

RESEARCH SERIES

NUMBER 4

OCTOBER 2008

**BUDGET
PERSPECTIVES
2009**

Tim Callan (ed.)

**Ray Barrell, Alan Barrett,
Noel Casserly, Frank Convery,
Jean Goggin, Ide Kearney,
Simon Kirby, Pete Lunn,
Martin O'Brien, Lisa Ryan**

GETTING OUT WHAT YOU PUT IN

An Evaluation of Public Investment in Irish Sport

Pete Lunn

Abstract

This paper presents an economic analysis of the returns to public investment in Irish sport, which has increased dramatically over the past decade. It combines figures on spending by central government and state agencies with a relatively new and rapidly expanded body of research on participation in sport. The aim is to use what has become a substantial evidence base to assess whether Irish sports policy is likely to meet its stated aims of improving health and quality of life. Empirical findings support the view that there are significant health and social benefits to be had from participation in sport. However, the analysis challenges the way current policy addresses three trade-offs in the allocation of resources: the balance between “elite” and “grassroots” sport; the trade-off between investment in sporting facilities (physical capital) and participation programmes (human and social capital); and the allocation of public money across the range of different sporting activities. In each case, given the stated aims of policy and the evidence base, it is difficult to justify the current position. The paper concludes that the allocation of public investment in sport needs to be updated in light of recent findings.

1. Introduction

This paper is motivated by a number of developments that have taken place in sports policy. First, successive budgets have delivered substantial and sustained increases in the level of public funding for sport over the past ten years. According to the *Revised Estimates for Public Services 2008*, the total allocation of central government funds to the sport budget of the Department of Arts, Sport and Tourism (DAST) in 2008 amounts to €311 million.¹ Second, as the benefits of increased physical activity are becoming more apparent, governments and academics are taking sport more seriously. An expanding international research effort is seeking to understand the forces that drive participation in sport and the potential of policy to increase participation. Third, there has been an accumulation of evidence regarding grassroots sport in Ireland over the past five years, largely as a result of the

¹ The focus of this *Budget Perspectives* paper is on central government funding of sport. Local authorities also provided additional public funding for sport and recreation, estimated to be €122 million in 2005 (Fitzpatrick Associates, 2005).

research programme funded by the Irish Sports Council. This programme is itself a creation of sports policy, since conducting such research was made a statutory obligation of the Council when it was established in 1999. The focus of the research programme has been, primarily, to improve understanding of the social and economic forces that surround various kinds of involvement in sport.

The body of research that has now accumulated, internationally and domestically, is sufficient that it is possible to analyse Ireland's much expanded investment in sport in the light of evidence; to make use of information and insights that were not available when the majority of current policy mechanisms were designed. The aim is to employ the available empirical evidence to assess returns to the increased public investment in sport.

The domestic research base draws heavily on three data sources. The Survey of Sport and Physical Exercise (SSPE) surveyed a nationally representative sample of 3,080 adults over 18 years of age in 2003 (see Fahey, Layte and Gannon, 2004, for details). The Quarterly National Household Survey (QNHS) module on Sport and Physical Exercise surveyed approximately 40,000 people aged 15 years and over (Central Statistics Office, December 2007). The Irish Sports Monitor (ISM) is a survey of over 10,000 respondents carried out for the first time in 2007 and described at length in Lunn, Layte and Watson (*forthcoming*). These surveys and the research reports based upon them have adopted a broad definition of "sport", taken from the Irish Sports Council Act, 1999, which covers all kinds of recreational exercise activities, such as swimming, jogging and going to the gym, as well as traditional field games like soccer and Gaelic games.

The structure of the paper is as follows. Section 2 describes the scale and objectives of public funding for sport, raises three relevant research questions and outlines some theoretical and methodological issues that arise in trying to employ evidence to answer them. Sections 3, 4 and 5 address each question in turn. Section 6 concludes.

2. Public Investment in Sport: Scale, Aims and Evaluation

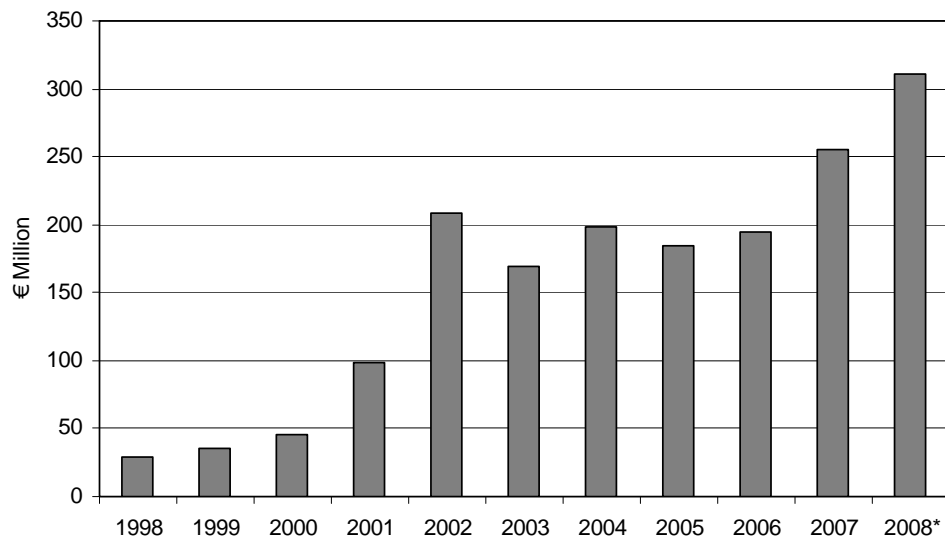
The scale of increases in public funding of sport delivered by successive budgets over the past decade is apparent from Figure 1, which charts the total DAST sport budget over the period 1998-2008. Although the budget is expressed in nominal terms, the more than ten-fold increase in ten years is pronounced, even by the standards of public spending increases during this period of economic boom. Particularly large increases in spending are apparent in 2002 and 2007.

Given this substantial rise in funding, it is natural to examine the aim of the additional investment and to look for evidence regarding returns on that investment; or, more simply, to what degree sports policy meets its objectives.

The current stated goal of sports policy, adopted in the DAST *Statement of Strategy 2008-2010* is:

To increase participation and interest in sport, to improve standards of performance and to develop sports facilities at national, regional and local level, thereby contributing to healthier lifestyles and an improved overall quality of life, through a Departmental policy and resource framework in partnership with its Agencies, other Government Departments and the National Governing Bodies of Sport.

Figure 1: DAST Budget for Sports and Recreation Services, 1998-2008*



*Figure for 2008 is estimated.

Source: Department of Finance, Revised Estimates for Public Services, 1999-2008.

There are two aspects of this stated goal that require careful consideration. First, the strategy assumes that the four actions listed (to increase participation, to increase interest, to improve standards and to develop facilities) contribute to the two benefits claimed (healthier lifestyles and improved quality of life). Second, the implication of the statement is that these actions pull together to achieve the benefits. The DAST strategy does not consider the possibility that there may be tensions between the four actions, in terms of competition for resources and for the attention of policy-makers. The remainder of this section deals with these two issues in turn.

With respect to the impact of sport on health and quality of life, there is now a large international literature that attempts to measure the benefits of sport and physical activity. (For review and references relevant to the Irish context see Fahey *et al.*, 2004; Delaney and Fahey, 2005; Lunn, 2007; Lunn and Layte, 2008). Research mostly focuses on the link between participation in sport and health, although the possibility that participation in sport promotes social capital has also been examined. The evidence for a link between physical activity, including sport, and reduced risk of disease is strong. The World Health Organisation (2005) lists physical inactivity as one of the seven leading risk factors associated with the development of serious disease, including some forms of mental illness as well as some of the most threatening physical conditions, such as heart disease and certain forms of cancer. That said, there are also some negative health outcomes associated with sport, such as the risk of serious injury and a link between team sport

and drinking alcohol (e.g. Fahey, Layte and Gannon, 2004). But the balance of evidence is overwhelmingly in favour of the idea that playing sport is good for health.

In the Irish context, Lunn and Layte (2008) employ a statistical model to estimate the physical health premium associated with regular participation in sport.² They find that the better health enjoyed by those who currently play some form of sport is, on average, equivalent to the health benefit of being 14 years younger.³ Hence the health benefit of playing sport may be very significant. A further aspect worth emphasising is that the gap in measured health status between people who play no sport and those who play some regular sport is considerably larger than the gap in health status between those who play at differing levels of intensity (Fahey *et al.*, 2004). That is, the evidence suggests that the greatest health gains may be had where people make the transition from playing no sport to playing some sport, rather than where people who are already active participants increase their involvement further. These findings, therefore, suggest that the biggest health gains occur when sport attracts new participants.

The social benefits of sport are much more difficult to define and measure. The case is usually made in terms of the contribution of sport to 'social capital', meaning that the aesthetic side of sport, such as the simple pleasure of watching "the beautiful game", is underplayed. Moreover, there is no agreed definition of 'social capital', nor method of measuring it. Roughly speaking, social capital refers to the degree of social interaction and shared understanding enjoyed by individuals within communities. Because sport mostly brings people together, it is usually assumed (especially by proponents of active sports policy) that sport enhances social capital. Any such increase in social capital would accrue not only to players, but to other types of participant; the volunteers, club members and spectators who also come within the social circle of sport. Based on the 2003 SSPE, Delaney and Fahey (2005) record that, in the year prior to the survey, 15 per cent of Irish adults volunteered for sport-related activity, 30 per cent were members of sports clubs and 46 per cent had attended some kind of sports fixture. It is this last group that may have enjoyed not only a social event, but an aesthetically pleasing one – although, admittedly, there is no guarantee of that. The numbers compare with 43 per cent in the same survey who had played sport during the same period (excluding walking). Hence, any social benefits associated with these non-active forms of participation accrue to proportions of people that are comparable with the proportion obtaining the health benefits associated with playing sport.

Still, it is also possible that sport may enhance some social divisions. In Ireland, the assumption that "sport is good" has been questioned by Liston (2007), who argues that Irish researchers are ideologically inspired and hence prone to look for and measure only positive aspects of sport, ignoring negative aspects such as gender and class divisions, or the economic cost of

² Health benefits were measured using the SF-12 measure of physical health (Jenkinson and Magee, 1998).

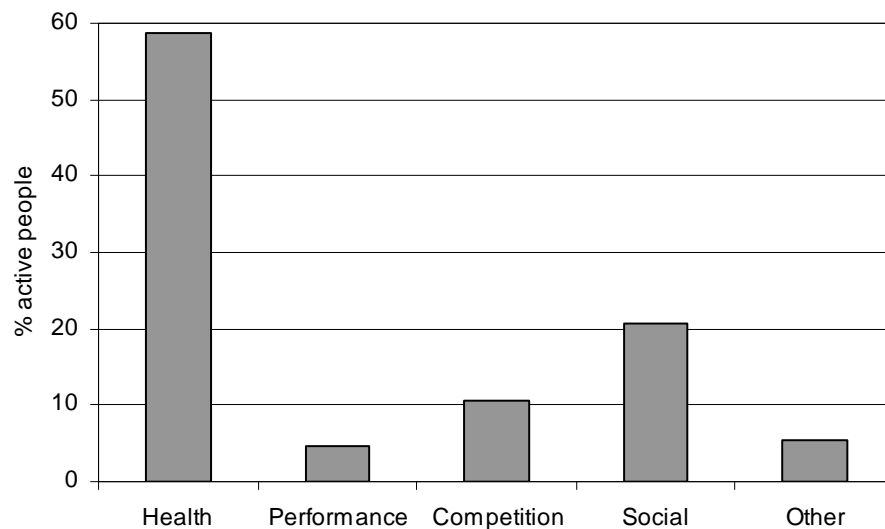
³ It is not possible to determine the degree to which this association is due to the effect of playing sport on health, as opposed to the effect of being healthy on the likelihood of playing sport. In reality, causality is likely to run in both directions. However, Lunn and Layte (2008) also show that there is a significant association between current health and the amount of sport played in the past.

physical injury. It may well be true that personal attitudes and beliefs partly determine the questions researchers ask, but such sociological theorising is no substitute for empirical evidence. As outlined above, the case for health benefits derived from sporting activity is very strong. Delaney and Fahey (2005), meanwhile, offer a balanced discussion of evidence relating to social benefits *and costs* associated with sport, including those Liston (2007) claims to be ignored by researchers. They conclude that the positive social contribution of participation in sport is likely to outweigh the negative. The onus is on those who argue otherwise to do so with workable evidence rather than idle theory.

Some insight into the balance between the health and social benefits associated with sport can be had simply by asking those who play sport what they get out of it. Figure 2 shows that health is the primary motivation for the majority of participants, while social benefits also rank well ahead of narrower sporting goals, such as improving performance or participating in competitions.

Returning to the stated aim of policy in light of this discussion, the contention that increased participation in sport provides benefits is in accordance with evidence. This is especially true in relation to the health gains from playing sport, but likely to be the case for social benefits also. The evidence, therefore, supports the idea that public investment in sport is very likely to bring health benefits where it increases the number of active participants, and likely to provide social benefits too, including for volunteers, club members and spectators. The contention regarding the benefits of sport, as laid down in the DAST strategy, is consequently accepted for the remainder of this paper.

Figure 2: Main Motivation for Active Participation



Source: QNHS module on Sport and Physical Exercise, 2006.

The second issue raised above must now be addressed: are the strategic actions of policy, as stated, mutually supportive rather than in competition with one another? On one level, arguments can be made that increasing the level of participation, heightening interest in sport, raising the standard of

sport and improving the quality of facilities are all complementary actions. Each could, in principle, have a positive knock on effect for the others. Economic theory, on the other hand, leads us to a colder view. Resources spent on one type of policy are resources not spent on another – investment in one area comes with the opportunity cost of not investing elsewhere. The way priorities are balanced against one another is therefore crucial. Thus arises the central question: is the range of policy mechanisms funded out of the DAST sport budget an efficient way to capture the benefits associated with sport?

There are three types of trade-off, in particular, that policymakers must grapple with. The first is the balance between funding allocated to elite sport, which primarily benefits top sportspeople and the spectators who enjoy watching them, and funding given to grassroots sport, which benefits participants at all levels. The second concerns the level of support directed at different types of programme for developing grassroots sport; more specifically, what exactly the public money pays for (pitches, salaries, buildings, marketing etc.). Lastly, there is the balance that must be struck when deciding levels of funding for specific sporting activities.

Economic theory provides a framework for how these trade-offs might be resolved efficiently. In principle, the marginal return on each different type of investment should be equated. Thus, if funding is allocated optimally, an additional sum spent on, for instance, support for elite athletes, should bring the same benefit as the same additional sum spent on, say, employing a development officer to encourage sport among the socially disadvantaged. If marginal returns on different types of investment are not equated, then there is a strong case for transferring resources to fund the policy with the higher marginal return. Of course, this nugget of economic theory is good in principle, but less valuable in practice. Taking the example above, how can one measure and compare the positive impact on a small group of elite sportspeople and those who enjoy watching them with the positive effect of getting a group of disadvantaged people active in sport? An element of subjective judgement is inevitably involved.

Furthermore, while such orthodox economic theory focuses on efficiency, there are also issues of equity. Men are more likely to play sport and are hence greater beneficiaries of public money invested therein. Lunn (2007) finds that people with higher educational attainment and income are many times more likely to play sport. Indeed, socio-economic status turns out to be at least as significant as gender and age in determining who plays sport. Moreover, strong socio-economic gradients are not confined to sports often perceived as the preserves of higher social classes, such as sailing and golf. Participants in Gaelic games and soccer are also disproportionately better educated and better off. These findings are important, because where public funds are used primarily for the benefit of those who are already involved in sport, especially where the funding is drawn from the National Lottery rather than general taxation, policy is very likely to be regressive – a transfer of resources from the worse off to the better off. In summary, considerations of equity place even greater weight on the importance of using public funding to attract new participants, in particular those in less advantageous socio-economic positions.

There is one further consideration to take into account when making judgements about the relative benefits of different streams of public funding.

In addition to the health and social benefits of participants, a case can (and often is) made for investing in elite sport in order to gain national prestige. That is, there may be benefits to many citizens arising from the performance of Irish nationals on prominent sporting stages. Where public funding increases the haul of Olympic medals or boosts the performance of a national team, a large number of people may take pleasure from watching or reading about the events, or even simply from being aware of them. Such benefits are, of course, very hard to measure.

Still, evidence is available to assist comparison of sports policy mechanisms. The example above, comparing a scheme for supporting elite sportspeople with a scheme for getting disadvantaged people to take up sport is particularly difficult, because it requires us to consider both efficiency and equity, and to compare the experiences of active participants with those of spectators, potentially involving large audiences and a contribution to national pride. These more tricky issues arise primarily where returns to funding for elite sport must be compared with those from funding grassroots sport. When comparing different policy mechanisms directed specifically at grassroots sport, the conceptual problems are not so severe and objective evidence can play a greater part.

3. Elite v. Grassroots: An Uneven Contest?

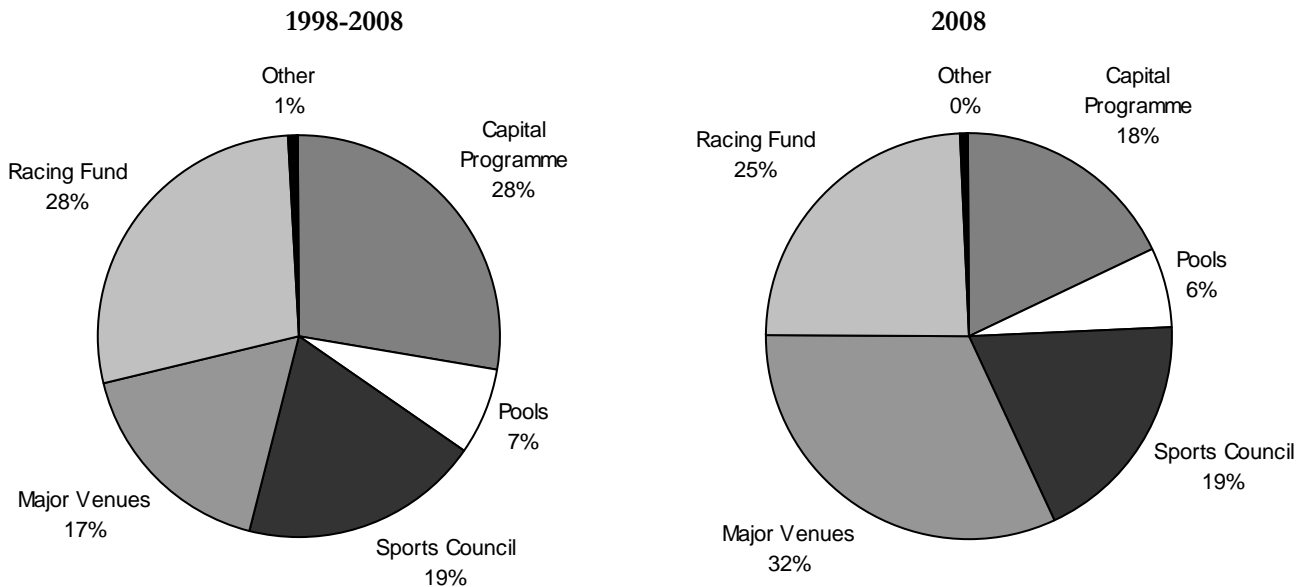
For present purposes, “elite” sport refers to competitive sport that occurs on a national or international level – top national leagues, international competitions and so on. “Grassroots” sport refers to local competitions and people who play recreationally. Of course, the distinction is blurred not clear. Lesser leagues and competitions feed higher profile ones; players who start out participating for fun with a local club end up as international stars. But the distinction is workable for present purposes and sheds much light on the current allocation of public funding for sport.

The appropriate balance between the funding of elite and grassroots sport is, as described in the previous section, partly down to subjective judgement. However, whatever one’s view on the matter, it is important to know how the balance is struck at present. Establishing this is a non-trivial task, which requires us to disentangle the different streams of public funding.

Figure 3 provides a breakdown of the DAST sport budget for the period 1998-2008 (left) and for 2008 alone (right). The two separate charts are provided to show that, while the level of funding has increased dramatically, there has been relatively little change in its structure over the period. Proceeding clockwise from the top, the Sports Capital Programme (SCP) provides money for the construction or improvement of sporting assets – pitches, changing facilities, sports halls etc. Grants are given out to clubs or community groups (schools may only apply in conjunction with such groups) in response to applications. The great majority of grants are given to sports clubs and community organisations of long standing. There is a separate fund, the Local Authority Swimming Pools Programme (LASPP), which pays for the restoration or building of public swimming pools. These two programmes, each dedicated solely to the provision of facilities, have accounted between them for over one-third of all spending on sport over the last ten years. By comparison, the chart reveals that the Irish Sports Council receives less than one-fifth of the total sport budget. Moving on to major venues, three one-off projects have accounted for a substantial share of available funds: Croke Park, Sports Campus Ireland and the redevelopment

of Lansdowne Road. The latter is the primary reason for the larger share of the budget allocated to this category in 2008. Lastly, the Horse and Greyhound Racing Fund (HGRF), established in 2002, completes the picture.

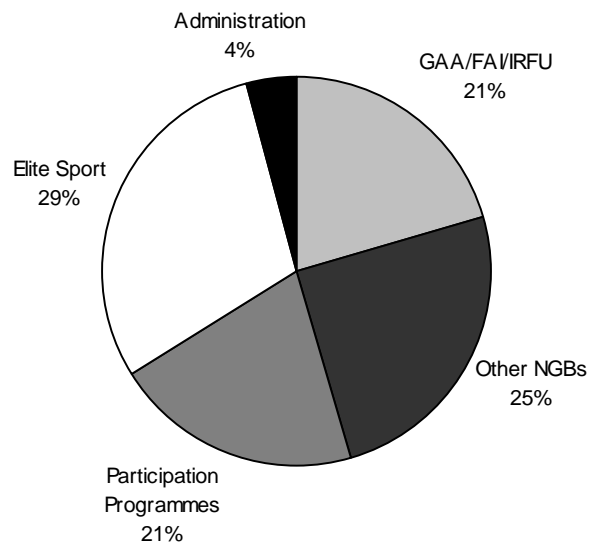
Figure 3: Components of the DAST Budget for Sport



Source: Department of Finance, Revised Estimates for Public Services, 1999-2008.

This subsidy to the racing industry has been the specific focus of a previous *Budget Perspectives* paper (Fahey and Delaney, 2006), which questioned the validity and scale of this contribution from the taxpayer, which is made in the absence of measurable public benefit. No more need be added here except to note that the HGRF, the majority of which is paid out to owners in prize money, significantly exceeds the entire budget allocated to the state agency with primary responsibility for increasing the level of participation in sport, namely the Irish Sports Council. It remains a matter for those who support this subsidy to explain how it provides greater benefits for wider society, given the absence of evidence from which any such a conclusion can be drawn.

The proportions of the sport budget allocated to the HGRF and to major venues represent funding for “elite” sport, since their purpose is to provide national training and performance space for top-class sportspeople and the spectators who watch them. The SCP and the LASPP, meanwhile, represent funding for grassroots sport, since they pay for local facilities used by participants at all levels in very many locations around the country. Thus, in order properly to assess the balance between funding for elite and grassroots sport, it is necessary to further analyse the work of the Irish Sports Council, as its remit covers both mass participation and support for elite sportspeople. This task is made more difficult by the fact that the Council supports a very large range of schemes and has expanded that range significantly as its funding has grown. Summary figures for 2007, produced by grouping different schemes run by the Council, result in the picture given in Figure 4.

Figure 4: Components of Irish Sports Council Funding

Source: Irish Sports Council documentation provided on request.

Almost half of the Council's budget is given out in grants to the National Governing Bodies (NGBs), which oversee the development of more than 60 different sports.⁴ Of this expenditure, however, nearly half goes to a combination of the Gaelic Athletic Association, the Football Association of Ireland and the Irish Rugby Football Union, under the heading of the Youth Field Sports initiative, the stated aim of which is to support young people's involvement in these team games. Given that there are roughly 60 other NGBs, this represents a strong bias in funding in favour of these traditional team sports. Regarding the balance between elite and grassroots sport, the degree to which the NGBs focus on each varies by sport. Under the Youth Field Sports initiative, funding is specifically given for the encouragement of greater participation and so can be considered funding for grassroots sport. For the remaining governing bodies, grants cover administration, the employment of staff, development activities and, in the words of the Council "...may also include hosting events and programmes aimed at increasing participation rates" (Irish Sports Council, 2005). Hence, it may cover efforts to attract new people or the cost of supporting elite performers.

Some 21 per cent of the Council's budget is dedicated to participation programmes, where the explicit aim is to get people playing sport who are not currently doing so, including separate initiatives for women and older people. Also included in this category is funding for the Local Sports Partnerships, a national network of county-level organisations dedicated to increasing participation at a local level. Finally, 31 per cent of the Council's

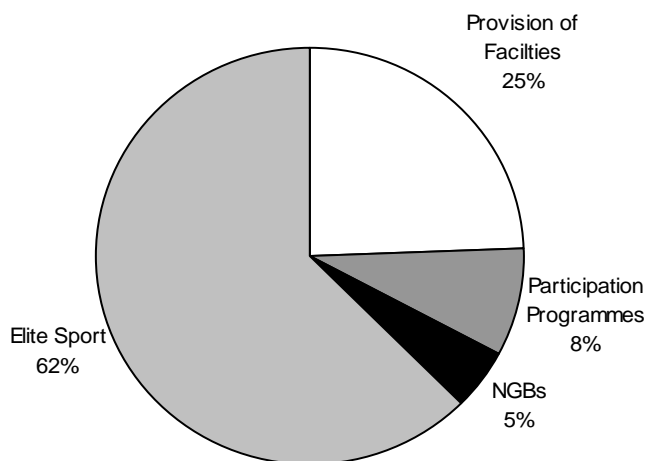
⁴ These range from well-known bodies, such as the Athletic Association of Ireland, to less well-known ones, such as the Irish Amateur Archery Association or the Irish Hang Gliding and Paragliding Association.

budget is allocated in a variety of grants to elite sportspeople and sporting organisations, most notably Grants Under High Performance and the International Carding Scheme.⁵

Having disaggregated the budget of the Irish Sports Council, it is now possible to combine the information contained in Figures 3 and 4 to produce a different kind of breakdown of public funding for sport in 2008. Making the assumption that the proportions of the Irish Sports Council's budget devoted to different types of scheme will not change greatly between 2007 and 2008, we can approximate, fairly accurately, the current state of play regarding the funding balance between elite and grassroots sport. The outcome is presented in Figure 5. "Provision of facilities" covers the SCP and LASPP. "Participation programmes" covers Local Sports Partnerships, the Irish Sports Council's targeted participation schemes and the Youth Field Sports Initiative. "NGBs" covers the grants to governing bodies other than the GAA, FAI and IRFU. "Elite Sport" covers the HGRF, funding of major venues and the Irish Sports Council's various schemes for elite sportspeople.

Figure 5 reveals that 62 per cent of the current sport budget goes to elite sport. A further 5 per cent goes to the NGBs and so a significant proportion of this is also spent on elite sport. The striking conclusion is that the level of public funding directed to elite sport in 2008 is very nearly twice that devoted to grassroots sport. Of the money that does go to the grassroots, the large majority is spent on facilities, such that there is a strong dependence on the provision of physical capital as the primary policy mechanism to encourage participation at a grassroots level.

Figure 5: Estimated Balance Between Funding for Elite and Grassroots Sport, 2008



⁵ This scheme supports Ireland's most talented sportspeople by providing access to a range of back-up services and direct assistance to meet international qualifying and competition criteria.

It is possible to construct an argument for or against this division of the sports budget, depending on one's point of view. If national prestige and benefits to spectators are valued more highly than the benefits of active participation or local participation (in all forms), then this allocation of funding can be justified. But, given that the strongest evidence-based justification for public investment in sport is the health benefits that accompany increased physical activity across the population, and given the emphasis placed on these benefits in the DAST statement of strategy, the currently high concentration of public support on elite sport, rather than grassroots sport, is clearly questionable.

4. Facilities v. People: Time for a Substitution?

The analysis in the last section shows that the large majority of the public money devoted to grassroots sport is invested in facilities. Indeed, over the last ten years, public investment in facilities via the Sports Capital Programme (SCP) amounts to almost half a billion euro. Funding under this scheme peaked in 2002, when over €80 million was given in grants for facilities. Adding the contribution of the Local Authority Swimming Pools Programme (LASPP), investment in facilities such as pitches, pools, changing rooms, halls, courts and clubhouses totals more than €600 million over the ten-year period. This level of central government funding for sports facilities is unprecedented. However, its effect on participation must be considered in the context of other providers of sporting facilities in recent decades, including local authorities, voluntary organisations, private ventures and, perhaps especially, educational institutions. As described in Lunn and Layte (2008), the three previous decades saw a very large expansion of the Irish education system, focusing on second-level between the 1960s and 1980 and on third-level thereafter (Coolahan, 1981). New institutions and higher enrolment were accompanied by considerable investment in and improved access to sporting facilities provided by the education sector.

This context is important because economic theory suggests that investment in facilities is likely to be subject to diminishing returns. That is, because the first facilities to be built are more likely to be those where the need is greatest, the increase in participation per euro spent on facilities is likely to fall over time. As the applications for the SCP are judged in a competition based on merit,⁶ this logic would be likely to apply to the SCP projects also.

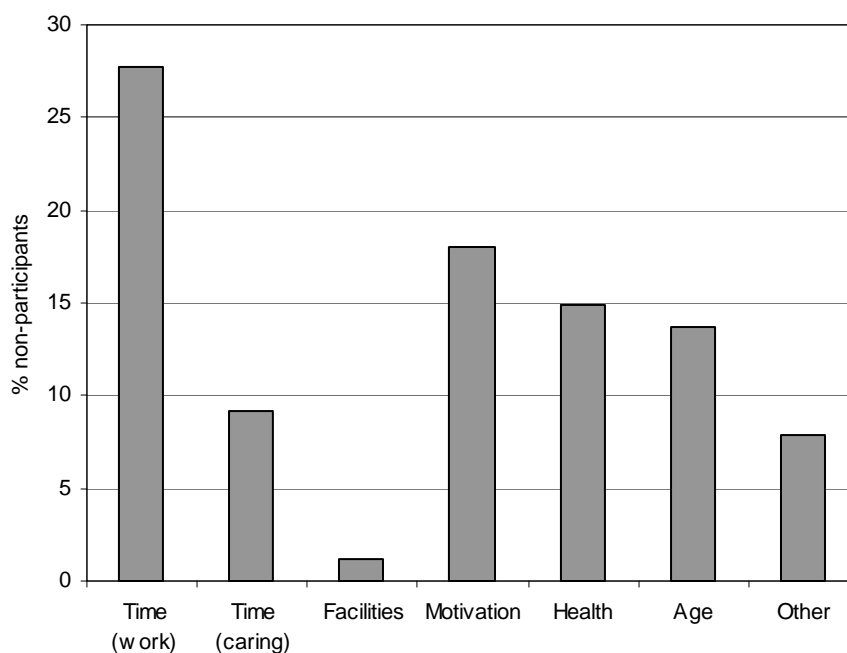
What does the evidence say about the demand for new or improved sporting facilities? Note that the key issue here is not whether there exist sports clubs and other organisations that want public money for facilities and apply to get it, which of course there are. The issue is whether there is unmet demand among the wider public, especially the non-participating public. Ideally, we would have data that allowed us to compare the relative demand for facilities over time; to test the diminishing returns hypothesis and to put the current level of demand in context. Such data is not available. However,

⁶ This assumption has been strongly questioned by Considine, Crowley, Foley and O'Connor (*forthcoming*), who find that for the period 1999-2007, the counties represented by the Minister for Arts, Sport and Tourism and the Minister for Finance did disproportionately well out of the SCP. However, this effect is unlikely to impact strongly on the logic of diminishing returns since, over the period of time in question, such inefficiencies in distribution tend to even out and, furthermore, the majority of applications countrywide would not be affected.

all three of the recent large-scale national surveys of sporting participation include questions that shed light on demand for facilities in recent years and presently. The SSPE in 2003 recorded that just 1 per cent of non-participants in sport cited lack of local facilities as the main reason for not participating (Fahey *et al.*, 2004). Time, motivation and health problems were the main reasons cited. Given the emphasis in sports policy on the provision of facilities, this finding may well have come as something of a surprise to policymakers.

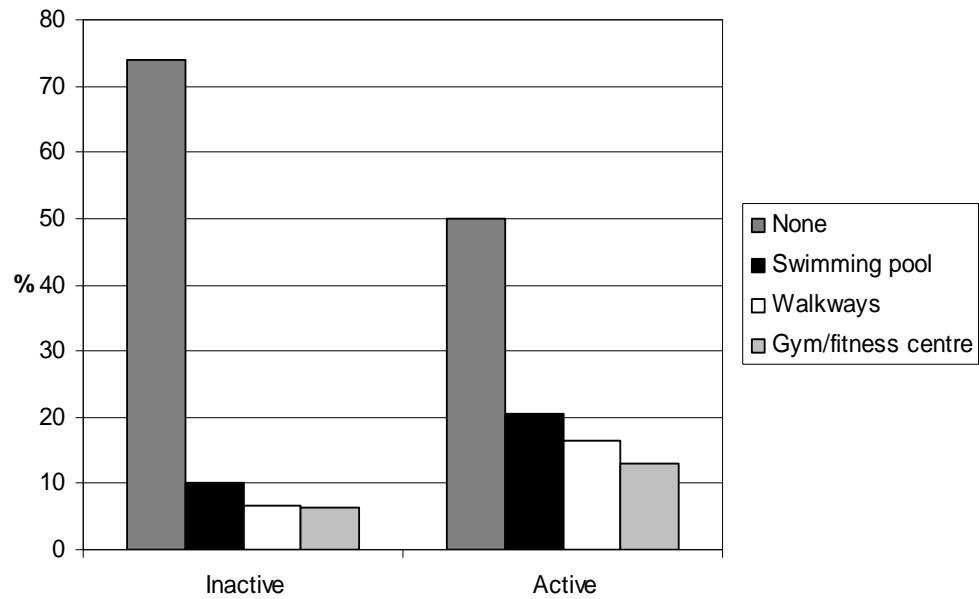
We now have evidence from two other national surveys involving even larger samples. Figure 6 charts the main reasons for non-participation as given by non-participants in the 2006 QNHS module. The pattern is strikingly similar to that found in the SSPE. These findings do not preclude the possibility that building more sporting facilities will increase the level of participation in sport, but they certainly suggest that there is not excess demand for sporting facilities waiting to be met.

Figure 6: Main Reason Given for Non-Participation in Sport and Exercise



Source: QNHS module on Sport and Physical Exercise, 2006.

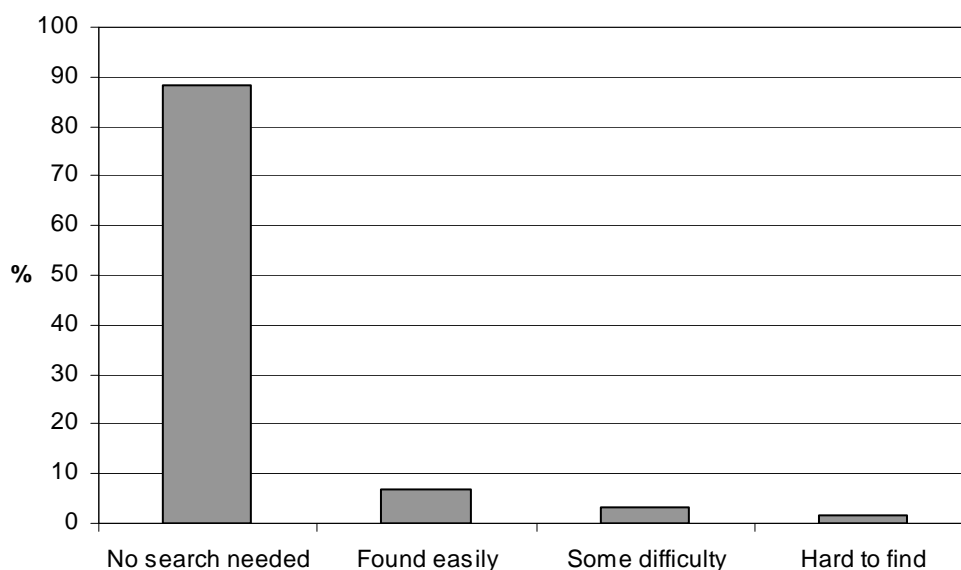
The QNHS survey also asked respondents whether the provision of certain specific facilities in their area might encourage them to participate, or to increase their levels of participation if they already played some sport. The answers are summarised in Figure 7. For nearly three-quarters of non-participants and half of participants, the provision of more facilities appears to be an irrelevancy. Where there is any measurable demand for facilities at all, it seems to be for swimming pools, places to walk and gyms/fitness centres. This offers a potential justification for the LASPP, as it suggests there may be some return to building more swimming pools. But its implications for the effectiveness of the much larger public investment via the SCP are uncomfortable, especially given the specific types of sporting facilities that it funds (see below).

Figure 7: Additional Facilities That Would Encourage More Participation

Source: QNHS module on Sport and Physical Exercise, 2006.

This analysis could be criticised on the grounds that the questions being asked of the respondents in these surveys are hypothetical – perhaps people do not really know what affects whether or not they participate in sport. A module designed for the 2007 *Irish Sports Monitor*, therefore, found a different way to approach the issue. The questionnaire asked those who participated in sport whether they had experienced any difficulty finding suitable local facilities at the time when they took their sport up. The answers are depicted in Figure 8. Very few people had any difficulty locating facilities where they could pursue their chosen sport.

Given these findings from three separate data sources, it seems very unlikely that the provision of more sporting facilities in Ireland will lead to a significant increase in the number of people playing sport. There may well have been a period during the last several decades when new and improved facilities did lead more people to play sport. We do not have historical data to confirm this, but the logic of diminishing returns implies it. Either way, evidence suggests the current return to investing in facilities is likely to be low. It is of course possible that those who get to play sport at improved facilities may enjoy the experience more, but if the greater aim is to increase levels of participation, alternative mechanisms for investing in sport need to be considered.

Figure 8: Difficulty Experienced by Participants in Finding Suitable Facilities

Source: Irish Sports Monitor, 2007.

Indeed, there is a large international research literature that addresses the question of which policy interventions are likely to lead to increases in participation. Given the size of this literature and the many different methods of policy evaluation involved, it is helpful to consult meta-analyses of the findings. At the national level, the Carter Report in the UK (Carter, 2005) looked at published evaluation of the policy frameworks employed by countries that have successfully raised the level of participation in sport over a sustained period, most notably Canada and Finland. The report noted two common aspects of their success: the constant monitoring of participation levels and the use of long-running public awareness campaigns to promote the benefits of sport and exercise. That said, at a national level, while it is possible to identify the policies common to a small number of successful nations, there is no guarantee that the rise in participation is caused by the policies.

To be more confident of the influence of policy, analysis needs to move to the measurement of outcomes before and after the introduction of specific policy interventions. A large scale meta-analysis of specific policy interventions was conducted by the Task Force on Community Preventive Services (2001), set up by the US Department of Health and Human Services. Although limited to research in the English language, this task force identified 94 high-quality studies that had reliably measured participation before and after the intervention. The task force concluded that there was evidence to support an impact on levels of participation for five types of policy intervention: increasing the amount of sport in school curricula, launching community-wide campaigns that mix organised events and marketing; organising sporting activities through new or pre-existing social groups; offering individually tailored physical activity programmes; and improving local facilities and access combined with outreach activities. Thus, the policy interventions it found to be measurably successful employed ongoing social contact or initial strong communication with potential

participants. Provision of facilities or opportunities in the absence of such communication was not effective.

Taking all of the Irish evidence on facilities in combination with the international evidence on successful policies, the strong reliance of sports policy on the provision of facilities is at odds with the evidence base. The primary barriers to involvement faced by non-participants are time, motivation and health. There appears to be very little demand among the wider public for extra sporting facilities. Solutions that have worked in other countries involve communication with non-participants, which may well help in tackling the barriers they face. In other words, the evidence suggests that successful policy to raise participation requires investment in human and social capital rather than physical capital – people and communication, not buildings and pitches.

Placing this conclusion in the context of the breakdown in public funding provided in Section 3, it is apparent that only a small fraction of the overall sport budget effectively targets new active participants. Even if one makes optimistic assumptions regarding the proportion of their budgets that NGBs spend on programmes to encourage and assist new participants to get involved, only around 10 per cent of the total sport budget is spent on schemes that the evidence base suggests are most likely to produce the highest returns in terms of increased participation. Furthermore, the evidence suggests that the proportion of the budget spent on facilities, which is more than twice the size, goes to those who already participate. Given the socio-economic profile of participants revealed in Lunn (2007), this transfer, much of which originates from the sale of lottery tickets, is likely to be substantially regressive.

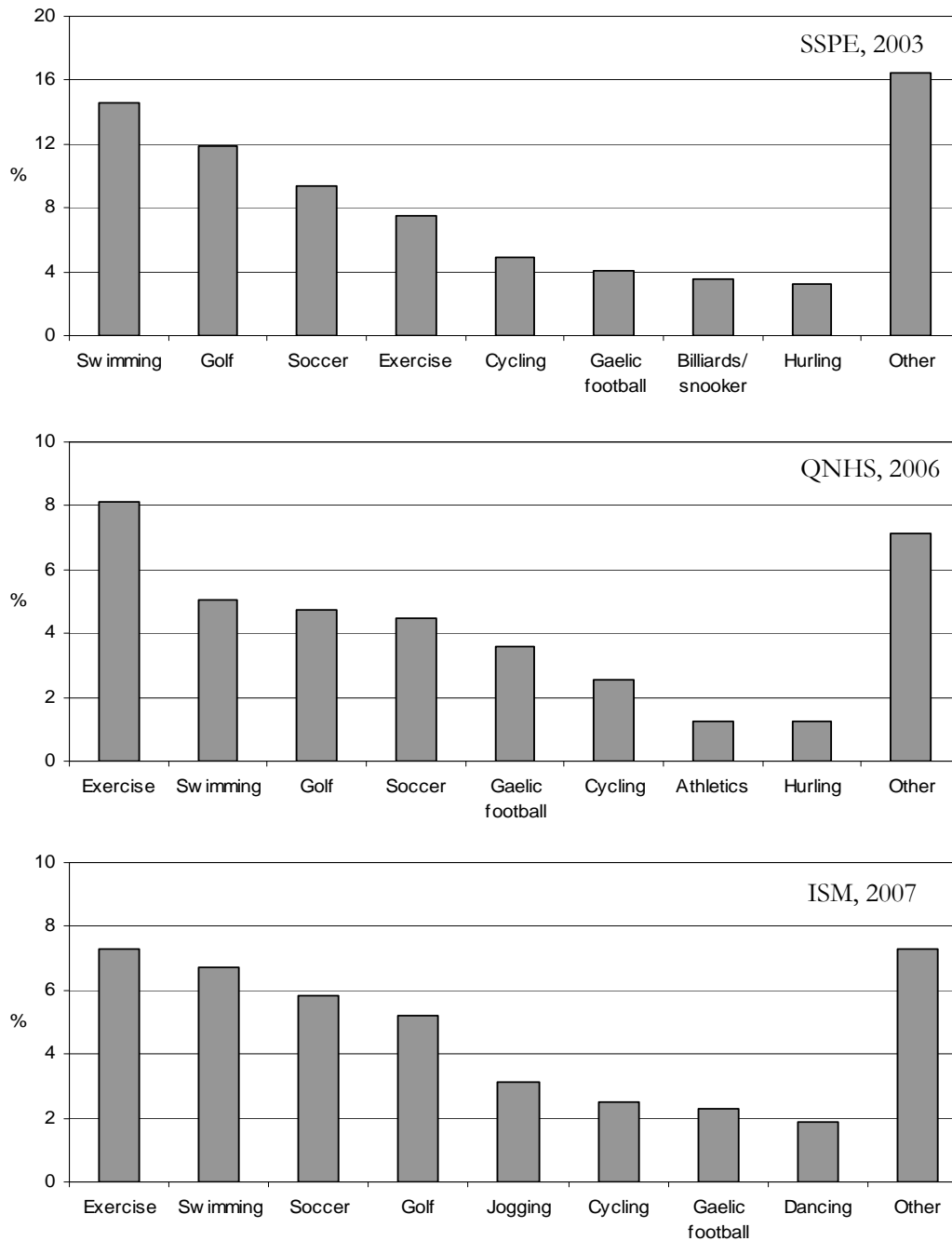
Part of the 10 per cent spent on participation programmes is allocated to the newly formed national network of Local Sports Partnerships (LSPs); county-level organisations that aim to coordinate local resources and marketing, so as to increase participation in sport. In principle, such organisations are the kind of policy mechanism that evidence suggests has the best chance of raising participation. A recent review of LSP performance (Fitzpatrick Associates, 2005) produced some encouraging findings in terms of levels of LSP activity and international precedents, but noted what a small fraction of the budget LSPs account for. Furthermore, a note of caution is warranted regarding LSPs. One role many of them have taken on is to help organisations in the preparation of application forms for grants under the SCP. From an individual club's point of view, this may appear helpful, but from a national perspective, this activity is almost certainly wasteful. Not only does it again prioritise the provision of facilities rather than programmes for increasing participation but, more importantly, the process of applying for SCP grants is a zero-sum game. If all areas improve the quality of applications then the same grants will be awarded at the cost of greater effort in preparing applications. If areas where greater effort goes in to applications for SCP grants actually do receive a higher level of funding, then facilities are allocated not on the basis of need but on the basis of where LSPs assist applicants (although the DAST review of LSPs concluded in 2005 that such assistance did not, in any case, seem to increase levels of funding). LSPs will be more effective if they devote resources to providing alternative and evidence-based programmes for increasing participation, rather than acting to reduce the efficiency of pre-existing national policies.

5. Sport v. Sport: Who Tops the Table?

The primary measure used to assess returns to investment in sport in the international literature and in this paper is the participation rate for playing: the proportion of people who actively participate in a given sport within a given time window. The measure has the particular advantage that it is easy to define and to measure with surveys. It also has a number of disadvantages. First, it measures only whether people have had an experience, not the quality of that experience. Second, it measures only whether people have taken part, not how frequently or how intensively they have taken part, both of which would be likely to impact upon associated health and social benefits. Third, by focusing on playing rather than volunteering, spectating or club membership, it is probably a better proxy for health benefits than for social benefits. On the other hand, where investment in sport improves only the quality of the sporting experience rather than the numbers who benefit from it, the participation rate remains an indication of how widely those benefits are distributed. Furthermore, increases in the participation rate for playing can be expected to be positively correlated with increases in other forms of participation. Thus, the level of participation is a very useful but somewhat limited proxy for measuring the benefits associated with investment in sport.

Moreover, the rate of participation for specific sporting activities is an important indicator of intrinsic popularity, while changes in the participation rate indicate whether the popularity of a specific activity is rising or falling. From the point of view of public investment, this is important information. To increase levels of participation requires either increasing the rate at which people take up sport, or decreasing the rate at which they drop out. Thus, to maximise participation, funding for each sporting activity should be influenced by the numbers who participate, because that is also the number of potential dropouts. Funding should also account for the likelihood of attracting new participants. The first of these is clearly easier to measure than the second.

Again, all three surveys of sporting participation offer information regarding the relative popularity of different activities. Figure 9 provides participation rates for the most popular eight sporting activities (excluding walking) in the SSPE 2003, QNHS 2006 and ISM 2007 surveys. Despite the differences in survey methodologies (see Figure 9 notes), a consistent picture emerges. The four most popular activities (exercise, swimming, golf and soccer) are the same for the four surveys. The biggest differences between the surveys surround the relative popularity of two particular activities: exercise (a category that includes going to the gym, “working out”, aerobics and keep-fit) and jogging (counted as athletics in the QNHS survey). Both appear to have increased in relative popularity since 2003.

Figure 9: Participation Rates for Top Eight Sporting Activities from Three Surveys*Notes:*

(1) 'Swimming' includes Aqua-aerobics; 'Golf' includes Pitch and Putt; 'Soccer' includes Five-a-side; 'Exercise' includes aerobics, keep-fit routines and going to the gym; 'Cycling' excludes cycling for transport; 'Athletics' includes jogging and cross-country; Walking is excluded; 'Dancing' was not included in the QNHS and SSPE surveys.

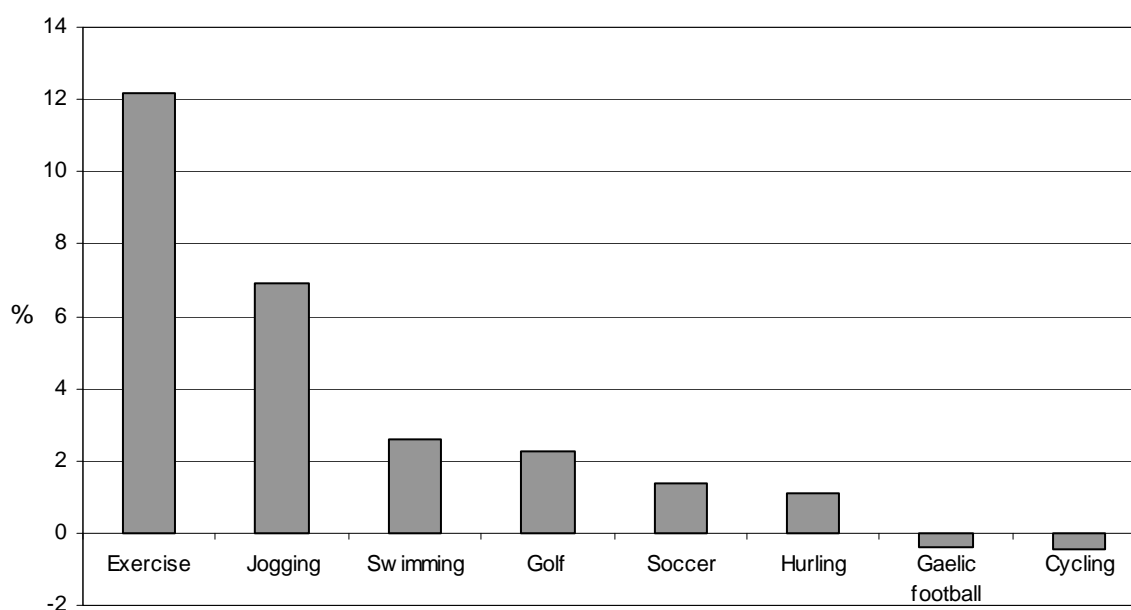
(2) Reference periods vary between surveys. For the SSPE and QNHS, respondents were asked about any sport played in the previous 12 months. For the ISM, the reference period was the previous 7 days, leading to lower participation rates. (Since the ISM interviews were conducted evenly throughout the year, this 7-day period does not introduce seasonal bias in the activities recorded.)

(3) Lower participation rates for the QNHS arise because the figures refer only to people's "main sporting activity". The other two surveys allowed individual's to be counted in the participation rate for more than one sport.

(4) The SSPE sample is adults aged 18-plus, QNHS adults 15-plus and ISM adults 16-plus.

Lunn and Layte (2008) conducted further analysis on trends in participation, employing a particular section of the SSPE 2003 survey, which collected information about individual sporting histories. Respondents were asked about any sporting activities they used to participate in regularly, including when they started the activity and when they stopped. From this information, individual sporting histories were constructed that allowed the effective reconstruction of the recent history of grassroots sporting participation over several decades. (For detail on the methodology and associated problems and controls, see especially Lunn and Layte, 2008, pages 5–9). Surprisingly, strong trends in participation emerge from this analysis, which are summarised in Figure 10.

Figure 10: Mean Annual Participation Growth for Adults (Age 20-39 Years) 1984-2003

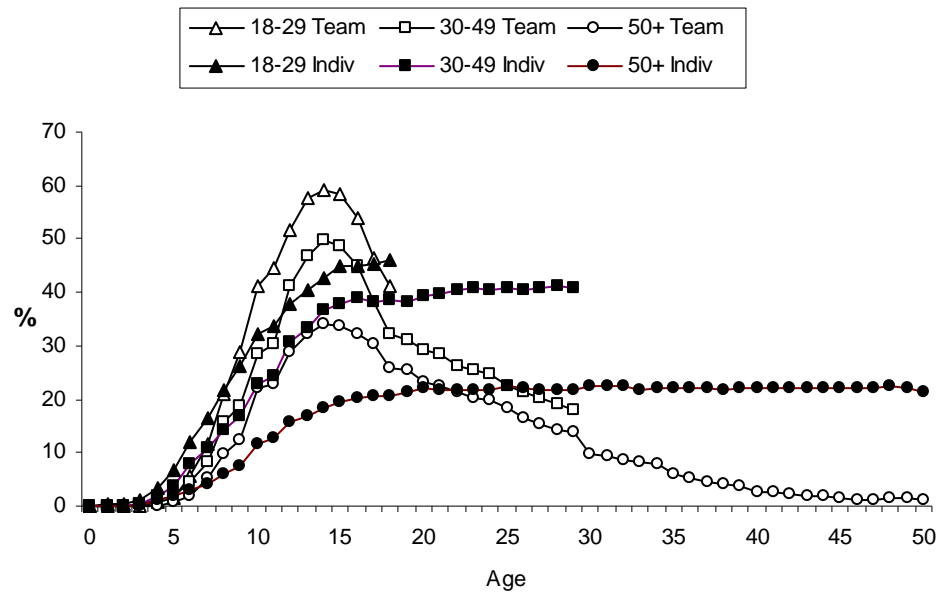


Source: SSPE, 2003 (Lunn and Layte, 2008).

Growth in exercise activities and jogging far outstrips that in other sporting activities. From the perspective of consistency between the surveys, this result is pleasing, as a continuation of these trends explains the changes in relative popularity recorded across the different surveys. There are two other notable aspects to the trends identified. First, participation in sport is rising. Second, it is rising much faster for individual sport and exercise activities than for traditional team sports. Broadly similar trends were also found for children's sport, although the traditional team sports generally account for a larger proportion of children's participation.

Greater insight into the forces of change at work here can be had by looking at how participation in sport varies across the life course. Lunn and Layte (2008) compared the individual sporting histories collected in the SSPE 2003 by cohort, separately for team and individual sports. Figure 11 plots participation rates for three cohorts in the two types of sport across the life course.

Figure 11: Participation Rates for Team and Individual Sport Across the Life-course by Cohort



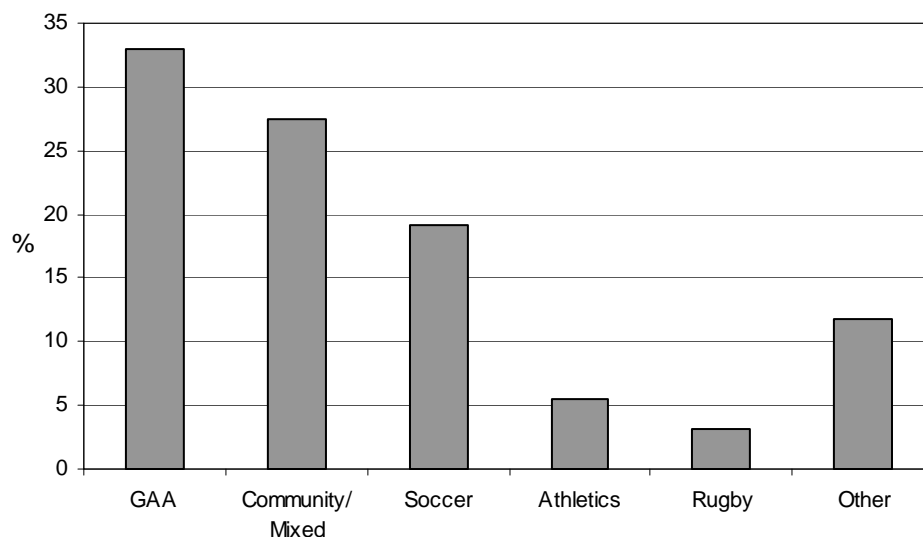
Source: SSPE, 2003 (Lunn and Layte, 2008).

This analysis provides a striking illustration of the trends in participation in grassroots Irish sport. The most recent cohort of young adults is playing considerably more sport, but while participation is generally increasing, it is doing so much more quickly for individual sports. Moreover, as people progress through adulthood, the likelihood that they play a team sport drops rapidly, while the likelihood that they play an individual sport remains fairly constant. From this analysis, Lunn and Layte (2008) calculate that marginally more children play team sports than individual sports, but the gap is not wide and is narrowing, while over three-quarters of all adult sport (over 18 years) consists of individual sporting activity and this proportion is increasing further. Multivariate modelling of the rates of take-up and drop-out from adult sport reveal that those who play team sports are over four times more likely to drop out from sport than those who play individual sports. The differential in the rate of take-up of individual versus team sports is too large to measure accurately, as beyond the age of 20 so few adults take up a team sport.

How does public support for different grassroots sporting activities compare with this picture of participation rates and how they are changing? We know from the break down of the Irish Sports Council budget in Figure 4 that the three main NGBs for traditional team sports attract considerably more funding than the NGBs for other sporting activities. But the greater part of the budget allocated to grassroots sport is via the SCP. Figure 12 shows a detailed distribution of grants under the SCP for the period 1999-2002, which was compiled for the SCP expenditure review (Department of Arts, Sport and Tourism, undated). It is not possible to determine precisely which sports benefited from the grants for Community/Mixed use facilities, although many of them were for community halls that could be used for a variety of purposes and the usage of which may have in any case changed since the grant was awarded. For this period, the greatest beneficiaries of the

SCP by some distance were GAA clubs. The main team sports (Gaelic football, hurling, soccer, rugby) accounted for 55 per cent of all grants.

Figure 12: SCP Funding for Specific Activities 1999-2002



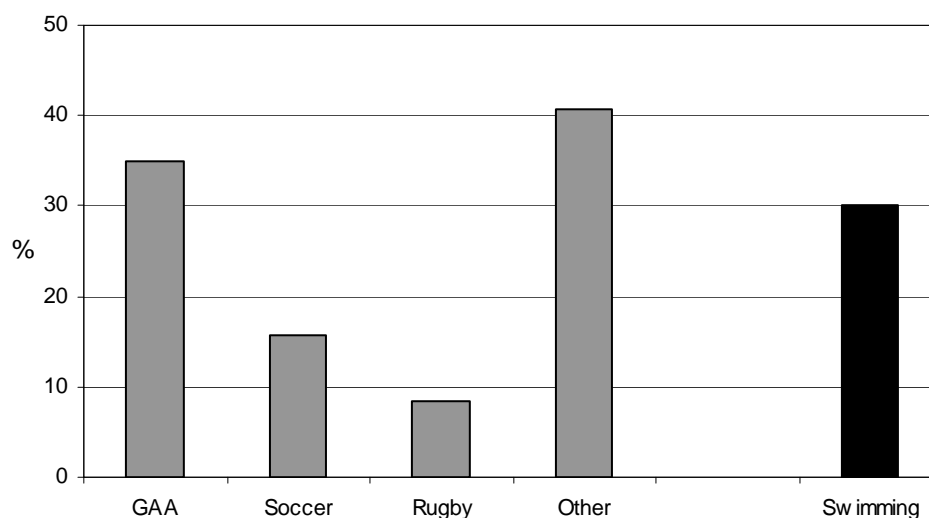
Source: Sports Capital Programme Expenditure Review 1999-2002 , p.33.

For more recent periods, it is difficult to produce the equivalent analysis, but possible to approximate it. The SCP grants awarded by DAST in 2007 and 2008 amount to just over €135 million. They are broken down in Figure 13, which also includes the investment for these years in swimming pools, expressed as a percentage of the total SCP grants. The analysis differs slightly from Figure 12, because without access to individual grant applications, it is difficult to produce accurate figures for grants to Community/Mixed use or Athletics, as it can be unclear simply from the recipient of the grant what sporting activity is benefiting. The predominance of GAA clubs in receiving grants is greater still than for the previous period, opening up a more substantial gap with soccer. Meanwhile, the main team sports have also marginally increased their share of grants further, to just under 60 per cent of all grants.

The logic of the current pattern of public investment across different sporting activities is hence difficult to fathom. Levels of funding seem to be dictated not by estimates of participation levels and trends but by other concerns. Although soccer and swimming are faster growing and more popular sports than Gaelic games, they receive less in the way of funding. More generally, Gaelic games, soccer and rugby dominate as recipients of public funding, both via the Irish Sports Council and the SCP. It is true that children are marginally more likely to play team sports than individual ones, but the gap is not large and those who play team sports are very much more likely to drop out from sport altogether as young adults. Furthermore, these team sports have a particularly strong gender bias – the gap in participation between males and females is much larger than for most sports. Lastly, many adults take up individual sports and almost none take up team sports, such that adults as a whole play almost three times as much individual sport as team sport. If the aim of public investment in sport is to increase

participation, it is appears to be difficult to justify the current distribution across different activities.

Figure 13: SCP Grants for Specific Sporting Activities, 2007 and 2008



Source: DAST, SCP grants 2007 and 2008; Department of Finance, Revised Estimates for Public Services, 2008.

It could be argued that the distribution of funding reflects not only the health benefits that might accrue to players, but also the social benefits that accompany volunteering, club membership and attendance at fixtures. Levels of non-active participation in Gaelic games are higher than in other sports (Lunn, Layte and Watson, forthcoming) and the GAA has an unparalleled degree of social organisation that other sports might aspire to (Delaney and Fahey, 2005). More generally, team sport accounts for the large majority of spectating. However, even if one accords social participation in sport the same value as active participation, a position not easily accommodated by available evidence, the disparity in funding between the GAA and all other sports, and between the main team sports (Gaelic games, soccer and rugby) and the rest, is far wider than can be justified by participation rates.

Another argument that could be made in favour of the present relative funding levels is that team games played when young lead to higher levels of sporting activity in later life. However, multivariate analysis of the sporting life-course does not confirm this hypothesis. Those who play only team sports as young adults are some four to seven times more likely to drop out from sport altogether as young adults (Lunn and Layte, 2008).

A similar case that might be made for the funding bias in favour of Gaelic games is that for cultural or historical reasons these sports are entitled to special treatment. This argument is difficult to evaluate without a concrete idea of the supposed benefits concerned, which are not included as a goal of policy in the DAST strategy.

A final argument that could be advanced is that there is some benefit associated with team sports that does not apply to individual sports. It is sometimes said that the cooperation and camaraderie involved in team sports is character building, or confers some other psychological benefit or lasting lesson in life. Yet it is also possible to make the opposite case. The degree of

active participation in team sports can vary across the team, with the better players getting the lion's share of the play and a number of people participating primarily as substitutes. The problem with these arguments is that they are speculative. They are no foundation for evidence-based policy.

More straightforwardly, whatever basis determines funding should be explicit. As things stand, the DAST strategy states clearly that the aim of policy is healthier lifestyles and improved quality of life. Given the evidence presented here, it is difficult to reconcile this aim with the present funding allocation across different sports.

6. Conclusions

The analysis presented here has questioned whether the current allocation of public investment in sport produces the desired returns, in terms of the potential benefits associated with participation. Evidence supports the stated justification for public investment in sport, namely the health and social benefits of participation, especially with respect to the health benefits of active participation. However, three specific research questions were raised regarding whether the current allocation is likely to capture these benefits. Each was addressed using the available evidence.

First, current policy devotes almost twice the amount of public money to elite sport it devotes to grassroots sport. This places a very high emphasis on the social benefits associated with spectating and with national pride in the achievements of top players. It is hard to see how these benefits can be judged to be greater than the health and social benefits associated with mass participation, both active and non-active.

Second, of the funding that is allocated to grassroots sport, the large majority is spent on facilities. Empirical evidence, on the other hand, suggests that there is little demand among the wider public for more facilities and that provision of more facilities is not the best way to increase levels of participation. There is a strong case for moving away from the provision of physical capital to funding the human and social capital associated with sport. International evidence suggests that communication with non-participants (through for example the organisation and marketing of events, targeted programmes and new opportunities) is more likely to raise levels of participation.

Third, by far the biggest share of public investment goes to traditional team sports, especially Gaelic games. Yet these are not the most popular sports, nor the fastest growing, and they suffer from very high rates of dropout in early adulthood compared with individual sporting activities, many of which receive little or no public support. It is not at all clear what rationale is responsible for this distribution of funds, which is not in keeping with the stated aims of policy.

If the primary aim of sports policy is to capture the benefits of sport for the wider public, these three balances within the allocation of public spending on sport need to be re-examined.

To a degree, however, the current situation whereby policy is at odds with the evidence base is not surprising. Although the level of funding for sport has increased dramatically over the past ten years, the policy mechanisms it supports have not. Moreover, much of the research is relatively new and it

takes time to absorb and respond to the messages it contains. The information and insights of this new research have resulted from sports policy itself, which specifically set out to learn more about sporting activity in Ireland when it established the Irish Sports Council and gave it the duty of carrying out such investigation.

Nevertheless, the picture provided by the research findings is now consistent across several large-scale surveys and is also in keeping with international evidence. There is, therefore, a strong argument for revisiting the fundamental basis for public investment in sport and bringing policy more into line with its evidence base and stated aims. It is up to policy-makers whether and how they choose to respond.

REFERENCES

- CARTER, P., 2005. *Review of National Sport Effort and Resources*. Report for HM Treasury and The Department of Culture, Media and Sport, London, UK.
- CENTRAL STATISTICS OFFICE, 2007. *Quarterly National Household Survey, Sport and Physical Exercise*, Quarter 3 2006. Statistical Release, 14 December 2007.
- CONSIDINE, J., F. CROWLEY, S. FOLEY and M. O'CONNOR (forthcoming). "Irish National Lottery Sports Capital Grant Applications 1999-2007: Natural Experiments on Political Influence", *Economic Affairs*.
- COOLAHAN, J., 1981. *Irish Education: history and structure*. Dublin: Institute of Public Administration.
- DEPARTMENT OF ARTS, SPORT AND TOURISM, undated. *Sport Capital Programme 1999-2002 Spending Review*, Dublin: Department of Arts, Sport and Tourism.
- DEPARTMENT OF FINANCE, 2008. *Revised Estimates for Public Services 2008*. Dublin: Department of Finance.
- DELANEY, L. and T. FAHEY, 2005. *Social and Economic Value of Sport in Ireland*, Books and Monographs, No. 180, Dublin: The Economic and Social Research Institute.
- FAHEY T., L. DELANEY, 2006. "State Financial Support for Horse Racing in Ireland" in T. Callan (ed.), *Budget Perspectives 2007*, Dublin: The Economic and Social Research Institute.
- FAHEY T., R. LAYTE and B. GANNON, 2004. *Sports Participation and Health Among Adults in Ireland*, Books and Monographs, No. 178. Dublin: The Economic and Social Research Institute.
- FAHEY T., L. DELANEY and B. GANNON, 2005. *School Children and Sport in Ireland*. Books and Monographs, No. 182, Dublin: The Economic and Social Research Institute.
- FITZPATRICK ASSOCIATES, 2005. *Review of the Local Sports Partnerships*, Dublin: Department of Arts, Sport and Tourism.
- IRISH SPORTS COUNCIL, 2005. *Report and Financial Statements*. Dublin: Irish Sports Council.
- JENKINSON, C. and H. MCGEE, 1998. *Health Status Measurement: A Brief But Critical Introduction*. Oxford: Radcliffe Medical Press.
- LISTON, K., 2007. "A Question of Sport" in S. O'Sullivan *et al.* (eds.), *Contemporary Ireland: A Sociological Map*, Dublin: University College Dublin Press.
- LUNN, P., 2007. *Fair Play? Sport and Social Disadvantage in Ireland*, Dublin: The Economic and Social Research Institute.

- LUNN, P. and R. LAYTE, 2008. *Sporting Lives: An Analysis of A Lifetime of Irish Sport*, ESRI Research Series, No. 2. Dublin: The Economic and Social Research Institute.
- LUNN, P., R. LAYTE and D. WATSON (*forthcoming*). *The Irish Sports Monitor: First Annual Report, 2007*. Dublin: The Irish Sports Council/ESRI.
- US DEPARTMENT OF HEALTH AND HUMAN SERVICES, 1996. *Physical Activity and Health. A Report for the US Surgeon General*. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion.
- WORLD HEALTH ORGANISATION, EUROPE, 2005. *The European Health Report 2005: Public Health Action for Healthier Children and Populations*, Copenhagen: WHO Regional Office for Europe.

