

Austerity, Policy and Sport Participation in England

Widdop, P., King, N., Parnell, D., Cutts, D. and Millward, P.

Abstract

This study seeks to understand participation levels in sport across socio-demographic groups, specifically for the period 2008-14, in the context of austerity measures taken by central government resulting in local authority income and expenditure reductions. Participation levels over time were analysed using data from the Active People Survey (APS) which was the preferred method for measuring participation by Sport England until its replacement in 2015. Budgetary constraints in local authorities, have subsequently resulted in an expenditure decrease for non-discretionary services including ‘sport development and community recreation’. This area of expenditure forms one component of sport-related services and primarily focuses on raising participation in ‘hard-to-reach’ groups. The study found policy goals associated with raising and widening participation were not met to any significant degree between 2008 and 2014 as participation levels have changed little for lower-income ‘hard-to-reach’ groups. It is claimed that this outcome is in part due to austerity measures impacting on local authority expenditure. This study has implications for policy-makers and practitioners as it illustrates both the challenges faced in setting and delivering policy aimed at raising participation levels in ‘hard-to-reach’ groups, particularly in the context of austerity, and the difficulties associated with measuring participation.

Keywords: Austerity, Participation, Community Sport, Local Authorities, Survey methods.

Introduction

This paper begins to address a gap in the published academic research concerning the impact of austerity measures for participation in physical activity inclusive of sport. It is argued that it is critical to begin to analyse the relationship between austerity and sport participation, despite methodological limitations, in order to inform policy and practice, particularly in a context of reductions in public sector expenditure, where it is local authorities that are the significant provider of sport-related services (King, 2009). In response to a global economic downturn that has impacted on countries within the Eurozone since 2008 (Parnell, Millward and Spracklen, 2016), governments have adopted or accepted austerity-driven policy agendas in a bid to mitigate the impact. The authors adopt Blyth's (2013: 2) definition of austerity, namely 'a form of voluntary deflation in which the economy adjusts through the reduction of wages, prices, and public spending to restore competitiveness which is [supposedly] best achieved by cutting the state's budget, debts, and deficits'. In this paper, the impact of austerity measures can be associated with budget cuts to services pertaining to sport, and most notably, one category of expenditure: 'sport development and community recreation' (APSE, 2012; King, 2013a, 2013b).

More specifically, this paper seeks to better understand the impact of austerity measures for sport participation in lower-income 'hard-to-reach' groups who tend to use and depend on local authority provision as opposed to commercial providers or non-profit sport sector providers. In terms of local authority expenditure, this paper therefore foregrounds the annual spending commitment to services categorised by the Chartered Institute of Public Finance and Accountability (CIPFA) as 'sport development and community recreation' as these services primarily aim to raise and widen participation among socio-economic groups considered to be the most excluded and tend to be subsidised in order that income is not a barrier to participation (King, 2009). It is recognised that the CIPFA category for expenditure on 'indoor and outdoor facilities' is also critical for participation as is the expenditure on 'parks and open spaces'. However, this study will focus on 'sport development and community recreation' as the most vulnerable area of spend in a context of austerity as community programmes can be curtailed without accruing the political costs associated with closing a facility or selling-off a park. In fact, research undertaken by the Association of Public Service Excellence (APSE, 2012) noted that although reductions in expenditure on maintaining and servicing facilities has occurred and was likely to continue, it is community-based programmes that have been disproportionately affected, whether these services are a

component of direct local authority provision, funded from local budgets and delivered by local authority staff, or are funded by central government agencies and delivered in a partnership arrangement locally. Although modes of service delivery vary in England as do funding streams, to the extent that National Lottery sources have in effect served to maintain components of local authority provision (APSE, 2012), this paper will relate actual expenditure, irrespective of source, based on CIPFA data, to recorded levels of participation over time.

The timeframe for this study is from the beginning of the economic downturn in 2008, until 2014, based on data available from three sources: CIPFA (Conn, 2015) for local authority expenditure; the Active People Survey (APS) undertaken by Sport England [the preferred method for measuring participation until its replacement in 2015 by the Active Lives Survey] (Sport England, 2016); and Census of Population data held by the Department of Communities and Local Government (DCLG) that enables an analysis of participation by socio-economic group.

Austerity and Public policy change

With the economic climate worsening from 2008, a Conservative Party-led coalition government assumed political leadership of the UK in May 2010. A headline fiscal approach to mitigate the impact of the economic downturn was the Comprehensive Spending Review (CSR) that outlined unprecedented funding cuts to public spending (Levitas, 2012). As a result, public spending was reduced nationally, ensuring that government departments and local government make significant changes through economic constraints. It was reported that £64 billion was removed from the public expenditure through austerity driven policy by the end of 2013 (The Centre of Welfare Reform, 2013). Following this, the Chancellor of the time, scheduled a further 20% cut in expenditure between 2014-2018 (Croucher, 2013) supported by the Prime Minister of the time, David Cameron, who stated that there was a need for ‘a leaner, more efficient state’ in which ‘we need to do more with less. Not just now, but permanently’ (quoted in Krugman, 2012: 1). This has helped paved the way for continued austerity, or ‘super austerity’ (Parnell et al., 2016).

As a result of austerity measures, authors have argued that the spending cuts have impinged directly (and disproportionately) on the poor, sick and disabled (Levitas, 2012). Indeed, evidence suggests that inequality that existed 50 years ago, exists today (National Children’s

Bureau, 2013: 1) and if anything, since austerity, the rich have got a little richer and the poor, a little poorer (Dorling, 2014). More specifically, key public services that relied on by those more in-need, were curtailed, reduced or reorganised, impacting on access to libraries, disabled children play centres and leisure centres (Blyth, 2013; Parnell, Millward, et al., 2015). Arguably, public spending cuts were also disproportionately focused on reducing social benefits (The Centre for Welfare Reform, 2013). Further, the cuts coincided with a reduction in income for families with children whether they were in paid or un-paid work (Levitas, 2012). Between 2009 and 2013, Padley and Hirsch (2013: 5) observed that the removal of the weekly Educational Maintenance Allowances (£10-30 per pupil per week) contributed to the most sustained reduction in income since 1945. With welfare payments capped at £26,000 per family in 2011 alongside an estimated 500,000 becoming dependent on aid from food banks (Cooper and Cumpleton, 2013) many began to question the legitimacy of austerity policies. The Joseph Rowntree Foundation suggests that austerity has increased poverty, predicting it would continue to rise for families and children. Further, the United Nations (UN) raised concerns regarding austerity policies and a disproportionate impact on vulnerable groups (Carter, 2016). It is in this context that the author's analyse policy for and participation in sport.

Rising inequality and sport participation

In order to frame and extend an understanding of the impact of austerity on sports participation, it is important to recognise the consistent correlation between participation and social structures such as sex, level of education, age and social class (Coalter, 2013). Moreover, Van Bottenburg et al. (2005) contend that the choice to take part in sport (if at all) and with whom, is related to socio-culturally determined views and expectations and the varied socio-psychological impacts of inequality. The implication is that in order to achieve higher sports participation rates, policy makers need to look beyond sport policy alone (Coalter, 2013). Given the high and rising levels of inequality in England, it is relevant and timely to explore and offer a greater insight into the impact of austerity policy on sports participation, based on an analysis of participation data as highlighted in this paper. As emphasised, however, a systematic and longitudinal assessment of participation as it relates to the austerity measures and specific policy across a large sample of local authority areas in England (and elsewhere for comparative purposes) is required before a fuller explanation of the findings in this paper can be explained.

Socio-demographic factors clearly influence sport participation. Well-established patterns from existing research shows that men, of all age groups, are more likely to participate in sport than women (Cooky et al, 2014; Lim et al, 2011; Stempel, 2006; Scheerder et al., 2006) and once into adulthood, sports participation reduces as an individual ages, this is especially true of those in the working classes (Bourdieu, 1978; Borgers et al., 2015; Taks and Scheerder, 2006; Klostermann and Nagel, 2014). Although 'social class' is a slippery concept (Savage, 2015), it seems clear that those who are amongst the 'middle classes' are more likely to participate in sport than those who are 'working class' (Widdop and Cutts, 2013; Widdop et al., 2016). It can also be noted that the availability of high quality and affordable sports facilities clearly plays a role in trends that give rise to higher sports participation levels, but this is set in a context of a myriad of differing reasons related to free time, personal networks and an individual's level of 'capital', in 'social', 'cultural' and 'economic' forms (Bourdieu, 2005 [1990]).

Furthermore, as identified in wider issues of inequality (see Dorling, 2014), there is spatial differences in sport participation according to the type of area an individual lives, such as urban or rural, deprived or wealthy, although such patterns are less obvious when the category is broadened from 'sport participation' to 'physical activity' (Loucaides et. al., 2007). Whilst geographical location may impact upon participation, the processes which bring about these spatial patterns may relate to differing spatial scales, such as the region or neighbourhood. Therefore identifying a causal link may be difficult. For sport participation as in other service led provision of leisure and culture, perhaps a significant spatial level is that of local authorities, as they are undoubtedly the largest investors in sports provision, by comparison with central government funding or the National Lottery (King, 2009).

Sport Policy change in the UK

A key legacy promise associated to London 2012 was a drive to raise and widen sport participation across society at large, specifically including 'hard to reach' groups in the United Kingdom (Bloyce and Smith, 2009), which would positively impact on the country's public health (Parnell *et. al* 2015a). Weed *et. al* (2015) note that the extent to which this legacy promise has been met is questionable. In respect of policy intended to raise and widen participation, many developed countries, including England, recognise the importance of regular physical activity (that can include sports), the harmful consequences of sedentary lifestyles (Kohl, Craig, Lambert, et al., 2012), and concerns regarding the majority of

adolescents not reaching recommended levels of physical activity (Hallal, Andersen, Bull, et al., 2012). As such, it is important to find ways to promote physical activity despite austerity and a reduction in local government finances. Hence, in terms of policy interventions, sport has been positioned to help tackle an increase in sedentary behaviours and increase physical activity (Weed et al., 2015). The UK Government sport strategy, 'Sporting Future: A New Strategy for an Active Nation' (Cabinet Office, 2015), clearly establishes a link between sport, physical activity and health and had political support from the Prime Minister at the time of publication, who claimed that sport 'encourages us all to lead healthier and more active lives' (Cameron 2015, p. 6). Yet, despite this positioning of sport in government policy, the data available on participation in the Active People Survey (APS) across 2008-14, does not suggest a significant impact of policy interventions on participation.

The most recent government strategy and subsequent action plan by Sport England (2016) notes the critical role of local authorities in raising participation in groups currently under-represented in sport. This raises questions regarding future public sector financing of this policy objective that goes beyond this paper. Instead, the author's focus on analysing the impact of austerity measures on participation, most notably in respect of lower-income groups dependent on subsidised services delivered via local authorities.

Sport funding in England

At the level of central government, in late 2015, a new spending review was announced by the Chancellor of the Exchequer at the time, George Osborne. This would impact on a number of departments, including the Department for Education (DfE) (overseeing PE and school sport) and the Department for Culture, Media and Sport (DCMS) that incurred an administration budget reduction of 20%. However, of greater significance for this study is in respect of local authority sport and leisure services where Conn (2015) notes that spending had been reduced from £1.4bn in 2009-10 to £1bn in 2013-14.

Alongside these significant reductions have been changes to National Lottery (NL) funding of sport from 2008 to 2014. Although local government spend dwarfs NL monies per annum, at the local level, specific NL funds may result in the maintenance of services that otherwise may be curtailed. In fact, the APSE (2012) report notes that mainstream budgets for sport services have, in some cases, been boosted by NL funding for the purposes of retaining services under threat. Funding for school sport partnerships and school to club links was also

lost and the area-based grants that underpinned the former Sport Action Zones (SAZs) and the Sport and Physical Activity Alliances (SPAAs) were curtailed by central government. Therefore, despite the introduction of national programmes for hard-to-reach groups delivered locally by charities such as StreetGames that provide ‘doorstep sport’ in disadvantaged communities, it is noted that a local authority annual expenditure commitment to underpin ‘sport development and community recreation’ objectives is in decline (APSE, 2012). The extent to which central government and private sector funded charities can replace local authority provision is a wider debate beyond the scope of the paper, but clearly the loss of local authority controlled services raises questions of local political accountability and the meaning of localism (King, 2014).

It must be noted that determining causality between funding changes and participation is complicated by the reality that sport policy is but one set of central and local government policies shaping participation alongside policy for health, education and services for specific social groups. Further, it cannot be assumed that sport providers, notably local authority sport-related services, are addressing austerity measures through a policy of reduction, and may in fact be retaining services through a varying range of modifications, including externalisation as the APSE (2012) research findings demonstrate, for at least one-third of the sample of authorities investigated. Indeed, organisations with a resource dependency on government monies are navigating austerity differently (Walker and Hayton, 2016). Also of note is research based in the city of Liverpool (Parnell, Millward, and Spracklen, 2014) that cited difficulties in making causal links between austerity and participation. Nonetheless, from the limited data available, the overall picture is one of a downsizing of direct service provision by local authorities, which is likely to be having an impact on participation, however defined, particularly for lower-income groups.

Local government sport services

For over forty years, almost all local authorities in England have designed and delivered services for resident populations, resulting in sport becoming an embedded feature, albeit discretionary, of local provision. This provision takes the form of a vast infrastructure of leisure, recreation and sport facilities, open spaces in which to participate, and community-based interventions managed directly by local authority staff or indirectly via Trusts or partner organisations. Provision is not uniform however, as the scale and scope of provision across England differs due to size and resources of the authority, its political preferences for

spending, the mode of service delivery, and its relationship with external partner organizations, among other factors.

In 2008, with the onset of an economic recession, and from 2010, under an incoming coalition government, significant reductions to local government finance began to take effect (Audit Commission, 2011; Berman and Keep, 2011; DCLG, 2010; HM Treasury, 2010a, 2010b). As a consequence, discretionary services such as sport, face an uncertain future, especially as trends suggest declining funding for local authority services up until 2020 (Collins and Haudenhuyse, 2015; LGA, 2013). Also of note, as observed by the Institute of Fiscal Studies (2012: 124), is the fact that ‘spending cuts are larger, absolutely and proportionally, in urban and poorer parts of England than in more affluent rural and suburban districts. It also means cuts are larger in London and the northern regions of England than in southern regions’. In relation to spending on sport, the cuts are having a more pronounced impact by comparison with statutory services (APSE, 2012). Moreover, the APSE report anticipated falling revenue budgets, staff cuts, increased charges, reduced opening hours, facility closures and reduced commitments to parks and pitches utilised for organized and casual participation in the light of changes to public funding levels. Indeed, some of APSE’s (2012) predictions that have been reported through case studies on reductions to sport and leisure services and its impact on sports; including swimming facilities (Parnell, *et. al*, 2014), golf (Widdop and Parnell, 2015), football (Parnell and Widdop, 2015a), and Public Health (Parnell, 2014; Parnell and Widdop, 2015b). However, there is evidence that not all funding reductions have produced lower participation levels. For instance, it is debatable whether the national free-swimming initiative for those under 16 and over 60 years of age has been effective in raising or widening participation (DCMS, 2010).

The effectiveness of provision is a focus of research beyond the scope of this paper but it is noted that service quality will impact on participation for hard-to-reach groups and the quality (and quantity) of provision is variable across England (APSE, 2012). More critical for this paper, local authorities have tended to maintain facility spend and reduce commitments to community programmes when budgets have been reduced. As a result, ‘sport for all’ has proven to be policy rhetoric rather than policy reality (King, 2013a, 2014). A preliminary analysis of CIPFA data from 2008 to 2015 for all English local authorities (King, *unpublished*) indicates that spend on ‘sport development and community recreation’ to be much lower as a percentage of total spend than other areas of expenditure in all authorities,

defined by spend per head of population. Despite a national strategy to target the 'hard to reach', it cannot be claimed that a sustainable investment in community sport is a core practice of local government, and the withdrawal of both central and local funding for these services over the period under discussion is testament to this fact. In the next section, we discuss our principal data source; *Sport England's* Active People Survey and outline our methods of analysis.

Methodology

The Active People Survey

The APS was launched in October 2005 with an initial £5m investment of public money through Sport England, and as of October 2015 it had released nine 'Waves'. Each Wave has a substantial sample size collected through a random stratified sample technique, in 1,000 people telephone interviewed by IPSOS Mori from each of 354 local areas (Rowe, 2009). The survey is not longitudinal, that is, the same respondents were not tracked across Waves, rather it was cross-sectional by design. The APS took an initial £5m investment to establish, followed by an annual running cost to Sport England's budget of £2.5m. At the point of the survey's inception, Sport England (2004: 18) claimed that the survey represented value for money in terms of planning effective sport policy because it provided 'robust baseline data on participation rates, better understanding of the barriers to participation and more information on local demographics linked to participation'. Its summary, data is easily accessed through Sport England's website and basic manipulation tools, first the 'diagnostic' and now Active People Survey Interaction, allow simple cross-tabulations to be run. The full, raw data sets, for more sophisticated analysis, are available for download through the UK Data Archive (see Carmichael et al., 2013 for discussions about the additional use value of APS raw data over that which is presented on the Sport England website).

Rowe (2009) argues that the APS gave Sport England, the Department for Culture, Media and Sport and the 354 local authorities the strongest data for sport policy making in the world. By providing the APS, Sport England could define the content and scope of questions asked about sport participation in a way they could not previously, and offer increased accountability for the impact of £2bn public money, distributed through National Lottery grants, between 1995 and 2005 (Rowe, 2009).

For the purposes of our study, we examine two waves of the APS: Wave 3 from 2008-09 with a sample size of 187,152 and Wave 8 from 2013-14 with a sample of 162,124. The reason is twofold. Firstly, we use the Wave 8 cross-section to examine what socio-demographic attributes impact on participation in sport in 2013-14. Secondly, we pool the data from 2008-09 and 2013-14 in order to examine if there were any changes in participation over the five year period and whether particular types of individuals were more or less likely to participate in sport or not.

Our measure of sport participation is in both waves of the APS (3 and 8): individuals were asked ‘in the last 4 weeks have you participated in Sport or Physical Activity’ⁱ. There are two possible responses (categorised Yes =1; No = 0) and as such this dichotomous measure is our dependent variable or outcome variable of interest in the analytical models below. Using this variable as a measure of sport participation allows the broadest possible version of sport participation, to ensure that any type of sporting engagement is covered accounting for anyone that participates in sporting activity however modest (it gives us a baseline of sporting participation in England). However, by selecting this measure we are aware of its constraints. First, alternative measures have been used by Sport England; second, that it is impossible to differentiate between a sport enthusiast and an occasional reluctant participant; and finally, a further limitation of this broad measure is that it does not help us to understand if the impact of austerity reduces the frequency of participation as much if not more than participation alone.ⁱⁱ Conversely, as we are interested in participation in the broadest sense and one that maps onto previous academic studies,ⁱⁱⁱ we believe the binary measure used here to be the most effective. Furthermore, the measure is generalizable and can be measured over time given that the same question was used in both surveys which is a key requirement of this study. The explanatory variables are derived at both the individual and aggregate level. Individual socio-demographic information is contained in the APS and includes sex, age, education, social class, family composition, ethnicity, employment status, health and home ownership.^{iv} The APS survey also included the name of the local authority in which the individual lived which allowed us to attach data at the local authority level to the individual (we supplement the APS with area level data from Census of Population and data held by DCLG). Here we include a categorical variable that differentiates by council type: London Borough; Metropolitan Borough; Non-Metropolitan Districts; and Unitary Authorities.

Broadly speaking, this acts as a proxy for the socio-demographic composition of the area. Notwithstanding within council variation, Metropolitan boroughs were created to cover the six largest urban areas outside London and include the more urban working class industrial towns and cities in the Midlands, North West, Yorkshire and the North East.^v Non-Metropolitan districts are more geographically dispersed, smaller in size and to a great extent more rural and affluent than their Metropolitan counterparts.^{vi} Unitary authorities are a subdivision of Non-Metropolitan counties and commonly exist to allow large towns or smaller cities to be separate from the more rural parts of the county in which they lie.^{vii} While the inclusion of London boroughs – 32 in total - acts as a proxy for the uniqueness and diversity of London as a place. On the one hand London contains an unparalleled range of sporting facilities that might enhance participation, although the diverse socio-economic make-up of the city may have a significant bearing on who actually partakes in sport and who doesn't. We also include a proxy measure for austerity: expenditure data on Sport Development from local authorities at both waves of the APS survey.^{viii}

Sport Participation in 2008-09 and 2013-14

Table 1 presents a comparison of the socio-economic characteristics of individuals who participated in sport in the last four weeks at both time points - when surveyed in 2008-09 and 2013-14 - against the full sample which is weighted to be representative of the population in England.^{ix} Overall Sport participation for all respondents in the APS in 2008 was 46.6% - subsequently over the 5 year period to 2014 it increased by 1 percent (47.5%). The descriptive data provides a clear indication of who participates and who doesn't. Those active in sport are predominantly male, from the younger or middle age cohorts, home-owners, well educated (either a degree or post-secondary qualification), from the middle or higher classes, students in full time education and those in full time or part time work. Broadly speaking, the unemployed, long term ill, those that work at home, have no qualifications, retired and from the older age cohorts have lower levels of participation in sport when compared against their comparator within-group population. Participation in sporting activities is stronger in the relatively prosperous Non-Metropolitan districts than in the more urban Metropolitan centres outside Greater London. Those living in London also participate in greater numbers at both time points providing tentative evidence in 2013-14 of possible Olympic legacy effects.

Table 1 also provides some circumstantial descriptive evidence of changes in sport participation over time. Four key trends can be observed from reading this type of descriptive model. Firstly, since 2008-09, there is evidence of a sex effect with women participating more in 2013-14 than five years earlier when compared against men over the same time period. Secondly, there is some evidence of an ethnicity effect. Of those participating in sport, a larger proportion was from non-white backgrounds in 2013-14 than five years previously. Thirdly, the data indicates a slight decline in participation over time among middle class individuals and some deprived groups particularly the unemployed. Finally, there is little relative difference in sport participation over time across areas.

Insert Table 1

Model Specification

The descriptive data from both waves of the survey provide some early indication of how sport participation varies by different socio-economic characteristics both at the individual and area level. However, in order to examine the key goals of the paper - who participates in sport and whether there is any significant change in those who participate over time between 2008-09 and 2013-14 after controlling for other predictors – it is necessary to employ a more analytical approach and develop a clear modelling strategy. Given the dichotomous nature of the dependent variable ('in the last 4 weeks have you participated in Sport or Physical Activity' Yes =1; No = 0) the binary logistic regression model is the most appropriate modelling approach and is used here. Our first set of logistic regression models focuses on who participated in sport in 2013-14. Five models are presented in Table 2. Model 1 examines the key socio-economic drivers whereas Model 2 extends this analysis to take account of both these individual predictors but also area level variables in the form of council types. Models 3 and 4 explore the impact of expenditure on sport development provided by local authorities on sport participation in 2013-14. Finally, Model 5 includes interaction effects between key socio-economic variables which have been identified as being important drivers of sport participation at this time point. Our second set of models addresses whether austerity and the climate of recession had a detrimental impact on sport participation. Here we pool the data from the two surveys and run two pooled logistic regression models (see Table 3). The first model examines any changes in participation by key individual socio-economic drivers – sex, ethnicity, class and age etc. – while the second model includes predictors from the first model and changes in expenditure by local authority on sport development to test whether such cuts in spending had any lasting effects on engagement. All models in Table 2 and Table 3 are weighted and include established model fit indicators to gauge improvements in the model following the inclusion of additional parameters.

Who Participates in Sport?

Table 2 presents the results from the five logistic regression models to examine the key drivers of sport participation in 2013-14. Model 1 contains only the key individual socio-economic drivers after controlling for all predictors. Interestingly, differing slightly from the descriptive statistics in one aspect (female), those who participated in sport in 2013-14 were significantly less likely at the 95% confidence level to be female, non-white, from the older

age cohorts compared against the base category middle age, retired, long term ill and generally economically inactive and/or unemployed. By contrast, younger people aged 16-29 were 1.5 times more likely to participate in sport when compared against those in the middle age group and those with a middle class background were 1.2 times more likely to participate compared against all other social class backgrounds. More generally, these findings support the evidence found in studies of cultural capital across a variety of cultural fields (Bennett et al 2010). And the findings generally hold even when we account for area level compositional effects and individual level interactions.

Insert Table 2

The addition of council types acting as proxies for the social composition of the area has little or no effect on the significance of the individual level socio-economic predictors (see Model 2). However, the inclusion of these variables improves the model fit (both the log-likelihood and Aikake information criterion or AIC is significantly reduced). After controlling for these individual level variables, those living in London boroughs and the more affluent Non-Metropolitan districts were significantly more likely to participate in sport, when compared against the base category Unitary councils. Perhaps unsurprisingly given the descriptive evidence earlier, individuals living in Metropolitan authorities were significantly less likely to participate in sport even after controlling for a vast array of individual level socio-economic indicators. Living in the largest English urban centres outside Greater London may have some benefits in terms of choice – a wider range of facilities where one can partake in different sporting activities – but despite this it is clear that those living in these areas are less inclined to participate in sport than those in more prosperous areas of the country.

Model 3 includes the amount spent by local authorities on ‘sport development and community recreation’ along with individual socio-economic variables. Our expectation is that those areas with higher levels of expenditure would have a positive effect on those participating in sport in the local authority area. The results show that expenditure had no significant effect on sport participation. Indeed the negative sign suggests that expenditure may have been higher in those local authorities, perhaps Metropolitan authorities, where

participation in sporting activities was lower than elsewhere. A closer inspection of the descriptive data suggests that the three top spending councils were all Metropolitan authorities – Salford, Birmingham and Gateshead – although this is somewhat tempered by the weak collinearity between expenditure and council type.^x

Our final two models include all the variables analysed in the three previous models to determine the key drivers of sport participation in 2013-14. Model 4 is the full model while Model 5 includes the same variables as Model 4 plus two additional interactions. Generally speaking, even when council expenditure on ‘sport development and community recreation’ and the type of council is included in the model, there is little or no effect on the significance of the key socio-economic variables identified earlier. Similarly all of the significant aggregate relationships hold while council expenditure on ‘sport development and community recreation’ remains insignificant albeit with a positive sign after controlling for council type and compositional influences at the area level. The magnitudes of the coefficients in these logit models are however difficult to comprehend without converting the variables into probabilities. So for ease of interpretation and to assess the impact of these key predictors, we change the statistically significant coefficients in Table 2 Model 4 into predicted probabilities calculated using the Clarify software package (Tomz, Wittenberg and King, 2003). The probability of participating in sport is calculated where each significant predictor is varied from its minimum to maximum while simultaneously holding all the other independent variables at their mean values. Figure 1 shows the predicted probabilities of sport participation in 2013-14. Net of other considerations, being over the age of 65 reduced the probability of participating in sport by 20 points. For females, the probability of participating decreased by 7 points. Being unemployed and long term ill also reduced the likelihood of being active in sport by 10 and 14 points respectively. So being older or economically deprived were the largest contributors to non-participation in sport. On the contrary, being young increased the probability of partaking in sporting activities by 10 points while homeowners also increased their likelihood of being active in sport by a similar magnitude. Being from a middle class background matters but the size of the effect is lower than being under 30, a student or homeowner. For individuals who lived in London boroughs, the probability of participating in sport increased by 3 points, while for those in Metropolitan borough it decreased by 2 points, where all other variables are held at their mean. So where

you live places an additional impact on an individual's likelihood of participating although the effects have a lower magnitude than other variables.

Insert Figure 1

Building on the earlier models, Model 5 includes two additional interactions. Given the descriptive evidence presented earlier and analytical evidence of a sex effect, we examine whether particular types of females were significantly less or more likely to participate in sport in 2013-14. To tease out such relationships we interacted female with two other variables, young age 16-29 and middle class. Our aim was to determine whether young females were significantly less likely than young men to partake in sport and if middle class women were more likely to participate than men from a similar class background holding other variables constant. The findings seem to bear these initial expectations out. Even with these interactions, females as a whole are less likely to participate in sport than men. But our evidence suggests that young women (as indicated by the size of effect) seem to be less likely than all females to participate and significantly less likely than young men to actively engage in sport. By contrast, middle class women are 1.2 times more likely than middle class men to be active in sport suggesting that in 2013-14 this group boosted the overall rate of participation in sporting activities.

Participation in Sport over Time

While the models in Table 2 provide a clear indication of who participates in sport and whether this varies by where individuals live or the amount spent on sport by a local authority in which the individual resides, it is nonetheless a ‘snapshot’ at one point in time. To address key questions such as whether reductions in council expenditure in sport during the austerity period had a damaging effect on participation or whether participation among certain socio-economic groups have either risen or declined still further, it is necessary to examine change in sport participation over time. Table 3 presents the findings of two pooled logistic models (combined 2008-09 and 2013-14) of sport participation. The table contains the period dummy (2013-14 survey), the main effect variables for the key predictors of interest – Female, Young Age 16-29, Middle Class, Unemployed, Council expenditure and London Borough - and the interaction between the two.^{xi} Our main focus is on these interactions. Model 1 examines the effects of the key individual level socio-economic variables of interest and clearly shows that there was a significant positive difference in the sport participation of females between 2008-09 and 2013-14 after controlling for other influences. Put simply, females were significantly more likely to partake in sport in 2013-14 than in 2008-09. Interestingly, the same can’t be said for young people and the unemployed, both of which have experienced a significant decline in participation over the five year period. Those from a middle class background were less likely to participate but this was not statistically significant at the 95% confidence level. Turning to council expenditure and living in London, we found no statistically significant differences in their impact on sport participation over the five year period. So after controlling for other influences, reductions in local authority expenditure in sport over time (as illustrated by the negative sign) did not have any significant bearing on individuals partaking in sporting activities. Similarly, there is little evidence that those living in London became actively engaged in sport over the five year period, despite city hosting the Olympic Games in 2012.

Insert Table 3

Discussion

A key London Olympics 2012 legacy was to increase sport participation levels across all socio-demographic groups in the UK, having a positive impact on public health levels. The recorded 0.9% per cent increase in the number of people undertaking sport in a 'typical' four-week period marks an increase, even if this is an underwhelming legacy. However, this is set against an increasingly constrained political commitment to sport services in an 'austere' era of 'rolling back' the state. Indeed, King (2013a; 2013b) claims that the goal of 'sport for all' has been adversely affected by comparison with other components of provision based on the research by the author for APSE (2012). In practice, state-run sport services are dependent on subsidy to continue programmes and maintain facilities, and given declining support for subsidising discretionary services, many authorities have adopted a business model that includes raising charges which in turn can impact on participation, especially in lower income groups. This is set against continued claims ahead of London 2012 that a legacy would be to increase sport participation for all segments of British society, specifically including those that were defined as 'hard to reach'. These 'hard to reach' groups include: older populations, those from lower social classes, women, individuals who reside in rural areas, those that define themselves as 'disabled' and members of ethnic minority groups. However, in 2013-14, data analysis revealed an unexpected result: namely that middle class women were significantly more likely to participate in sport than any male, irrespective of social class. Further studies on gender and social class would be required before a trend could be confirmed in this regard.

The overall finding in this paper suggest that lower sport participation among the 'hard-to-reach' groups is a continuing pattern as established in previous literature. The findings cited in Model 3 in Table 2 suggest that individuals who live in Metropolitan areas with relatively high levels of socio-economic deprivation are less likely to participate in sport, despite council income for 'sport development and community recreation' being relatively high, compared to other local authority areas. This finding may imply under-investment in local community-based sport services and may also suggest that provision is either not targeted appropriately or is ineffective. In the context of declining resources for services, little or no change in participation is unsurprising. In terms of gender, although there has been a modest growth in women's sport participation (Table 3), this is offset by an overall decline in the participation rate of young people. It is questionable whether the Olympic Games objective to

‘Inspire a Generation’ (see *Gov.uk*, 2012) to participate in sport was a feasible policy aspiration in a context of austerity and local authority budget reductions. It can be argued, prior to further studies, that austerity measures have negated intended Olympic legacy effects. Alternatively, it can be argued that the London 2012 Olympic Games boosted sport participation in England but this impact had been negated by the local impacts of the Comprehensive Spending Review, and further rolling back of state provision. Mega event legacies are difficult to measure (see also Garcia *et. al*, 2010). Roberts (2004) has suggested, sports providers have transferred from the state to private ownership, reducing the impacts of austerity measures on sports participation. If this argument is taken up, it would not be transferable into the domain of other state-funded services such as libraries which have no private alternative, or schools/hospitals where the take up of privatised options is considerably lower across the population (and the financial cost higher) than in the realm of sport. The APSE (2012) report notes an increasing interest among local authorities in externalising sport-related services but very limited practice in this regard.

As outlined in the methodology, the APS was created in 2005 to be able to provide robust evidence to make effective sport policy (Rowe, 2009). Yet, this is not without limitations which should be highlighted given the importance of the dataset to sport policy and the results in this paper. As in all surveys of this nature, low-response rates and missing data are problematic, especially on the educational attainment variable (76% missing). Nevertheless, it is a powerful resource for evidence-based sport policy. Indeed, the findings presented here suggest that social class, defined through the APS in NS-SEC terms (based upon occupation), allows three points to be made. First, the patterns established in the literature (see Widdop and Cutts, 2013; Widdop, Cutts and Jarvie, 2016), namely that there has been very little progress in raising and widening sport participation in lower-income groups have been further substantiated in this article. Second, our data also suggests that a ‘squeezed middle’ has become evident given declining sport participation in lower middle class groups. However, third, and by contrast, higher income groups have not been negatively affected by austerity measures. These findings are tentative, however, given the limitations of the study.

The revised method for collating and analysing participation (Sport England, 2016) could have utility in identifying more clearly a causal relationship between expenditure and participation with policy implications. The APS question of ‘*in the last 4 weeks have you participated in Sport or Physical Activity?*’ is arguably not nuanced enough to stand alone as

a dependent variable in understanding the impact of austerity measures on sport participation. It is possible that local councils have been more innovative in a period of austerity, with fewer resources, in maintaining levels of participation or marginally increasing participation in some socio-demographic groups. This being the case, there are further questions about how much more can be 'rolled back' before levels of participation are significantly altered. The APSE (2012) report noted the significance of innovative practices in negotiating austerity but also recognised that those authorities that demonstrated innovation were also authorities with a higher level of political and financial support for sport-related services. In late November 2015, as part of the latest Comprehensive Spending Review, local authority budgets were set to decline further, and beyond local authority provision, investment in grass-roots sport remains modest. Furthermore, the Autumn Statement 2016, highlighted that departments will continue to deliver overall spending plans set at the Spending Review 2015, which will be updated in autumn 2017 (HM Treasury 2016). In this context, it is unlikely that participation in 'hard to reach' groups will be raised and widened in the foreseeable future even where innovative practices are embedded in local policy and provision.

Conclusion

In summary, this study found that policy to raise and widen participation has had little impact for 'hard to reach' groups and the 2012 Olympic Games legacy promise associated with these goals is questionable. This is most likely the case as any widening of participation that has occurred as a result of the Olympic Games will have been offset by the austerity measures introduced by the UK government. These measures are most noteworthy in reductions to local authority spend between 2008 and 2014 and as discretionary services, 'sport development and community recreation' that provides for 'hard to reach' groups has not met with high levels of political support. A separate study on reductions to spend on leisure/sport facilities is likely to reach a similar conclusion and this could be more significant for hard-to-reach groups than the curtailment of community programmes. However, the full impact of the austerity measures on public sector provision is yet to be determined and requires further, more detailed research. What is clear from this study that participation among socio-demographic groups defined as 'hard to reach' has not altered significantly by comparing the APS data in 2008-09 with 2013-14. Only marginal differences can be identified across the five year timespan which is perhaps unsurprising given the difficulties of raising and widening participation among the low-incomed and socially excluded in a context of disinvestment.

The most recent government strategy (Cabinet Office, 2015; Sport England, 2016) with its focus, in part, on ‘social and community development’ implies a commitment of resources to raising and widening participation among ‘hard to reach’ groups. However, in a period of austerity and public spending reductions, investment has not followed policy aspiration to date and participation has not increased in lower-income groups despite prior policy pronouncements. Although there is evidence, albeit limited in scale and scope, of service innovation as a response to austerity, in some locations (King, 2014), such as new cross-sector partnerships and the acquisition of funding from the health sector, for example, the majority of local authority providers are struggling to maintain services targeted at those most in need of them. In central government, (Cabinet Office, 2015: 10) there is a commitment to, ‘distribute funding to focus on those people who tend not to take part in sport, including women and girls, disabled people, those in lower socio-economic groups and older people’. Local authorities are viewed as critical in delivering policy in this regard, which has not always been the case, and is a welcome shift in building trust in central-local government relations. However, investment needs to follow policy statements for any tangible change of participation to result.

Notwithstanding the considerable methodological difficulties of self-reporting and non-response, it is hypothesised that ‘austerity measures’ have disproportionately impacted on working class communities more than those from the middle and salariat classes (Blyth, 2013). The APS, along with our LAD variables, could have had greater utility but for 76 per cent missing on educational attainment (and 15% per cent of ‘not classified’ data on the social class variable), which is important given that Bourdieu and Passeron (1977) intertwine education and social class. It is well established that social inequalities exist and that social class is notoriously difficult to conceptualise, define and measure (Savage, 2015).

It was in part the intention of the paper to highlight the difficulties of measuring both participation and the relationship between expenditure on services and participation. An intermediate and provisional conclusion is that participation, if it can be meaningfully quantified (hence the changes in the APS), doesn’t have a clear, concise and coherent relationship with expenditure from local authority budgets (including external monies), but also participation is not rising in hard-to-reach groups, despite policy aspirations and actual expenditure. Effective, innovative and impactful local services, assessed accurately, whether delivered by local authorities directly, or by others with only a limited role for councils, may

raise and widen participation, but it is argued that simply curtailing services, especially where there is no alternative provider, will not assist in achieving stated policy goals. This in turn raises questions regarding policy aspirations, the effectiveness of services in raising participation, and how services are assessed. Also of note is the politics of policy aspirations and whether evidence-based policy is likely to emerge as a policy driver within a context where austerity measures are the 'new normal'. In order to strengthen the case for maintaining and investing in 'sport development and community recreation' alongside spend on facilities, parks and open spaces, it can be noted that the costs of reducing or curtailing local services for 'sport' are very likely to increase for other statutory service areas such as health (where under local authority control) or health services across the board.

Further research

This study is perhaps one of several that could be undertaken to map, analyse and explain sport participation during the period of austerity. Given its generalised framework of analysis, further detailed studies of a more specialised and localised approach are needed. Furthermore, matching Sport England survey findings against other large nationally representative samples such as the 'Taking Part Survey' and 'Understanding Society' would give a richer understanding of participation. It can be argued that, despite its limitations, the APS offered a relatively clear definition of 'participation' that took account of frequency, intensity and duration as components of participation where other definitions are less precise. The APS also allowed physical activities such as walking and recreational cycling to be included or excluded from any measurement of overall participation. This can be useful for relating physical activity data to health policy goals by contrast with treating 'participation' simply as sports participation. It can also have utility in defining more clearly what constitutes 'sport development and community recreation' as a local authority area of expenditure.

A critique of the APS would call for a fuller understanding of 'participation' via improvements in the instrument and method itself, especially as the APS offers only a limited explanation of causality in participation and investment. Arguably, a more sophisticated survey instrument was required for policymaking purposes. The latest sport strategy (Cabinet Office, 2015) addresses this issue by replacing the APS with *Active Lives* that employs a new set of key performance indicators. The method and data generated will require an analysis beyond the scope of this paper. Relating expenditure to participation becomes ever more

complex when it is recognised that an analysis of supply-side provision can be combined with a focus on demand-side need to account for an individual's level of disposable income and more broadly, the changing nature of labour markets, working hours and available 'free time'. This paper is therefore a point of entry for further studies linking the complex relationship between austerity, participation and policy.

Finally, in order to explain the relationship between austerity, service cuts, participation and policy, it can be noted that it will be necessary to theorise the power-relations between central and local government. The findings of this study imply that central government maintains significant influence over local government expenditure and policy priorities and moreover, that a shift towards localism and away from centralism, in regard to sport services at least, may be rhetoric rather than reality.

References

- Association of Public Service Excellence/King, N. (2012) *Local authority Sport and Recreation Services in England: Where next?* Manchester: APSE.
- Audit Commission (2011) *Tough times: Council's responses to a challenging financial climate*. November. London: Author.
- Bennett, T., Savage, M., Silva, E.B. (2009). *Culture, Class, Distinction*. London: Routledge
- Berman, G. and Keep, M. (2011) *The Local Government Finance Settlement 2011-13*. House of Commons Library, Research Paper 11/16, February.
- Bloyce, D., & Smith, A. (2009) *Sport policy and development: an introduction*. Routledge: Abingdon.
- Blyth, M. (2013) *The History of a Dangerous Idea*, Oxford University Press.
- Bourdieu, P. (1978) Sport and Social Class. *Social Science Information*, 17(6):819-840.
- Bourdieu, P. (2005 [1990]) *Distinction: A Social Critique of the Judgement of Taste*, Cambridge: Harvard University Press.
- Bourdieu, P., & Passeron, J. C. (1977) *Reproduction in education, society and culture*. Sage: London.

- Borgers, J., Thibaut, E., Vandermeerschen, H., Vanreusel, B., Vos, S., & Scheerder, J. (2015). Sports participation styles revisited: A time-trend study in Belgium from the 1970s to the 2000s. *International Review for the Sociology of Sport*, 50(1): 45-63.
- Cabinet Office (2015) *Sporting Future: A New Strategy for an Active Nation*. London: Cabinet Office.
- Carmichael, F., Grix, J. & Marquès, D.P. (2013) 'The Olympic Legacy and Participation in Sport: an interim assessment of Sport England's Active People Survey for sports studies research' *International Journal of Sport Policy and Politics* 5(2): 229-244. <http://dx.doi.org/10.1080/19406940.2012.656675>
- Carter, R. (2016, June 30). Vulnerable hit 'disproportionately' by UK austerity measures, UN warns. Retrieved from <http://www.communitycare.co.uk/2016/06/30/vulnerable-hit-disproportionately-uk-austerity-measures-un-warns/>
- Chan, W. (2010). *Social Status and Cultural Consumption*. Cambridge: Cambridge University Press.
- Coalter, F. (2013). *Sport for development: what game are we playing?* Abingdon, Routledge.
- Collins, M. & Haudenhuyse, R. (2015) Social Exclusion and Austerity Policies in England: The Role of Sports in a New Area of Social Polarisation and Inequality? *Social Inclusion*, 3, 3: 5-18.
- Cooky, C., Begovic, M., Sabo, D., Oglesby, C. A., & Snyder, M. (2014). Gender and sport participation in Montenegro. *International Review for the Sociology of Sport*, OnlineFirst: 1-23.
- Conn, D. (2015) Olympic legacy failure: sports centres under assault by thousand council cuts. *The Guardian*, July 5th.
- Croucher (2013). Osborne's budget 2013: Beer duty cut can't mask UK's slashed growth forecasts. *International Business Times*. Department for Communities and Local Government (DCLG) (2010) *Local Government Finance Report 2010/11*. London
- Department of Culture Media and Sport (2010) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/77389/FSP-exec-summary-June2010.pdf

- Dorling, D. (2014). *Inequality and the 1%*. Verso Books: London.
- Garcia, B., Melville, R., & Cox, T. (2010). *Creating an impact: Liverpool's experience as European Capital of Culture*. Impacts 08.
http://www.liv.ac.uk/media/livacuk/impacts08/pdf/pdf/Creating_an_Impact_-_web.pdf [accessed 11/2015].
- Gov.uk (2012) 'Inspiring a Generation'
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/78316/Taking_Part_Olympic_Report.pdf [accessed 11/2015].
- Hallal PC, Anderson LB, Bull FC, et al. Global physical activity levels: surveillance progress, pitfalls and prospects. *The Lancet* 2012; 380(9838): 247-57.
- HM Treasury (2010a) Spending Review 2010, HM Treasury, London.
- HM Treasury (2010b) *Budget 2010*. London: Author.
- HM Treasury (2016) Autumn Budget 2016, HM Treasury, London.
- Institute of Fiscal Studies (2012) Local government spending: where is the axe falling? In *The IFS Green Budget*. London: IFS.
- Joseph Rowntree Foundation (2011) *Monitoring Poverty and Social Exclusion 2011*. York: Author.
- King, N. (2009) *Sport Policy and Governance: local perspectives*. Oxford, Butterworth-Heinemann. <http://dx.doi.org/10.1016/b978-0-7506-8547-4.00012-2>
- King, N. (2013a) Local Authority Sport Services under the UK coalition government: retention, revision or curtailment? *International Journal of Sport Politics and Policy*, 6, 3: 349-369. <http://dx.doi.org/10.1080/19406940.2013.825873>
- King, N. (2013b) 'Sport for All' in a financial crisis: Survival and adaptation in a revised model of the welfare state. *World Leisure Journal*, 55, 3: 215-228.
<http://dx.doi.org/10.1080/04419057.2013.820503>
- King, N. (unpublished -2014) *A review of local government spending on sport development and community recreation in English local authorities*. Working Paper.

- Klostermann, C., & Nagel, S. (2014). Changes in German sport participation: Historical trends in individual sports. *International Review for the Sociology of Sport*, 49(5), 609-634.
- Kohl HW, Craig CL, Lambert EV, Inoue S, Alkandari JR, et al. (2012) The pandemic of physical inactivity: global action for public health.
- Krugman, P. (2015) The austerity drive in Britain isn't really about debt and deficits at all; it's all about using deficit panic as an excuse to dismantle social programs, *New York Times*.
- Kohl HW, Craig CL, Lambert EV, Inoue S, Alkandari JR, et al. (2012) *The pandemic of physical inactivity: global action for public health*.
- Levitas, R. (2012). *Poverty and Social Exclusion in the UK*. Poverty and Social Exclusion UK.
- Lim, S. Y., Warner, S., Dixon, M., Berg, B., Kim, C., & Newhouse-Bailey, M. (2011). Sport participation across national contexts: A multilevel investigation of individual and systemic influences on adult sport participation. *European Sport Management Quarterly*, 11(3): 197-224.
- Local Government Association (2013) *Future funding outlook for councils from 2010/11 to 2019/20*. London: LGA.
- Loucaides, C. A., Plotnikoff, R. C., & Bercovitz, K. (2007). Differences in the correlates of physical activity between urban and rural Canadian youth. *Journal of School Health*, 77(4): 164-170.
- Padley, M and Hirsch, D. (2013). Child Poverty Map of the UK. End Child Poverty [http://www.endchildpoverty.org.uk/images/ecp/130212%20ECP%20local%20report%20final\(1\).pdf](http://www.endchildpoverty.org.uk/images/ecp/130212%20ECP%20local%20report%20final(1).pdf)
- Parnell, D. (2014) Austerity cuts to local leisure services is a false economy, *The Conversation* <https://theconversation.com/austerity-cuts-to-local-leisure-services-is-a-false-economy-33320>
- Parnell, D., Millward, P. and Spracklen, K. (2014) Sport and austerity in the UK: an insight into Liverpool 2014, *Journal of Policy Research in Tourism, Leisure and Events*, 7, 2, 200-203.

- Parnell, D. and Widdop, P. (2015a) “Postponed due to pitch conditions” Grassroots football and sports participation, *The Sports Think Tank*
<http://mediacentre.leedsbeckett.ac.uk/post/consumption-and-class-the-curious-case-of-golf/>
- Parnell, D. and Widdop, P. (2015b) Austerity and Sport for Health, *The University of Edinburgh, Sport Matters* <http://www.blogs.hss.ed.ac.uk/sport-matters/2015/09/30/austerity-sport-health/>
- Parnell, D., Buxton, S., Hewitt, D., Reeves, M.J., Cope, E. & Bailey, R. (2015). The pursuit of lifelong participation: the role of professional football clubs in the delivery of physical education and school sport in England, *Soccer & Society*, DOI: 10.1080/14660970.2015.1082752
- Parnell, D., Cope, E., Bailey, R. & Widdop, P. (2016). Sport policy and English primary physical education: the role of professional football clubs in outsourcing, *Sport in Society*, DOI: 10.1080/17430437.2016.1173911
- Peterson, R., Kern, R. (1996). Changing highbrow taste: From snob to omnivore. *American Sociological Review*. 61(5): 900–909.
- Roberts, K. (2004). *The Leisure Industries*. Palgrave Macmillan: Basingstoke.
- Rowe, N. (2009) ‘The Active People Survey: A Catalyst for Transforming Evidence-Based Sport Policy in England’ *International Journal of Sport Policy* 1(1): 89-98.
<http://dx.doi.org/10.1080/19406940802681244>
- Savage, M. (2015) *Social Class in the 21st Century*. Penguin: London.
- Scheerder, J., Thomis, M., Vanreusel, B., Lefevre, J., Renson, R., Eynde, B. V., & Beunen, G. P. (2006). Sports participation among females from adolescence to adulthood: a longitudinal study. *International Review for the Sociology of Sport*, 41(3-4): 413-430.
- Sport England (2004) ‘*The Framework for Sport in England: Making England An Active and Successful Sporting Nation: A Vision for 2020*’ London: Sport England.
- Sport England (2016) *Towards an Active Nation. Strategy 2016-2021*. London: Sport England.

- Stempel, C. (2006). Gender, social class, and the sporting capital-economic capital nexus. *Sociology of Sport Journal*, 23(3), 273-292.
- Taks, M., & Scheerder, J. (2006). Youth sports participation styles and market segmentation profiles: evidence and applications. *European Sport Management Quarterly*, 6(2): 85-121.
- Tomz, M. Wittenberg, J. and King, G. (2003). "CLARIFY: Software for Interpreting and Presenting Statistical Results." *Journal of Statistical Software*, 8. <http://j.mp/k3k0rx>
- Van Bottenburg, M., Rijnen, B. & van Sterkenburg, J. (Eds.), (2005). *Sports participation in the European Union: Trends and differences*. W.J.H. Mulier Institute/Arko Sports Media.
- Walker, C. M., Hayton, J.W. (2016). Navigating austerity: balancing 'desirability with viability' in a third sector disability sports organisation. *European Sport Management Quarterly* 1-19.
- Weed, M. (2010) 'How Will We Know if the London 2012 Olympics and Paralympics Benefit Health?' *The British Medical Journal* 340: c2202.
<http://dx.doi.org/10.1136/bmj.c2202>
- Weed, M., Coren, E., Fiore, J., Wellard, I., Chatziefstathiou, D., Mansfield, L., & Dowse, S. (2015). The Olympic Games and raising sport participation: a systematic review of evidence and an interrogation of policy for a demonstration effect. *European Sport Management Quarterly*, 15(2): 195-226.
- Widdop, P., & Cutts, D. (2013). Social stratification and sports' participation in England. *Leisure Sciences*, 35(2): 107-128.
- Widdop, P. and Parnell, D. (2015) Consumption and class: The curious case of golf, *Leeds Beckett University, The Media Centre*
<http://mediacentre.leedsbeckett.ac.uk/post/consumption-and-class-the-curious-case-of-golf/>
- Widdop, P., Cutts, D., & Jarvie, G (2016). Omnivorousness in sport: the importance of social capital and networks. *International Review for the Sociology of Sport*, 51 (5), pp. 596-616.

Tables and figures

Table 1: Socio-Demographic Make-up of Sport Participation 2008 and 2013

<i>Socio-Demographic Variables</i>	Participated in Sport 2008 %	Participated in Sport 2013 %
Overall Sport Participation	46.6	40.7
<i>Socio-Demographic Variables</i>		
Male	51.7	43.8
Female	41.8	38.6
Young Age 16-29	65.2	64.1
Middle Age 30-44	54.1	54.0
Middle/Older Age 45-64	40.4	42.3
Old Age 65 plus	25.2	28.0
White	46.6	40.4
Non-White	47.1	44.5
Degree	57.4	52.7
Student	68.5	69.0
Own Home	47.9	43.1
No Children	43.7	37.3
Two or more Children	53.7	54.8
Unemployed	42.0	36.1
Retired	27.6	29.9
Middle Class	46.7	42.1
Working Class	37.0	29.2
London Borough	49.0	43.2
Metropolitan Area	44.3	37.6
Non-Metropolitan Area	47.1	41.3
Unitary Area	46.4	39.1
N	187152	163271

All data is weighted by the National Annual weight.

** Interpreting the descriptives – 41.8% of Females participated in sport in 2008, this declined to 38.6% in 2013 – the drop was larger for Males – 51.7% of all Males were active in Sport in 2008 compared to just 43.8% of all Males in 2013.

Table 2: Logistic Regression Models of Sport Participation in 2013

Variables	2013 Model 1		2013 Model 2		2013 Model 3		2013 Model 4		2013 Model 5	
	β	SE	β	SE	β	SE	β	SE	β	SE
Constant	-0.12*	0.03	-0.13*	0.03	-0.17*	0.04	-0.12*	0.03	-0.11*	0.04
<i>Socio-Economic Variables</i>										
Female	-0.15*	0.02	-0.15*	0.02	-0.15*	0.02	-0.15*	0.02	-0.21*	0.03
Young Age 16-29	0.44*	0.04	0.45*	0.04	0.44*	0.04	0.43*	0.04	0.78*	0.07
Middle/Older Age 45-64	-0.41*	0.03	-0.41*	0.03	-0.41*	0.03	-0.41*	0.03	-0.41*	0.03
Old Age 65 plus	-0.96*	0.04	-0.97*	0.04	-0.96*	0.04	-0.96*	0.04	-0.96*	0.04
Age Missing/Refused	-0.62*	0.07	-0.64*	0.07	-0.63*	0.07	-0.62*	0.07	-0.65*	0.07
Non-White	-0.20*	0.04	-0.25*	0.04	-0.23*	0.04	-0.20*	0.04	-0.24*	0.04
Degree	0.32*	0.03	0.30*	0.03	0.31*	0.03	0.32*	0.03	0.30*	0.03
Student	0.42*	0.06	0.41*	0.06	0.41*	0.06	0.41*	0.06	0.38*	0.06
Own Home	0.45*	0.02	0.47*	0.02	0.47*	0.02	0.45*	0.02	0.46*	0.02
Middle Class	0.14*	0.02	0.14*	0.02	0.14*	0.02	0.14*	0.02	0.03	0.03
Two or More Children	0.18*	0.03	0.18*	0.03	0.18*	0.03	0.18*	0.03	0.18*	0.03
Unemployed	-0.32*	0.05	-0.31*	0.04	-0.32*	0.04	-0.32*	0.05	-0.33*	0.04
Retired	-0.07*	0.03	-0.05	0.03	-0.06*	0.03	-0.07*	0.03	-0.07*	0.03
Long Term Ill	-0.64*	0.02	-0.63*	0.02	-0.63*	0.02	-0.63*	0.02	-0.63*	0.02
Work at Home	-0.44*	0.05	-0.44*	0.05	-0.44*	0.05	-0.44*	0.05	-0.44*	0.05
Other (Inactive)	-0.06	0.10	-0.06	0.10	-0.05	0.10	-0.06	0.10	-0.06	0.10
Employment (Missing)	0.11*	0.05	0.11*	0.05	0.11*	0.05	0.11*	0.05	0.11*	0.05
<i>Factors</i>										
Urban WC/Deprived Areas	-		-0.12*	0.01	-		-		-0.14*	0.01
Affluent Suburban Areas	-		0.02*	0.01	-		-		-0.02	0.02
University Areas	-		-0.03*	0.01	-		-		-0.04*	0.01
<i>Council Types</i>										
London Borough	-		-		0.14*	0.04	-		-0.11*	0.05
Non-Metropolitan Districts	-		-		0.08*	0.03	-		0.05	0.03
Metropolitan Authorities	-		-		-0.07	0.04	-		-0.02	0.04
<i>Council Expenditure/Income</i>										
Income	-		-		-		-0.02	0.02	-0.01	0.02
Expenditure	-		-		-		-0.01	0.02	-0.02	0.03
<i>Interactions</i>										
Female*Young Age 16-29	-		-		-		-		-0.55*	0.07
Female*Middle Class	-		-		-		-		0.19*	0.04
Middle Class* Y Age 16-29	-		-		-		-		-0.04	0.07
<i>Model Fit</i>										
Log Likelihood	-102316		-101740		-102258		-102313		-101567	
AIC	204669		203523		204559		204666		203192	
N	163271		163271		163271		163271		163271	

All data is weighted by the National Annual weight. * = <0.05 significance. Base categories include: Age (Middle Age 30-44); Ethnicity (White); Employment (Full and PT work); Education (all qualifications below degree including none); Number of children (One and no children); Council Types (Unitary Authorities)

Table 3: Pooled Logistic Regressions (2008-9 and 2012-13) Predicting Participation in Sport

Variables	Individual Pooled Model		Individual + Area Model		Expenditure Pooled Model	
	β	SE	β	SE	β	SE
Constant	-0.11*	0.02	-0.09*	0.02	-0.10*	0.02
Year 2012/13	0.08*	0.02	0.06*	0.02	0.06*	0.02
<i>Socio-Demographic Variables</i>						
Female	-0.32*	0.01	-0.33*	0.01	-0.33*	0.01
Young Age 16-29	0.52*	0.02	0.53*	0.02	0.53*	0.02
Non-White	-0.37*	0.03	-0.38*	0.03	-0.38*	0.03
Middle Class	0.15*	0.01	0.14*	0.01	0.14*	0.01
Urban WC/Deprived Areas	-		-0.11*	0.01	-0.11*	0.01
Affluent Suburban Areas	-		0.04*	0.01	0.05*	0.01
Council Expenditure on Sport	-		-		0.02	0.01
Year 2012/13* Female	0.17*	0.02	0.18*	0.02	0.18*	0.02
Year 2012/13* Young Age 16-29	-0.15*	0.04	-0.15*	0.04	-0.15*	0.04
Year 2012/13* Non-White	0.14*	0.04	0.12*	0.05	0.11*	0.05
Year 2012/13* Middle Class	0.01	0.02	0.02	0.02	0.02	0.02
Year 2012/13* Urban WC	-		-0.00	0.01	0.00	0.01
Year 2012/13* Affluent Suburbs	-		-0.02	0.01	-0.02	0.01
Year 2012/13* Expenditure	-		-		-0.02	0.02
<i>Model Fit</i>						
Log Likelihood	-221096		-219002		-218999	
AIC	442238		438060		438060	
N	346873		346873		346873	

* = <0.05 significance. Base year = 2008/09. All models fitted with robust standard errors. The full model includes all socio-demographic variables – all age variables (where middle age 30-44 is the base), social class, degree, own home, two or more children, economically inactive (retired, unemployed, student, work at home, other inactive, missing employment), all area socio-economic profiles (three factors: Affluent Suburban & Retirement; Urban Working Class/Deprived; University areas). All data is weighted by the National Annual weight.

ⁱ This variable does not include walking; it reflects sport and physical activity in the last four weeks, whether for competition, training or receiving tuition, socially, casually or for health and fitness.

ⁱⁱ This could have important implications on public health and other public policy outcomes. We are grateful for the anonymous reviewer for these observations.

ⁱⁱⁱ In line with academic participation research in the arts and cultural sociology (Bennett et al. (2010); Peterson and Kern (1996); and Chan (2010) in this paper we take participation at its most general level to illustrate participation across these time points.

^{iv} The following variables are dichotomous variables where 1 = Yes and 0 = No: Sex (Female-Male); Home Ownership (Own Home – All others); Ethnicity (Non-White – White); Employment Status (FT/PT Work 1 = Yes; 0 = No; Retired 1 = Yes; 0 = No; Unemployed 1 = Yes; 0 = No; FT Student 1 = Yes; 0 = No; Work at Home 1 = Yes;

0 = No; Other Inactive 1 = Yes; 0 = No); Health (Long Term Ill 1 = Yes; 0 = No). The following variables are categorical: Age (Young Age 18-29; Middle Age 30-44 – base category – Middle Older Age 45-59 and Old Age 60 plus); Education (No Qualifications – base category – Secondary and Below; Other Qualifications; Post-Secondary; Degree or More); Family Composition (No children; One child; Two or more children) and social class (where we used the NSEC classification and categorised the variable as follows: Salariat/Higher class; Middle class, Working class, Not classified).

^v There are six Metropolitan counties (Greater Manchester, Merseyside, South Yorkshire, West Yorkshire, Tyne and Wear and the West Midlands) which contain 36 Metropolitan boroughs.

^{vi} There are 201 Non-Metropolitan districts. They are part of the two tiered non-metropolitan structure where 27 county councils have responsibility of key services such as education and social care whereas non-metropolitan districts have more limited functions.

^{vii} There are 55 single tier Unitary authorities.

^{viii} The expenditure data are the actual raw figures spent on sport development by local authorities at both time points. This data is placed into a z-score or standardised score (average of zero and a standard deviation of one) and has the distinct advantage that the value of a score indicates exactly where the score is located relative to all the other scores in the distribution. Data was added to APS from Department for Communities and Local Government - Local Authority Spending 2008 and 2014.

^{ix} We use the National Annual weight (weight2) which is included in both waves of the survey.

^x The correlation between expenditure and a) London Borough is 0.07; b) Metropolitan Borough is 0.20; c) Unitary council is 0.19; Non-Metropolitan Borough is -0.30. Correlations above 0.5 are cause for concern.

^{xi} In both pooled models we include all the variables from the equivalent full model (Table 2 Model 4) but in Model 1 we don't include the interaction between the period dummy and expenditure and London Borough while in Model 2 we add these. The choice of variables to be interacted reflected earlier evidence from the descriptive data and earlier cross sectional models as well as seeking to examine one of our key hypotheses, namely whether changes in local authority expenditure on sport since 2008-09 had any impact on sport participation.