



SPORT AND RECREATIONAL EXERCISE AMONG ADULTS (AGED 16+) IN TIPPERARY, 2007-2009

Dr. Elish Kelly & Dr. Pete Lunn
Economic and Social Research Institute (ESRI)

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SUMMARY

- Between 2007 and 2009, 28% of adults surveyed in Tipperary actively participated in sport or recreational exercise during the previous week
- This level of active participation is lower than the national figure of 33%, due to the relatively low proportion of men who play sport (28% versus 39% nationally)
- 28% of women also actively participate, similar to the national figure
- Women are most likely to participate in swimming (8.8%), personal exercise (6.1%) and jogging (5.7%)
- Men are most likely to participate in golf (5.5%), soccer (5.5%) and swimming (4.8%)
- Among men, only one sport, hurling, has a higher participation rate in the area than nationally (3.5% versus 2.3%)
- Those with educational attainment below Leaving Certificate are less likely to play sport
- Current students are no more likely to play than non-students, implying little sporting benefit to current attendance at school or college
- Those in higher occupations (e.g. professionals/managers) are much more likely to play sport
- People generally become less likely to play sport with age but, for any given age, more likely to play sport if their children are older
- Being in a professional occupation instead of a skilled manual occupation has the same impact on the likelihood of playing sport as being 25 years younger
- Rates of recreational walking (57%), walking for transport (50%) and cycling for transport (9%) are in line with national figures
- 20% of people are effectively sedentary, but the proportion is considerably greater in North (24%) than South Tipperary (15%)
- This discrepancy is caused by fewer people walking and cycling for transport in North Tipperary

Policy Implications:

- It is possible that the focus on hurling negatively affects overall male participation, such that policymakers might consider how to promote a broader range of activities without damaging the hurling tradition
- Participation programmes need to target lower socio-economic groups
- Sports policymakers and sports clubs in North Tipperary might try to raise awareness about generally low levels of physical activity in the county

1. INTRODUCTION

A body of international evidence demonstrates that our level of physical activity is linked to our chances of developing chronic life-threatening conditions, including heart disease, various cancers, stroke, diabetes and osteoporosis. Because sport and recreational exercise form a substantial part of overall physical activity, their successful promotion has become a worldwide policy aim. Yet much of the policy initiative must be local.

This report provides evidence relating to the sport and recreational exercise activity of adults (aged 16 and over) in North and South Tipperary. The analysis aims to be of interest and assistance to those involved in the promotion of sport and exercise in these areas, from councils and local sports partnerships, to individual participants and volunteers.

The results are based on telephone interviews with 1,006 adults conducted over three years (2007-2009), as part of the national *Irish Sports Monitor* (ISM), which is a survey conducted by the Economic and Social Research Institute (ESRI) on behalf of the Irish Sports Council (ISC). The ISM asks interviewees about sporting activity undertaken in the previous 7 days. Like all social surveys, the ISM has limitations. In particular, some groups are easier to reach on home telephones than others (e.g. non-working individuals compared to employees). Thus, to counteract any potential bias arising, the data are re-weighted to match the population characteristics of Tipperary, as recorded by the Central Statistics Office (CSO). Further details of the aims and methodology of the ISM can be found in ISM Annual Reports (available at www.irishsportsCouncil.ie and www.esri.ie).

The primary justification for public investment in sport is to increase physical activity and hence to improve health. Consistent with this aim (and the *Irish Sports Council Act, 1999*), the report defines “sport” broadly, to include recreational exercise (e.g. swimming, gym, dance classes), as well as field games (e.g. soccer, Gaelic football). The ISM also records recreational walking, walking as a mode of transport and cycling for transport, allowing sport to be set in the context of more general physical activity.

In this report, most charts and tables show percentage participation rates in a given activity by a particular group (e.g. the percentage of women who play team sport). However, reporting simple participation rates like this can be misleading. For example, young adults are more likely to play sport than older ones. This may mean that age reduces the tendency to play. But, on average, younger adults have higher educational attainment – a factor that is also strongly linked to participation. So, is age or education the crucial influence? To answer such questions, the analysis uses multivariate statistical techniques that can identify the individual impact of a given characteristic (e.g. gender, age, educational attainment, income, residential location, etc.) while simultaneously controlling for other background characteristics that can affect participation in sport. Thus, where displaying simple participation rates might mislead, the output of a multivariate statistical model is also provided.

2. RESULTS

2.1 OVERALL PHYSICAL ACTIVITY

In order to place active participation in sport in context, Table 1 provides a summary of overall physical activity in Tipperary, together with equivalent national figures. Based on Census 2006, the 28% rate for active participation in sport translates into approximately 32,000 adults playing regular sport in Tipperary.¹ Nevertheless, the figure is on the low side compared to the national participation rate. This discrepancy is partly explained by demographics. The county has a relatively high proportion of older people, who tend to play less sport. Once demographic differences are accounted for, however, the active participation rate remains a little lower than it is nationally.

Table 1: Summary of physical activity

Activity	%	National %
Played sport in previous 7 days	28	33
Walked for recreation in previous 7 days	57	59
Regularly walks for transport	50	46
Regularly cycles for transport	9	11
Sedentary	20	17

Comparing Tipperary North and Tipperary South, there are no statistically significant differences with respect to the numbers playing sport or undertaking recreational walks. However, a substantially smaller proportion of people walk and cycle for transport in Tipperary North, leading to a clear difference in the rates of sedentarism between the two areas of 15% (South) versus 24% (North). Given the national figure of 17%, the rate of sedentarism in North Tipperary can be considered high.

2.2 ACTIVE PARTICIPATION BY GENDER

The ISM data for Tipperary produce a very striking result that stands out with respect to the rest of Ireland. Data on active participation generally show a marked gender gap, with men playing significantly more sport than women. At the national level, active participation rates for 2007-2009 are 40% and 26% for males and females respectively. In Tipperary, however, the active participation rate for both men and women is 28%. For women, the two percentage point difference between participation in Tipperary and participation nationally does not reach statistical significance. Men, on the other hand, are substantially and significantly less likely to play sport in

¹ This figure is approximate. Given the impact of the recession, the population may have varied significantly during the 2007-2009 period.

Tipperary than in the rest of Ireland. Because of the unusual nature of this result, we analyse it in some detail in this section.

Table 2 lists the most popular sporting activities undertaken in Tipperary, for all adults and separately by gender. Only activities with a recorded participation rate of at least 1% are listed. Given the sample of 1,006, the percentage figures should be regarded as indicative rather than precise – the figures could vary by 1-2 percentage points either way.

Table 2. Most popular sporting activities²

All		Male		Female	
	%		%		%
Swimming	6.8	Golf	5.5	Swimming	8.8
Exercise	4.7	Soccer	5.5	Exercise	6.1
Jogging	4.2	Swimming	4.8	Jogging	5.7
Golf	3.5	Hurling	3.4	Dancing	2.6
Soccer	2.9	Exercise	3.3	Horse riding	1.6
Hurling/camogie	1.7	Jogging	2.7	Cycling	1.5
Cycling	1.5	Gaelic football	1.9	Golf	1.4
Dancing	1.5	Rugby	1.8	Tennis	1.1
Rugby	1.3	Cycling	1.5		
Gaelic football	1.2				
Horse riding	1.1				
Athletics	1.0				

Overall, the top two sports are swimming and personal exercise.³ This matches the national picture, but after these two activities the data for Tipperary depart from the national pattern. Soccer, which is overwhelmingly played by males, is far less popular than in the rest of the country. The 5.5% of males who had played soccer during the previous seven days in Tipperary compares to 10.7% nationwide. Yet this much lower rate of playing soccer is not compensated for by higher participation in other activities. In fact, male participation is recorded as lower than the national figure in every sport except hurling (although participation in rugby is close to the national figure). The pattern of female activity, on the other hand, is much closer to that recorded nationally, with individual sporting activities dominating and a particularly high precedence of jogging.

That hurling emerges as the one male sport with relatively high participation among males (3.4% vs. 2.3% nationally) may be suggestive. Nationally, hurling is less popular than soccer and Gaelic football, very much so in the

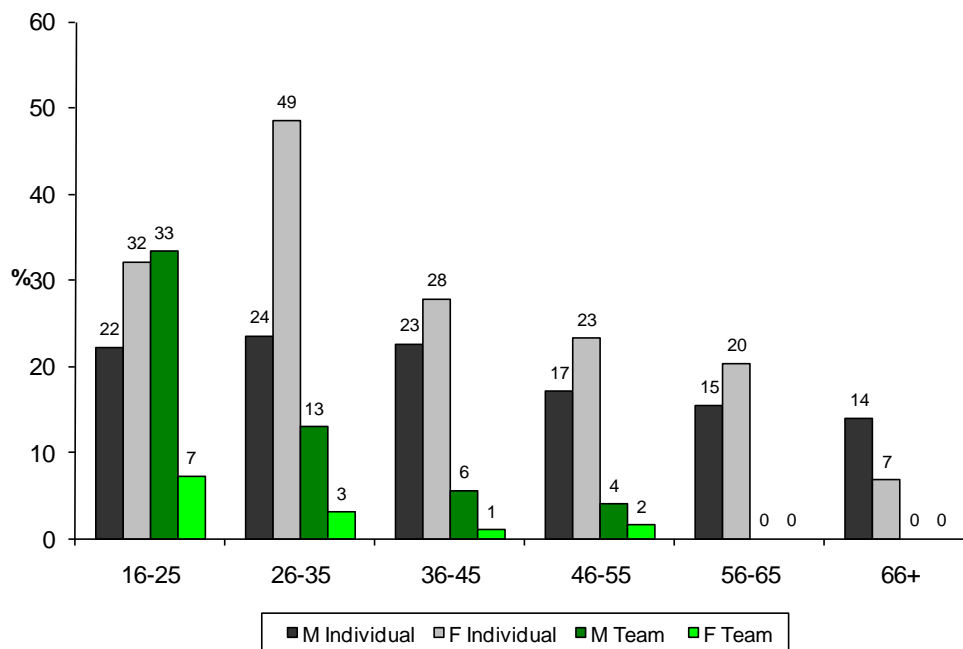
² From this point onwards, all results presented are for Tipperary only, although some national figures are cited in the text. Readers interested in precise comparative national figures should consult the ISM Annual Reports, available at www.irishsportsCouncil.ie and www.esri.ie.

³ This category includes various forms of personal exercise, including going to the gym, “working out”, doing exercise routines at home, as well as attending exercise, aerobics or keep-fit classes.

case of soccer. One possibility, then, is that emphasis on a sport for which the county is renowned, hurling, attracts more individuals to play hurling, but that the lesser emphasis on soccer and Gaelic football reduces participation in these activities by a greater extent. This is only a hypothesis, however, and one which we have no way to test.

In any case, the lower participation of males is not confined to team sports. Figure 1 shows rates of participation in both team and individual sports by age for males and females. The national pattern is that men are much more likely to play team sports, while the gender gap is narrow for individual sports, with men still marginally more likely to play. In Tipperary, while there remains a large gender gap in team sports among young adults (although the participation rates for males are below national figures), women are considerably more likely to engage in individual sports at all ages.

Figure 1: Active participation in individual and team sports by gender and age



To further examine these gender differences, it is important to control for other background characteristics associated with males and females. For instance, younger women in particular tend to have higher levels of educational attainment. This difference, and other factors associated with gender, could in principle affect the results. Thus, in order to be confident that the gender pattern recorded in Tipperary is statistically robust, we tested for gender differences in the likelihood of playing sport using a multivariate statistical model that controlled for age, educational attainment, marital status, presence of children, residential location, health status, occupation and income. We can find no statistically significant difference in the likelihood of active participation in sport of men and women, once we have controlled for all these background

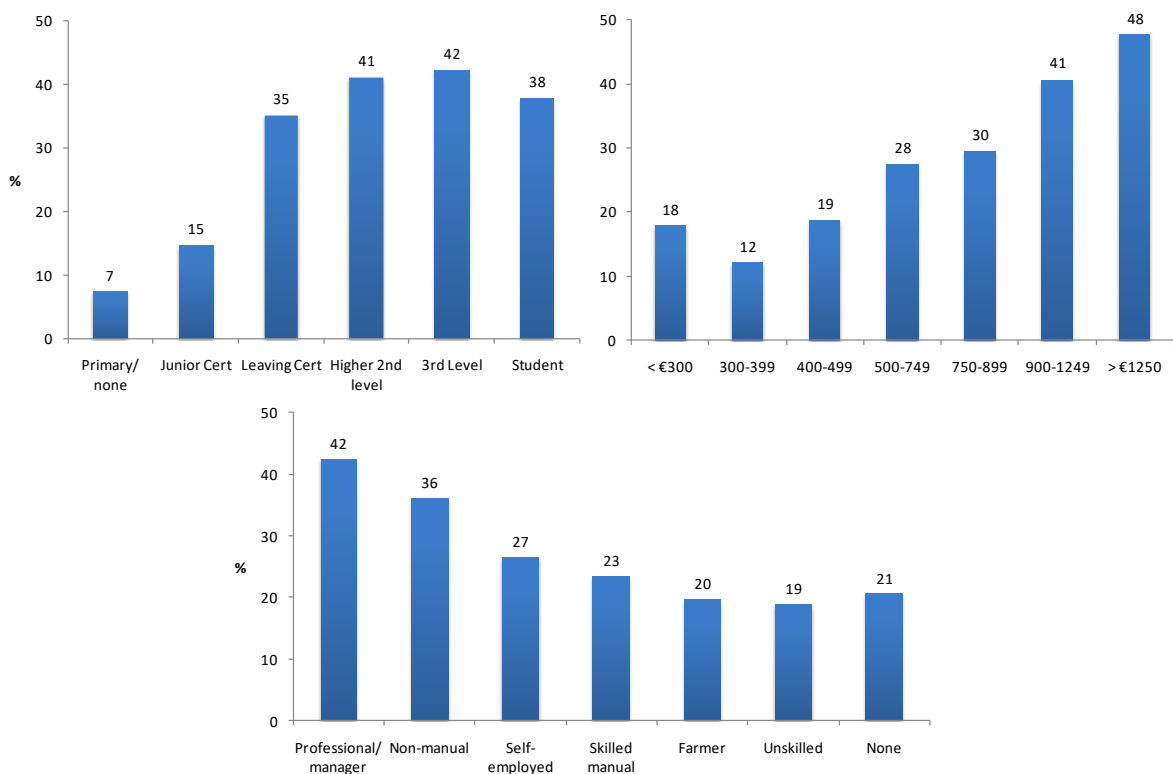
characteristics. The only difference surrounds the types of activity, with younger men being more inclined towards team sports.

2.3 SOCIO-ECONOMIC STATUS AND ACTIVE PARTICIPATION

The multivariate statistical model identifies a number of statistically significant influences on the likelihood that an individual plays sport. These are age, educational attainment, occupation, marital status, presence of children and health. There is no significant impact of gender, residential location (i.e. whether an individual lives in a town, village or isolated location), access to a car, or living specifically in North or South Tipperary.

Figure 2 shows that there is a strong relationship between the likelihood of playing sport and socio-economic status. Individuals with higher educational attainment, higher income⁴ or who work in higher skilled occupations are very much more likely to play sport.

Figure 2: Participation in sport by educational attainment (top left), weekly household income (top right) and occupation (bottom)



These results are not easy to interpret, however, because educational attainment, income and occupation are all themselves related, i.e. more

⁴ Income here is measured as weekly household income after tax

educated people tend also to have higher earnings and to work more skilled occupations. Consequently, it is unclear what is really driving the relationship between active participation and socio-economic status. Using a multivariate statistical model makes it possible to disentangle the effects. For instance, the model can compare the likelihood of participation across people with the *same* income and occupation (and other background characteristics), but *different* educational attainment. In other words, it makes it possible to compare like with like.

Figure 3 shows the results when this method is used to isolate the impact of educational attainment. For illustrative purposes, we use the model to estimate predicted participation rates for a “typical” adult in Tipperary. Our hypothetical individual is male, 42 years old, in a skilled manual occupation, married with children and healthy.⁵ We allow only educational attainment to vary. Hence, Figure 3 reveals what happens when people with otherwise similar characteristics differ in terms only of educational attainment.

Figure 3: Predicted participation rates for typical individual with differing levels of educational attainment

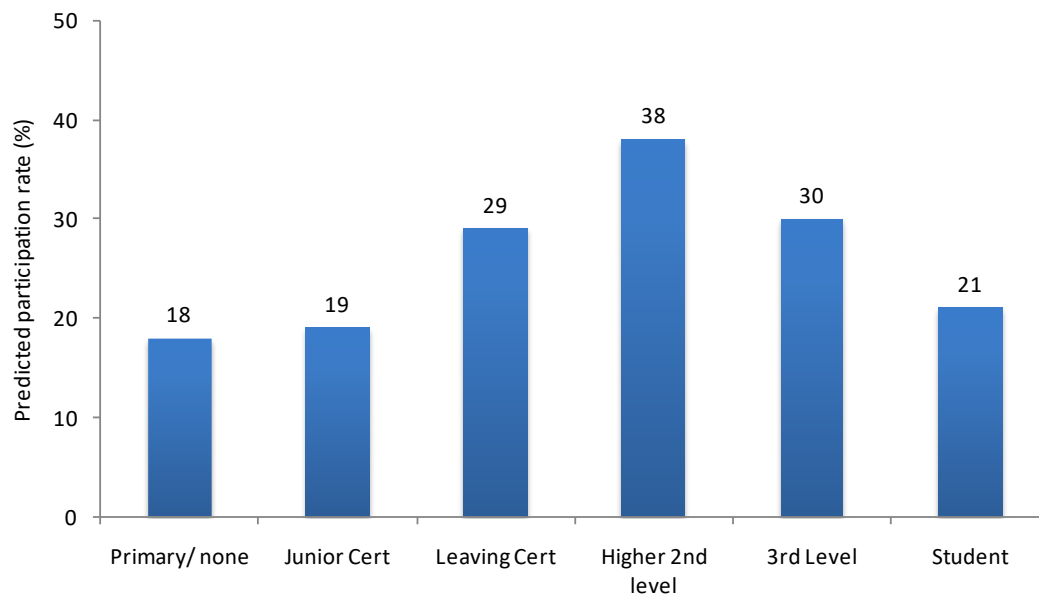


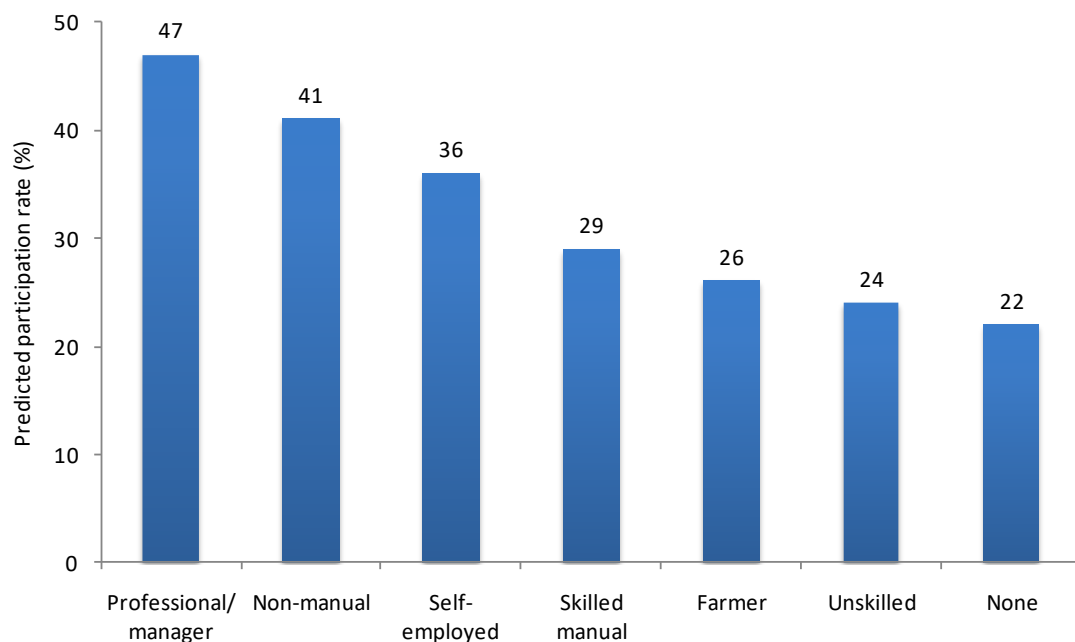
Figure 3 confirms that educational attainment is a powerful influence on whether an individual plays sport. But two aspects of the chart warrant further comment. First, there is no additional likelihood of participation associated with having third-level education, over and above obtaining second-level

⁵ This typical individual is derived from a combination of Census 2006 and the ISM data. In effect, it is an individual with median characteristics on all dimensions. The differences between males and females are non-significant, so all results given apply equally to men and women.

qualifications.⁶ Second, the predicted participation rate associated with being a current student is surprisingly low. Neither of these results is typical of the rest of the country, where there is generally a sporting benefit to having third-level education and a particular benefit to being a current student. The suggestion here is that being at school or college seems to provide less of a boost to the likelihood of playing sport in Tipperary than it does elsewhere. Only low educational attainment (i.e. those with a Junior Certificate or less) is linked to the likelihood of active participation in sport in Tipperary.

Figure 4 replicates the multivariate analysis for occupation. The typical individual has the same characteristics as before, except that this time educational attainment is now fixed at Leaving Cert level, and occupation only is allowed to vary. The results show that occupation has a very strong impact on active participation. Those in higher occupations are much more likely to play sport even after controlling for higher educational attainment and other significant background characteristics.

Figure 4: Predicted participation rates for typical male differing only by occupation



Once educational attainment and occupation are controlled for, there is no significant impact of income on the likelihood of playing sport. Rather than what individuals can afford, therefore, the more powerful influence on active participation appears to be the connections associated with having high socio-economic status. One further significant relationship to note is that active participation is significantly lower among those with a long-term health

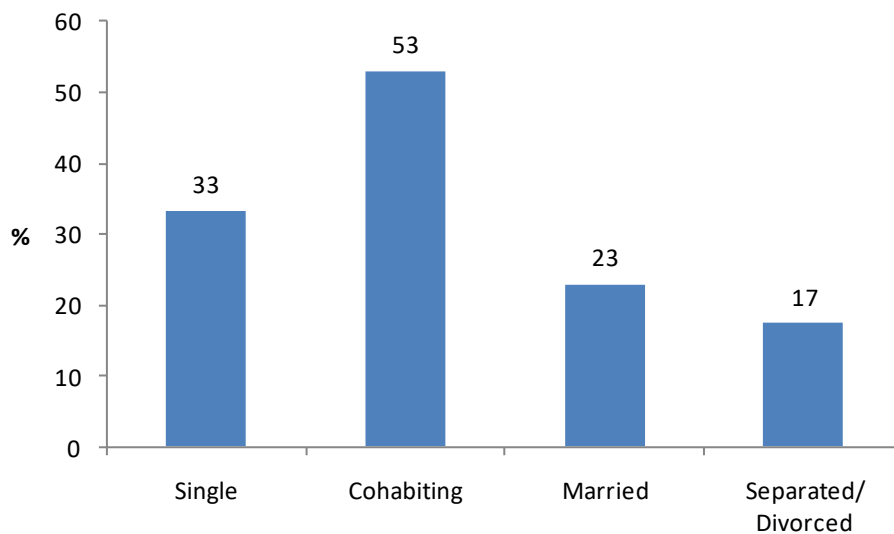
⁶ The high predicted participation rate for higher second-level is based on a relatively small sample and the difference between this group and the Leaving Certificate and third-level groups is not statistically significant.

problem, who are also more likely to be in a lower socio-economic group. Looking across Figures 2-4, the overall sporting benefit to high socio-economic status is very apparent.

2.4 FAMILIES AND ACTIVE PARTICIPATION

An interesting aspect of the analysis for Tipperary is that active participation is linked to family structure. The multivariate statistical model reveals that after controlling for age and other background characteristics, those in cohabiting relationships have a higher active participation rate. Figure 5 provides participation rates by marital status for four categories. Further analysis of the data reveals a significant interaction between marital status and gender. Specifically, the effect is in fact due to a greater likelihood of playing sport among cohabiting women. Note that the model controls for other factors associated with cohabitation (as distinct from marriage), including age and whether the person has children (see below).

Figure 5: Active participation by marital status

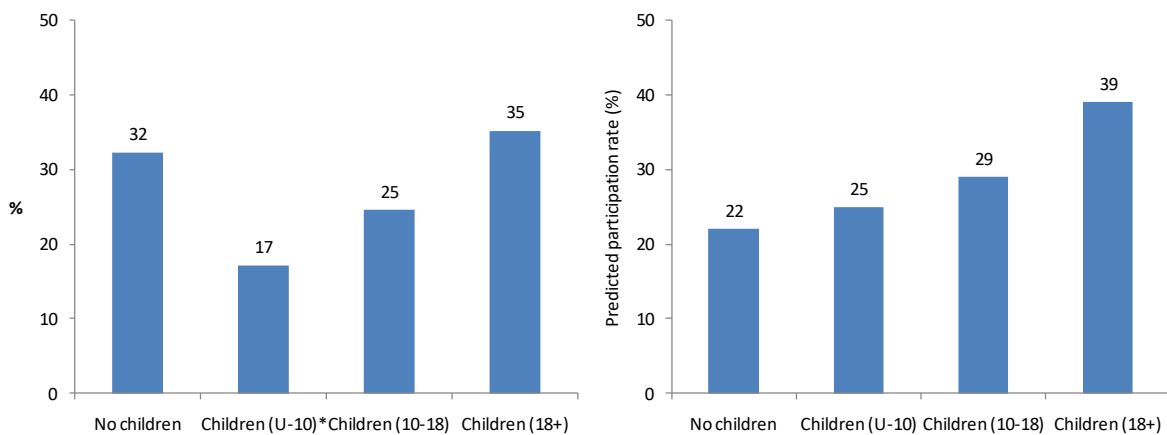


An explanation for this link between cohabitation and playing sport among women is not immediately obvious, but it seems likely that cohabitation is effectively acting as a proxy for some other characteristic, i.e. that women who cohabit rather than marrying are more likely to possess certain other characteristics or traits that the survey does not measure, but which are linked to a greater likelihood of playing sport. One possibility is that women who choose to cohabit rather than marrying possess, on average, a less traditional outlook and are therefore more likely to have engaged with the increasing trend towards personal exercise activities, which has emerged only over the last twenty years or so. The sample size is unfortunately too small to examine

the specific sports undertaken by cohabitants, which might allow us to test this possibility. For now, the hypothesis should be regarded as no more than a conjecture.

Figure 6 examines the influence of having children on active participation, according to the age of the youngest child. The panel on the left shows that a lower proportion of people with children under 18 play sport, compared to those who have no children or whose children have become adults. However, people with children are also likely to be older and they tend to have lower educational attainment, primarily because younger generations have higher attainment (on average). Once these factors have all been controlled for in the multivariate statistical model, the picture changes. The panel on the right provides predicted participation rates for a typical individual, age 42, educated to Leaving Certificate, married, skilled manual occupation and healthy, who differs only by whether they have children. Once all other background characteristics are controlled for, it is clear that having children has a positive influence on the likelihood of active participation in sport in Tipperary, with the strength of the association increasing with the age of the children. This result holds equally for men and women.

Figure 6: Active participation by whether an individual has children (left) and predicted participation rates for a typical individual differing only by whether they have children (right)



*Age of youngest child in brackets

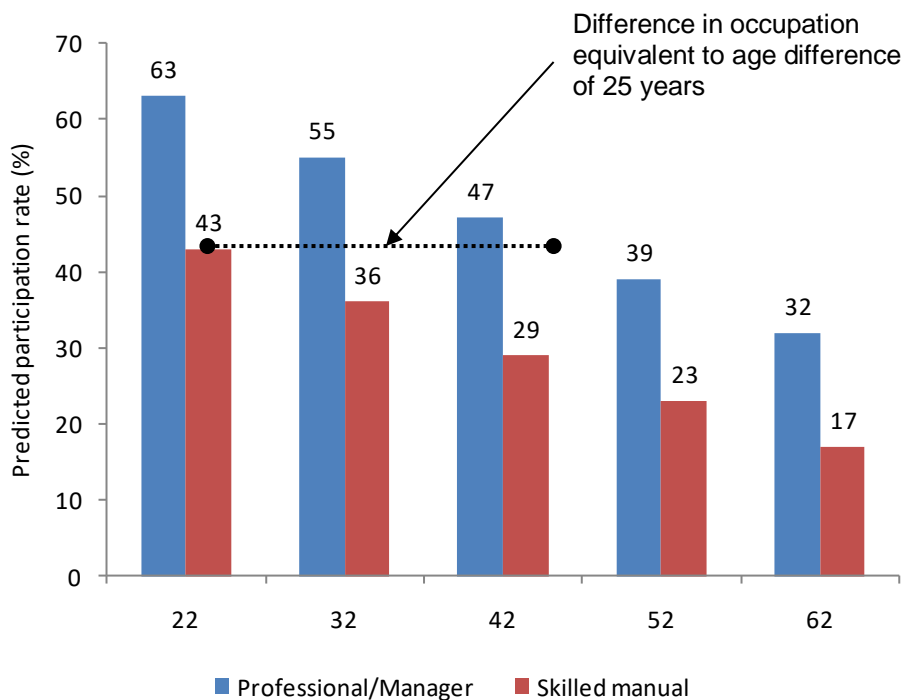
2.5 AGE AND ACTIVE PARTICIPATION

Although we have mentioned the influence of age on participation at various points, it has yet to be properly quantified. Figure 1 (in Section 2.2 above) records that the proportion of the population who play team sports falls from the youngest category onwards, while the proportion who play individual sports falls from around the mid-thirties onwards. However, as we have seen, there are many other factors correlated with age that also have an impact on active participation in sport in Tipperary, including educational attainment,

occupation, marital status and the likelihood of having children. Once all of these factors are controlled for, the impact of age itself, while plainly statistically significant, is less than one might deduce from an initial glance at Figure 1.

For comparison, the age effect can be placed alongside the impact of other important factors, such as socio-economic status. Figure 7 uses the multivariate model to compare the predicted participation rates of typical individuals who vary only by occupation and age. The age range spans two decades either side of the median age of 42, while the two occupational categories depicted are the top category of 'Professional/Manager' and the median occupational category of 'Skilled manual'. The chart shows the steady fall in participation with age. Nevertheless, the comparison with the occupational difference is sobering. The difference in the likelihood of active participation in sport associated with being in the top rather than middle occupational category is the equivalent of being 25 years younger. (Note that this is in fact an underestimate of the impact of socio-economic status, because the individual in the lower occupational group is more likely also to have low educational attainment, which would further reduce the predicted participation rate).

Figure 7: Predicted participation rates for a typical individual who varies only by age and occupation



2.6 SEDENTARISM

Complete physical inactivity carries particular risks to health. An analysis of which social groups are most likely to be sedentary in Tipperary is consequently of interest from a policy perspective. Here, someone is defined as sedentary if they meet four criteria: (1) did not play sport in the previous 7 days (2) did not take a recreational walk in the previous 7 days (3) does not walk regularly for transport (4) does not cycle regularly for transport. This definition is imperfect, because it is limited to recreation and transport activity. Most notably, some individuals undertake significant physical activity associated with work, either through a manual occupation or via domestic duties, which is not recorded by the ISM. Nevertheless, the results offer a reasonable guide to inactivity, especially as it can be affected by policy relating to sport and physical activity.

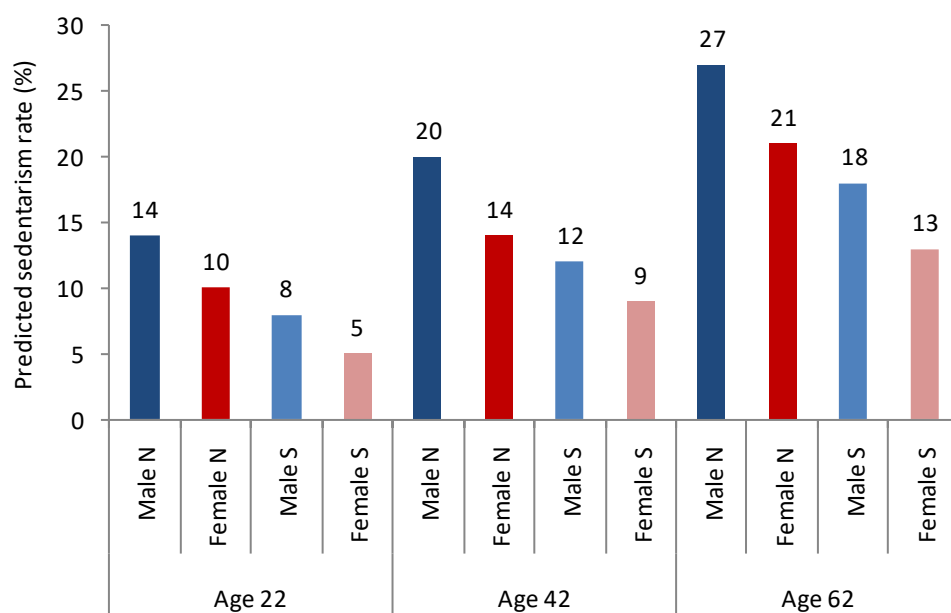
Across Ireland as a whole, there is no consistent difference between men and women in levels of sedentarism. This is because the fact that men play more sport than women is compensated for by the fact that women are more likely to walk than men, both for recreation and as a mode of transport. However, in the Tipperary area, this counterbalancing does not apply, because while men are no more likely to participate actively in sport than women, the gender gap for recreational walking remains, with 67% of women having undertaken a recreational walk in the previous seven days, in contrast to 48% of men. The overall outcome is that men are significantly more likely to be sedentary.

The likelihood of being sedentary increases with age and is higher for those living in villages, as opposed to towns or isolated locations. These effects are stronger than the more modest impact of socio-economic status. As referred to above, sedentarism is more common in North Tipperary than South Tipperary.

Figure 8 is designed to give some insight into the relative strengths of these effects. It uses a multivariate statistical model of the likelihood of being sedentary to derive rates of sedentarism at three different ages, for men and women, from both North and South Tipperary, with all other factors held constant.

According to the statistical model, although there is a clear difference in the predicted sedentarism rates between males and females, the difference between areas is estimated to be greater, i.e. where an individual lives matters more for the likelihood of sedentarism than their gender. Thus, males in South Tipperary have a lower predicted rate of sedentarism than females of the same age in North Tipperary. Similarly, we estimate the effect of area to be greater than that of being 20 years older. A 42 year-old in South Tipperary is predicted to be more active than a 22 year-old in North Tipperary. In short, the estimated size of the sedentarism gap between the two areas is large.

Figure 8: Predicted sedentarism rates of typical males and females differing by age and whether they live in North or South Tipperary



2.7 SOCIAL PARTICIPATION

The ISM also records social participation in sport. The survey asks whether individuals undertook volunteering associated with sport (e.g. officiated, organised, provided transport), whether they are a member of any sports club and whether they attended any sporting events. The results reveal that 7% of adults in Tipperary volunteered for sport during the previous week, 28% are members of some type of sports club and 17% had attended a sporting fixture. The proportions volunteering and attending fixtures do not differ significantly from the equivalent national figures. The membership rate, however, is lower than the national figure of 32%. This difference mirrors that for active participation, as might be anticipated from the earlier analysis.

3. POLICY IMPLICATIONS

With respect to participation in sport, Tipperary has many things in common with the rest of the country, in terms of who plays sport and who does not. There are many potential policy responses to the findings – too many to summarise here. Policymakers and others are encouraged to consult recent publications that have dealt specifically with these influences on active participation (*Fair Play? Sport and Social Disadvantage in Ireland*; *Sporting Lives*; *ISM Annual Reports*; all available at www.irishsportsCouncil.ie and www.esri.ie). This final section, therefore, offers an indicative rather than exhaustive examination of policy implications. We focus on three findings that may be of relevance in Tipperary: the absence of a gender gap for active participation in sport; the strength of socio-economic factors; and the differences in rates of sedentarism.

The finding that men are no more likely to play sport than women implies that nationwide efforts to target participation programmes specifically at women are arguably not appropriate in Tipperary. Low male participation in soccer and across the range of individual sports, implies untapped demand for these activities, which well-designed participation programmes could exploit. It is notable that the only sport in which male participation more than matches the national rate is hurling. While it is not possible to test the hypothesis directly, consideration should at least be given to the possibility that concentration on hurling, a sport that is traditionally strong in Tipperary, may have a knock-on effect for overall levels of activity. Those young people who do not find the sport to their liking may be less likely, or have less opportunity, to pursue an alternative activity. Policymakers might consider how they can promote a broader range of activities without damaging the hurling tradition.

The relationship between socio-economic status and playing sport in Tipperary is strong. It is worth emphasising, therefore, that the results imply both a greater need and a greater potential for increasing participation among lower socio-economic groups. There is a good case for ensuring that members of these groups are the primary target for sports policy in the area, and that the design and marketing of participation programmes reflects this. The link between the likelihood of playing sport and occupational categories implies that identifying larger workplaces with concentrations of semi-skilled or unskilled workers might produce potential targets for promoting sport.

While there are no significant differences in the levels of active participation in sport or recreational walking between North and South Tipperary, the former has high levels of sedentarism, which is likely to be particularly harmful to health. Further analysis shows that this is primarily due to low levels of walking and cycling for transport. Sports policy is clearly limited in the extent to which it can address this issue, which is more likely to reflect problems in planning and the built environment. Nevertheless, sports policy exists within a broader context of policy to promote physical activity. Policymakers and sports clubs might aim to build awareness of the lower overall level of physical activity in the area and to advocate policies to change it.