.17

$\Sigma = 294.51 = \chi^2$

Therefore reject H_o

9.5 **Weights used for Part A respondents**

From the Chi-squared test it was found that the sample (Part A) was not representative of the Sheffield resident population in terms of age and sex. Given that the participation rates recorded in Part A were to be used to infer about the behavioural patterns of Sheffield resident population, it was necessary to adjust the sample to make it representative of the Sheffield population in terms of sex and age.

To account for the non-response bias in the sample, weights were applied based upon the age and sex of the respondents. The weightings for age and sex in Part A were derived by dividing the expected percentages for sex and age, as derived from the 1991 Census, by the observed percentages of age and sex from Part A. These are shown in the table below.

Weights for Part A (Expected % / Observed %)

	18-24	25-34	35-44	45-59	60+
M	2.92	0.83	0.55	0.55	0.70
F	3.51	1.20	1.41	1.34	1.61

These weightings were applied to the respondents of Part A. The re-weighted typologies of the sample are summarised in the table below.

Typology of Part A respondents: Before and after weighting

	<i>Frequency (Before weighting)</i>	<i>Frequency (after weighting for age and sex)</i>
Type 1	419	410
Type 2	32	37
Type 3	31	35
Type 4	270	252
Type 5	219	217
Type 6	178	166
Total	1149*	1117*

* Totals different because age and sex categories not given for all respondents.

APPENDIX 10

Commercial sport sector analysis

- 10.1 Mann-Whitney U Test for professional clubs and commercial leisure: income and current expenditure
- 10.2 Kruskal-Wallis Test for commercial leisure: income and current expenditure
- 10.3 Mann-Whitney U Test for sports retailers (independent and multiples): sales and current expenditure

10.1 Mann-Whitney U Test for professional clubs and commercial leisure

- 1. Null hypothesis (H_0) = There is no significant difference in the income of professional clubs and commercial leisure
- 2. Null hypothesis (H_0) = There is no significant difference in the current expenditure of professional clubs and commercial leisure

Ranks

SERVICE		N	Mean Rank	Sum of Ranks
total annual income	Professional	3	13.00	39.00
	Commercial leisure	12	6.75	81.00
	Total	15		
total current expenditure	Professional	3	11.33	34.00
	Commercial leisure	10	5.70	57.00
	Total	13		

Test Statistics^b

	total annual income	total current expenditure
Mann-Whitney U	3.000	2.000
Wilcoxon W	81.000	57.000
Z	-2.165	-2.200
Asymp. Sig. (2-tailed)	.030	.028
Exact Sig. [2*(1-tailed Sig.)]	.031 ^a	.028 ^a

a. Not corrected for ties.

b. Grouping Variable: SERVICE

Given that p (sig.) value is < 0.05 for both variables then the Z statistic is significant, therefore H_0 is rejected and it is concluded that there is a significant difference between the income and current expenditure of professional clubs and commercial leisure

10.2 Kruskal-Wallis Test for commercial leisure facilities

1. Null hypothesis (H_0) = There is no significant difference in the income of commercial leisure facilities
2. Null hypothesis (H_0) = There is no significant difference in the current expenditure of commercial leisure facilities

Ranks

	type of	N	Mean Rank
total annual income	general sport facility	4	6.00
	Snooker and Pool centre	1	4.00
	Health and Fitness Centre	3	6.00
	Bowling Centre	1	11.00
	Motor sports	1	9.00
	private participation	2	6.00
	Total	12	
total current expenditure	general sport facility	4	5.50
	Health and Fitness Centre	2	4.50
	Bowling Centre	1	9.00
	Motor sports	1	6.00
	private participation	2	4.50
	Total	10	

Test Statistics^{a,b}

	total annual income	total current expenditure
Chi-Square	2.692	1.811
df	5	4
Asymp. Sig.	.747	.770

a. Kruskal Wallis Test

b. Grouping Variable: type of company/club/facility

Given that the p (sig.) value is > 0.05 for both variables, H_0 is accepted and it is concluded that there is no significant difference between the commercial leisure facilities and the income and current expenditure of these

10.3 Mann-Whitney U Test for sports retailers

- 1. Null hypothesis (H_0) = There is no significant difference in the income of independent and multiple sports retailers
- 2. Null hypothesis (H_0) = There is no significant difference in the current expenditure of independent and multiple sports retailers

Ranks

Organisation of company		N	Mean Rank	Sum of Ranks
Annual sales figure	Independent	20	12.07	241.50
	Multiple	9	21.50	193.50
	Total	29		
total current expenditure PA	Independent	17	9.03	153.50
	Multiple	2	18.25	36.50
	Total	19		

Test Statistics^b

	Annual sales figure	total current expenditure PA
Mann-Whitney U	31.500	.500
Wilcoxon W	241.500	153.500
Z	-2.822	-2.200
Asymp. Sig. (2-tailed)	.005	.028
Exact Sig. [2*(1-tailed Sig.)]	.004 ^a	.012 ^a

a. Not corrected for ties.

b. Grouping Variable: Organisation of company

Given that p (sig.) value is < 0.05 for both variables then the Z statistic is significant, therefore H_0 is rejected and it is concluded that there is a significant difference between the sales and current expenditure of independent and multiple sports retailers

APPENDIX 11

Secondary data analysis

- 11.1 The economic impact of all sports events in Sheffield in 1996/97
- 11.2 List of assumptions made for estimating the sport-related component of consumer expenditure categories from secondary data sources

11.1 The economic impact of all sports events in Sheffield in 1996/97

Source: KRONOS, 1997

Date	Event	Year	Sport	Gross Expenditure Generated (1997 Prices)	Actual Gross Expenditure
215 Sept 18 & 17	BRITISH ARTIFICIAL SLOPE SKIING CHAMPIONSHIPS	1995	Misc	£2,379	£2,213
216 27-Sep	ENGLAND v. CHINA INTERNATIONAL BADMINTON	1995	Badminton	£8,474	£7,883
217 30-Sep	NORTH OF ENGLAND SENIOR ROAD RELAYS	1995	Athletics	£1,977	£1,836
218 07-Oct	NORTH OF ENGLAND - AGE GROUP ROAD RELAYS CHAMPIONSHIPS	1995	Athletics	£2,824	£2,627
219 Oct 27, 28 & 29	ASA NATIONAL MASTERS CHAMPIONSHIPS	1995	Swimming	£41,893	£38,970
220 12-Nov	ENGLAND v. GERMANY INTERNATIONAL BASKETBALL	1995	Basketball	£19,222	£17,881
221 22-Nov	WBO WORLD CHAMPIONSHIP BOXING	1995	Boxing	£19,628	£18,259
222 25-Nov	ALL ENGLAND MOUNTAIN FREESTYLE CHAMPIONSHIPS	1995	Misc	£2,310	£2,149
223 Dec 13-17	UNCLE BENS WORLD CHALLENGE - INC ASA WINTER CHAMPIONSHIPS	1995	Swimming	£61,477	£57,188
224 Dec 28, 29 & 30	A.E.W.H.A. Under 18 & Under 18 TERRITORIAL CHAMPIONSHIPS	1995	Hockey	£20,842	£19,368
225 Jan 2 & 3	BRITISH JUNIOR SQUASH OPEN CHAMPIONSHIPS	1996	Squash	£70,296	£68,387
226 06-Jan	INDOOR MOTOR CYCLE ARENA TRIALS	1996	Misc	£2,887	£2,808
227 Jan 20 & 21	NORTH OF ENGLAND AA Indoor Athletics Championships	1996	Athletics	£1,199	£1,166
228 Jan 23-25	SWIMMING WORLD CUP	1996	Swimming	£270,423	£263,059
229 Feb 10-17	INTERNATIONAL TENNIS - LADIES SATELLITE CIRCUIT	1996	Tennis	£8,843	£8,602
230 March 2 & 3	CANOE POLO NATIONAL CHAMPIONSHIPS	1996	Misc	£10,704	£10,412
231 03-Mar	NATIONAL BASKETBALL CUP FINALS	1996	Basketball	£91,533	£89,040
232 March 15-17	ASA WATER POLO INTER DISTRICT CHAMPIONSHIPS	1996	Swimming	£5,388	£5,240
233 March 21-24	OPTREX OLYMPIC SWIMMING TRIALS	1996	Swimming	£83,832	£81,549
234 March 30 & 31	NATIONAL VOLLEYBALL CUP FINALS	1996	Volleyball	£39,920	£38,833
235 13-Apr	INTERNATIONAL SQUASH SOUTH AFRICA v. ENGLAND (Masters)	1996	Squash	£1,855	£1,804
236 April 26-28	GB MASTERS SWIMMING CHAMPIONSHIPS	1996	Swimming	£26,931	£26,198
237 28-Apr	THE WESTFIELD SHEFFIELD MARATHON	1996	Running	£57,881	£56,285
238 May 3-8	BRITISH WHEELCHAIR TENNIS CHAMPIONSHIPS	1996	Disabled	£22,677	£22,060
239 May 4, 5 & 6	BRITISH UNIVERSITIES Track & Field Championships	1996	Athletics	£84,160	£82,413
240 May 11 & 12	YORKSHIRE WATER AAA & WAAA CHAMPIONSHIPS	1996	Athletics	£20,280	£19,728
241 May 25-27	BRITISH DEAF TENNIS CHAMPIONSHIPS	1996	Disabled	£10,698	£10,405
242 June 1 & 2	JUNIOR COCA COLA CUP	1996	Football	£3,755	£3,653
243 June 1 & 2	NORTH OF ENGLAND AA Senior Mens Track Field Championships	1996	Athletics	£20,378	£19,821
244 June 1 & 2	BT BSAD LONG COURSE NATIONAL SWIM CHAMPIONSHIPS	1996	Disabled	£13,572	£13,203
245 09-Jun	EURO'96 - Group D - DENMARK v PORTUGAL	1996	Football	£2,149,733	£2,091,180
246 16-Jun	EURO'96 - Group D - DENMARK v CROATIA	1996	Football	£2,200,884	£2,228,486
247 19-Jun	EURO'96 - Group D - DENMARK v TURKEY	1996	Football	£1,640,503	£1,595,820
248 June 22 - July 3	VI FINA WORLD MASTERS SWIMMING CHAMPIONSHIPS	1996	Swimming	£3,427,224	£3,333,875
249 July 6 & 7	SPECIAL OLYMPICS YORKSHIRE & HUMBERSIDE REGIONAL CHAMPS	1996	Disabled	£9,054	£8,807
250 06-Jul	INTERNATIONAL LACROSSE, ENGLAND v. USA	1996	Misc	£14,850	£14,448
251 July 12 & 13	ENGLISH SCHOOLS ATHLETICS CHAMPS (Track & Field)	1996	Athletics	£588,857	£570,882
252 July 13 & 14	ASA WATER POLO CHAMPIONSHIPS	1996	Swimming	£11,123	£10,820
253 Aug 10-17	EUROPEAN DEAF TENNIS CHAMPIONSHIPS	1996	Disabled	£132,552	£128,841
254 25-Aug	IAAF INVITATION MEETING (McDONALD'S GAMES)	1996	Athletics	£175,791	£171,002
255 22-Sep	BRITISH KARATE CHAMPIONSHIPS	1996	Martial Arts	£2,887	£2,808
256 28-Sep	GB v. GERMANY, INTERNATIONAL DEAF FOOTBALL	1996	Disabled	£4,224	£4,109
257 05-Oct	NORTH OF ENGLAND SENIOR ROAD RELAYS	1996	Athletics	£2,414	£2,348
258 Oct 11-13	EUROPA CUP INTERNATIONAL CLUB ICE HOCKEY	1996	Ice Sports	£167,598	£153,306
259 19-Oct	INTER COUNTIES SWIMMING CHAMPIONSHIPS	1996	Swimming	£15,408	£14,988
260 20-Oct	NORTH OF ENGLAND ROAD RELAYS CHAMPIONSHIPS	1996	Athletics	£2,112	£2,065
261 12-Nov	OLYMPIC ICE HOCKEY QUALIFIER - GREAT BRITAIN v SLOVANIA	1996	Ice Sports	£23,185	£22,553
262 19-Nov	ENGLAND v. CHINA INTERNATIONAL BADMINTON	1996	Badminton	£8,668	£8,484
263 07-Dec	BENSON & HEDGES CUP FINAL CLUB ICE HOCKEY	1996	Ice Sports	£76,515	£74,431
264 18-Dec	OLYMPIC ICE HOCKEY QUALIFIER - GREAT BRITAIN v SWITZERLAND	1996	Ice Sports	£23,185	£22,553
265 Dec 19-22	ASA NATIONAL WINTER CHAMPIONSHIPS	1996	Swimming	£83,632	£81,549
266 Jan 2-8	BRITISH JUNIOR OPEN SQUASH CHAMPIONSHIPS	1997	Squash	£56,237	£56,237
267 04-Jan	COUPE de MONDE INDOOR MOTOR CYCLE TRIAL	1997	Misc	£3,088	£3,088
268 Jan 18 & 19	NORTH OF ENGLAND AA Indoor Athletics Championships	1997	Athletics	£1,199	£1,189
269 19-Jan	NATIONAL BASKETBALL CUP FINALS	1997	Basketball	£99,808	£99,808
270 25-Feb	CHAMPIONSHIP BOXING	1997	Boxing	£8,376	£8,376
271 01-Mar	SAINSBURYS CLASSIC COLA BASKETBALL 3 ON 3	1997	Basketball	£8,162	£8,152
272 March 1 & 2	NATIONAL BOCCIA CHAMPIONSHIPS	1997	Disabled	£2,474	£2,474
273 March 7 & 8	WATER POLO (INTER DISTRICTS)	1997	Swimming	£3,990	£3,990
274 09-Mar	INTERNATIONAL WOMEN'S FOOTBALL ENGLAND v. SCOTLAND	1997	Football	£3,584	£3,584
275 March 21 & 22	INTERNATIONAL WATER POLO (HOME COUNTRIES)	1997	Swimming	£31,199	£31,189
276 March 21, 22 & 23	BRITISH ASS. SPORT IN COLLEGES NATIONAL CHAMPIONSHIPS	1997	Various	£3,416	£3,416
277 24-Mar	BUDWEISER ALL STAR BASKETBALL NORTH v. SOUTH	1997	Basketball	£41,924	£41,924
278 April 6 & 8	NATIONAL VOLLEYBALL CUP FINALS	1997	Volleyball	£43,745	£43,745
279 April 5 & 8	BRITISH STUDENTS ORIENTEERING CHAMPIONSHIPS	1997	Misc	£1,681	£1,681
280 April 12 & 13	NORTHERN CUP SQUASH	1997	Squash	£1,589	£1,589
281 April 10-13	EUROPEAN SWIMMING CHAMPIONSHIP TRIALS	1997	Swimming	£106,187	£106,187
282 12-Apr	CHAMPIONSHIP BOXING	1997	Boxing	£1,275	£1,275
283 April 26-27	WESTFIELD FESTIVAL OF ATHLETICS - INC SHEFFIELD MARATHON	1997	Running	£135,587	£135,587
284 May 2, 3 & 4	EUROPEAN WHEELCHAIR BASKETBALL FINALS	1997	Disabled	£46,408	£46,408
285 May 2, 3, 4 & 5	NATIONAL WHEELCHAIR TENNIS CHAMPIONSHIPS	1997	Disabled	£4,774	£4,774
286 May 3 & 4	BRITISH WHEELCHAIR ATHLETICS TRACK CHAMPIONSHIPS	1997	Disabled	£9,585	£9,585
287 May 17 & 18	BT DISABILITY SPORT ENGLAND LONG COURSE CHAMPIONSHIPS	1997	Swimming	£12,758	£12,758
288 18-May	NATIONAL U.12 & U.14 FOIL CHAMPIONSHIPS	1997	Fencing	£1,751	£1,751
289 May 24-27	ASA NATIONAL AGE GROUPS DIVING COMPETITION	1997	Swimming	£9,975	£9,975
290 28-May	INTERNATIONAL SCHOOLBOY FOOTBALL ENGLAND v. SWITZERLAND	1997	Football	£24,492	£24,492
291 May 30 - June 1	SPEEDO BRITISH SWIMMING GRAND PRIX FINAL (50m)	1997	Swimming	£62,874	£62,874
292 May 31 & June 1	NORTH OF ENGLAND COMBINED EVENTS - INC AAA CHAMPIONSHIPS	1997	Athletics	£8,352	£8,352
293 May 31 & June 1	NORTH OF ENGLAND MOUNTAIN BIKE GRAND PRIX	1997	Misc	£2,648	£2,648
294 01-Jun	THE STAR WALK	1997	Misc	£1,968	£1,968
295 June 6-8	ASA NATIONAL SUMMER DIVING CHAMPIONSHIPS	1997	Swimming	£10,479	£10,479
296 14-Jun	SOUTH YORKSHIRE SCHOOLS COUNTY CHAMPIONSHIPS	1997	Athletics	£2,810	£2,810
297 25-Jun	BARNSELY SCHOOLS CHAMPIONSHIPS	1997	Athletics	£2,248	£2,248
298 29-Jun	SECURICOR GAMES IAAF GRAND PRIX 1	1997	Athletics	£255,500	£255,500
299 05-Jul	SHEFFIELD CITY SCHOOLS FINALS	1997	Athletics	£2,358	£2,358
300 July 11 & 12	ENGLISH SCHOOLS TRACK & FIELD CHAMPIONSHIPS	1997	Athletics	£346,951	£346,951
	Total			£28,389,739	£24,164,885
	Average			£87,899	£80,550

11.2 List of assumptions made for estimating the sport-related component of consumer expenditure categories (secondary data sources)

	<i>Assumption</i>	
Repairs and laundry (FES)	Repairs: Ratio of sports footwear repairs out of total footwear repairs (used in LIRC; HC)	0.02
	Laundry: ratio of sports clothing repairs and laundry (used in LIRC; HC)	0.10
Newspapers (FES)	Ratio for sports in newspaper consumption - based on number of pages (used in LIRC; HC)	0.15
Video cassette rental (FES; British Video Association Yearbook)	FES included purchase and rental. British video Association Yearbook found retail to rental sales were 803:491. Use this ratio and the % estimate of sports rental from HC	0.02
BBC licence fee (BBC Annual Report and Accounts)	Ratio based on sports share of TV and radio output by hours, operating costs for TV and radio, BBC licence income and a weighting for the cost of sports programming (used in HC and LIRC)	0.077
TV and video rental, subscriptions: Terrestrial TV (FES)	Used the weighting in the calculation of the sports component of the BBC licence fee (used in HC)	0.077
TV and video rental, subscriptions: Satellite and Cable (FES)	Used the weighting in the calculation of the sports component of FES spending on satellite and cable TV subscriptions(used in LIRC)	0.2857
Public schools (FES)	Ratio of school fees going to sport (used in LIRC and HC)	0.017
Gambling Football pools (FES)	Assuming betting winnings are 31% of betting payments (used in LIRC). Net loss to the consumer (net expenditure)	0.69
Gambling Horseracing (HM Customs and Excise annual report 96/97)	Assuming betting winnings are 69% of betting payments (HC, LIRC). Off course betting calculated using taxed stakes in annual report and the population of Sheffield. Since duty on, on-course betting was abolished, use ratio of on-course to off course betting (used in HC)	0.31
Gambling: raffles and gaming	Estimates as a ration of 1:10 to expenditure on horseracing (used in LIRC)	0.1

LIRC (LIRC, 1997); HC (Henley Centre, 1992)

APPENDIX 12

The Sheffield Model

CONSUMER EXPENDITURE ON SPORT RELATED GOODS & SERVICES

	TOTAL		CG	LG	CS	CNS	VOL	OUT
Participation & spectating								
Admissions/ membership/hire of facilities	76,093,515.95	13,316,365.29	5,157,060.95	19,415,454.65	34,197,102.61	4,007,532.44		
Food & drink	24,148,528.68	4,225,992.52		16,306,630.64		3,615,905.52		
Travel	23,434,014.79	17,000,373.93	487,617.53		5,946,023.33			
Other items	6,473,590.75		74,600.00	5,157,392.48		1,241,598.27		
Sports goods								
Clothing	22,405,144.38							
Footwear	15,356,318.37							
Equipment	28,571,436.74							
Videos	2,911,242.15							
Magazines/books	2,698,065.27							
sub total sports goods	71,942,206.91	8,640,259.05		63,301,947.86				
Other expenditure								
Repairs and laundry	155,782.46	27,261.93			128,520.53			
Newspapers	3,389,914.16							
Video rental	105,987.16	18,547.75			87,439.41			1,320,327.52
BBC licence	1,320,327.52							
TV and video rental	558,600.10	97,755.02			460,845.08			2,689,228.78
Satellite/cable TV subscription	3,259,671.25	570,442.47						
Public School Fees	600,530.43	105,092.83			495,437.60			
Gambling								
football pools	2,119,519.15	794,819.68						1,324,699.47
horseracing								
on course	2,889,573.76							2,889,573.76
off course	18,049,366.53	1,443,949.32				14,944,875.49		1,660,541.72
raffles and gaming	2,198,588.73					2,198,588.73		
Total Expenditure	236,739,718.33	46,240,859.79	5,719,278.48	109,769,928.52	56,260,244.06	8,865,036.23		9,884,371.25

COMMERCIAL SPORT INCOME

	TOTAL	CONS	CG	LG	CNS	VOL	OUT
Professional clubs & Commercial leisure							
Commercial activities	21,014,791.45	16,306,630.64			2,146,457.73		2,561,703.08
Match receipts, Membership & participation charges	19,415,454.65	19,415,454.65					
raffles and gaming	2,198,588.73	2,198,588.73					
Other	9,029,306.76	5,635,988.09			485,442.02	2,907,876.65	
Manufacturing							
Sales	24,651,450.20	8,125,204.96			228,281.20		16,297,964.04
Retailing							
Sales (all)	60,014,276.78	58,088,061.46				1,926,215.32	
TV/Radio							
commercial advertising/sponsorship	1,043,386.88						1,043,386.88
Total Income	137,367,255.45	109,769,928.52		0.00	713,723.22	5,054,334.38	19,903,054.00

COMMERCIAL SPORT EXPENDITURE

	TOTAL				CONS	CG	LG	CNS	VOL	OUT
Professional clubs										
Expenditure										
Wages	13,382,545.23					9,379,825.95	4,002,719.28			
Policing	79,401.77							79,401.77		
Other inputs	14,004,030.33							110,601.06	6,191,212.59	7,702,216.68
Commercial leisure										
Wages and salaries	8,176,907.70					5,731,194.61	2,445,713.09			
Catering	2,677,415.00								1,927,738.80	749,676.20
Rent/hire of facilities	913,245.13							913,245.13		
Advertising	1,413,230.00								1,017,525.60	395,704.40
VAT	1,735,500.00						1,735,500.00			
Other	3,258,358.74							78,515.07	2,267,503.22	912,340.45
Manufacturing										
Wages	4,463,027.66					3,128,136.09	1,334,891.57			
Materials	4,747,170.74								1553274.266	3193896.474
Advertising	297,142.82								97225.1307	199917.6893
Operating costs	484,753.47								158611.3354	326142.1346
Other	2,154,403.31							60,340.41	644580.3577	1449482.547
Retailing										
Stock for resale	27,934,680.59								10,053,691.54	17,880,989.05
Wages	5,340,264.69					3,742,991.52	1,597,273.17			
Rent	2,135,810.59								768,678.23	1,367,132.36
Operating costs	1,240,914.70								446,606.20	794,309.50
Other	4,724,447.08							310,081.48	1,390,247.03	3,024,118.58
Retailing: books, mags, video, newspapers										
wages	1,723,471.77					1,207,981.36	515,490.41			
other inputs	3,448,499.29								1,241,114.89	2,207,384.39
Corporation tax										
Corporation tax	371,427.77						371,427.77			

Capital expenditure						
Professional sports clubs	1,805,153.64	315,901.89	1,272,633.32			216,618.44
Commercial leisure	4,595,964.29	804,293.75	2,504,800.54			1,286,870.00
Manufacturing	2,950,527.27	516,342.27	1,708,945.39			725,239.60
Retailing	849,169.63	148,604.69	179,684.29			520,880.65
Total Expenditure	114,907,463.20	23,190,129.53	33,424,071.74	1,552,184.91	0.00	42,952,919.14
Wages						
Factor income	33,086,217.05					
Factor expenditure	137,367,255.45					
<i>Factor surplus</i>	103,775,682.59					
Value added	33,591,572.86					
	66,677,789.91					

COMMERCIAL NON-SPORT INCOME: SOURCES

	Total	CONS	CG	LG	CS	VOL	OUT
Sales of current inputs to:							
central government	29,232.83			29,232.83			
local government	8,141,016.78			8,141,016.78			
commercial sport	27,758,008.20				27,758,008.20		
voluntary sport	2,833,758.02					2,833,758.02	
Sales of capital inputs to:							
commercial sport	5,666,063.54				5,666,063.54		
voluntary sector	935,535.84					935,535.84	
Central government	25,578.73			25,578.73			
Consumer spending	56,260,244.06		56,260,244.06				
Events	8,433,131.92						8,433,131.92
Total income	110,082,569.92	56,260,244.06		54,811.56	8,141,016.78	33,424,071.74	8,433,131.92

COMMERCIAL NON-SPORT EXPENDITURE: DESTINATIONS

	Total	CONS	CG	LG	CS	VOL	OUT
Factor expenditure							
Producers of sport related inputs:							
Wages	31,288,019.58	21,929,302.23	9,358,717.34				14,012,537.81
Imports	14,012,537.81						
Purchases of inputs from sport:							
sponsorship	905,191.72	453,332.25	193,467.55			258,391.92	
advertising	200,538.35					200,538.35	
All commercial activities	2,146,457.73				2,146,457.73		
Other inputs (commercial sector)	2,907,876.66				2,907,876.65		
Other monetary expenditure							
corporation tax	1,711,676.12		1,711,676.12				
council tax	1,382,405.89				1,382,405.89		
Interest payments	601,192.73				594,000.00	7,192.73	
Total Expenditure	55,155,896.60	22,382,634.49	11,263,861.02		1,976,405.89	5,054,334.38	14,012,537.81
Wages	31,288,019.58						
Factor income	110,082,569.92						
Factor expenditure	51,460,621.85						
Factor surplus	58,621,948.07						
Value added	89,909,967.64						

VOLUNTARY INCOME ON SPORT RELATED GOODS & SERVICES

	TOTAL	CG	CONS	CS	CNS	LG	OUT
Factor income							
Advertising	200,538.35					200,538.35	
Bar/Food/ Clothing Sales	3,615,905.52		3,615,905.52				
Donations & Sponsorship	258,391.92					258,391.92	
Equipment Hire	356.25			356.25			
Facility hire	659,018.19		659,018.19				
Fundraising	626,951.68		626,951.68				
Match fees	436,353.93		436,353.93				
Memberships	2,482,727.00		2,482,727.00				
Players collections	39,423.60		39,423.60				
Training fees	429,433.32		429,433.32				
Other	574,866.74		574,866.74				
Sub total factor income	9,323,966.50						
Other income (monetary)							
Average grant income	288,654.52	288,654.52				7,192.73	
Bank Interest	7,192.73						
Total monetary income (including bar receipts)	9,619,813.75	288,654.52	8,865,036.23	0.00	466,123.00	0.00	0.00

VOLUNTARY EXPENDITURE ON SPORT RELATED GOODS & SERVICES

	TOTAL	CG	CONS	CS	CNS	LG	OUT
Factor expenditure							
Club Equipment	255,507.15	44,713.75			210,793.40		
Goods for resale	2,079,299.30	363,877.38			1,715,421.92		
Ground maintenance	998,764.03	174,783.71			823,980.32		
Hire of facilities	654,493.92					654,493.92	
Insurance	145,608.12	25,481.42			120,126.70		
Kit wash	16,195.60	2,834.23			13,361.37		
Match expenses	345,025.09	60,379.39			284,645.70		
Operating Costs	908,597.79	159,004.61			749,593.18		
Socials & Club events	120,654.64	21,114.56			99,540.08		
Travel	140,281.33	24,549.23			115,732.10		
Wages and Expenses	2,122,098.23	634,719.58	1,487,378.65				
Other	759,731.61	132,953.03			626,778.58		
Other monetary expenditure							
Capital Expenditure	2,494,762.25	436,583.39			935,535.84		1,122,643.01
Council tax	490,818.28					490,818.28	
Governing bodies	79,406.82	Intra sectoral flow					
League fees	109,814.57	Intra sectoral flow					
Grants to sporting sections	49,576.73	Intra sectoral flow					
Total Expenditure (exc. Intra sectoral flow)	11,531,837.32	2,080,994.29	1,487,378.65		1,926,215.32	3,769,293.86	1,122,643.01
Wages	2,122,098.23						
Factor income	9,323,966.50						
Factor expenditure	8,546,256.80						
Factor surplus	777,709.70						
Value added	2,899,807.93						

LOCAL GOVERNMENT INCOME: SOURCE

	TOTAL	CONS	CG	CS	VOL	CNS	OUT
SCC							
Fees and charges	1,133,600.00	1,001,600.00					132,000.00
Rents	313,200.00				313,200.00		
Gov. grants							
sports grants	14,000.00			14,000.00			
other grants	80,000.00			80,000.00			
Other income	74,600.00	74,600.00					
SIV							
Provision of goods and services	5,410,000.00		4,155,460.95		913,245.13	341,293.92	
Grants received from SCC	2,646,000.00	intra sectoral flows					
Management and other recharges	365,000.00	intra sectoral flows					
Bank interest	594,000.00					594,000.00	
Policing	79,401.77				79,401.77		
Transport	487,617.53		487,617.53				
Council tax from							
commercial sport	559,538.02				559,538.02		
voluntary sector	490,818.28				490,818.28		
commercial non-sport	1,382,405.89					1,382,405.89	
Total Income (exc. Intra-sectoral flows)	10,619,181.48	5,719,278.48	94,000.00	1,552,184.91	1,145,312.19	1,976,405.89	132,000.00

LOCAL GOVERNMENT EXPENDITURE: DESTINATIONS

	TOTAL	CONS	CG	CS	VOL	CNS	OUT
SCC (Sheffield Leisure Services)							
Wages	1,268,600.00	889,161.74		379,438.26			
Running expenses	3,557,200.00			912,485.00	485,442.02	2,159,272.98	
Grant to SIV	1,657,000.00	Intra sectoral flow					
Education							
Schools swimming	120,000.00		84,108.00	35,892.00			
Sports related teachers salaries	2,346,325.00		1,644,539.19	701,785.81			
SIV							
Cost of sales	2,452,000.00			429,100.00	228,281.20	1,794,618.80	
Wages and salaries	1,500,000.00		1,051,350.00	448,650.00			
Other establishment and administrative e	5,005,000.00			875,875.00		4,129,125.00	
Interest payable	58,000.00					58,000.00	
Local transport and policing							
Wages	787,923.00		552,243.38	235,679.62			
Total Expenditure (exc. Intra-sectoral flows)	17,095,048.00	4,221,402.31		4,018,905.69	713,723.22	8,141,016.78	0.00
Wages	6,022,848.00						
Factor Surplus	0.00						
Value added	6,022,848.00						

CENTRAL GOVERNMENT INCOME: SOURCE

	TOTAL	CONS	LG	CS	VOL	CNS	OUT
Taxes :							
on expenditure	53,796,664.86	46,240,859.79	2,217,460.00	3,892,070.36	1,446,274.71		0.00
on incomes generated in:							
commercial sport	9,896,087.52			9,896,087.52			
voluntary sector	634,719.58				634,719.58		
commercial non-sport	11,263,861.02					11,263,861.02	
local government	1,801,445.69		1,801,445.69				
Total Income	77,392,778.67	46,240,859.79	4,018,905.69	13,788,157.88	2,080,994.29	11,263,861.02	0.00

CENTRAL GOVERNMENT EXPENDITURE: DESTINATIONS

	TOTAL	CONS	LG	CS	VOL	CNS	OUT
Transfers							
Grant (various)	288,654.52				288,654.52		
Sports grants	14,000.00			14,000.00			
Other grants	80,000.00			80,000.00			
Factor expenditure							
Sports Councils:							
wages	18,270.52		18,270.52				
other inputs	29,232.83					29,232.83	
Prison service, MOD, royal parks:							
Wages	79,303.08		79,303.08				
capital spending	25,578.73					25,578.73	
Total Expenditure	535,039.68		97,573.60	94,000.00	0.00	288,654.52	0.00
Wages	97,573.60						
Factor surplus	0.00						
Value added	97,573.60						

OUTSIDE THE AREA: INCOME

	TOTAL	CONS	CG	LG	CS	VOL	CNS
Current inputs to							
CS	40,203,310.45					40,203,310.45	
CNS	14,012,537.81						14,012,537.81
Capital inputs to							
CS	2,749,608.69					2,749,608.69	
Vol	1,122,643.01					1,122,643.01	
Consumer spending							
BBC	1,320,327.52	1,320,327.52					
Satellite/cable TV subscription	2,689,228.78	2,689,228.78					
Gambling							
football pools	1,324,699.47	1,324,699.47					
horseracing							
on course	2,889,573.76	2,889,573.76					
off course	1,660,541.72	1,660,541.72					
Total income	67,972,471.22	9,884,371.25	0.00	0.00	42,952,919.14	1,122,643.01	14,012,537.81

SUMMARY

SPORT-RELATED INCOME AND EXPENDITURE FLOWS

	Income £	Expenditure £
Consumer	52,420,499.75	236,739,718.33
Commercial sport	137,367,255.45	114,907,463.20
Voluntary	9,619,813.75	11,531,837.32
Commercial non-sport	110,082,569.92	55,155,896.60
Central government	77,392,778.67	535,039.68
Local government	10,619,181.48	17,095,048.00
Outside the area	67,972,471.22	29,509,567.10

THE EXPENDITURE FLOWS MATRIX (£)

Flows from	Flows to:							Total
	CON	CS	VOL	CNS	CG	LG	OUT	
Consumer sector		109,769,928.52	8,865,036.23	56,260,244.06	46,240,859.79	5,719,278.48	9,884,371.25	236,739,718.33
Commercial sport	23,190,129.53		0.00	33,424,071.74	13,788,157.88	1,552,184.91	42,952,919.14	114,907,463.20
Voluntary sector	1,487,378.65	1,926,215.32		3,769,293.86	2,080,994.29	1,145,312.19	1,122,643.01	11,531,837.32
Commercial non-sport	22,382,634.49	5,054,334.38	466,123.00		11,263,861.02	1,976,405.89	14,012,537.81	55,155,896.59
Central government	97,573.60	0.00	288,654.52	54,811.56		94,000.00	0.00	535,039.68
Local government	4,221,402.31	713,723.22	0.00	8,141,016.78	4,018,905.69		0.00	17,095,048.00
Outside	1,041,381.18	19,903,054.00	0.00	8,433,131.92	0.00	132,000.00		29,509,567.10

VALUE ADDED

	£	%
Commercial sport:		
Wages	33,086,217.05	
Surplus	33,591,572.86	
Total	66,677,789.91	40.26
Voluntary sector		
Wages	2,122,098.23	
Surplus	777,709.70	
Total	2,899,807.93	1.75
Commercial non-sport		
Wages	31,288,019.58	
Surplus	58,621,948.07	
Total	89,909,967.64	54.29
Central Government		
Wages	97,573.60	0.06
Local Government		
Wages	6,022,848.00	3.64
TOTAL VALUE ADDED	165,607,987.09	100.00

EMPLOYMENT

	n	%
Commercial Sport Professional clubs & Commercial Leisure Retailers	771.68 482.39	
Manufacturing	295.45	42.68
<i>Subtotal</i>	1,549.52	
Voluntary Sport	117.13	3.23
Commercial non-sport	1,636.81	45.08
Central Government Administration	4.97	0.14
Local Government Sports facilities Education Transport/police	159.65 125.57 36.92	
<i>Subtotal</i>	322.14	8.87
TOTAL	3,630.58	100.00

EMPLOYMENT

	n	%
Commercial Sport		
Professional clubs &		
Commercial Leisure	771.68	
Retailers	482.39	
Manufacturing	295.45	
<i>Subtotal</i>	1,549.52	42.68
Voluntary Sport	117.13	3.23
Commercial non-sport	1,636.81	45.08
Central Government		
Administration	4.97	0.14
Local Government		
Sports facilities	159.65	
Education	125.57	
Transport/police	36.92	
<i>Subtotal</i>	322.14	8.87
TOTAL	3,630.58	100.00