



**Understanding society:  
Culture, arts and leisure in the UK regions**

**Final Report  
April 2013**

**Paula Devine  
Lizanne Dowds**

## Contents

1	Executive Summary .....	3
2	Introduction.....	4
3	Northern Ireland in an international context.....	5
4	Northern Ireland compared with other UK regions .....	9
	Participation in arts activities.....	9
	Attendance at an arts event (for example, film or art exhibition) .....	11
	Visits to museums, libraries and archives .....	13
	Visits to historical sites .....	15
	Participation in sporting activities.....	16
5	Why is Northern Ireland different? .....	25
	Arts performance and attendance .....	26
	Museums and libraries .....	29
	Sports.....	32
6	Discussion .....	35
	General .....	35
	Arts .....	37
	Museums and libraries .....	37
	Sports.....	38
7	Conclusions.....	39
	Appendices .....	40
	Appendix 1: Definition of sport, arts, museums and libraries .....	40
	Appendix 2: International Social Survey Programme.....	51
	Appendix 3: Technical details of Understanding Society .....	53
	Appendix 4: Statistical significance .....	55
	Appendix 5: Variables used in regression models.....	56

## 1 Executive Summary

The aim of this study is to explore the level of engagement in culture, arts and leisure across the United Kingdom (UK) and to compare if and why Northern Ireland (NI) is different from other UK regions. The project involved bivariate and multivariate analysis of Wave 2 of *Understanding Society*, a major longitudinal panel study of UK households.

Comparisons using data from the 2007-2009 International Social Survey Programme suggest that within an international context, participation rates in Northern Ireland are mid-range, with lower levels than in Britain.

Bivariate analysis of *Understanding Society* indicates that people living in Northern Ireland are less likely than those in Britain to engage in performance arts, or to attend an arts event. This is also true in relation to visits to museums and libraries and participation in sport, with Wales having similar levels to Northern Ireland.

For participation in performance arts across the UK, the two strongest predictors of participation are having higher educational qualifications and being female. This is also the case in relation to attendance at an arts event, although indicators of deprivation (including social housing and lower household income) are also important. Living in Northern Ireland is also of some significance, albeit fairly weak. Within Northern Ireland, this pattern remains, although rurality is important in relation to non-attendance of arts events.

The most important predictors of public library use are having higher qualifications and being responsible for a child under 16. In relation to visiting a museum, having higher qualifications is the most important predictor, although being a frequent volunteer, being older, and higher income are also highly significant. Region has some lesser significance, with those living in England being more likely to use libraries and museums, and those in Northern Ireland or Wales being less likely to visit a museum. Living in a rural area is of much more importance in Northern Ireland than it is in the rest of the UK when predicting library use and visiting a museum.

People who are older, less qualified or on lower incomes are much less likely to take part in sport. The lower level of sports participation in Northern Ireland continues, even when other factors affecting sports participation are taken into account. However, there are no significant differences across the UK in the proportion taking part in sport at least once a week. Among respondents in Northern Ireland, having a higher income is quite an important predictor for sports participation, but not so in the rest of the UK. The reverse is true in relation to having a disability.

Overall, multivariate analyses indicate that national differences are much less when other mitigating factors are taken into account.

Future research could take advantage of the longitudinal element of the *Understanding Society* dataset, as well as involving more localised research to explore local facilities and access to these.

## 2 Introduction

The aim of this study is to explore the level of engagement in culture, arts and leisure across the United Kingdom (UK) and to explore if (and why) Northern Ireland (NI) is different from other UK regions. This analysis complements and broadens the work already carried out by the Department of Culture, Arts and Leisure on factors associated with participation in culture, arts and leisure *within* the Northern Ireland population (for example, the audit of inequalities based on the 2010/11 Continuous Household Survey). At the outset, it is important to point out that individual surveys use varying definitions of culture, arts and leisure. An outline of key definitions is presented in Appendix 1.

We start by looking at where Northern Ireland appears in an international ‘league table’ of participation in culture, arts and leisure activities. This analysis uses data from the International Social Survey Programme (ISSP) in which questions on sport and leisure were asked in over 40 countries around the world in 2007 to 2009. It allows us to assess where Northern Ireland stands in comparison with a range of other countries in the levels of participation in these kinds of activities. Technical details of this survey are given in Appendix 2.

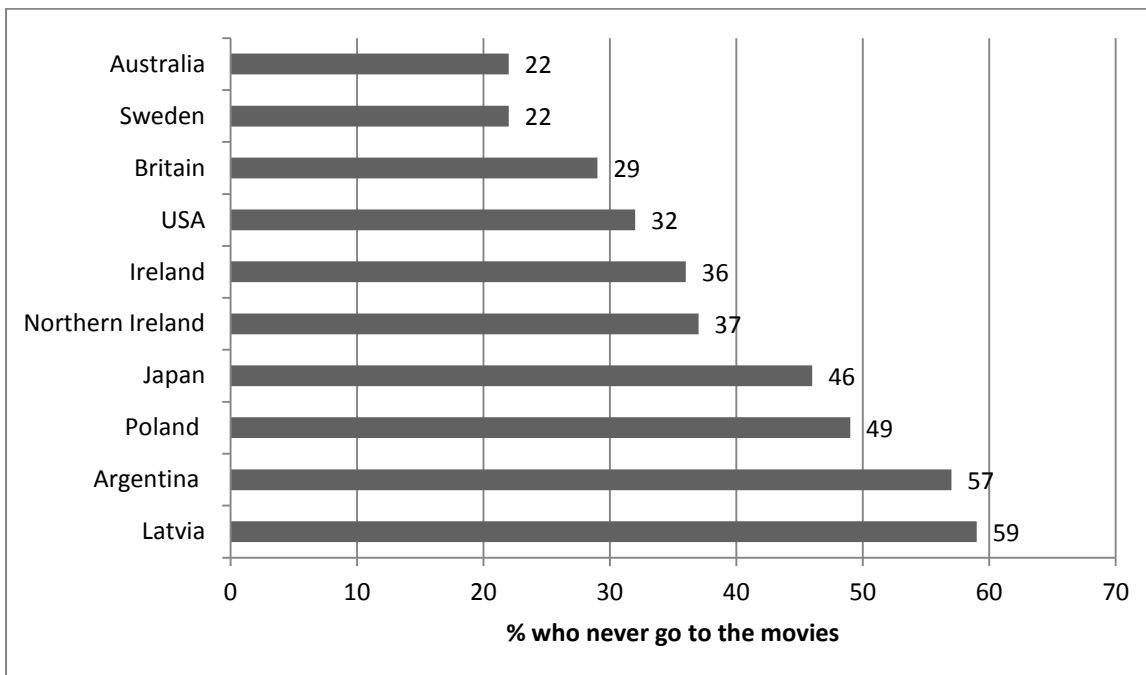
Following this global comparison, we move to look in more detail at cross-UK comparisons and the extent to which Northern Ireland differs in patterns of participation in culture, arts and leisure from the other regions of the UK. This analysis uses data from *Understanding Society*, a major longitudinal survey study designed to provide evidence about the people of the UK, their lives, experiences, behaviours and beliefs. Technical details of this survey are given in Appendix 3. Differences across UK regions are identified and in chapter 5 we investigate why Northern Ireland has such different participation levels across many areas of culture, arts and leisure. Conclusions are drawn in chapter 6 and areas for further research identified.

### 3 Northern Ireland in an international context

Across the world each country has different societal expectations about participation in sport and cultural activities, different availability and accessibility of activities and varying economic and social circumstances that prevent or encourage participation. Without identifying or speculating about the reasons why individual countries display different levels of participation, it is interesting to observe where Northern Ireland stands in this international context. This section uses data from the 2007 Leisure time and Sport module of the International Social Survey Programme (ISSP) to assess where Northern Ireland stands in comparison with other countries in the levels of participation in these kinds of activities. Over 40 countries take part in the ISSP. However, in order to provide a meaningful comparison, we have selected a subset of ten countries across different continents across the world. The ISSP fieldwork was carried out in Northern Ireland in 2009, so slightly later than the other ISSP countries. Note that the graphs below show the proportion of people in each of the ten countries who ‘never’ participate in particular activities.

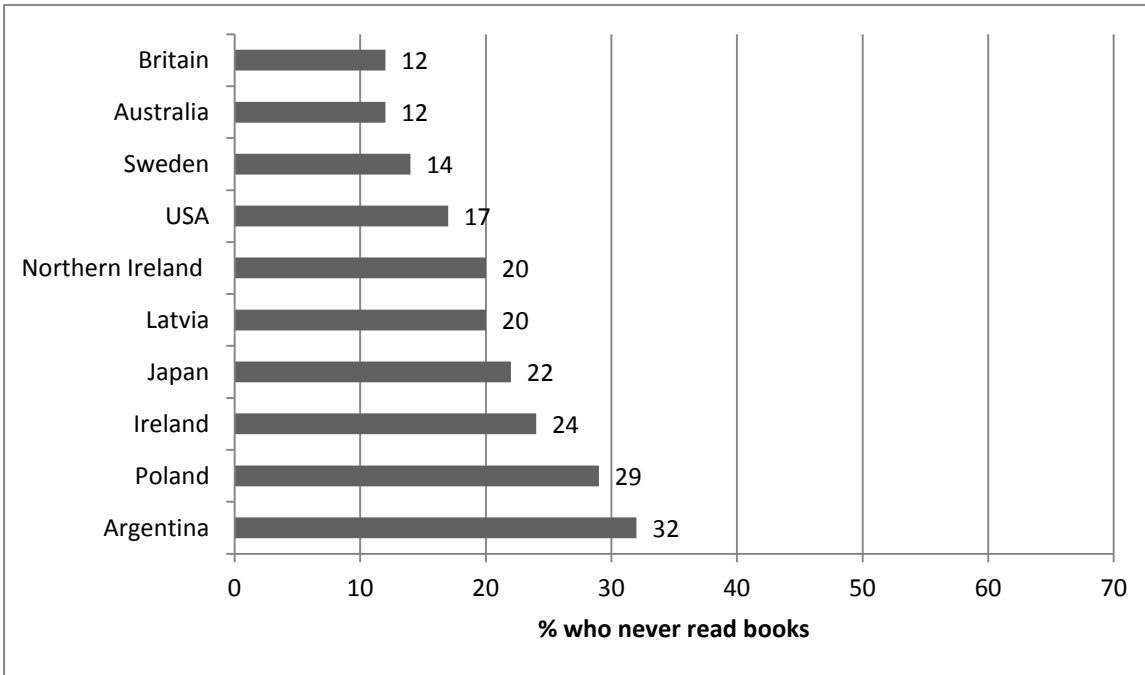
Figure 3.1 shows that Northern Ireland is somewhat ‘mid-range’ in terms of going to the cinema. Figures for Northern Ireland and Ireland are very similar, although both lag behind Britain in participation in this activity. Australians have the highest rates of participation and Latvians the lowest.

**Figure 3.1: Percentage of people in each country who ‘never’ go to the movies**



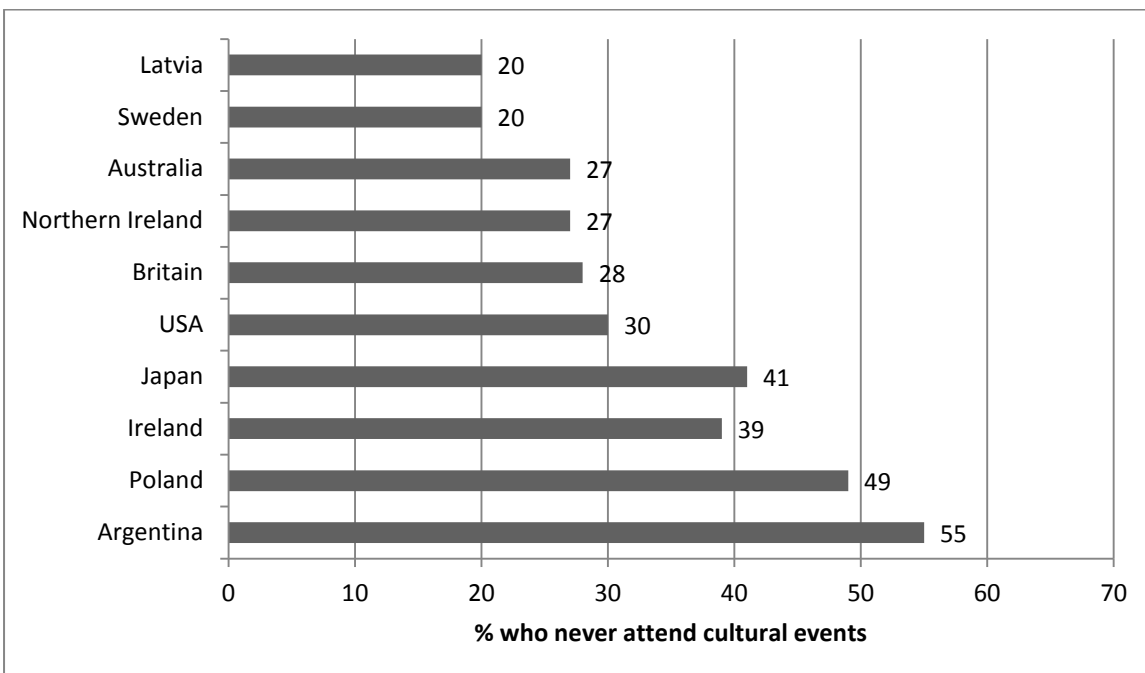
Reading books as an activity is much less dependent on availability and accessibility, and the pattern of participation here is very different. Figure 3.2 shows that Britain leads the table, with those from Argentina being least likely to engage in reading books. Northern Ireland is again mid-range and somewhat ahead of Ireland.

**Figure 3.2: Percentage of people in each country who 'never' read books**



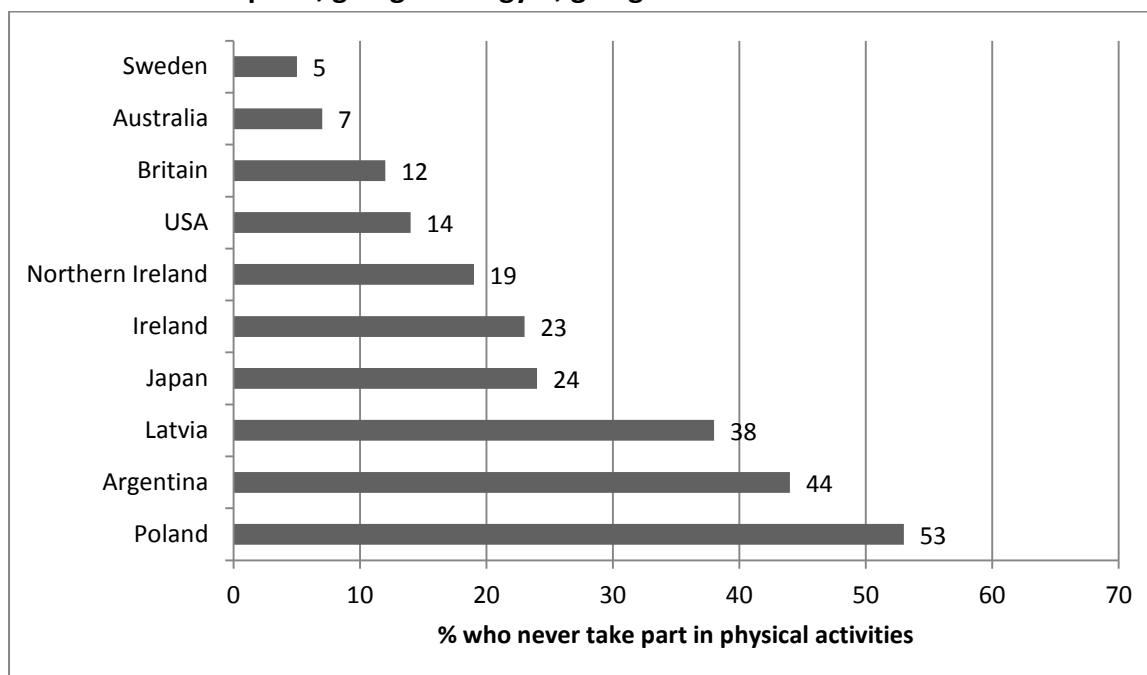
Attending cultural events such as concerts, live theatre or exhibitions is probably what more people think of as participation in 'cultural activity'. Going to the cinema and reading books may well be perceived as leisure activities that are definitely not 'cultural' in many people's minds, perhaps because of the variable nature of the films or books. In this activity, Britain and Northern Ireland are level and somewhat ahead of Ireland (Figure 3.3). Latvians are the most likely to participate and Argentinians the least likely.

**Figure 3.3: Percentage of people in each country who 'never' attend cultural events such as concerts, live theatre, exhibitions**



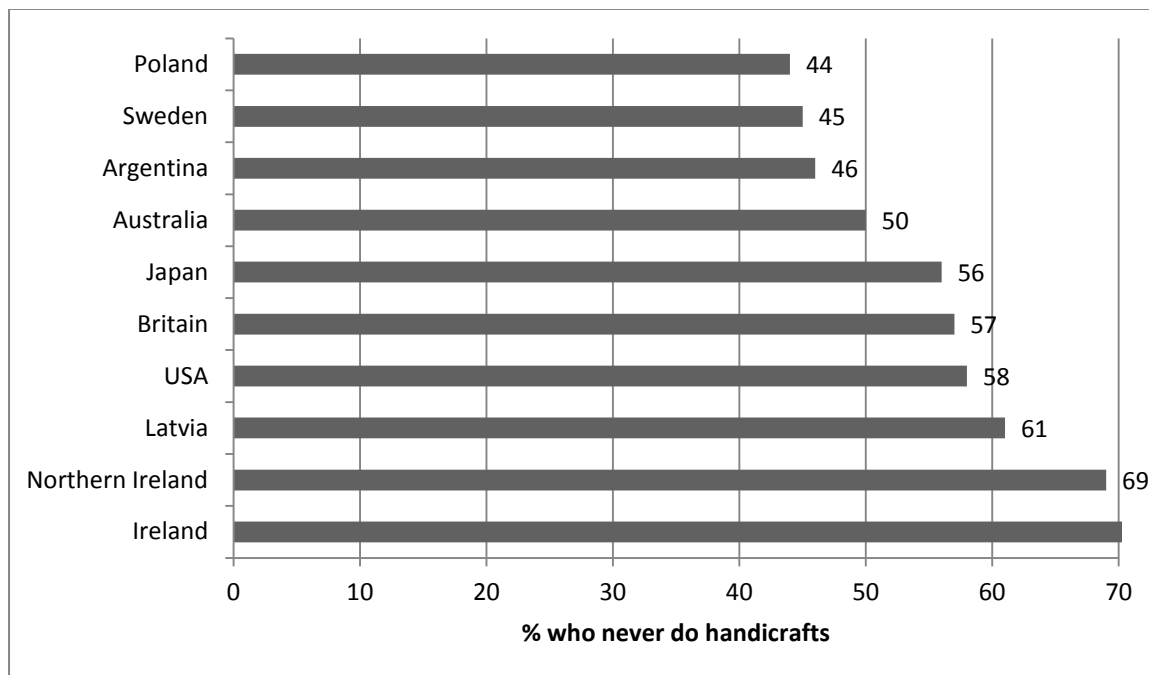
As Figure 3.4 shows, the Swedes appear to be the most physically active followed by Australians. Respondents in Poland and Argentina are the least active, with Northern Ireland being mid-range slightly ahead of Ireland. Britain is third in this league table. The question asked in the survey includes ‘going for a walk’ as a physical activity and is therefore possibly less affected by availability and accessibility of sporting and exercise activities.

**Figure 3.4: Percentage of people in each country who say that they ‘never’ take part in physical activities such as sports, going to the gym, going for a walk**



Doing handicrafts such as needle work or wood work is the final activity of interest here – see Figure 3.5. Ireland and Northern Ireland are at the bottom of this league table with little apparent interest in these kinds of activities. Britain is mid-range with Poland and Sweden heading the table.

**Figure 3.5: Percentage of people in each country who ‘never’ do handicrafts such as needle work, wood work etc**



Although it would be interesting to speculate about the different societal expectations operating in different countries and the barriers to access that exist, what is clear from this brief look at the international context is that Northern Ireland is mostly mid-range when compared with this sample of other countries. However, the most interesting finding for the purposes of this study is that Northern Ireland appears to be falling somewhat behind Britain in terms of participation levels. In the following section we explore this further.



## 4 Northern Ireland compared with other UK regions

While international comparisons provide an interesting context, it is in comparing ourselves to other regions of the UK that will probably yield the most useful information for policy purposes. Specifically, we wish to explore the extent to which Northern Ireland differs in patterns of participation in culture, arts and leisure from the other regions of the UK. This analysis uses data from *Understanding Society*, a major longitudinal survey study designed to provide evidence about the people of the UK, their lives, experiences, behaviours and beliefs. Technical details of this survey are given in Appendix 2. *Understanding Society* incorporates an extensive module of questions that are relevant to this study namely:

- Participation in arts activities (for example, dance or playing a musical instrument)
- Attendance at an arts event (for example, film or art exhibition)
- Visit to a public library service
- Visit to an archive centre or records office
- Visit to a museum or gallery
- Visits to historical sites
- Participation in sporting activities

Patterns across the UK are examined for each of these in turn using weighted data from the survey. Ticks within the last column of some tables indicate where variables are significantly different across the regions of the UK.

### Participation in arts activities

Individual participation in arts activities such as dance or playing an instrument is fairly rare across all countries of the UK and few conclusions can be drawn with reference to individual performance activities – see Table 4.1. However, the proportion of respondents in each region who said that they participated in ‘none of these’ does reveal that respondents living in Wales and Northern Ireland are significantly less likely to be involved in anything of this nature. Seventy nine per cent of those interviewed in Northern Ireland said that they were involved in ‘none of these’ activities compared with 75 per cent in Scotland. These differences are small in scale but nonetheless significant when analysing samples of this size (see Appendix 4 for a discussion of statistical significance). It is worth noting that very small differences often appear significant throughout this analysis because of the effect of the large sample size. It is also worth noting that a significant chi-square across regions does not necessarily imply that Northern Ireland is the region that stands out as different, though in practice, this is often the case.

**Table 4.1: Participation rates for performance arts**

	England	Wales	Scotland	Northern Ireland	'Region' variable is significant
% who participated in:	%	%	%	%	
dance, including ballet	12	10	12	9	✓
sang to an audience or rehearsed for a performance (not karaoke)	6	5	5	5	
played a musical instrument	11	10	12	10	
written music	2	2	3	2	✓
rehearsed or performed in a play/drama, opera/operetta or musical theatre	3	2	2	3	
taken part in a carnival or street arts event (e.g. as a musician, dancer)	3	3	2	2	
learned or practised circus skills	1	1	1	<1	✓
none of these	76	78	75	79	✓

Overall, there is a much greater level of public involvement in non-performance arts activities such as reading for pleasure and painting. This is true for Northern Ireland as well as other regions of the UK (see Table 4.2). Nonetheless, there is also a consistent pattern where people from Northern Ireland are distinctly less likely to engage in these activities than are those from Scotland, England and Wales.

**Table 4.2: Participation rates for non-performance arts activities**

	England	Wales	Scotland	Northern Ireland	'Region' variable is significant
% who participated in:	%	%	%	%	
painting, drawing, printmaking or sculpture	16	15	14	8	✓
photography, film or video making as an artistic activity (not family or holiday)	16	13	14	8	✓
used a computer to create original artworks or animation	10	10	9	6	✓
textile crafts, wood crafts or any other crafts, such as embroidery, knitting,	18	18	17	11	✓
read for pleasure (not newspapers, magazines or comics)	66	61	69	52	✓
written any stories, plays or poetry	6	5	5	4	✓
been a member of a book club, where people meet up to discuss and share books	3	1	2	1	✓
none of these	26	31	24	41	✓

Just over a half of Northern Ireland respondents said that they read for pleasure compared with two-thirds of respondents in England. Twice as many English respondents as Northern Ireland respondents participated in painting, drawing, printmaking or sculpture. In every single activity listed, Northern Ireland respondents are the least likely to have engaged with this. Forty one per cent of Northern Ireland respondents said that they took part in ‘none of these’ compared with 24 per cent in Scotland. These differences are consistent and significant.

Where respondents are indeed engaged with performance or other arts activities, there is also a significant difference across countries in terms of the frequency of participation, as shown in Table 4.3. This may be because Scottish respondents are more likely than those in other countries to be weekly participants.

**Table 4.3: Frequency of participation in arts activities (of those who participated at all)**

	England	Wales	Scotland	Northern Ireland
	%	%	%	%
at least once a week	67	70	74	68
less than weekly/at least monthly	17	15	14	17
at least 3/4 times/year	11	10	9	10
twice in past year	3	3	2	4
once in past year	2	2	1	2

*Significant*

#### **Attendance at an arts event (for example, film or art exhibition)**

Clearly rates of attendance at Arts events will be at least partly dependent on the availability of such events; but, bearing this in mind, the Welsh and the Northern Ireland are consistently less likely than the English or the Scots to attend all kinds of Arts events listed in Tables 4.4 and 4.5. Even the most common activity of film going demonstrates a significant difference between the UK regions. Overall, two-thirds of English and Scottish respondents had attended at least one of the events in Table 4.4 compared with around 60 per cent of Welsh and Northern Ireland respondents. Only 16 per cent of Northern Ireland respondents had visited an art or photography exhibition compared with 29 per cent in Scotland. Similar patterns are evident for the events listed in Table 4.5 with Northern Ireland and Welsh attendance just that bit lower. For example, 30 per cent of Northern Ireland respondents had attended a play or pantomime compared with 35 per cent in Scotland and 36 per cent in England. Interestingly though, Table 4.6 shows that the frequency of attendance (of people who have attended such events) is not significantly different across the countries of the UK. This might indicate that difference are at least partly down to availability and further analysis might benefit from controlling/weighting/modelling so that relative rurality can be taken into account here.

**Table 4.4: Attendance at arts events**

	England	Wales	Scotland	Northern Ireland	'Region' variable is significant
% who went to:	%	%	%	%	
film at a cinema or other venue	58	49	57	53	✓
exhibition or collection of art, photography or sculpture or a craft exhibition	28	18	29	16	✓
event which included video or electronic art	7	4	7	4	✓
event connected with books or writing	6	5	7	4	✓
street arts or a public art display or installation (art in everyday surroundings or art work such as sculpture that is outdoors or in a public place)	15	8	16	9	✓
carnival or culturally specific festival (for example, Mela, Baisakhi, Navrati, Feis)	13	11	9	9	✓
circus (not animals)	3	4	3	3	
None of these	33	42	34	40	✓

**Table 4.5: Attendance at arts events**

	England	Wales	Scotland	Northern Ireland	'Region' variable is significant
% who went to:	%	%	%	%	
play/drama, pantomime or a musical	36	29	35	30	✓
opera/operetta	4	4	4	3	
classical music performance	9	7	7	6	✓
rock, pop or jazz performance	25	23	29	22	✓
Ballet	4	2	3	1	✓
contemporary dance	4	3	3	2	✓
African people's dance or South Asian and Chinese dance	2	2	2	1	✓
none of these	50	55	49	56	✓

**Table 4.6: Frequency of attendance at arts events (of those who attended)**

	England	Wales	Scotland	Northern Ireland
	%	%	%	%
at least once a week	4	4	3	3
at weekly least monthly	21	19	23	22
at least 3/4 times/year	44	41	43	43
twice in past year	19	21	19	19
once in past year	13	15	12	13

*Not significant*

### Visits to museums, libraries and archives

In terms of visits to museums, libraries and archives, Northern Ireland respondents are again similar to Welsh respondents and both lag behind their English and Scottish counterparts in their involvement in these activities (Table 4.7). Visits to museums or galleries are particularly less common among Northern Ireland respondents, with just over a quarter visiting compared with 40 per cent in both England and Scotland. The difference is less for use of libraries but Wales and Northern Ireland still lag behind. This last finding is consistent with the earlier figures showing that respondents in these two regions are significantly less likely to read for pleasure (Table 4.2).

**Table 4.7: Visits to museums, libraries and archives**

	England	Wales	Scotland	Northern Ireland	'Region' variable is significant
% who went to:	%	%	%	%	
used a public library service	35	29	35	28	✓
been to an archive centre or records office	4	5	4	3	
visited a museum or gallery	40	28	40	26	✓
none of these things	44	55	44	57	✓

However, when respondents do indeed make use of libraries there is no significant difference in the frequency of those visits. Table 4.8 shows very similar patterns of frequency across the four countries. Although differences are also not statistically significant overall for frequency of visits to archives, it does seem that Northern Ireland respondents may be a little less likely to be frequent visitors (see Table 4.9).

**Table 4.8: Frequency of library visits (of those who visited)**

	England	Wales	Scotland	Northern Ireland
	%	%	%	%
at least once a week	15	18	15	14
less than weekly/ at least monthly	34	31	37	36
at least 3/4 times/year	31	31	28	30
twice in past year	14	13	12	13
once in past year	7	8	7	7

*Not significant***Table 4.9: Frequency of archive visits (of those who visited)**

	England	Wales	Scotland	Northern Ireland
	%	%	%	%
at least once a week	4	3	4	3
less than weekly/ at least monthly	11	10	13	6
at least 3/4 times/year	24	23	15	25
twice in past year	24	22	18	31
once in past year	37	41	50	34

*Not significant*

The four regions do show a significant difference in terms of frequency of museum visits. Here Northern Ireland respondents are not only less likely to visit museums at all, but even when they do, those visits tend to be less frequent than is the case for their counterparts in other parts of the UK, as shown in Table 4.10.

**Table 4.10: Frequency of museum visits (of those who visited)**

	England	Wales	Scotland	Northern Ireland
	%	%	%	%
at least once a week	1	2	1	1
less than weekly/ at least monthly	9	7	7	4
at least 3/4 times/year	34	30	35	25
twice in past year	30	31	31	28
once in past year	25	30	25	42

*Significant*

### Visits to historical sites

It is in relation to visits to historical sites that the Northern Ireland diverge from respondents in Wales and become the least likely of the four nations to engage with this kind of leisure activity. Over a half of Northern Ireland respondents have made no visits of this nature compared with only 37% of people in England (see Table 4.11). On every type of historical site mentioned Northern Ireland respondents are the least likely to have visited such. Again, it is possible that availability plays a part here – are there fewer historical sites in visiting range of the Northern Ireland population? On every measure the English are the most likely of the four regions to have visited historical sites. In terms of frequency of visits, again, there is a significant difference across the nations and Table 4.12 shows that it is people from Northern Ireland who visit the least (when they visit at all).

**Table 4.11: Visits to historical sites**

	England	Wales	Scotland	Northern Ireland	'Region' variable is significant
% who visited:	%	%	%	%	
a city or town with historic character	47	38	44	26	✓
a historic building open to the public (non-religious)	35	26	32	22	✓
a historic park or garden open to the public	37	29	30	26	✓
a place connected with industrial history (e.g. an old factory, dockyard or mine) or historic transport system (e.g. an old ship or railway)	18	17	16	11	✓
a historic place of worship attended as a visitor (not to worship)	25	20	20	14	✓
a monument such as a castle, fort or ruin	34	35	38	25	✓
a site of archaeological interest (e.g. roman villa, ancient burial site)	14	12	12	8	✓
a site connected with sports heritage (e.g. Wimbledon) (not visited for the purpose of watching sport)	5	5	4	4	
none of these things	37	42	38	52	✓

**Table 4.12: Frequency of visits to historical sites (of those who visited)**

	England	Wales	Scotland	Northern Ireland
	%	%	%	%
at least once a week	3	2	2	3
less than weekly/ at least monthly	15	14	14	7
at least 3/4 times/year	42	38	42	30
twice in past year	21	20	22	28
once in past year	19	25	20	32

*Significant*

### **Participation in sporting activities**

In terms of the measures of engagement with culture, arts and leisure so far, it is clear that Northern Ireland lags behind much of the rest of the UK in terms of participation. However, it is not clear whether that is by choice or circumstances where access to such leisure activities is more limited.

Northern Ireland respondents (and to a lesser extent Welsh respondents) are less likely to participate in moderate intensity sports activities. Close to one half of respondents in Northern Ireland and Wales take part in none of the activities listed in Table 4.13 compared with around 40 per cent of English and Scottish respondents. Football, rugby and golf are notable exceptions where participation levels in Northern Ireland are comparable with other parts of the UK.



**Table 4.13: Participation in moderate intensity sports activities**

	England	Wales	Scotland	Northern Ireland	'Region' variable is significant
%who participated in:	%	%	%	%	
health, fitness, gym or conditioning activities (including aerobics, keep-fit classes, weight-training or weight-lifting)	29	24	29	26	✓
gymnastics	1	1	1	1	✓
swimming or diving	34	30	33	26	✓
cycling, BMX or mountain biking (for sport or recreation)	20	14	19	11	✓
football (including 5 or 6-a-side)	10	9	10	11	
rugby (union or league) or American football	2	3	1	2	✓
track and field athletics	1	1	1	1	
jogging, cross-country, road-running	16	13	14	11	✓
hill trekking, backpacking, climbing or mountaineering	9	9	13	6	✓
golf (including pitch and putt)	8	7	11	8	✓
boxing	2	2	1	1	✓
martial arts (including tai chi, taekwondo, karate and judo)	2	2	2	1	
water sports, including yachting, dinghy sailing, canoeing, rowing, windsurfing, water ski-ing etc.	6	4	6	4	✓
horse riding	3	2	2	2	
nothing of this kind	41	48	40	49	✓

Table 4.14 shows participation rates for some less common moderate intensity sports activities and the pattern is the same. Apart from volleyball, motor sports and other sports (including Gaelic games), Northern Ireland and Wales are regions where there is significantly less participation. Around 78 per cent of Northern Ireland and Welsh respondents did none of these activities compared with around 72 per cent in England and Scotland. There is no difference in the frequency rates according to region of the UK (see Table 4.15).

**Table 4.14: Participation in moderate intensity sports activities**

	England	Wales	Scotland	Northern Ireland	'Region' variable is significant
% who participated in:	%	%	%	%	
basketball	3	2	3	2	✓
netball	2	2	1	1	✓
volleyball	1	1	1	1	
Cricket	4	3	1	1	✓
hockey (exclude ice, roller or street hockey but include in 'other')	1	2	1	1	✓
baseball, softball or rounders	2	2	2	1	✓
racquet sports such as table tennis, tennis, badminton or squash	10	7	9	6	✓
ice-skating	6	4	5	4	✓
ski-ing (on snow, or an artificial surface: on slopes or grass)	4	3	5	1	✓
motor sports	3	2	2	2	
angling or fishing	5	6	6	5	✓
archery {if age > 64}	<1	0	<1	0	
yoga or pilates {if age > 64}	1	1	<1	<1	✓
bowls (indoors or outdoors) {if age > 64}	1	1	2	1	✓
croquet {if age > 64}	<1	<1	<1	0	✓
other sporting activity such as triathlon, fencing, lacrosse, orienteering, Gaelic sports, skateboarding, parachuting or scuba diving or anything else	4	3	4	3	
nothing of this kind	71	77	73	78	✓

**Table 4.15: Frequency of moderate intensity sports (of those who participate)**

	England	Wales	Scotland	Northern Ireland
	%	%	%	%
3+ times a week	24	24	22	21
1-3 times a week	30	30	32	32
at least once/month	20	19	21	22
at least 3 - 4 times/yr	17	17	16	18
twice in past year	6	6	6	5
once in past year	4	5	3	3

*Not significant*

This pattern continues for mild intensity sports activities with Northern Ireland frequently displaying the lowest participation rates. As shown in Table 4.16, over half of respondents in Northern Ireland take part in none of these activities compared with 40 per cent in England and 45 per cent in Wales. Ten-pin bowling, bowls, shooting, archery and yoga/pilates are the exceptions.

**Table 4.16: Participation in mild intensity sports activities**

	England	Wales	Scotland	Northern Ireland	'Region' variable is significant
% who participated in:	%	%	%	%	
snooker, pool or billiards	21	21	21	17	✓
darts	11	12	12	8	✓
ten-pin bowling	20	15	19	18	✓
rambling, walking for pleasure or recreation	37	34	33	27	✓
shooting	4	3	4	3	
archery {if age < 65}	2	2	2	2	
yoga or pilates {if age < 65}	8	4	7	6	✓
bowls (indoors or outdoors) {if age < 65}	2	2	3	3	✓
croquet {if age < 65}	1	<1	<1	<1	✓
nothing of this kind	40	45	44	53	✓

The frequency of these mild intensity sports is significantly different across the four regions of the UK but Northern Ireland does not (in this case) stand out as the region with the lowest frequency of participation (see Table 4.17).

**Table 4.17: Frequency of mild intensity sports (of those who participate)**

	England	Wales	Scotland	Northern Ireland
	%	%	%	%
3+ times a week	14	20	15	19
1-3 times a week	21	24	24	23
at least once/month	27	24	25	24
at least 3 - 4 times/yr	24	19	22	22
twice in past year	9	8	9	8
once in past year	5	5	5	4

*Significant*

Membership of sports club was asked of those respondents who participated in any sporting activity. Table 4.18 indicates that the levels of such membership is not significantly different across the four regions; in Northern Ireland, this stands at 73 per cent.

**Table 4.18: Sports club membership rates**

	England	Wales	Scotland	Northern Ireland
	%	%	%	%
sports club member	73	75	72	73

*Not significant*

In terms of accessibility of sporting facilities, the picture is somewhat mixed for Northern Ireland respondents. While few respondents feel that access is difficult, neither do they feel that it is easy. As seen in Table 4.19, around 74 per cent of respondents in Northern Ireland feel that access is easy or very easy compared with 80 per cent in England, 79 per cent in Wales and 84 per cent in Scotland.

**Table 4.19: Accessibility of sporting facilities**

	England	Wales	Scotland	Northern Ireland
	%	%	%	%
very difficult	3	4	3	3
difficult	5	6	5	7
not difficult nor easy	10	11	8	13
easy	41	42	40	39
very easy	39	37	44	35
does not apply	2	2	2	2

*Significant*

This finding is further reinforced in Table 4.20 where it is clear that the only ‘barrier’ to participation that is significantly different across the four regions is that of lack of facilities in the area. Northern Ireland and Scottish respondents are much more likely than English or Welsh to give this response.

**Table 4.20: Barriers to participation in sport**

	England	Wales	Scotland	N Ireland	'Region' variable is significant
	%	%	%	%	
can't afford costs (including travel costs)	21	21	18	19	
health reasons or disability	38	47	37	34	
lack of time due to family or work commitments	22	14	20	15	
lack of facilities in the area	14	15	31	23	✓
facilities not available at suitable times	6	4	4	1	
no-one to play sport or do activity with	5	7	3	2	
no access to car	18	23	23	16	
no public transport available	8	10	14	10	
public transport is infrequent or unreliable	11	17	12	7	
can't physically access public transport that is available	5	6	5	3	
lack of information on available public transport	2	1	1	0	
personal safety concerns when travelling	2	1	1	3	
spontaneous: does fitness at home/no need to go	1	0	<1	1	
other reason	6	4	3	4	

Clearly there is a consistent pattern of less participation among Northern Ireland respondents across a wide variety of cultural, leisure and sports activities. In order to explore this further, it is helpful to look at an overall composite measure of participation within five broad categories of interest to the Department. Activities are grouped into all performing arts, attending all arts events, using public libraries, visiting all types of museums and taking part in any sports. Table 4.21 shows the percentage of respondents who have participated/attended in any of these during the previous twelve months.<sup>1</sup> Figures 4.1 to 4.4 show this information graphically.

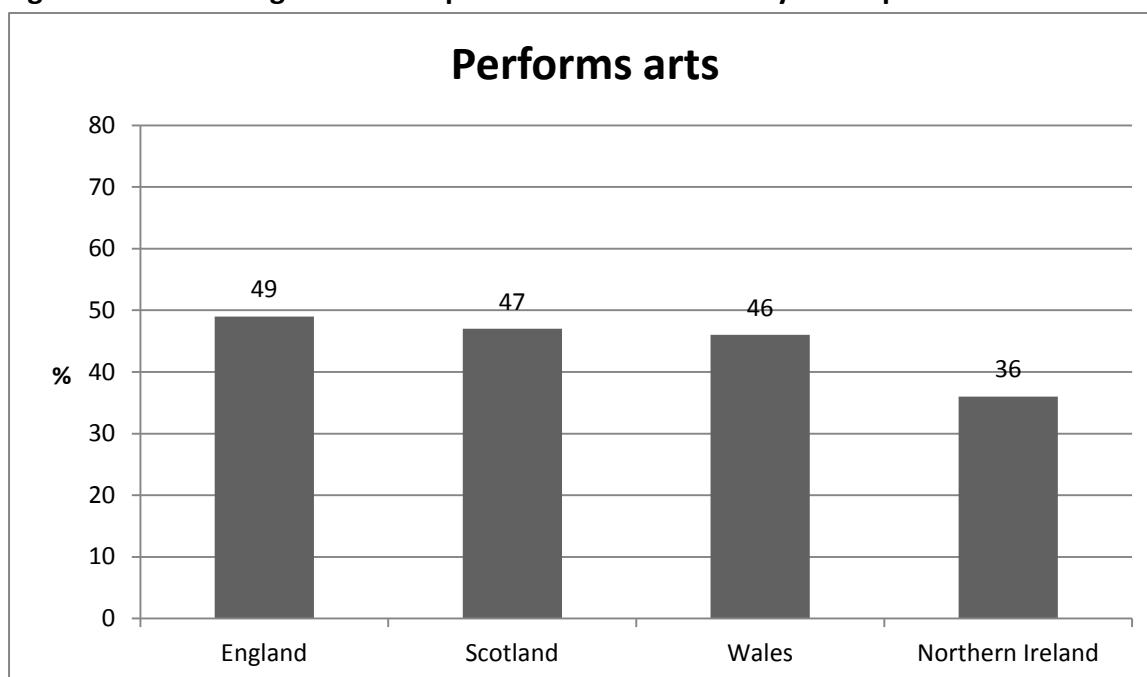
<sup>1</sup> A number of different surveys have been carried out in the area of participation in culture, arts and leisure and all use different definitions and reference time periods. For ease of comparison these are detailed at Appendix 1.

**Table 4.21: Overall participation rates for each region**

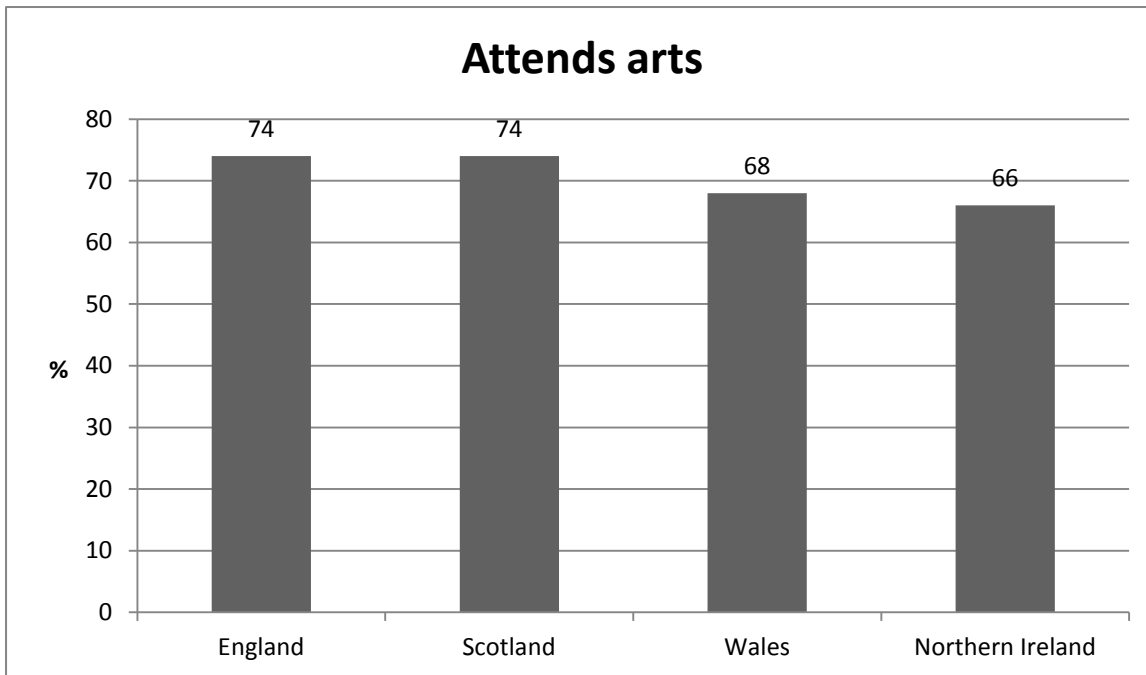
	England	Wales	Scotland	Northern Ireland	UK
	%	%	%	%	%
Performs arts	49	46	47	36	49
Attends arts	74	68	74	66	73
Used public library	35	29	35	28	35
Visited museum	40	28	40	26	39
Does sports	76	70	75	65	75

*The participation rate for each of these activities differs significantly across region.*

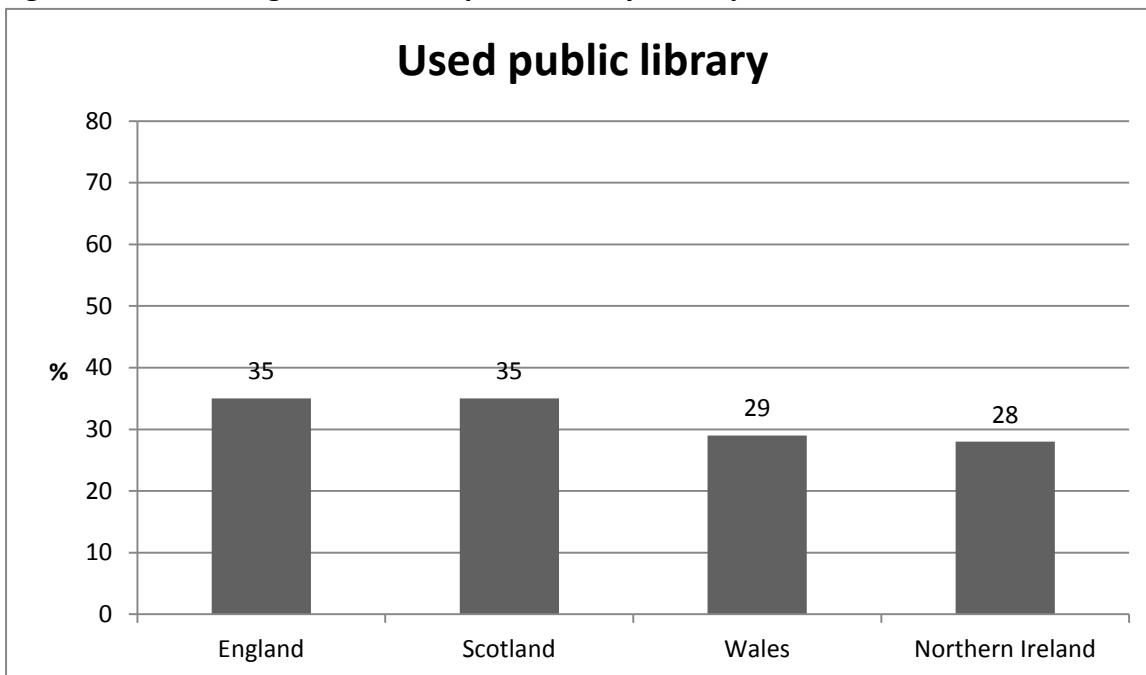
**Figure 4.1: Percentage who have performed an arts activity in the previous 12 months**



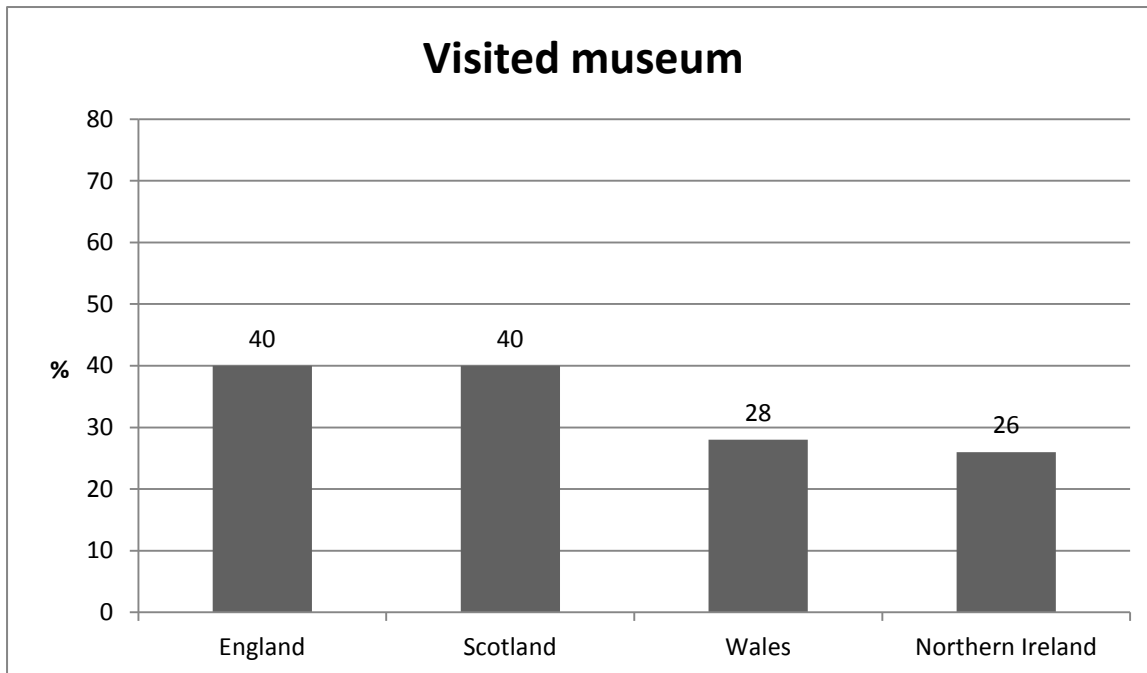
**Figure 4.2: Percentage who have attended an arts event in the previous 12 months**



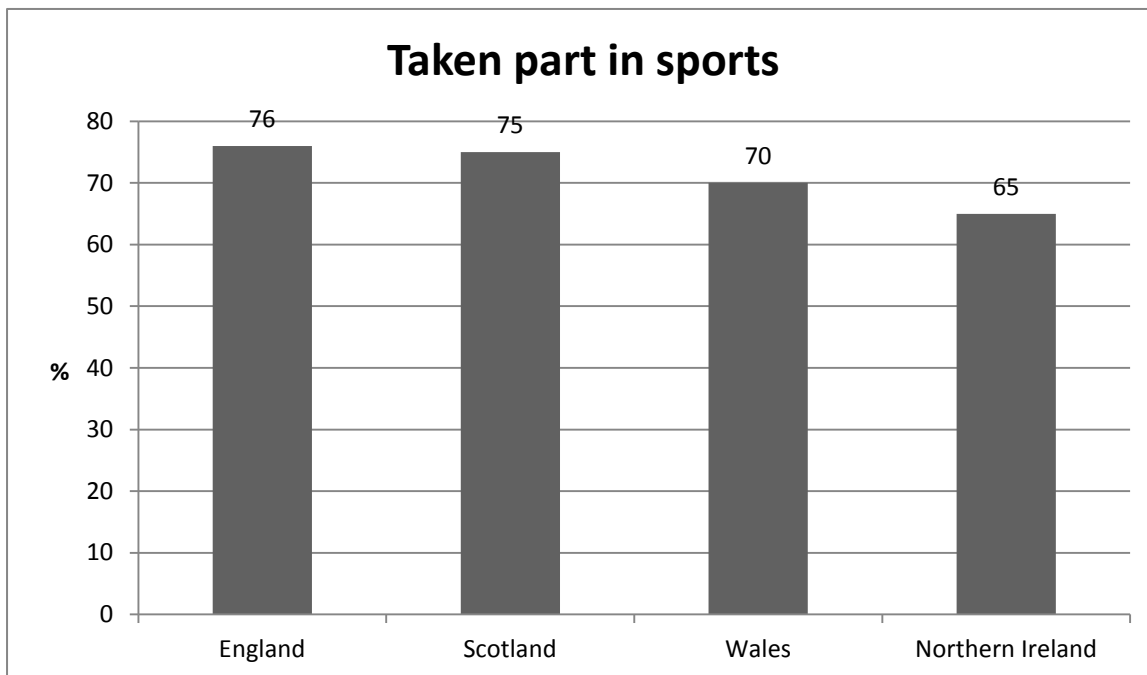
**Figure 4.3: Percentage who used a public library in the previous 12 months**



**Figure 4.4: Percentage who have visited a museum in the previous 12 months**



**Figure 4.5: Percentage who have taken part in sports in the previous 12 months**





## 5 Why is Northern Ireland different?

The results from the cross-tabulations shown in Chapter 4 indicate that there is a consistent pattern of less participation among Northern Ireland respondents across a wide variety of culture and sports activities. The key question is what is driving this difference? Is there something unique about people in Northern Ireland? Or is it just that Northern Ireland has more of the features that are always going to be associated with less participation? For example, if rurality and accessibility affect participation by everyone in the UK, then those regions that are more rural with less accessible activities will obviously demonstrate lower participation. Multivariate modelling is a statistical technique which is helpful for taking into account all the other factors that may affect participation. Using the statistical software package SPSS, five logistic regressions were carried out for each of the five dependent variables to explore which variables best predicted participation (or lack of participation) and whether Northern Ireland respondents still demonstrated decreased participation when other factors were taken into account. The other factors that are likely to be important are whether people have enough time and money for these activities and whether the activities themselves are accessible. The following variables were included in the models as proxies and as attempts to reflect these broad factors (the coding details are given in Appendix 5).

- Respondent feels that they 'don't have enough time to do everything that they want to'
- Provides care for someone else inside or outside the household
- Has a job
- Lives in social housing
- Household income
- Highest educational qualification
- Has children under 16
- Has the use of a car or van
- Has a disability or health problem
- Age
- Urban or rural area
- Ease of access to (sports) facilities
- Sex

The results from the multivariate analyses are presented for each policy area in turn and a variety of other models are also investigated to shed light on the mechanisms at work here.

Output tables from these logistic regression models are contained within the Annex: Regression Output document, as is a discussion of how the importance of the predictor variables was assessed.

### Arts performance and attendance

Living in Northern Ireland is still associated with less participation in arts activities and attendance at arts events even when other variables are taken into account. The predictor variables are summarised in Table 5.1 as being of high, medium or low importance in the model. Living in Northern Ireland is associated with lack of participation in performing arts activities. Living in Northern Ireland or Wales is associated with less likelihood of attending arts events.

**Table 5.1: Summary of predictor variables for models of participation in arts across the UK**

	<b>Performed an arts activity UK</b>	<b>Attended an arts event UK</b>
<b>High</b>	Higher qualified Female Frequent volunteer	Higher qualified Female Frequent volunteer Not social housing Higher income Younger
<b>Medium</b>	No job Not Northern Ireland Not responsible for child under 16 Not social housing	Not disabled Access
<b>Low</b>	Is a carer Rural Not enough time Good access No use of a car	Not Northern Ireland or Wales Has a job
<b>No impact</b>	Disability Age Higher income	Urban Responsible for child under 16 Is a carer Has enough time Car use

Tables 5.2 and 5.3 show this information graphically and convey rather more effectively the relative importance of each predictor variable.

**Table 5.2: Word cloud showing variables that predict participation performing arts across the UK**



**Table 5.3: Word cloud showing variables that predict arts attendance across the UK**



Although it is clear that respondents living in Northern Ireland are still less likely to participate in arts activities, once other factors are taken into account, it is equally clear that the significance of region of origin is small in comparison with other explanatory variables. The word clouds graphically demonstrates that education, sex and being an active volunteer are clearly much stronger predictors of participation than the region in which the respondent lives.

Up until now we have looked at levels of participation in terms of whether people participate at all in each of these activities, but from a policy perspective, it may also be of interest whether there are differences in the *frequency* of participation across the UK. For example, it may be that Northern Ireland has lower levels of participation as measured by the proportion who do not participate at all – but that there is little difference in the proportions of those who participate a lot. Further modelling shows that this appears to be the pattern with regard to attendance at arts events. While Northern Ireland is high in terms of the proportion who never attend at all, there is no significant difference among the proportions across the UK who attend an event once a month or more. However for performing arts, Northern Ireland still stands out as different. Frequent performers are still less likely to be found in Northern Ireland (and Wales on this occasion).

Having explored to what extent Northern Ireland is different from the rest of the UK, it is obviously of interest to turn to Northern Ireland on its own and model separately the variables that predict participation/non participation within this region. Table 5.4 shows the predictor variables for models of participation in arts in Northern Ireland. The smaller sample size in Northern Ireland is likely to affect the overall strength of the model, and so it is unsurprising that the models for Northern Ireland only include few variables of high or medium level of importance.

**Table 5.4: Summary of predictor variables for models of participation in arts in Northern Ireland**

	<b>Performed an arts activity NI</b>	<b>Attended an arts event NI</b>
<b>High</b>	-	-
<b>Medium</b>	-	-
<b>Low</b>	More qualified Female	More qualified Younger Not in social housing Urban Higher income Female
<b>No impact</b>	Is a carer Responsible for child under 16 Access Household income Use of car Enough time Disability Urban Age Social housing Has a job Frequent volunteer	Enough time Use of car Is a carer Has a disability Has a job Responsible for child under 16 Access Frequent volunteer

For performing arts, there are only two significant variables in the model: having higher educational qualifications and being female. From a policy point of view, the groups which are therefore significantly less likely to be participating are the people who have fewer qualifications and men. For attendance at arts events, there is a somewhat stronger model and the groups that show the least participation include people with fewer qualifications, older people, those living in social housing, rural respondents, people with lower household income, and men. This translates into the groups shown in Table 5.5 as being the non-participants. Again by far the most important predictor is educational level. Of significance, though much less important, are indicators of deprivation including social housing and lower income. Accessibility factors such as rural and being older are also of importance. Being male is significant, possibly indicating less interest in such activities, though it is also of borderline importance.

**Table 5.5: Who doesn't attend arts events in Northern Ireland?**



**Museums and libraries**

Living in Northern Ireland is associated with less use of a public library when all other factors are taken into account but only insofar as respondents in *England* are particularly more likely to use libraries. Respondents in Northern Ireland are not significantly different from those in Wales or Scotland in this respect. However, living in Northern Ireland and Wales is significantly associated with less likelihood of visiting museums even when other factors are taken into account. The predictor variables are summarised in Table 5.6 as being of high, medium or low importance in the model.

**Table 5.6: Summary of predictor variables for use of libraries and museums across the UK**

	<b>Used a public library</b>	<b>Visited a museum</b>
<b>High</b>	Higher qualified Responsible for child under 16 No job Frequent volunteer	Higher qualified Frequent volunteer Older Higher income
<b>Medium</b>	Does not have use of a car	Not in social housing Not Northern Ireland or Wales
<b>Low</b>	Female Urban Older Lower income Not in social housing England Is a carer No disability	Good access No disability No job Not enough time Is a carer Responsible for child under 16
<b>No impact</b>	Access Has enough time	Has use of a car Urban Sex

Tables 5.7 and 5.8 show this information graphically in order to convey rather more effectively the relative importance of each predictor variable. Once again, level of education dominates, however having responsibility for children under the age of 16 is a strong predictor of library use – though not museum visiting.

**Table 5.7: Word cloud showing variables that predict use of public libraries across the UK**



**Table 5.8: Word cloud showing variables that predict museum visiting across the UK**



As with the previous section relating to Arts participation and attendance, the frequency of library and museum visits was explored. Further modelling shows that while Northern Ireland is high in terms of the proportion who never use libraries at all, there is no significant difference among the proportions across the UK who use a library once a month or more. However, for those who visit a museum once a month or more, Northern Ireland (and Scotland in this case) still show less participation albeit of borderline significance

Turning now to analysis for Northern Ireland separately, Table 5.9 shows the predictor variables for models for library use and visits to museums among Northern Ireland respondents.

**Table 5.9: Summary of predictor variables for visiting libraries and museums in Northern Ireland**

	Used a public library NI	Visited a museum NI
<b>High</b>	-	-
<b>Medium</b>	-	More qualified
<b>Low</b>	More qualified Responsible for child under 16 No job Urban	Urban Older Responsible for child under 16 Has a job Frequent volunteer
<b>No impact</b>	Enough time Is a carer Household income Age Disability Sex Use of a car Social housing Frequent volunteer Access	Social housing Access Is a carer Household income Enough time Disability Use of a car Sex

However, from a policy perspective, it is probably more helpful to look at the converse of this – at who *doesn't* use libraries and museums. For library use, it is firstly people with fewer qualifications and secondly, those with no children under 16 (see Table 5.10). Living in a rural area and having a job also predicts less library usage, perhaps due to access and time issues.

**Table 5.10: Who doesn't use public libraries in Northern Ireland?**



While having responsibility for children under 16 appears to be a strong incentive for using libraries, it is of less importance when it comes to visiting museums. Again, the strongest predictor against usage is having fewer qualifications, in this case followed by living in a rural area. Younger people are also less likely to be visiting museums, with having no job and no volunteering role also being important predictors.

**Table 5.11: Who doesn't visit museums in Northern Ireland?**



**Sports**

Consistent with the fact that the earlier analysis shows that Northern Ireland respondents are less likely to take part in mild, moderate and high intensity sports and exercise, there is a significant effect of living in Northern Ireland even when all other factors affecting sports participation in the UK are taken into account. The predictor variables are summarised in Table 5.12 as being of high, medium or low importance in the model, and Table 5.13 conveys graphically the relative importance of each predictor variable.

**Table 5.12: Summary of predictor variables for sports participation across the UK**

	<b>Takes part in sports UK</b>
<b>High</b>	Younger Higher qualified No disability
<b>Medium</b>	Good access Not in social housing Frequent volunteer Not Northern Ireland Higher income Male Rural
<b>Low</b>	Has use of car
<b>No impact</b>	Responsible for child under 16 Has enough time Has a job Is a carer

For the first time, level of educational qualification is not the single most dominant variable. Participation in sport and exercise is largely determined by youth albeit followed by educational level and having no disability. Living in Northern Ireland is not one of the most important predictors



but neither is it borderline in this case. For participation in sport of any kind, Northern Ireland lags behind insofar as the proportion doing *no* sport or exercise is higher in this region, even once other factors affecting participation have been taken into account.

**Table 5.13: Word cloud showing variables that predict participation in sport across the UK**



As in previous sections, modelling was undertaken to explore if there are differences in relation to the frequency of participation. While Northern Ireland is high in terms of the number of people who never do sport at all, there is no significant difference across the UK in terms of the proportion taking part in sport *once a week or more*.

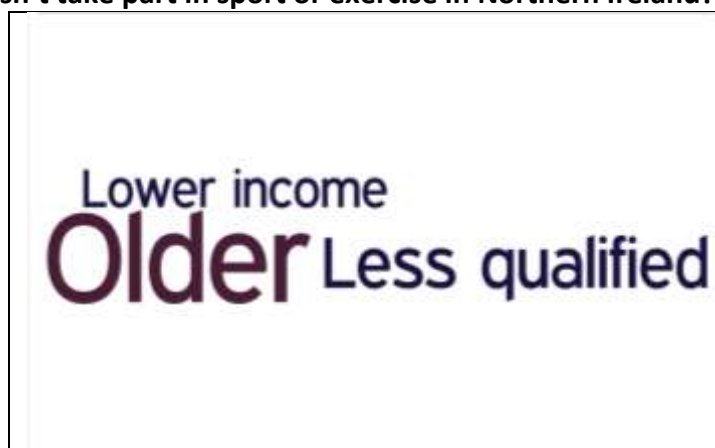
The final analysis in this chapter focuses on the variables that predict participation/ non participation in sport among Northern Ireland respondents only – see Table 5.14.

**Table 5.14: Summary of predictor variables for sports participation in Northern Ireland**

	Takes part in sport NI
<b>High</b>	-
<b>Medium</b>	-
<b>Low</b>	Younger More qualified Higher income
<b>No impact</b>	Use of a car Enough time Responsible for child under 16 Frequent volunteer Disability Urban Has a job Access Is a carer Social housing Sex

However, from a policy perspective, it is probably more helpful to look at the converse of this – at who *doesn't* take part in sport. As Table 5.15 shows it is a fairly straightforward model indicating that people who are older, less qualified and on lower incomes who do not take part in sport or exercise.

**Table 5.15: Who doesn't take part in sport or exercise in Northern Ireland?**



## 6 Discussion

### General

In terms of international comparisons, people living in Northern Ireland do not stand out as particularly more likely, or particularly less likely to participate in sports and cultural pursuits. However, indications from international data suggest that they do appear less likely to participate than their counterparts in Britain. Further examination of cross-UK differences show some quite stark disparities in the extent to which people in Northern Ireland participate compared with other regions within the UK. Detailed figures across a very wide range of sports and cultural activities are reported in Chapter 4 for England, Wales, Scotland and Northern Ireland.

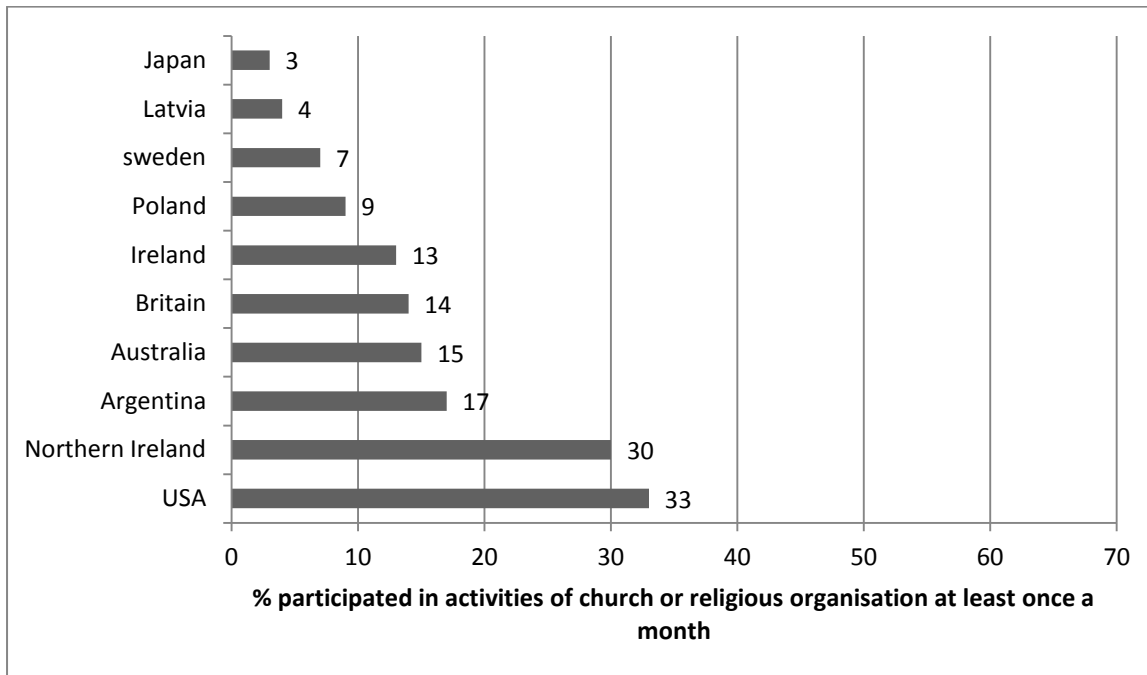
Northern Ireland has consistently lower participation rates than other parts of the UK, but is this because there are simply more of the factors that mitigate against participation in Northern Ireland than elsewhere? The evidence from multivariate modelling suggests that this is largely true. Cross national differences are much less when other factors that influence participation are accounted for. In addition, there is often less of a difference across the UK when comparing the proportion of different regions who participate frequently (rather than the proportion who participate not at all). So the picture is nuanced and varies according to the particular activity in question.

But even though much of Northern Ireland's 'difference' can be accounted for, it is still true that participation rates tend to be lower. Some would argue that it doesn't matter whether Northern Ireland has a lower rate of visiting museums because it is a more rural population. Nevertheless, it is still a lower rate and should be a policy focus for that reason alone. There are a number of possible reasons that Northern Ireland might be expected to have lower rates in any case. The first is because a high level of church attendance, religiosity and involvement in church activities might take time away from other pursuits. The second is that closer kinship ties might also take time away from participation insofar as people may choose to spend time with family rather than on sporting or cultural activities. There is some ISSP evidence that supports these two hypotheses. Figure 6.1 shows that people in Northern Ireland are more than twice as likely as those in Britain to be participating in church or religious organisations at least once a month. Moreover, Northern Ireland is second only to the United States in the levels of participation in church-related organisations. Figure 6.2 shows that 39 per cent of Northern Ireland respondents compared with 27 per cent of Britain respondents got together with relatives daily or several times a week. Even looking at several times a month as a more typical pattern of contact, three-quarters of Northern Ireland respondents compared with under two-thirds of those in Britain got together with relatives at least several times a month. This is in contrast with figures on getting together with friends which are almost identical in both parts of the UK.

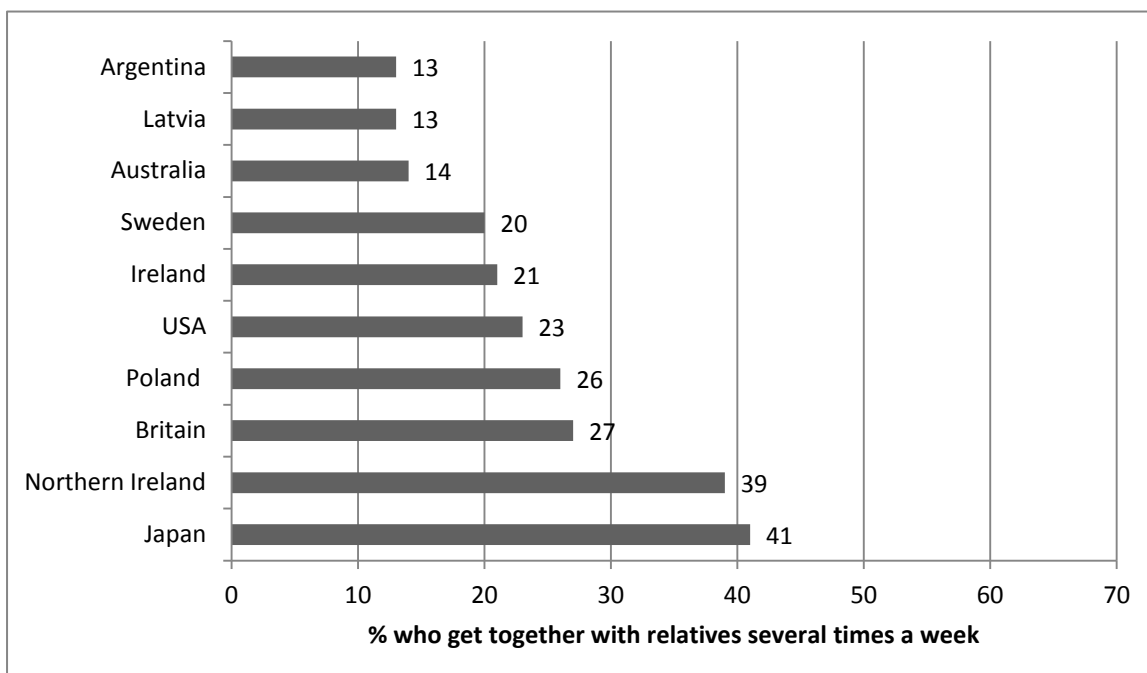
While there is probably scope for some further research here, we have not found reliable evidence (either way) from the datasets at our disposal that this would account for the remaining differences between Northern Ireland's participation rates compared with the rest of the UK. On balance we

would conclude that once other factors are taken into account, Northern Ireland does not seem to be very out of line with the rest of the UK. Differences remain but are no means as stark as bivariate analyses imply. Where region does emerge as independently associated with participation, it is also not one of the main predictors.

**Figure 6.1: Percentage of people in each region who have participated in the activities of a church or other religious organisation at least once a month over the last 12 months**



**Figure 6.2: Percentage of people in each region who get together with relatives daily or several times a week**



## Arts

For performing arts, the two strongest predictors of participation are having higher educational qualifications and being female. From a policy point of view, the groups which are therefore significantly less likely to be participating are people with fewer qualifications and men. For attendance at arts events, the groups that show the least participation include people with few qualifications, older people, those living in social housing, rural respondents, low income and men. Again by far the most important predictor is educational level. Of significance, though much less important, are indicators of deprivation including social housing and lower income. Accessibility factors such as rural and being older are also of importance. Being male is significant, possibly indicating less interest in such activities, though it is also of borderline importance. Living in Northern Ireland is associated with less participation in performing arts activities than other parts of the UK even when other variables are taken into account. Living in Northern Ireland or Wales is also associated with less likelihood of attending arts events, though for those who are 'frequent' attendees there is no difference across the regions of the UK. Northern Ireland has more people who do not attend at all, but the same number who attend a lot. There are other interesting differences in the predictor variables themselves. While being a volunteer is an important positive predictor of being an active participator in the arts in Britain, this is not the case in Northern Ireland. Also, while living in a rural area is not associated with less attendance at arts events in the UK as a whole, it is a significant predictor in Northern Ireland.

## Museums and libraries

The people who don't use libraries tend to be people with fewer qualifications and no children under 16. Living in a rural area and having a job also predicts less library usage, perhaps relating to access and time issues. While having responsibility for children under 16 appears to be a strong incentive for using libraries, it is of less importance when it comes to visiting museums. Again the strongest predictor against usage is having fewer qualifications, in this case followed by living in a rural area. Younger people are also less likely to be visiting museums, and other important predictors include having no job and no volunteering role.

Looking across the UK at participation rates, living in Northern Ireland is associated with less use of a public library when all other factors are taken into account, but only insofar as respondents in *England* are particularly more likely to use libraries. Respondents in Northern Ireland are not significantly different from those in Wales or Scotland in this respect. There is also no significant difference among the proportions across the UK who use a library at a more frequent rate (*once a month or more*). Living in Northern Ireland and Wales is significantly associated with less likelihood of visiting museums even when other factors are taken into account. There are other interesting differences in the predictor variables themselves. Living in a rural area is of much more importance in Northern Ireland than it appears to be in the rest of the UK in terms of mitigating against library use. Being an active volunteer in the rest of the UK is associated with using libraries and this is not the case in Northern Ireland. Living in a rural area is also more important in Northern Ireland in terms of the likelihood of visiting a museum and this is not as important in the rest of the UK.

## Sports

The factors associated with sports participation in Northern Ireland are fairly straightforward. People who are older, less qualified or on lower incomes are much less likely to take part in sport or exercise. People living in Northern Ireland are less likely to participate in sport than others in the UK, even when all other factors affecting sports participation are taken into account. However, while Northern Ireland is high in terms of the proportion of people who never do sport at all, there is no significant difference across the UK in terms of the proportion taking part in sport *once a week or more*. There are interesting differences in the predictor variables for Northern Ireland compared with the UK as a whole. Having a higher income is quite an important predictor for sports participation in Northern Ireland but it is of less relative importance in the rest of the UK. Across the UK, having a disability mitigates against taking part in sport but this variable is not significant in the Northern Ireland model.

## 7 Conclusions

This project explored participation in culture, arts and leisure among Northern Ireland residents and made comparisons both internationally, as well as with other regions of the UK. Whilst these topics have been included in other studies and surveys, the variable definitions of what constitutes culture, arts and leisure makes comparisons difficult, as evident in Appendix 1.

The International Social Survey Programme provides a helpful international context, albeit that the data is now slightly out of date. The *Understanding Society* survey dataset provided a robust dataset with which to undertake bivariate and multivariate analysis.

As we indicated in the Discussion section, there may be scope for some further research to explore how participation in church activities or interaction with relatives is associated with levels of participation.

One advantage of the *Understanding Society* dataset is its longitudinal element, meaning that the analyses within this report can be replicated using future waves of the survey. This will enable us to explore if patterns of participation have changed over time, and if and how these have changed among individual respondents. The International Social Survey Programme is designed to repeat modules over time, and so future fielding of the Leisure Time and Sports module will facilitate cross-sectional analysis within an international context.

Of course, limitations to these datasets are that they do not include variables showing what type of cultural, arts or leisure facilities are available to the respondents, and how far away they are from where the respondent lives, what type of transport is available and so on. More localised quantitative or qualitative analysis would be more appropriate to investigate these factors. In particular, such localised work may incorporate the effect of the 2013 UK City of Culture, and/or the legacy of the 2012 Olympics.

## Appendices

### Appendix 1: Definition of sport, arts, museums and libraries

The following tables show the timeframe and activities used by a range of surveys:

- Understanding Society – questionnaire for Wave 2
- DCMS – questionnaire for Taking Part, 2012/13, Department for Culture, Media and Sport (DCMS)  
[http://www.culture.gov.uk/what\\_we\\_do/research\\_and\\_statistics/7387.aspx](http://www.culture.gov.uk/what_we_do/research_and_statistics/7387.aspx)
- Continuous Household Survey – questionnaire for 2010/11  
<http://www.csu.nisra.gov.uk/Continuous%20Household%20Survey%202010%2011%20Questionnaire.pdf>
- Carnegie report on libraries -  
<http://www.carnegieuktrust.org.uk/CMSPages/GetFile.aspx?guid=b04629b2-aa09-4bd0-bc3a-9b9b04b7aba1>

### Arts performance

	Question indicating timeframe	Activities
Understanding Society	In the last 12 months, have you done any of these activities? Please only include activities done in your own time or for the purpose of voluntary work	<ol style="list-style-type: none"> <li>1. Dance, including ballet</li> <li>2. Sang to an audience or rehearsed for a performance (not karaoke)</li> <li>3. Played a musical instrument</li> <li>4. Written music</li> <li>5. Rehearsed or performed in a play/drama, opera/operetta or musical theatre</li> <li>6. Taken part in a carnival or street arts event (e.g. as a musician, dancer or costume maker)</li> <li>7. Learned or practised circus skills</li> <li>8. Painting, drawing, printmaking or sculpture</li> <li>9. Photography, film or video making as an artistic activity (not family or holidays)</li> <li>10. Used a computer to create original artworks or animation</li> <li>11. Textile crafts, wood crafts or any other crafts, such as embroidery, knitting, wood turning, furniture making, pottery or jewellery</li> <li>12. Written any stories, plays or poetry</li> <li>13. Been a member of a book club, where people meet up to discuss and share books</li> </ol>
DCMS	In the last 12 months, have you done any of these activities?  For each activity, asked: Thinking about [Activity], in the last 12 months, have you done this ....?	<ol style="list-style-type: none"> <li>1. Ballet</li> <li>2. Other dance (for fitness)</li> <li>3. Other dance (not for fitness).</li> <li>4. Sang to an audience or rehearsed for a performance (not karaoke)</li> <li>5. Played a musical instrument to an audience or rehearsed for a performance</li> </ol>



	<ol style="list-style-type: none"> <li>1. In your own-time</li> <li>2. For paid work</li> <li>3. For academic study</li> <li>4. As part of voluntary work</li> <li>5. For some other reason</li> </ol>	<ol style="list-style-type: none"> <li>6. Played a musical instrument for your own pleasure</li> <li>7. Written music</li> <li>8. Rehearsed or performed in a play / drama</li> <li>9. Rehearsed or performed in an opera / operetta or musical theatre</li> <li>10. Taken part in a carnival (eg. as a musician, dancer or costume maker)</li> <li>11. Taken part in street arts (an artistic performance that takes place in everyday surroundings like parks, streets or shopping centres)</li> <li>12. Learned or practised circus skills</li> <li>13. Painting, drawing, printmaking or sculpture</li> <li>14. Photography as an artistic activity (not family or holiday 'snaps')</li> <li>15. Made films or videos as an artistic activity (not family or holidays)</li> <li>16. Used a computer to create original artworks or animation</li> <li>17. Textile crafts such as embroidery, crocheting or knitting</li> <li>18. Wood crafts such as wood turning, carving or furniture making</li> <li>19. Other crafts such as calligraphy, pottery or jewellery for yourself</li> <li>20. Bought any original works of art for yourself</li> <li>21. Bought any original / handmade crafts such as pottery or jewellery for yourself</li> <li>22. Read for pleasure (not newspapers, magazines or comics)</li> <li>23. Bought a novel or book of stories, poetry or plays for yourself</li> <li>24. Written any stories or plays</li> <li>25. Written any poetry</li> </ol> <p><i>Additional code 26: Been a member of a book club, where people meet up to discuss and share books</i></p>
CHS*	In the last 12 months have you done any of the following things listed on this showcard?	<ol style="list-style-type: none"> <li>1. Ballet</li> <li>2. Other dance (not for fitness)</li> <li>3. Sang to an audience or rehearsed for a performance (not karaoke)</li> <li>4. Played a musical instrument to an audience or rehearse for a performance</li> <li>5. Played a musical instrument for own pleasure</li> </ol>

		<ol style="list-style-type: none"> <li>6. Written music</li> <li>7. Rehearsed or performed in play/drama</li> <li>8. Rehearsed or performed in opera/opera</li> <li>9. Painting, drawing, printmaking or sculpture</li> <li>10. Photography as an artistic activity (not family or holiday snaps)</li> <li>11. Made films or videos as an artistic activity (not family or holiday)</li> <li>12. Used a computer to create original artworks or animation</li> <li>13. Textile crafts such as embroidery, crocheting or knitting</li> <li>14. Wood crafts such as wood turning, carving or furniture making</li> <li>15. Other crafts such as calligraphy, pottery or jewellery making</li> <li>16. Bought for yourself or have been bought any original works of art*</li> <li>17. Bought for yourself or have been bought any original/handmade crafts such as pottery or jewellery*</li> <li>18. Read for pleasure (not newspapers, magazines or comics)*</li> <li>19. Bought for yourself or have been bought a novel, or book of stories, poetry or plays*</li> <li>20. Written any stories or plays</li> <li>21. Written any poetry</li> <li>22. Helped with the organisation or running of a festival or carnival</li> </ol>
--	--	---

\* While question asked in CHS, options 16, 17, 18, 19 and 22 are not included in the DCAL definition of arts participation.

## Arts attendance

	Question indicating timeframe	Activities
Understanding Society	<p>In the last 12 months, have you been to any of these events? Please only include activities done in your own time or for the purpose of voluntary work</p>	<ol style="list-style-type: none"> <li>1. Film at a cinema or other venue</li> <li>2. Exhibition or collection of art, photography or sculpture or a craft exhibition (not crafts market)</li> <li>3. Event which included video or electronic art</li> <li>4. Event connected with books or writing</li> <li>5. Street arts or a public art display or installation (art in everyday surroundings, or an art work such as sculpture that is outdoors or in a public place)</li> <li>6. Carnival or culturally specific festival (for example, Mela, Baisakhi, Navrati, Feis)</li> <li>7. Circus (not animals)</li> <li>8. Play/drama, pantomime or a musical</li> <li>9. Opera/operetta</li> <li>10. Classical music performance</li> <li>11. Rock, pop or jazz performance</li> <li>12. Ballet</li> <li>13. Contemporary dance</li> <li>14. African people's dance or South Asian and Chinese dance</li> </ol>
DCMS	<p>In the last 12 months, have you been to any of these events?</p> <p>For each activity, asked: Thinking about [Activity], in the last 12 months, have you been to any of these events ....?</p> <ol style="list-style-type: none"> <li>1. In your own-time</li> <li>2. For paid work</li> <li>3. For academic study</li> <li>4. As part of voluntary work</li> <li>5. For some other reason</li> </ol>	<ol style="list-style-type: none"> <li>1. Film at a cinema or other venue</li> <li>2. Exhibition or collection of art, photography or sculpture</li> <li>3. Craft exhibition (not crafts market)</li> <li>4. Event which included video or electronic art</li> <li>5. Event connected with books or writing</li> <li>6. Street arts (art in everyday surroundings like parks, streets or shopping centres)</li> <li>7. A public art display or installation (an art work such as sculpture that is outdoors or in a public place)</li> <li>8. Circus (not animals)</li> <li>9. Carnival</li> <li>10. Culturally specific festival (for example, Mela, Baisakhi, Navrati)</li> <li>11. Play / drama</li> <li>12. Pantomime</li> <li>13. Musical</li> <li>14. Opera / operetta</li> <li>15. Classical music performance</li> <li>16. Jazz performance</li> </ol>

		17. Other live music event 18. Ballet 19. Contemporary dance 20. African people's dance or South Asian and Chinese dance 21. Other live dance event
CHS*	In the last 12 months have you been to any of the events listed on the showcard?	1. Film at a cinema or other venue 2. Exhibition or collection of art, photography or sculpture 3. Craft exhibition (not a crafts market) 4. Event which included video or electronic art* 5. Event connected with books or writing (such as poetry reading or storytelling) 6. Street arts (such as art in parks, streets, shopping centres)* 7. Circus 8. Carnival 9. An arts festival 10. A community festival 11. Play or drama 12. Other theatre performance (such as a musical or pantomime) 13. Opera/opera 14. Classical music performance 15. Rock or pop music performance 16. Jazz performance 17. Folk, or traditional or world music performance 18. Other live music event 19. Ballet 20. An Irish dance performance 21. Other dance event 22. A museum

\* While question asked in CHS, options 4 and 6 are not included in the DCAL definition of arts attendance.

## Library

	Question indicating timeframe	Activities
Understanding Society	During the last 12 months, have you done any of the following at least once? Please only include activities done in your own time or for the purpose of voluntary work	Used a public library service
DCMS	<p>During the last 12 months, have you used a public library service at least once?</p> <p>In the last 12 months, have you been to the library ....?</p> <ol style="list-style-type: none"> <li>1. In your own-time</li> <li>2. For paid work</li> <li>3. For academic study</li> <li>4. As part of voluntary work</li> <li>5. For some other reason</li> </ol>	<p>Used a public library service</p> <p>A definitions card for public library is used if necessary</p>
CHS	How often do you go to a Public Library (including mobile libraries)? (this does NOT include school, college, or university libraries)	
Carnegie	Now thinking about all types of public libraries, including libraries provided in public buildings, online library services and mobile libraries, have you used or contacted a public library in (insert country) in the last 12 months?	

## Museum

	Question indicating timeframe	Activities
Understanding Society	During the last 12 months, have you done any of the following at least once? Please only include activities done in your own time or for the purpose of voluntary work	Visited a museum or gallery
DCMS	<p>During the last 12 months, have you attended a museum or gallery at least once?</p> <p>In the last 12 months, have you attended a museum or gallery.....?</p> <p>READ OUT AND CODE ALL THAT APPLY</p> <ol style="list-style-type: none"> <li>1. In your own-time</li> <li>2. For paid work</li> <li>3. For academic study</li> <li>4. As part of voluntary work</li> <li>5. For some other reason</li> </ol>	Attended a museum or gallery
CHS	<p>Have you ever been to a museum in Northern Ireland?</p> <p>Which, if any, of the following museums have you visited in the last 12 months?</p> <p>Also asked as part of arts attendance question – see above</p>	<ol style="list-style-type: none"> <li>1. Ulster Museum, Belfast</li> <li>2. Ulster Folk &amp; Transport Museum, Cultra</li> <li>3. Ulster American Folk Park, Omagh</li> <li>4. W5, Odyssey Centre, Belfast</li> <li>5. Armagh County Museum</li> </ol>

## Sport

	Question indicating timeframe	Activities
Understanding Society	Here is a list of types of sporting activities. Please tell me which ones, if any, you have done in the last 12 months?	<ol style="list-style-type: none"> <li>1. Health, fitness, gym or conditioning activities (including aerobics, keep-fit classes, weight-training or weight-lifting)</li> <li>2. Gymnastics</li> <li>3. Swimming or diving</li> <li>4. Cycling, BMX or mountain biking (for sport or recreation)</li> <li>5. Football (including 5 or 6-a-side)</li> <li>6. Rugby (Union or League) or American Football</li> <li>7. Track and field athletics</li> <li>8. Jogging, cross-country, road-running</li> <li>9. Hill trekking, backpacking, climbing or mountaineering</li> <li>10. Golf (including pitch and putt)</li> <li>11. Boxing</li> <li>12. Martial arts (including tai chi, taekwondo, karate and judo)</li> <li>13. Water sports, including yachting, dinghy sailing, canoeing, rowing, windsurfing, waterski-ing etc.</li> <li>14. Horse riding</li> <li>15. Basketball</li> <li>16. Netball</li> <li>17. Volleyball</li> <li>18. Cricket</li> <li>19. Hockey (exclude ice, roller or street hockey but include in 'other')</li> <li>20. Baseball, softball or rounders</li> <li>21. Racquet sports such as table tennis, tennis, badminton or squash</li> <li>22. Ice-skating</li> <li>23. Ski-ing (on snow, or an artificial surface: on slopes or grass)</li> <li>24. Motor sports</li> <li>25. Angling or Fishing</li> <li>26. Archery <i>{if Age &gt; 64}</i></li> <li>27. Yoga or pilates <i>{if Age &gt; 64}</i></li> <li>28. Bowls (indoors or outdoors) <i>{if Age &gt; 64}</i></li> <li>29. Croquet <i>{if Age &gt; 64}</i></li> <li>30. Other sporting activity, such as triathlon, fencing, lacrosse, orienteering, curling, gaelic sports, skateboarding, parachuting or scuba diving or anything else</li> </ol>

		31. Snooker, pool or billiards 32. Darts 33. Ten-pin bowling 34. Rambling, walking for pleasure or recreation 35. Shooting 36. Archery <i>{if Age &lt; 65}</i> 37. Yoga or pilates <i>{if Age &lt; 65}</i> 38. Bowls (indoors or outdoors) <i>{if Age &lt; 65}</i> 39. Croquet <i>{if Age &lt; 65}</i>
DCMS	<p>Firstly, I would like you to think about all the walking you have done. Please include any country walks, walking to and from work or the shops and any other walks you may have done.</p> <p>In the <u>last four weeks</u>, have you done at least one continuous walk lasting <u>at least 30 minutes</u>?</p> <p>You said that you had walked on [+WALKNUM+] day(s) in the last four weeks. Can I just check, on how <u>many days</u> did you walk for the purpose of health or recreation (not to get from place to place)?</p> <p>I would now like you to think about <b>all</b> the cycling you may have done. In the <u>last four weeks</u>, have you done at least one continuous cycle ride lasting at least 30 minutes? You said that you had cycled on [+CYCLDAY+] day(s) in the last four weeks. Can I just check, on how <u>many days</u> did you cycle for the purpose of health or recreation (not to get from place to place)?</p> <p>I have already asked you about walking and cycling. I would now like to ask you about other types of sport and recreational physical activity you may have done. Please include <u>all the activities</u> you have</p>	1. American football 2. Angling or fishing 3. Archery 4. BMX, cyclo-cross, mountain biking 5. Badminton 6. Baseball / softball 7. Basketball 8. Bowls [lawn] (outdoors) 9. Bowls (indoors) 10. Boxing 11. Canoeing 12. Climbing / mountaineering (include indoor climbing) 13. Cricket 14. Croquet 15. Curling 16. Cycling [HEALTH, RECREATION, TRAINING, COMPETITION] – <i>auto-coded if cyclrec &gt; 0</i> 17. Cycling [TO GET TO PLACES, I.E. WORK, SHOPS] – <i>auto-coded if cyclday &gt; cyclrec</i> 18. Darts 19. Fencing 20. Football (include 5-a-side and 6-a-side) [indoors] 21. Football (include 5-a-side and 6-a-side) [outdoors] 22. Gaelic sports (e.g. camogie, Gaelic football, hurling, Irish handball and shinty) 23. Golf, pitch and putt, putting 24. Gymnastics 25. Health, fitness, gym or conditioning activities 26. Hill trekking or backpacking 27. Hockey (exclude ice, roller and street hockey but include in ‘other’) 28. Horse riding 29. Ice skating



	<p>taken part in but <u>do not include any teaching, coaching or refereeing you may have done.</u></p> <p>Still thinking about the last four weeks, that is since have you done any sporting or active recreation activities?</p>	<ol style="list-style-type: none"> <li>30. Jogging, cross-country, road-running</li> <li>31. Judo</li> <li>32. Karate</li> <li>33. Keep-fit, aerobics, dance exercise (include exercise bike)</li> <li>34. Lacrosse</li> <li>35. Motor sports</li> <li>36. Netball</li> <li>37. Orienteering</li> <li>38. Other martial arts (include self defence, tai chi)</li> <li>39. Pilates</li> <li>40. Rounders</li> <li>41. Rowing</li> <li>42. Rugby League</li> <li>43. Rugby Union</li> <li>44. Shooting</li> <li>45. Skiing (on snow or an artificial surface; on slopes or grass)</li> <li>46. Snooker, pool, billiards (exclude bar billiards)</li> <li>47. Squash</li> <li>48. Swimming or diving [indoors]</li> <li>49. Swimming or diving [outdoors]</li> <li>50. Table tennis</li> <li>51. Taekwondo</li> <li>52. Tennis</li> <li>53. Ten-pin bowling</li> <li>54. Track and field athletics</li> <li>55. Triathlon</li> <li>56. Volleyball</li> <li>57. Waterskiing</li> <li>58. Weight training (include body-building)</li> <li>59. Weight lifting</li> <li>60. Windsurfing or board sailing</li> <li>61. Yachting or dingy sailing</li> <li>62. Yoga</li> <li>63-65. Other type of sport for example roller-blading, street hockey, skateboarding, water polo, surfing, scuba diving, gliding, hang/ paragliding, parachuting or parascending [specify up to 3 codes]</li> </ol>
CHS	I would like you to tell me if you have taken part in or played any of the following sports during the last 12	<ol style="list-style-type: none"> <li>1. Rugby Union or league</li> <li>2. American football</li> <li>3. Football indoors (INC 5-A-SIDE)</li> <li>4. Football outdoors (INC 5-A-SIDE)</li> </ol>

		<ul style="list-style-type: none"> <li>5. Gaelic football</li> <li>6. Camogie</li> <li>7. Hurling</li> <li>8. Cricket</li> <li>9. Hockey (EXCLUDE ICE, ROLLER, STREET)</li> <li>10. Netball</li> <li>11. Tennis</li> <li>12. Badminton</li> <li>13. Squash</li> <li>14. Basketball</li> <li>15. Table tennis</li> <li>16. Track and field athletics</li> <li>17. Jogging</li> <li>18. Cycling</li> <li>19. Indoor bowls</li> <li>20. Outdoor (lawn) bowls</li> <li>21. Tenpin bowling</li> <li>22. Swimming or diving</li> <li>23. Angling/fishing</li> <li>24. Yachting or dinghy sailing</li> <li>25. Canoeing</li> <li>26. Windsurfing/boardsailing</li> <li>27. Keepfit, aerobics, yoga, dance exercise</li> <li>28. Martial Arts (INCLUDE SELF DEFENCE)</li> <li>29. Weight training\lifting\body building</li> <li>30. Gymnastics</li> <li>31. Snooker, pool, billiards</li> <li>32. Ice skating (IF ROLLER EXCLUDE)</li> <li>33. Darts</li> <li>34. Golf, pitch and putt, putting (EXCLUDE CRAZY/MINIATURE)</li> <li>35. Skiing</li> <li>36. Horse riding (EXCLUDE POLO)</li> <li>37. Motor sports</li> <li>38. Shooting</li> <li>39. Other</li> </ul>
--	--	---

## Appendix 2: International Social Survey Programme

The International Social Survey Programme (ISSP) is an ongoing annual programme of cross-national collaboration on surveys covering topics important for social science research. Within the programme, the same module of questions is asked in over 40 countries worldwide. An important distinction between ISSP and other international social surveys is that the ISSP brings together pre-existing social science projects and coordinates research goals, thereby adding a cross-national, cross-cultural perspective to the individual national studies. Each research organisation funds all of its own costs. In contrast, the *European Social Survey* is funded as a standalone survey that is fielded worldwide.

Founded in 1984, ISSP now involves 48 countries. The *Northern Ireland Life and Times Survey* participates in the ISSP when funding and survey content allow. Within Britain, the ISSP modules are run within the *British Social Attitudes Survey*. No similar structure exists within Ireland, and so funding is obtained to run two ISSP modules together within a standalone survey.

Individual countries deposit their datasets centrally in the GESIS Data Archive (within the Leibniz Institute for the Social Sciences), which is responsible for archiving, integrating data and documentation and for the distribution of the merged international datasets for the Programme – see <http://www.gesis.org/en/issp>. Within this site is the facility to search for, browse, analyse and download ISSP data, such as frequency tables for a particular variable for all participating countries.

The annual topics for ISSP are developed by a sub-committee and pre-tested in various countries. The modules include questions that are meaningful and relevant to all countries and can be expressed in an equivalent manner in all relevant languages. Many topics are repeated on a regular basis, with around one third of the constituent question within these modules being replaced by newer questions. Each module is scheduled for a particular year, although individual countries can field this module within a two year period.

The Leisure Time and Sports module was scheduled for the first time in 2007. Due to funding priorities, within the *Northern Ireland Life and Times Survey*, the Leisure Time and Sports module was fielded in 2009. Tables A2.1 and A2.2 present levels of participation in culture, arts and leisure across ten selected countries, using data from this module.

**Table A2.1: Participation in free time activities**

The following questions are related to your free time, that is, time you are not occupied with work or household duties or other activities that you are obliged to do. How often do you do each of the following activities in your free time?									
Argentina	Australia	Ireland	Japan	Latvia	Poland	Sweden	Britain	USA	NI
<i>Go to the movies % never</i>									
57	22	36	46	59	49	22	29	32	37
<i>Read books % never</i>									
32	12	24	22	20	29	14	12	17	20
<i>Attend cultural events such as concerts, live theatre, exhibitions % never</i>									
55	27	39	41	20	49	20	28	30	27
<i>Take part in physical activities such as sports, going to the gym, going for a walk % never</i>									
44	7	23	24	38	53	5	12	14	19
<i>Do handicrafts such as needle work, wood work etc. % never</i>									
46	50	71	56	61	44	45	57	58	69

**Table A2.1: Participation in social involvement organisations**

Now, some questions about your social involvement. In the last 12 months, how often have you participated in the activities of one of the following associations or groups?									
Argentina	Australia	Ireland	Japan	Latvia	Poland	Sweden	Britain	USA	NI
<i>A sports association or group % at least once a month</i>									
9	23	21	7	7	4	20	19	14	22
<i>A cultural association or group % at least once a month</i>									
7	6	7	4	5	2	6	8	9	9
<i>A church or other religious organisation % at least once a month</i>									
17	15	13	3	4	9	7	14	33	30

Further details on the International Social Survey Programme are available at <http://www.issp.org>

### Appendix 3: Technical details of Understanding Society

*Understanding Society* is a major longitudinal survey study designed to provide valuable evidence about the people of the UK, their lives, experiences, behaviours and beliefs. The survey is a descendent of the British Household Panel Survey and the Northern Ireland Household Panel Survey, and is a longitudinal panel study of the socio-economic circumstances and attitudes of 100,000 individuals in 40,000 households in the UK. It is funded by the Economic and Social Research Council (ESRC) and run by the Institute for Social and Economic Research (ISER) at the University of Essex. A range of data collection methods are used, including face-to-face interviews, telephone interviews and self-completion questionnaires. Face-to-face interviews for the first wave of the study started in January 2009 and were carried out by NatCen and the Central Survey Unit of the Northern Ireland Statistics and Research Agency (NISRA). Each wave of data collection is carried out over two years.

A sample of around 48,000 addresses in Britain were selected at random from 2,640 postcode sectors, and 2,400 addresses selected from the Land and Property Services Agency in Northern Ireland. Every person aged 16 years or over within the household is asked to participate. The high number of respondents within each of the four regions ensures that analysis will be statistically valid. Tables A3.1 and A3.2 show the geographical breakdown of respondents from Wave 2.

**Table A3.1: Geographical breakdown of respondents from Wave 2 of *Understanding Society* (unweighted)**

	N	%
England	41535	76.2
Wales	4126	7.6
Scotland	4955	9.1
Northern Ireland	3873	7.1
UK	54489	

**Table A3.2: Geographical breakdown of respondents from Wave 2 of *Understanding Society* (weighted)**

	N	%
England	32486	83.9
Wales	1919	5.0
Scotland	3258	8.4
Northern Ireland	1077	2.8
UK	38740	

*Understanding Society* was designed and conducted in accordance with the ESRC Research Ethics Framework and the ISER Code of Ethics. The University of Essex Ethics Committee has approved Waves 1-5 of *Understanding Society*.

Whilst *Understanding Society* is designed as a longitudinal panel survey, this project will involve cross-sectional analysis focusing on Wave 2 data. The datasets for Wave 1 and Wave 2 were obtained from the UK Data Service (formerly the Economic and Social Data Service), which provides access to social and economic data in the UK in academia, business, third sector and all levels of government.

### ***Sampling and analysis issues***

The sample is based upon a proportionately stratified, equal probability (clustered) sample of residential addresses drawn to a uniform design from the Postcode Address File throughout England, Scotland and Wales (including north of the Caledonian Canal). In Northern Ireland, the sample is unclustered. A clustered design is deemed more appropriate for Britain as the savings in the unit cost of data collection outweigh the consequent design effect due to clustering.

The different sampling methodologies used for Britain and Northern Ireland can be problematic for statistical analysis software. The random, unclustered sampling methodology used in Northern Ireland causes no problems for analysis. Rather, it is the fact that one dataset involves two different methodologies that is the issue. The technical notes for use of *Understanding Society* do not deal with this problem well, and focus on the analysis of Britain, or the analysis of Northern Ireland – but not at the same time. One option is for the analyst to ‘fudge’ these issues, and rework the dataset in such a way that the software deals with Northern Ireland data as if it was a clustered sample.

In this study, the data were analysed using SPSS version 19.0, and weighted using the appropriate cross-sectional weight. It has been argued that SPSS is not appropriate for complex samples, such as *Understanding Society*, as sampling errors are calculated disproportionately. However, given the multivariate nature of the analysis, the researchers felt that these levels were acceptable. However, the researchers are in communication with the ISER team at the University of Essex, in order to bring address the issue of pan-UK analysis.

Further details on *Understanding Society* are available at <http://www.understandingsociety.ac.uk/>

#### **Appendix 4: Statistical significance**

A test of statistical significance indicates how confident an analyst can be that a relationship within their data is 'real', that is, it reflects a similar relationship within data from the total population from which the sample was drawn. Statistical significance is represented by p (probability). The smaller the p value, the smaller the risk that the sample data indicates a relationship that does not exist within the population. For a fuller discussion, see Bryman, 2008, p. 333.

However, it is important to be aware that statistical significance can be affected by sample size, that is, with a large sample, very small differences will be detected as significant.

Bryman, Alan, 2008, *Social Research Methods*, Oxford: Oxford University Press

## Appendix 5: Variables used in regression models

Variable	Description	Value codes	Original variable
Access*	Difficult you would find it to get to a sports or leisure facility including leisure centre, recreation ground or park, if you wanted to participate in sports and leisure activities?	1 Access difficult 0 Access not difficult	b_access
highqual	Highest educational qualification	1 Degree 2 Other higher degree 3 A level 4 GCSE 5 Other qualifications 9 No qualifications	b_hiqual_dv
respu16	Responsible for children under 16	1 Is responsible 0 Is not responsible	b_nchresp
carer	Is a carer (either in or outside home)	1 Is a carer 0 Is not a carer	b_aidhh, b_aidxhh
disability	Disability – does not have one of 12 listed disabilities	1 Has a disability 0 No disability	b_disdif96
caruse	Use of car or van	1 Use of car/van 0 No car/van use	b_caruse
enoughtime	Respondent feels they have enough time to do everything	1 Enough time 0 Not enough time	b_sctimemnuf
hasjob	Has a job (employee or self employed)**	1 Has job 0 Not have job	b_jbstat
sochsg	Social housing, ie NIHE or housing association	1 Social housing 0 Not social housing	b_tenure_d
hhincm	Household income – split into terciles	1 Low income 2 Middle income 3 High income	b_fihhmngs_dv
country	Region of residence	1 England 2 Wales 3 Scotland 4 Northern Ireland	b_country
rsex	Sex of respondent	1 Male 0 Female	a_sex
rage	Age in Wave 1	Actual age	a_dvage
urban *	Urban/rural classification	1 Urban 0 Rural	b_urban_dv

\* The urban/rural dichotomy did not prove to be as significant as we might have expected. We would suggest that the Access variable provides a proxy indicator of living in an isolated area with few services.

\*\* Having a job could be seen as giving the respondent less time to participate in activities. On the other hand, given that these are younger people with higher income, they may be more likely to participate.