



In the Frame or Out of the Picture?

*A Statistical Analysis
of Public Involvement
in the Arts*

By Pete Lunn and Elish Kelly
Economic and Social Research Institute

A report commissioned by the
National Economic and Social Forum

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'A beautiful thing never gives so much pain as does failing to hear and see it'

Michelangelo

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January 2008

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NESF Foreword

Most of us are now familiar with the concepts of economic marginalisation and social exclusion, but the concept of cultural exclusion is more novel. By cultural exclusion is meant the exclusion from the rich cultural resources of a society, as well as the social capital that goes with that – the resources that add so immeasurably to individual and community quality of life. This was the subject of a recent National Economic and Social Forum report, *The Arts, Cultural Inclusion and Social Cohesion: Report No 35*.

Cultural inclusion is an equal right to participate in the nation's artistic and cultural life – to enjoy art, to make art, to participate in decisions about art, to comment vigorously on art – to be active cultural citizens. It can thus be thought of as a fundamental democratic right – alongside the right to education and to participate in the formal democratic process.

From a psychological perspective, the arguments in favour of cultural inclusion are strong. The urge to make meaning, the desire to express and master experiences through self expression, and the urge to connect with other human beings through that self expression are a profound part of human nature. Cultural expression can be understood as the outgrowth of the urge to play and to fantasise – itself as powerful a driver of learning and development as formal education is. Children learn the most important lessons about life through play: how to bond, to communicate, to act as a group, to conquer fear, to heal traumas, to create something through play. The same can be said for art.

The NESF report, no. 35, sets out the arguments for that view, identifies the policy barriers that need to be addressed, describes the best practices that are happening around the country, identifies those people who are excluded from such participation, and makes a series of recommendations to make cultural citizenship for all a reality. It brings the topic into the powerful embrace of the social partnership process – which is the effective engine of much policy making in Ireland.

This new publication outlines in greater detail the factors which influence participation in the arts in Ireland. Using data from the Arts Council's publication, *The Public and the Arts*, and analysed by Dr. Peter Lunn and Dr. Elish Kelly of the Economic and Social Research Institute, it sets out new findings with regard to the effects of a variety of socio-economic and demographic facts on people's involvements in the artistic life of the community. It shows that social class, income, and especially educational attainment are stronger factors than earlier reports have indicated. In other words, for those already disadvantaged by low income and inadequate education, there is the additional disadvantage of being cut off from the powerful personal effects of the arts. People with lower educational attainment, social class and income are many times less likely than their fellow citizens to attend a range of arts events, including plays, art exhibitions, music events, and even mainstream films and street theatre. They are also many times less likely to read any kind of literature.

The report also shows that women are over twice as likely as men to attend plays, musicals, art exhibitions and classical music events; and to read novels and poetry. Meanwhile those aged over 45 are much more likely to attend no arts events at all.

During the course of preparation for the NESF report, we invited the Roundabout Youth Theatre Group from Ballymun to stage a stunning performance of part of *Xspired*, which explored the anguish and dilemmas faced by young people on the edge. Around the time of the launch of the report, TG4 screened a fascinating series of interviews with a group of elderly women from the west Kerry Gaeltacht, which were subsequently published as a book, *Bibeanna*. I quote below one of these women talking about her life because the lyrical beauty of her speech is so striking: *'Baile an Lochaigh is a very stony village, at the foot of Mount Brandon. Just inside it is Com a' Lochaigh, dark and mysterious. It was there, in Poll na bhFod, where the salmon were six feet long, that I was found as a baby, in the year 1920. This is what my grandmother told me....'*¹

The stories these elderly women told, just like the stories the young people from Ballymun told, are perfect examples of how the 'ordinary' – the joy of human companionship, strains in relationships, even great hardship and poverty – can be redeemed and transformed by art and left as a precious legacy to all of us.

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I believe that everybody has a unique experience of the world, a story to tell, a performance to give, a picture to paint. And this report is identifying the onus on all of us to dismantle the barriers that block that right to, and the gift of, that cultural expression.

This all provides further support for implementation of the recommendations of the NESF's policy report, *The Arts, Cultural Inclusion and Social Cohesion*. These recommendations are summarised again overleaf, for ease of reference.

Finally, the NESF would like to express their gratitude to the Arts Council for permission to carry out this further analysis of *The Public and the Arts* survey data. We would also like to thank Professor John O'Hagan, Trinity College, for his invaluable contribution to this work.

Dr. Maureen Gaffney

Chairperson

National Economic and Social Forum

Summary of the recommendations of *The Arts, Cultural Inclusion and Social Cohesion: NESF Report No 35*

Better Policy Co-ordination on the Arts

- At national level
- In local authorities
- Between local arts groups
- Between national and local arts organisations
- Among arts offices

Targeted Measures for Specific Groups to Participate

- Outreach programmes
- Public awareness campaigns
- Access for specific groups
- Staff training

Supports for Children

- Provision for young people
- Links between schools and artists
- Specific funding for disadvantaged schools
- Supports for adult education in the arts

Management and Certainty of Funding for Participation in the Arts

- Multi-annual funding
- Fund running costs and staff
- Mainstream successful pilot projects
- Provide specific funding for inclusion

Improved Data and Evaluation

- More data on who is, and is not, participating in the arts
- Statistics to measure the social impacts of the arts

Implementation Mechanisms

- National Strategy Committee
- Arts Partnership Fora at county level

Two related recommendations were also proposed in the report, which are:

- Funding – examine other sources of funding for greater participation in the arts, such as trusts, tax relief;
- Space – develop a policy on how local groups can access and pay for the use of publicly-funded arts centres; coordinate public spaces being built which can be used for the arts and social inclusion.

Acknowledgements

The authors would like to thank the National Economic and Social Forum (NESF) for supporting this work and, in particular, Dr. Anne-Marie McGauran for her assistance and guidance. Useful comments on an earlier draft were also received from Martin Drury at The Arts Council, Professor John O'Hagan at Trinity College, and Professor Philip O'Connell and Dr. Seán Lyons at the ESRI. We are grateful for all these inputs, which have improved the text considerably. Any errors or omissions, however, are the responsibility of ourselves.

Summary

Which social groups are more likely to attend different types of arts events? Who is most inclined to participate in arts activities? What are the reading habits of different sections of Irish society? Why are some people many times more likely to be involved in the arts than others? Are some people excluded from the arts? This report, which contains the most detailed statistical analysis of involvement in the arts to-date in Ireland, aims to answer these questions and to relate the answers to arts policy.

The data-analysis techniques employed take account of the complex relationships between different social groups. For instance, people with low educational attainment are very much less likely to be involved in the arts. But is this because there is a link between education and the arts, or because those with fewer qualifications tend to be older people whose age reduces their involvement? The statistical method used here allows us to decide, by comparing the affect of educational attainment for people of similar age, and the effect of age for people of similar education, and so on.

The findings are based on a representative sample of over 1200 Irish adults, who answered a comprehensive questionnaire about their involvement in the arts over the previous year. The survey covered film, theatre, all forms of music, live shows, art exhibitions, comedy, public art and reading.

The main conclusion of the analysis is that involvement in the arts is very strongly influenced by social and economic background. People of lower educational attainment, lower social class or lower income are very much less likely to be involved in the arts. This finding does not only apply to 'high' arts, such as classical music, theatre and arts exhibitions, but right across the spectrum, including mainstream films, comedy and popular music, as well as reading.

Another of the report's conclusions is that women are much more involved in the arts than men. Women express greater interest, attend a wider range of events, and are also more likely to read.

While it has been previously reported that people from disadvantaged groups are less likely to be involved in the arts, the relationship revealed in this report is stronger and more wide-ranging than has been documented before. In particular, educational attainment appears to have the most consistent impact on involvement, with those of less than average

attainment being many times less likely to attend arts events of almost all types, or to read for pleasure.

One possible explanation is that, rather than experiencing some form of exclusion, people from more disadvantaged backgrounds are simply less interested in the arts. If this explanation is right, then there would be little reason for arts policy to address the issue, as lack of involvement would represent an informed choice. However, the statistical techniques used here allow this theory to be tested. The analysis compares the relative involvement of individuals who express equivalent interest in the arts, or who are equally likely to watch or listen to arts programming on radio, television, CD etc. When people who possess equivalent interest (by these measures) are compared, those from better-off backgrounds are still many times more likely actually to attend arts events.

The existence of local arts officers and arts centres has the potential to widen access to the arts. However, the data show that awareness of arts officers and (to a lesser extent) arts centres is also heavily skewed towards those in more advantaged groups. Hence, at present, these components of the arts infrastructure reflect, rather than counter, the bias towards the better-off.

Overall, the findings provide strong evidence for the view that greater priority needs to be given to 'cultural inclusion' in arts policy. There is considerable interest in the arts right across Irish society. In the case of less advantaged groups, however, much of this interest is yet to be engaged.

1. Introduction

Artistic endeavour is a fundamental human activity. It is common to all our cultures; from ancient to contemporary, alternative to mainstream, primitive to high. The arts are a product of our culture, yet also reflect it and have the power to shape it. Their significance extends far beyond the pleasure they arouse or interest they stimulate. Works of art can be strong and subtle forces of change. The arts, therefore, have a special and powerful role in our society.

Consequently, the possibility that the arts may reinforce social divisions is a troubling one. Recent work has highlighted that this possibility is real in Ireland (NESF, 2007; Hibernian Consulting, 2006). Various aspects of involvement with the arts are subject to 'social gradients'. That is, statistics reveal that people of lower socio-economic status, indicated by lower educational attainment, social class or income, attend fewer arts-related events; participate less in artistic activity; and view or listen to less arts-related material via media. This report aims to add to our understanding of this statistical reality.

Research in Ireland and elsewhere suggests the arts provide personal and social benefits (for a review see NESF, 2007). For the individual, the arts offer emotional and intellectual stimulation, often contributing to people's perceptions of meaning and sense of identity. On a social level, the arts can contribute to social capital – the shared understanding and mutual trust a community derives from social interaction. Shared experience of the arts, active participation in the arts with others, and perhaps artistic works themselves, can increase social interaction and so promote social capital. Mass involvement in the arts may also provide what economists call 'externalities'. One person's decision to get involved in the arts can, in principle, benefit the wider community. If a particular individual's involvement makes them a better informed and more active citizen, someone who is more engaged in the society around them, it may not only benefit the individual, the rest of us may gain too.

How all of these benefits are distributed across social groups and communities is a matter of concern. Public policy aims to increase involvement in the arts and it is generally considered that public money should be spent equitably. In order to better inform policy, statistical analysis can be used to establish the strength of the relationship between socio-economic circumstances and involvement in the arts, and to look for potential causes of the relationship. A key issue here is whether differential involvement reflects different preferences and tastes, which are a matter of choice, or whether the less well-off face barriers to involvement. Most pressingly, if there is reason to believe that the lower involvement in the arts of specific groups is in part due to how the arts are funded and administered, then there is a strong argument for policy changes to promote 'cultural inclusion'.

The conclusion that involvement in the arts varies by socio-economic characteristics stems from a particular data-source. *The Public and the Arts (2006)*, a population survey commissioned by the Arts Council, asked over 1,200 Irish adults about their involvement in and attitudes towards the arts.² The data have so far been mainly analysed using 'univariate' statistical techniques (Hibernian Consulting, 2006). That is, indicators of involvement in the arts, such as attending arts events or participating in art clubs or classes, have been broken down by separate socio-demographic characteristics, such as gender, age, social class, educational attainment and income. The univariate picture is one of strong social gradients.

A problem when trying to interpret this kind of analysis is that the different categories are themselves related. For example, as noted in the NESF (2007) report, the much lower level of attendance at arts events by people with no second-level schooling may either reflect the impact of low educational attainment or the fact that almost half such people are over the age of 65. In order to disentangle these factors, to determine which are the strongest relationships, it is necessary to go beyond univariate statistical analysis and conduct a multivariate analysis instead.

2. This 2006 survey is the third such survey commissioned by the Arts Council (An Chomhairle Ealaíon). The first was commissioned in 1981, the results from which were published in *Audiences, Acquisitions and Amateurs – Participation in the Arts in Ireland (1983)*. The second survey was commissioned in 1994 and the results from this were published in *The Public and the Arts – A Survey of Behaviour and Attitudes in Ireland (1994)*.

Multivariate statistical analysis not only allows the researcher to determine which social group ('low educational attainment' or 'aged over 65', in the example above) has the stronger relationship with the variable of interest (attendance at arts events), it also permits more inferences to be drawn regarding what might lie behind the relationships. For instance, commenting on the fact that people of higher income attend more arts events, Hibernian Consulting (2006) conclude that this income gradient is evidence of 'cultural exclusion'. Indeed, the income gradient is consistent with cultural exclusion. However, consider the following analogy. Suppose data were collected on the household income of readers of *The Irish Times*. Almost certainly, such data would reveal an income gradient – higher income individuals would be more likely to be readers. Would this mean that there is 'broadsheet news exclusion'? The problem here is that identifying a statistical relationship doesn't tell us what causes the relationship. A relationship between income and reading a particular newspaper probably reflects the different preferences or tastes of different income groups. If so, the exclusion involved is self-exclusion. How do we know the same is not the case with the arts?

Multivariate analysis can help us to test the hypothesis that social gradients merely reflect different preferences or tastes. Once it is established that a set of characteristics such as age, gender, class and so on is related to the variable of interest – in statistical parlance, once we have a model – then it is possible to introduce additional variables, such as whether an individual is interested in the arts, to see if the relationships remain strong. In statistical analysis, this allows us to compare the 'direct' and 'indirect' effects. Consider, for instance, one of our results: the model for attending a play shows that people of lower income attend fewer plays. A direct effect of income might derive from the cost of admission: low income makes it harder to afford the ticket. However, an alternative is that low income people have less contact with people interested in theatre and so are less likely to develop an interest themselves. We can test these competing hypotheses, once we have built a basic multivariate model for attending a play, by adding variables that measure people's interest (whether they say they are interested in the arts and whether they watch or listen to plays on the television or radio). Put simply, we can test whether a person of lower income *who is interested* is less likely to attend an event than a person of higher income *who is similarly interested*.

This is not to say that multivariate analysis can perfectly unpick the complex relationships between socio-economic circumstances and the arts – it cannot. There remain multiple potential explanations for the patterns in the data described below. Nevertheless, multivariate analysis offers a definite improvement on univariate analysis, in terms of the scale and robustness of the conclusions we can draw. It allows us to be more confident about the factors that determine likely involvement in the arts and to assess the degree to which certain social groups are excluded from the benefits of the arts.

The remainder of this report is structured as follows. Section 2 outlines the statistical and presentational methods used. It explains how the extensive range of arts activities covered necessitates estimating a large number of models and employing some purpose-built methods to summarise them. Section 3 gives an overview of results by listing which variables are statistically significant for which types of involvement in the arts, but without quantifying the relationships. It confirms the statistical significance of socio-economic status, especially educational attainment. Section 4 quantifies these relationships by independent variable. This is an unusual structure for presenting multivariate results, but appropriate for handling the range of models estimated. The effects are large. Although there is variation across artforms and by type of involvement, those of lower socio-economic status are generally very much less likely to engage with the arts. Section 5 tests the hypothesis that the lesser involvement in the arts of lower socio-economic groups is due to differences in preferences and tastes. The results suggest otherwise. Section 6 examines some subjective measures of involvement in the arts, including awareness of local arts officers and centres. These also vary by socio-economic circumstances. Section 7 provides conclusions and assesses the potential explanations for our main findings. Section 8 describes some of the policy implications. Section 9 addresses urgent issues with respect to further research of relevance to arts policy.

2 Methods

The Public and the Arts survey (hereafter ‘the survey’) was conducted in summer 2006 by Hibernian Consulting for the Arts Council. The details of the survey methodology are not repeated here, other than to state that the survey employed a standard methodology designed to collect responses from a representative sample of 1210 Irish adults aged 15 and over.³ The statistical methodology employed for the present report is designed to counter two specific statistical challenges presented by the survey: first, the wide range of indicators of involvement in the arts and, second, the large number of relevant socio-economic and demographic categories relative to the sample size. (The next subsection, *Statistical Issues*, briefly outlines how these challenges are met and the non-technical reader may skip to the following subsection, *Presentation of Results*, without losing the thread of the argument.)

Statistical Issues

Using a 12-month reference period, the questionnaire asked respondents about their attendance at 22 types of arts events and 12 types of venues; active participation in 18 kinds of artistic activities; watching and listening habits for all these artforms; reading habits regarding five forms of literature; the purchase of arts-related products; plus a wide variety of subjective questions, including attitudes and preferences with respect to the arts, the availability of information on the arts, and barriers to attending arts activities. Thus, the number of potential variables of interest arising from the survey is very large and the impact of specific demographic and socio-economic variables is likely to vary considerably across them.

Most of these potential dependent variables are binary (either the respondent did attend/participate in the previous 12 months or did not). Hence, the method of analysis employed throughout is binary logistic regression, estimated by maximum likelihood.⁴ On some survey questions,

3. A more exhaustive description of the survey methodology is contained in Hibernian Consulting (2006), Annex 2.

4. The variable being modelled, the dependent variable (e.g. attend a play in the previous 12 months), takes the value 0 (e.g. ‘did not attend’) or 1 (e.g. ‘did attend’). The model estimates how strongly each of the independent/explanatory variables (e.g. gender, age, educational attainment etc) affects the probability that the dependent variable is a 0 or 1, by assigning each explanatory variable the most likely coefficient given the data available.

multiple responses relating to the frequency of the activity were collected. For the most popular types of event (mainstream films and plays) multinomial regressions based on these responses produce poorer fits to the data than binary models, so only the latter are reported.⁵

With so many dependent variables to model, some degree of automation is required in the model-building strategy. Moreover, the method chosen must be able to handle the large number of potential explanatory variables relative to sample size. The explanatory variables of interest collected by the survey are: gender, age (6 categories), marital status (4 categories), social class (5 categories), working status (9 categories), educational attainment (8 categories), presence of children under 18 in the house, region (4 categories), urban-to-rural location (4 categories), ethnic background (4 categories) and income (6 categories). Hence, this amounts to over 50 potential explanatory variables in the regression models, many of which are highly correlated with each other. Relative to the sample size of 1210, this is large. The potential problem here is that the regression models could 'over-fit', such that a small number of specific respondents have a disproportionate effect on the results, giving inaccurate estimates of the relationships of interest. This outcome is more likely when the dependent variable has a low response rate, as is the case with many of the variables in the survey. Furthermore, only half the sample provided information on income⁶, so once income is included in the models the sample-size is reduced and the potential problem is compounded.

The model-building strategy employed is to fit models for each dependent variable by forward step-wise regression, closely following the methodology laid down by Hosmer and Lemeshow (1989). Explanatory variables are introduced one at a time, according to their statistical significance based

5. A similar technique to binary logistic regression, except the dependent variable has more than two possible categories (e.g. 'did not attend', 'attended once', 'attended more than once').

6. Two further issues arise with respect to the income variable, in addition to the level of non-response. First, the survey question did not make clear whether the income being asked for was gross or net household income. Second, it is standard to 'equivalise' household income to take account of the number of people in the household, but this is not possible as the survey did not collect the relevant information. Both of these omissions will have introduced a degree of measurement error, which is likely to decrease the estimated impact of income in the analysis.

on the likelihood ratio test. This process continues until no more significant variables can be added. Further checks of the model specification are then conducted. First, two goodness-of-fit statistics are assessed: the Nagelkerke R-squared and the Hosmer and Lemeshow statistic. The former is analogous to the familiar R-squared measure of goodness-of-fit, but adapted for logistic regression.⁷ It varies between zero, signifying no relationship between the explanatory variables and dependent variable, and one, signifying a perfect model. Generally, wherever the Nagelkerke R-squared falls below 0.1, inferences based on the model are treated with caution. The Hosmer and Lemeshow test statistic is a measure of whether the model is as accurate for high probabilities of observing the dependent variable as for low probabilities. If the Hosmer and Lemeshow statistic falls below 0.1 or, especially, below 0.05, then this indicates a poor fit and there is reason to believe that the model specification can be improved by the addition or omission of explanatory variables. Where this test statistic, or the Nagelkerke R-squared statistic, suggests that the model is a poor fit, a better fit is sought, or the model is rejected. Second, the impact of removing each individual variable is assessed for statistical significance, again using the likelihood ratio test. Third, the possibility of reducing the number of categories for each variable is assessed. Fourth, individual categories among the omitted variables are checked to ascertain whether the model may be improved by including the variable with a reduced number of categories. Finally, having established a best ‘main effects’ model in this way, interaction terms are added to the model to test for significant interactions.⁸

The overall aim when adopting this strategy is to produce parsimonious models that contain only statistically significant explanatory variables, thereby reducing the danger of over-fitting. Although this method is chosen to prioritise accurate estimates of the relationships of interest, it is not uncontentious. In particular, the biggest danger is that a key variable is omitted from the model and that this results in a spurious relationship being reported. In order to minimise this possibility, the results obtained with each preferred model can be compared with the results when all potential variables are included. Where a significant discrepancy arises,

7. The familiar R-squared measure of goodness-of-fit, also known as the coefficient of determination, is a summary statistic that indicates how well the sample regression line fits the data. It varies between 0 and 1; the closer it is to 1, the better the fit of the model.

8. In practice, we find only a few robust, statistically significant interactions in the data.

the reason for this is sought and commented upon in the text. A second problem is that there are no absolute criteria for deciding on the best ‘main effects’ model. Ultimately, the researcher must rely on experience and judgement, balancing a combination of different goodness-of-fit statistics and robustness to the inclusion or exclusion of other variables.

The ‘main effects’ models are derived with income excluded, to ensure that they are based on as large and therefore reliable a sample as possible. The odds ratios used to quantify the relationships are from these models. Income is added separately to the main effects models. There is, in principle, a danger that the reduced sample for which there exist income data is biased. If those who did not provide income information differ in arts-related behaviour, the coefficients on the model would be inaccurate. In practice, however, the smaller sample size shows no signs of bias.⁹

Presentation of Results

With such a large number of relatively complex models being estimated, it is not practical to present the individual regression models within the main text. Most are provided in the appendices.¹⁰ The primary method of presentation is tables of ‘odds ratios’. These are derived from the models and lend themselves to intuitive interpretation. For instance, the odds ratio associated with whether there is an under-18 living in the house in the model for attending a circus is 4.17. This means that the estimated odds that a person who lives with an under-18 attended a circus in the previous 12 months are more than four times the odds that a person who does not live with an under-18 did so. Similarly, the odds ratio for the ‘ethnic minority’ variable in the model for going to a play, which is 0.09, suggests that the odds that a member of an ethnic minority went to a play in the previous 12 months are more than ten times lower than the equivalent odds for the rest of the population.

It is very important to note that an odds ratio is a relative concept. Thus, in the example above, we conclude from the odds ratio of 4.17 that

9. This is tested in two ways. First, the best main effects model is re-estimated for the reduced sample without income present. Second, a dummy variable for whether a respondent gave an income figure is added to the main effects model with the full sample. We find no evidence of bias.

10. Even the appendices do not provide an exhaustive list of models from which every one of the odds ratios is derived. The full model from which any number presented here is taken is available from the authors upon request.

living with an under-18 in the household increases an individual's odds of attending a circus by more than four-fold, relative to living in a household with no under-18. Every odds ratio is measured relative to a reference category, in this case living with no under-18, which is automatically set to the number one. Thus, odds ratios cannot be directly compared across different models. For example, the equivalent odds ratio for those living with an under-18 attending a play is 1.57. However, we *cannot* compare 4.17 to 1.57 and conclude that having an under-18 in the household means a person has over twice the odds of attending a circus than attending a play. This is because the likelihood of attendance for the reference category is also not the same for attending a circus as for a play. Each model must be viewed in isolation. In practice, when reading the tables of odds ratios, this means that numerical comparisons can be made within vertical columns, within models, but not horizontally, *between* models.

3 Overview of Results

Dependent variables related to people's arts-related behaviour produce better models, in terms of goodness-of-fit, than those measuring subjective attitudes. Three behavioural measures in particular produce good models: attendance at arts events, attendance at venues, and reading for pleasure. Because these models suggest robust effects of demographic and socio-economic variables, the relationships are quantified and provide the bulk of the results that follow. In contrast, the goodness-of-fit of models for active participation in arts activities is poor – the implications of which are discussed below. Workable models for viewing and listening to some artforms via media (on television, radio, DVD, CD etc.) are also obtainable. Sections 3, 4 and 5 concentrate on these dependent variables. There is a summary of results with other dependent variables, including subjective measures, in Section 6.

Attendance at Types of Arts Events

Table 1 presents a summary of 13 models for attendance at different types of arts events, three of which are provided in detail in Appendix A. Each model generates one column in the table. The models range from the most popular events, mainstream films, attended by 57% of the population, to country and western events, attended by 9.5% of the population. Once attendance drops below this level, the quality of the models deteriorates, in terms of goodness-of-fit and robustness to the inclusion or exclusion of variables. As described in Section 2, we decide that valid inferences cannot be drawn. However, while classical music concerts, opera and ballet all have low attendance levels, it is possible to produce a reasonable model for attending any one of these 'classical' events, which when combined have attendance of 11.5%. In addition, there is a reasonable model for stopping to look at public art, which 55% of people had done in the previous 12 months. Finally, 15.5% of the population attended no arts related event at all, so a model for attending 'no event' is also constructed.

Wherever any symbol appears in the relevant cell of Table 1, a statistically significant relationship exists. Where possible, the table also shows the direction of the relationship. A '+' against, for example, 'Female' or 'Age' indicates that women and older people are significantly more likely to

attend, while a ‘-’ against ‘Ethnic Minority’ or ‘Age’ indicates that members of an ethnic minority and older people are less likely to attend. Where a ‘±’ is inserted, the relationship is statistically significant but its direction is not easily summarised. This may be because the categories of the variable are not obviously ordered (e.g. ‘Work Status’ contains seven categories, including retired people, students, homemakers etc.) or because the relationship has no obvious direction (e.g. those aged 45-54 attend more Country and Western events than either older or younger people).

In all cases where it is significant, being female increases the likelihood of attendance. However, men are not significantly more likely to attend no arts event at all. This may seem like a contradiction, but can be explained by the fact that gender is not a significant factor for four of the five most popular arts events – women attend a greater variety of events. Higher educational attainment, higher social class, and higher income are associated with a greater chance of attendance at almost all events. The only exception is that higher social class is associated with a lower likelihood of attending a country and western event. In the model for attending no events at all, the direction of the relationships is reversed. Being from a non-white ethnic minority is always associated with a reduced chance of attendance.¹¹ The direction of the relationship with respect to the other variables is not constant, so it is necessary to consult the relevant sections below. This is particularly the case for the residential location and region variables, for which the patterns vary considerably.

Looking across the attendance models in Table 1, the impact of socio-economic circumstances on attendance at arts events is very striking. Educational attainment, social class and household income are significantly related to attendance, even when other variables such as age and gender are controlled for. Only one type of event, going to the circus, is not significantly associated with at least one of these three variables. Attending no arts event at all, on the other hand, is affected by all three. Of all the explanatory variables in this analysis, educational attainment is most consistently related to attendance at arts events.

11. The survey also collected information on nationality, but the overlap between ethnicity and nationality means that one or other, but not both, can be included in the models. We choose to employ ethnicity because it has a stronger and more consistent relationship with arts-related activity.

Table 1 Summary of statistically significant variables for models of attendance at different types of arts events

<i>Event</i>	Mainstream Film	Play	Rock/ Pop Concert	Trad Music Concert	Street Theatre	Stand-up Comedy	Musical
<i>Proportion attended</i>	57%	30%	28%	19%	18.5%	18%	17%
Female		+					+
Age	-	+	-			±	
Educational Attainment	+	+	+		+	+	+
Social Class		+	+			+	+
Work Status	±	±		±			
Child Under 18 in House		+			+		
Ethnic Minority	-	-	-				
Urban-Rural	±			±		±	
Region			±	±	±		±
Marital Status			±			±	
Income	+	+		+			+
<i>Event</i>	Pantomime/ Variety	Art Exhibition	Circus	Country & Western	Opera/ Ballet/ Classical	Public Art	No Arts Events
<i>Proportion attended</i>	15.5%	15%	13%	9.5%	11.5%	55%	15.5%
Female	+	+	+		+	+	
Age		±	-	±	+	±	-
Educational Attainment	+	+			+	+	-
Social Class		+		-	+	+	-
Work Status					±		±
Child Under 18 in House	+		+	-			
Ethnic Minority							
Urban-Rural	±	±		±	±	±	±
Region	±	±	±	±		±	
Marital Status							
Income				+	+		-

The quality of these attendance models varies and statistics for the goodness-of-fit of three sets of models are provided in Appendix A. For the full sample-size, the Nagelkerke R-squared for attendance at mainstream film, which is the best-fitting model, is a respectable 0.29. The equivalent statistic for the remainder of the models is always above 0.10, except in the case of attendance at traditional music events, for which it is 0.09. Once income is included in the specification, the Nagelkerke R-squared tends to improve considerably, and when variables that proxy for level of interest are included, it improves again. Thus, in our best model for attendance at a mainstream film, in Column 4 of Appendix A, it reaches 0.42. Overall, the goodness-of-fit implied by these Nagelkerke R-squared figures is not untypical for data of this type and is arguably on the high side, which permits greater confidence in the inferences being drawn.

Attendance at Arts Venues

Table 2 presents the same analysis for attendance at different types of venue. Two of the full models (Pub/Hotel, Open Air) are provided in Appendix B. Again, significant socio-economic effects are evident across the range of venues, but particularly with respect to traditional arts venues such as theatres, concert halls and art galleries. Interestingly, attending an arts event in a church is the only form of involvement in the arts identified in the whole study for which being a member of a non-white ethnic minority increases the likelihood of involvement.

It is noteworthy that the models for types of venue are at least as good in terms of fit as those for types of event. The Nagelkerke R-squared varies from 0.25 for a concert venue to 0.11 for a church. However, one significant venue for which it is not possible to produce a workable model is the community centre, in spite of the fact that 14% of the population had attended an arts event at one in the previous 12 months. This suggests that attendance at community centre arts events is not significantly related to the explanatory variables.

Table 2 Summary of statistically significant variables for models of attendance at different types of venue

<i>Event</i>	Pub/Hotel	Open Air	Theatre	Concert Hall	School Hall	Church	Art Gallery
<i>Proportion attended</i>	40%	33%	24%	18%	15%	13%	11%
Female			+	+	+	+	+
Age		-	+	+		+	
Educational Attainment	+	+	+	+		+	+
Social Class			+	+	+		+
Work Status	±						±
Child Under 18 in House					+		
Ethnic Minority					-	+	
Urban-Rural			±	±	±	±	±
Region	±	±	±	±		±	
Marital Status	±					±	
Income	±		+	+	+		

Participation

In addition to being consumers of the arts, or the ‘arts audience’, many members of the public are active participants. According to the survey, 33% of the Irish population actively participated in the arts during the previous 12 months, and 18% are members of an arts-related club or group.¹² Participation covers a broad range of activities, including playing a musical instrument, performing in productions of various sorts, organising events, singing, dancing, writing, video/photography, and so on.

Appendix D provides a single model for general participation. From this analysis, it is probable that women participate significantly more than men and that those of higher educational attainment do so also. However, what is most notable is that models for participation are a poor fit to the data. Despite relatively high incidences of the two variables concerned (33% and 18%), it is not possible to produce a good model of the behaviour concerned. The Nagelkerke R-squared is less than 0.1. The Hosmer-Lemeshow statistic is marginally significant, also suggesting a poor fit. Furthermore, the effects that are present are mostly weak and sensitive to the inclusion of other variables. Therefore, the most important conclusion to draw from the exercise is that the impact of demographic and socio-economic variables on active participation in the arts is considerably less than on attendance at arts events – the implications of which are discussed further below. Given the poor fit of the models, the relationship between the various independent variables and participation is not quantified in Section 4.

12. This 33% figure is higher than the 19% quoted in Hibernian Consulting (2006). It appears that the 19% figure arose from an error and it is anticipated that the figure will be revised to 33% in subsequent editions of the previous report.

Reading for Pleasure

Table 3 gives a summary of models for reading, which like those for attendance provide a reasonable fit to the data. Three full sets of models are given in Appendix C. Women read more than men and the latter are significantly more likely not to read any books at all. The socio-economic variables are very prominent in the reading models, with educational attainment being significantly related to reading every kind of book. The effect of the work status variable in relation to reading is the result of increased levels of reading by retired people. There are also interesting variations by region and location (see below). Finally, the model for reading no books at all is particularly interesting. Educational attainment, social class and income are all significant and the model is the best fitting of the reading models, with a Nagelkerke R-squared of 0.27.

Table 3 Summary of statistically significant variables for models of reading for pleasure

<i>Genre</i>	Novel/ Story/ Play	Biography/ Autobiography	Arts Non-fiction	Other Non-fiction	Poetry	No Reading
<i>Proportion reading</i>	51%	29%	28%	19%	18.5%	18%
Female	+			+	+	-
Age		±			±	
Educational Attainment	+	+	+	+	+	-
Social Class	+	+	+			-
Work Status	±	±	±	±	±	±
Child Under 18 in House					+	
Ethnic Minority						
Urban-Rural			±	±		±
Region	±	±	±	±	±	
Marital Status						
Income	+	+				

The three sets of models now tabulated (attendance at types of events, attendance at venues, reading for pleasure) display broad general patterns with respect to socio-economic impacts, derived from models of reasonable goodness-of-fit. It is therefore clear that these activities are significantly affected by people's socio-economic status, even when age, gender and other factors are simultaneously controlled for.

Other Dependent Variables

In addition to these three sets of models, later sections describe significant effects of socio-economic variables in individual models for interest in the arts, watching and listening to the arts, and awareness of arts officers and arts centres. There is also a discussion of other potential dependent variables.

However, the strong patterns across the models for attendance and reading warrant specific investigation and so the following sections analyse these patterns by individual explanatory variable, beginning with what turns out to be the most significant one, educational attainment.

4 Results By Explanatory Variable

Educational Attainment

The analysis suggests that educational attainment has the most consistent impact on arts-related behaviour of any of the indicators collected in the survey. With the exception of circus, country and western music events, and events held in school halls, those of higher educational attainment are more likely to attend arts events. They are also more likely to read for pleasure, across all types of literature surveyed.

To get a sense of the scale of this effect and how it varies between different types of events, Table 4 presents odds ratios for different types of event, and different types of literature, derived from the best main effects models (column 1 in the models in Appendices A, B and C), with educational attainment split into five categories. Only estimates based on statistically significant relationships are presented, so where a particular type of event is absent, no significant relationship with educational attainment is evident. The odds ratios are expressed relative to a reference case of an individual with 2nd level qualifications only.¹³ Thus, in the first column, a person who attended second-level but left school without qualifications has around two-thirds (0.64) the odds of attending a mainstream film that a person with second-level qualifications has, while a person with a third-level degree has almost three times the odds (2.89). Any such comparison can be made within each column. Thus, a person with the third-level degree has over four-and-a-half times the odds of attending a mainstream film than the person with no qualifications has ($2.89 \div 0.64 = 4.52$).

13. The choice of reference category is arbitrary – it makes no difference to the results. Any category could be set to 1.00 and the odds ratios expressed relative to it. The choice of ‘second-level qualifications’ is for ease of interpretation relative to a large category in the middle. Those who obtained a higher qualification have odds ratios above 1.00 and those with no qualifications below 1.00.

Table 4 Estimated odds ratios by educational attainment for attendance at arts events and venues, and reading for pleasure

	Mainstream Film	Play	Rock/Pop Concert	Trad Music Concert	Street Theatre	Stand-up Comedy	Musical	Pantomime/Variety
No 2nd level schooling	0.38	0.27	0.35	0.92	0.46	0.40	0.41	0.35
No 2nd level qualifications	0.64	0.59	0.30	0.66	0.84	0.61	0.63	0.49
2nd level qualifications	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3rd level degree	2.89	1.78	1.22	1.46	2.47	1.57	1.16	1.15
Postgraduate degree	1.73	2.07	1.08	1.25	2.45	2.01	1.63	1.09

	Art Exhibition	Opera/Ballet/Classical	Public Art	No Arts Events	Pub/Hotel	Open Air	Theatre	Concert Hall
No 2nd level schooling	0.27	0.41	0.35	4.31	0.52	1.02	0.27	0.37
No 2nd level qualifications	0.47	0.51	0.51	3.20	0.45	0.81	0.39	0.48
2nd level qualifications	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3rd level degree	2.25	2.12	1.31	0.38	1.12	1.65	1.34	1.78
Postgraduate degree	2.78	1.92	1.93	0.90	1.04	1.68	1.90	2.12

	Church	Art Gallery	Novel/Story/Play	Biog/Auto biog	Arts Non-fiction	Non-fiction	Poetry	No Reading
No 2nd level schooling	0.34	0.46	0.18	0.29	0.57	0.38	0.22	5.15
No 2nd level qualifications	0.95	0.50	0.57	0.66	0.71	0.55	0.61	1.69
2nd level qualifications	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
3rd level degree	1.24	1.73	1.57	2.03	1.84	1.94	2.10	0.52
Postgraduate degree	1.60	2.39	2.07	1.88	2.66	2.65	3.41	0.35

The numbers in Table 4 make for stark reading. Recall that these figures are derived from a model that controls for other significant factors such as age. Looking across the table as a whole, while the numbers within individual rows cannot be directly compared, the pattern evident when reading down each column is similar across the range of events and venues. People of higher educational attainment are considerably, sometimes many times, more likely to attend each type of event. However, as one might expect, once the dependent variable is attendance at no kind of arts event, the picture reverses. Those with no qualification have more than three times the odds of attending nothing, four times if they didn't attend secondary school, relative to a person with second-level qualifications. Compared to someone with a degree, the difference is closer to ten times. These are quite dramatic effects.

Turning to reading, there are similarly large odds ratios for all types of literature.¹⁴ The odds ratio of greater than five, for those with no secondary schooling not reading at all, is presumably inflated by the fact that a proportion of this group is likely to have problems with basic literacy.

14. There is, however, an interesting interaction in the model for reading biography/autobiography. The negative impact of low educational attainment is significantly reduced where an individual is a member of the ABC1 social class.

Gender

Odds ratios by gender for attendance and reading for pleasure are provided in Table 5. Again, only odds ratios from models where gender is statistically significant are included. The figures represent the odds that a woman attends a specific event or reads a certain literature, expressed relative to a man (who, like the middle reference category for educational attainment, would have the number 1.00 throughout). There is no category of arts activity or literature in which men are significantly more likely to attend or read – all of the odds ratios except that for not reading at all are greater than one.

Table 5 Estimated odds ratios by gender for attendance at arts events and venues, and reading for pleasure

	Play	Musical	Pantomime/ Variety	Art Exhibition	Circus	Opera/Ballet/ Classical	Public Art	Theatre
Female	2.04	2.80	1.57	2.11	1.67	2.03	1.63	1.50
	Concert Hall	School Hall	Church	Art Gallery	Novel/ Story/Play	Non- Fiction	Poetry	No Reading
Female	1.70	2.04	2.84	1.73	2.27	1.43	2.15	0.41

While women are over twice as likely to attend a play¹⁵, musical or event in the opera/ballet/classical category, the odds ratios for attending a theatre or concert hall are not as high. This suggests that many of the events women are particularly more likely to attend may be amateur productions, perhaps staged in school halls, churches or similar locations, rather than professional theatre productions. Another plausible interpretation of Table 5 is that women are more inclined to attend arts events with children, although the odds ratios for attending a pantomime or variety show and the circus are not especially high, relatively speaking.

15. A significant interaction in the model for attending a play indicates that the gender effect is not as big for young adults, specifically those aged 25 to 34.

The odds ratio for reading nothing deserves specific mention. Controlling for other variables including socio-economic circumstances and work status, the odds that a man read no kind of literature in the previous 12 months are more than double those that a woman did.

Age

Table 6 provides odds ratios by six age categories, expressed relative to the 35-44 age bracket, for those models where age is statistically significant. The pattern of attendance by age varies greatly by type of event and somewhat by venue. For example, those over the age of 65 are almost seven times less likely to go to a mainstream film than a person in the 15-24 age bracket, but nine times more likely to go to a play. However, the largest gradient by age is, perhaps unsurprisingly, associated with going to a rock or pop concert. The relationships with age are not all so straightforward, however. There are a number of categories where both younger and older people are more likely to attend relative to the reference category of 35-44 year-olds, most notably stand-up comedy (at least up to age 65) and art exhibitions. Country and western music has the reverse pattern, such that it is most popular among the middle-aged and less so with both older and younger people. Age has only a small, albeit statistically significant impact on whether a person attends no arts events at all, the likelihood of which increases with age.

Age is also a significant factor for two types of literature: biography/autobiography and poetry. The latter is another example where both younger and older people engage more, although those over 55 are many times more likely to read poetry. It is interesting to note that age has no significant impact on whether a person reads at all – the impact of age on reading is about the type of books people read, not the likelihood of reading.

Table 6 Estimated odds ratios by age for attendance at arts events and venues, and reading for pleasure

	Mainstream Film	Play	Rock/Pop Concert	Trad Music Concert	Stand-up Comedy	Art Exhibition	Circus	Country & Western	
15 - 24	2.05	0.72	3.75	0.73	1.45	1.68	1.05	0.44	
25 - 34	1.18	1.46	3.14	1.12	2.33	1.88	1.64	0.99	
35 - 44	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
45 - 54	0.72	2.62	0.66	1.99	1.86	2.54	0.69	2.69	
55 - 64	0.60	3.66	0.28	1.95	1.47	2.06	0.56	1.82	
65 +	0.30	6.69	0.13	1.78	0.78	2.72	0.26	0.70	
	Opera/Ballet/Classical	Public Art	No Arts Events					Concert Hall	Church
15 - 24	1.05	0.74	0.63					1.32	1.00
25 - 34	1.36	1.08	0.62					0.98	0.96
35 - 44	1.00	1.00	1.00					1.00	1.00
45 - 54	2.38	1.13	1.53					0.37	1.48
55 - 64	3.01	1.45	1.10					0.55	1.60
65 +	3.92	1.09	1.75					0.13	1.97
	Blog/Autobiog	Poetry							
15 - 24	0.74	1.33							
25 - 34	1.04	0.92							
35 - 44	1.00	1.00							
45 - 54	1.43	1.71							
55 - 64	2.00	3.41							
65 +	1.41	6.55							

Social Class

The survey assigned each respondent one of six social classes (upper middle, middle, skilled working, semi-skilled, unskilled, farmer), according to the occupation of the chief income earner within the household. During the model-building process, almost invariably the major difference between classes exist between the first three categories (so-called ABC1s) and the others. For this reason, Table 7 presents odds ratios for ABC1 expressed relative to non-ABC1s (who would take the value 1.00). The ABC1 category covers 41% of respondents in the survey.

Table 7 Estimated odds ratios by social class for attendance at arts events and venues, and reading for pleasure

	Play	Rock/Pop Concert	Stand-up Comedy	Musical	Art Exhibition	Country & Western	Opera/Ballet/Classical	Public Art	No Arts
ABC1	1.58	1.72	1.31	1.55	1.68	0.54	1.82	1.44	0.61
	Theatre	Concert Hall	School Hall	Art Gallery		Novel/Story/Play	Biog/Autobiog	Arts Non-fiction	No Reading
ABC1	1.61	1.99	1.63	2.53		1.76	1.98	1.88	0.53

There was no significant effect of social class for attendance at mainstream films, street theatre, pantomime/variety shows or the circus, nor at pub/hotel venues, open air venues and churches. Thus, social class appears to increase the likelihood of attendance at what some might consider 'high' arts events and venues – concerts, theatre, exhibitions etc. Its impact is fairly consistent across these events, such that the odds that the people categorised as ABC1 attend are one-and-a-half to two-and-a-half times greater than those of other social classes. There is one type of event for which being classified as ABC1 significantly decreases attendance: country and western music.

Turning to reading, there is no impact of social class on reading poetry or general non-fiction. For all other categories, the odds of reading are one-and-a-half to two times higher, and similarly for reading any book at all.

Work Status

One might anticipate that work status would be related to attendance at arts events, perhaps because of the time constraints of employment. A small number of significant effects are to be found in the models, but for most events and venues the variable is non-significant. The top panel of Table 8 provides odds ratios for the unemployed, homemakers, students and retired people, expressed relative to working people (both full and part-time, who would take the value 1.00). These odds ratios are derived from those main effects models where work status is statistically significant. However, when income is added to these models, the role of work status mostly ceases to be significant (comparing the coefficients on work status variables in columns 1 and 2 of the appendix tables). One interpretation of this finding is that what relationship there is between work status and attendance is mainly driven by the lower incomes of those not working, which seems to outweigh the additional time they may have.

Table 8 Estimated odds ratios by work status for attendance at arts events and venues, and reading for pleasure

	Mainstream Film	Play	Trad Music Concert	Opera/Ballet/ Classical	No Arts Events	Pub/ Hotel
Unemployed	0.38	0.65	0.50	0.88	3.26	1.34
Homemaker	0.54	0.63	0.60	0.89	1.66	0.55
Student	1.27	2.13	0.37	1.31	0.33	0.80
Retired	0.54	0.41	0.38	3.48	2.19	0.48
	Art Gallery		Biog/ Autobiog	Arts Non-fiction	Poetry	
Student	1.93		1.84	1.94	2.63	
			Novel/Story/ Play	Non-fiction	No Reading	
Retired			2.12	2.35	0.50	

The finding that income is behind the statistical significance of work status is, as might be expected, less true of the category of ‘student’, presumably because time and opportunity are bigger factors than income. The bottom panel of Table 8 presents some separate results for students expressed relative to all non-students. Students are more likely to attend ‘high’ arts events and are also much more likely to read for pleasure. Finally, there also appears to be a reading benefit to retirement – retired people are twice as likely as non-retired people to read for pleasure.

Children

Having a child under 18 in the house is likely to be a double-edged sword from the perspective of arts activities; restricting the time available to engage with the arts, but also making some child-friendly artistic events attractive. This analysis is to some extent borne out in the findings, which are summarised in Table 9, where odds ratios are expressed relative to a person without a child in the household.

Table 9 Estimated odds ratios by the presence of a child under 18 for attendance at arts events and venues, and reading for pleasure

	Play	Trad Music Concert	Street Theatre	Pantomime/ Variety	Circus	Country & Western
Child in house	1.57	1.41	1.37	1.43	4.01	0.62
	School Hall			Poetry		
Child in house	3.41			1.62		

People with a child in the house are more likely to go to plays and traditional music concerts, watch street theatre and attend a pantomime or variety show. They are much more likely to go to the circus. Interestingly, the only negative impact that arises in the data is for attendance at a country and western music event. The failure to observe a bigger negative impact may be because the presence of children is less restrictive to people’s engagement with the arts than might be assumed. However, it must be remembered

that the reference period in the survey is 12 months. It remains possible that the frequency of attending events is reduced by having children. Finally, unsurprisingly, having an under-18 in the house makes people more likely to attend an event in a school hall and more likely to read poetry for pleasure, presumably with the children concerned.

Ethnic Minorities

The results for attendance by ethnic minorities must be read with a statistical health warning. The survey asked respondents to categorise themselves into one of four ethnic categories: white, black, Asian or other. The number of non-whites picked up among the sample of 1210 was just 21. Thus, any inferences drawn are based on a very small sample of individuals. For the following analysis, this group are pooled together into a single ‘non-white’ category. But the size of this category is sufficiently small that very large differences between the responses of these 21 individuals and the rest of the sample would need to be observed in order to reach statistical significance. Indeed, large differences were observed for five dependent variables outlined in Table 10, which gives odds ratios expressed relative to whites.

Table 10 Estimated odds ratios by membership of ethnic minority for attendance at arts events and venues

	Mainstream Film	Play	Rock/Pop Concert	School Hall	Church
Non-white	0.35	0.09	0.28	0.19	2.85

The odds ratios reveal the odds that non-whites attend a mainstream film to be three times lower, rising to ten times lower for a play and almost four times lower for a rock/pop concert. These are the three most popular types of event, so it is highly likely that significant effects would have been observed for other events had the sample of non-white people been larger. Two significant effects are also evident for venues, with non-whites being five times less likely to attend an event in a school hall and, interestingly, almost three times *more* likely to attend an event in a church. No significant effects are apparent for reading.

Although the sample is small and therefore inferences must be treated with caution, it is reasonable to surmise that the impact of membership of a non-white ethnic minority on attendance at arts events is likely to be substantial. A survey with a larger sample-size is needed to establish this finding more firmly.

Residential Location

The survey categorised people as living in one of four types of location: urban/suburban (35%), large town (20%), small town (15%) or rural (31%). Odds ratios for significant effects on attendance at arts events and reading for pleasure are given in Table 11. For a subset of these dependent variables, a pattern emerges across all four locations. The odds ratios in these cases are expressed relative to the urban/suburban location (top two panels). In the remaining cases, the difference is specific either to living in an urban-suburban location or a rural location, so the odds ratio is expressed relative to the other locations (bottom panel).

For three of the four types of events and two of the three venues there is a similar pattern across the odds ratios. The people least likely to attend are those in small towns. There is also a positive effect of living in a large town in some cases. This pattern applies to mainstream film, stand-up comedy, and events in theatres and concert halls. It is an interesting finding. Small towns are less likely to possess some of the arts infrastructure possessed by large towns and cities. It may be that people living in small towns are less likely to travel to a distant venue than those who live rurally, who are distant from all facilities. Furthermore, where venues do exist in large towns, people may be more inclined to use them, on a per capita basis, than those living in cities.

Table 11 Estimated odds ratios by residential location for attendance at arts events and venues, and reading for pleasure

	Mainstream Film	Trad Music Concert	Stand-up Comedy	Public Art	Pantomime/Variety		
Urban/suburban	1.00	1.00	1.00	1.00	1.00		
Large Town	0.61	1.53	1.53	1.91	0.93		
Small Town	0.30	2.17	0.71	0.85	0.51		
Rural	0.52	2.32	1.01	1.19	0.47		
	Theatre		Church	Non-Fiction		No Reading	
		Concert Hall					
Urban/suburban	1.00	1.00	1.00	1.00	1.00	1.00	
Large Town	0.92	1.36	0.53	1.25	1.08	1.08	
Small Town	0.26	0.53	0.48	0.53	1.52	1.52	
Rural	0.54	0.59	0.23	0.54	1.64	1.64	
	Art Exhibition	No Arts Events	Country & Western	Opera/Ballet/Classical	School Hall	Art Gallery	Arts Non-fiction
Urban/suburban	1.85	0.60					2.76
Rural			2.50	0.41	0.58	0.48	

There are some other notable variations with location. Attendance at arts events in churches tends to be a phenomenon of built-up areas. The data also suggest that rural school halls are less likely to be attended for an arts event. Art exhibitions are more likely to be seen by those living in cities, perhaps reflecting where visiting exhibitions are usually sited. Those in cities are also less likely to attend no events. Rural people are much more likely to attend a country and western music event than a classical music event.

There are also some effects relating to reading for pleasure. Reading is more likely in cities and large towns, especially reading of non-fiction. One possibility is that people who live in smaller towns and rural areas simply have less frequent access to bookshops and libraries, compared to those who live in large towns and cities.

Region

The survey categorised people into one of four regions: Dublin, rest of Leinster (hereafter 'Leinster'), Munster and Connaught/Ulster.¹⁶ In no region are people significantly more or less likely not to attend an arts event. Nor is reading nothing more likely in any region. However, there are some strong regional differences. Similarly to the outcome for residential location, some findings consist of a pattern across regions, and others appear to be specific to one region. Table 12 provides the relevant odds ratios, with those in the top panel expressed relative to Dublin, and those in the bottom two panels for single regions relative to the other three regions (which would all take the value 1.00 relative to the region specified).

16. Ulster here refers only to the three counties of Donegal, Monaghan and Cavan.

Table 12 Estimated odds ratios by region for attendance at arts events and venues, and reading for pleasure

	Rock/Pop Concert	Country & Western	Pub/Hotel	Open Air	Concert Hall	Arts Non-fiction	
Dublin	1.00	1.00	1.00	1.00	1.00	1.00	
Leinster	0.72	4.78	2.14	1.46	0.94	2.58	
Munster	0.53	1.61	1.63	1.95	2.75	0.74	
Connaught/ Ulster	0.95	4.57	3.60	3.01	2.00	2.26	
	Pantomime/ Variety	Public Art	Musical	Art Exhibition	Circus	Church	
Dublin	0.47	2.25					
Leinster			2.01	2.16	1.57	2.34	
	Trad Music Concert	Street Theatre	Theatre	Novel/ Story/Play	Biog/ Autobiog	Non-fiction	Poetry
Munster					0.62		0.55
Connaught/ Ulster	0.59	2.01	2.00	0.61		1.67	

There does not appear to be much in the way of a general pattern to these odds ratios – each region prefers certain events and genres, while spurning others. Some particularly strong findings, however, are the importance of pubs/hotels and open air venues outside Dublin and the definite regional pattern to country and western music.

Marital Status

Marital status was recorded in four categories by the survey: married, single, divorced/separated and widowed.¹⁷ In general, there are few statistically significant effects of marital status for attendance at arts events and none with respect to reading for pleasure. Odds ratios are given in Table 13, in the same format as for the other variables above.

Table 13 Estimated odds ratios by marital status for attendance at arts events and venues

Stand-up Comedy			
Married	1.00		
Single	1.65		
Divorced/Separated	0.36		
Widowed	0.92		
	Rock/Pop Concert	Pub/Hotel	Church
Single	1.55	1.39	
Widowed			2.24

Single people are more likely than married people to go to stand-up comedy, rock/pop concerts and arts events in pub/hotels.¹⁸ These findings are certainly in keeping with the stereotype of a single lifestyle. More intriguing is that divorced/separated people are less likely than married people to attend a comedy event and that widowed people are more likely to attend an event in a church.

17. Thus, it is not clear in which category the now substantial number of co-habiting people might have placed themselves.

18. An interaction in the model suggests that the increased likelihood that single people attend an event in a pub or hotel does not apply to those of low educational attainment.

Household Income

Household income is the last of the explanatory variables to be considered, as it raises particular methodological and theoretical issues. When income is added to the best main effects models, the sample size nearly halves, meaning that it is more difficult to obtain statistically significant effects. Combined with the problems of measurement of income highlighted in Section 2, the results for income are likely to underestimate its effect relative to the other explanatory variables considered in this analysis. Nevertheless, some strong results do emerge, which are presented in Table 14; where only odds ratios for models where income is statistically significant are included. For some models, a pattern exists across the six income categories. These odds ratios are expressed relative to the €30,000 – €44,999 annual household income category. For others, there is a more specific effect of being on a low income, so the odds ratios are expressed for those with an annual household income of greater than €30,000, relative to lower income households.

Table 14 Estimated odds ratios by income for attendance at arts events and venues, and reading for pleasure

	Mainstream Film	Opera/Ballet/ Classical	Pub/ Hotel	Theatre	No Reading	
< €15,000	0.46	0.53	0.43	0.48	1.63	
€15,000 – 29,999	1.09	0.59	0.58	0.46	1.35	
€30,000 – 44,999	1.00	1.00	1.00	1.00	1.00	
€45,000 – 59,999	1.57	1.21	0.57	1.12	0.88	
€60,000 – 74,999	3.14	2.12	0.41	0.96	0.26	
€75,000 +	3.76	2.88	0.29	1.35	0.26	
	Play	Musical	Country & Western	No Arts Events	Concert Hall	School Hall
€30,000 +	1.80	2.79	1.80	0.47	2.73	2.13
	Novel/Story/ Play	Biog/ Autobiog				
€30,000 +	1.93	1.55				

The pattern of results can be sensibly related to paying for access. With the possible exception of school halls, all of the types of events and venues for which income is significant would be likely to require an entry fee. Many of those events and venues for which income is non-significant, such as street theatre, art galleries and churches, would not charge for entry, or at least many would be less likely to. Those on a low income may therefore find these events and venues more affordable.

It is interesting to note, however, that the strongest impact of income is for attendance at mainstream films – stronger, indeed, than for the category of opera/ballet/classical. We offer two possible explanations for this finding. First, going to watch a mainstream film almost always requires payment for entry, whereas there may be some amateur classical music performances that are either free or require only nominal payment. Examples would be choral music performed in churches or recitals by school orchestras. Given the way the survey questionnaire was designed, these events are categorised together with concerts in major national venues. Second, many of the people going to mainstream films are young people and would not be the main breadwinner within the household, so parental income may well be a significant factor.

Income is also strongly related to reading habits. The model for reading no literature at all in the previous 12 months, in the right-hand column, displays the reverse pattern of odds ratios. Those with a weekly income of over €60,000 are particularly likely to read for pleasure. Members of these highest income households are some six to eight times more likely to have read for pleasure in the previous 12 months than those in the lowest income households, and four times more likely than those in the reference category of €30,000 – €44,999.

5 Controlling for Interest and Taste

There are a number of potential explanations for the strong impact of socio-economic status on arts-related activity, several of which are discussed below. However, one immediately intuitive explanation, as outlined in Section 1, is that people of lower socio-economic status are less interested in the arts generally, or the specific arts activity for which a strong relationship is found. The survey asked respondents about their interest in the arts and about viewing and listening habits, which can reasonably be expected to indicate such interest. The availability of these variables allows us to test the hypothesis that differences in interest are driving the main results.

Subjective Interest in the Arts

The survey asked respondents to agree or disagree with the simple statement: “I am interested in the arts (e.g. music, dancing, reading for pleasure etc.)”. Combining the agree and strongly agree responses, 75% of people say they are interested in the arts.

A multivariate model for this ‘interest’ variable is tabulated in Appendix E. Interest is significantly related to gender, social class, educational attainment, income, location and region. The odds that a woman is ‘interested’ are twice the odds that a man is, while those with higher educational attainment, social class and income are more likely to say they are interested in the arts. This model is consistent with the idea that interest is a factor that might help to explain our results.¹⁹

Watching and Listening to the Arts

The survey recorded whether respondents made a point of watching and listening to different types of arts (i.e. as opposed to catching a programme, or hearing a CD in passing), on television, radio, CD, DVD and so on, within the previous 12 months. Models for watching and listening do not generally match the goodness-of-fit of the attendance models, but there are two exceptions tabulated in Appendix F. The model for rock and pop music, with

19. Two significant interactions in this model indicate that the gender gap in interest is larger for those of low educational attainment or low social class.

a very respectable Nagelkerke R-squared of 0.29, shows that young people, those in Dublin, and people with high incomes are more likely to watch or listen to this genre (educational attainment is only significant when income is not included in the model). Access to Dublin's additional radio stations and specialist channels on cable television may be an issue here, with respect to both the effects of region and of income. The model for country and western music again underscores that this genre is more appealing to middle-aged people and is strongly linked with rural living and certain regions. The remaining watching and listening models are of poorer fit, though workable. Like the country and western model, they tend to mirror the findings for attendance.

Controlling for Interest in Attendance Models

The availability of a variable for interest in the arts generally and for watching and listening to specific artforms permits a test that may shed light on what is driving the relationships picked up by the models for attendance at different types of arts event. One possibility is that the results simply reflect differing levels of interest between different groups, e.g. more highly educated people pick up a taste for classical arts. This possibility is of direct policy relevance: if non-attendance is not a matter of access or opportunity, but of taste and preference, such that some social groups simply make an informed choice not to attend events, then it is arguably of less concern to policy-makers.

One way to test this hypothesis is to include the extra variables, for interest in the arts and for watching and listening to the type of art concerned, in the models for attendance. As described in the two previous subsections, these variables have shown themselves to be significantly related to the demographic and socio-economic background variables. Watching and listening to particular types of art on television or radio is more common and easier than attending equivalent events, so it is reasonable to assume that those who watch or listen have a preference for the type of art concerned. Thus, the hypothesis is that if the explanatory variables in the original attendance models are effectively proxies for interest in the arts, or for taste and preferences, then including these two variables in the models for attendance should remove the significance of the explanatory variables, or at least significantly reduce the coefficients and associated odds ratios.

This test is more convincing if there is shown to be a significant relationship between attendance and the variables measuring interest. Table 15 reveals that this relationship is strong, by tabulating the statistically significant odds ratios for both general interest in the arts and watching or listening to the specific type of art concerned. These odds ratios are derived by adding the variables to the relevant main effects models (columns 3 and 4 of the regression tables in Appendices A, B and C, and their equivalents for the other dependent variables). With the exception of attending stand-up comedy, the circus and country and western, self-expressed interest in the arts is significantly related to attendance at all types of events. It is also related to attendance at all venues bar churches, and reading all varieties of literature. More impressively, interest as measured by watching or listening to the specific type of art is strongly related to attendance at events of the same genre. The odds that people who watched or listened also attended an event are more than four times higher than the odds that people who did not watch or listen also attended, for every type of event, rising to almost fifteen times higher for art exhibitions. A person who watched or listened to no kind of arts is almost four times more likely to have attended no event. These results strongly suggest that genuine interest is being picked up by these two variables.

Table 15 Estimated odds ratios by art interest measures for attendance at arts events and venues, and reading for pleasure

	Mainstream Film	Play	Rock/Pop Concert	Trad Music Concert	Street Theatre	Stand-up Comedy	Musical	Pantomime/Variety
Interest	1.50	1.38	1.55	1.95	1.65	-	1.80	1.73
Watched or Listened	4.71	4.71	5.21	6.08	5.85	4.47	4.76	4.03
	Art Exhibition	Circus	Country & Western	Opera/Ballet/Classical	No Arts Events	School Hall	Church	Art Gallery
Interest	6.20	-	-	2.52	0.33	-	-	-
Watched or Listened	14.82	6.98	11.10	7.97	3.67	-	-	-
	Public Art	Pub/Hotel	Open Air	Theatre	Concert Hall	School Hall	Church	Art Gallery
Interest	2.67	1.62	1.38	2.79	3.81	1.74	-	11.71
	Novel/Story/Play	Biog/Autobiog	Arts Non-fiction	Non-fiction	Poetry	No Reading		
Interest	2.66	2.63	5.45	3.39	3.66	0.31		

Given this, it is interesting to observe what happens when these variables are added to the main effects models for attendance. This technique allows us to compare the effects of educational attainment, social class and income, plus the other explanatory variables, while controlling for subjective interest and whether the person watched or listened to the type of art concerned. The result is consistent across genres: the inclusion of the extra variables has little impact on the coefficients for the explanatory variables in the original models. In other words, even comparing people who express the same interest in the arts and are similarly likely to watch or listen to a particular artform, it remains the case that those of higher educational attainment, social class and income are much more likely actually to attend an event. This can be seen in columns 3 and 4 of the five models listed in full in Appendices A and B. It is also true of the models not tabulated in their entirety in the appendices, from which the odds ratios in Section 4 were computed.²⁰

It is of course possible that the interest variable and the watching or listening variables are not strongly enough related to actual preferences and tastes for the test to be valid. But the impressive odds ratios in Table 15 indicate otherwise. The results of this test therefore suggest that the strong socio-economic impact evident in the bulk of the results is driven by factors other than simple interest or personal taste.

20. These full models are available from the authors on request.

6 Other Dependent Variables

Overview

All of the many arts-related indicators collected in the survey could potentially be explained by a combination of the available demographic and socio-economic variables. However, as Section 3 explained, there may in fact be little relation between the explanatory variables and the arts-related variable of interest, as is the case with active participation in the arts.

Specifically, useful multivariate models cannot be produced for the following survey indicators: method of obtaining information about the arts, satisfaction with available information on the arts, distance travelled to arts events, various attitudes towards the arts (except 'interest' – see above), attitudes to government spending on the arts, and priorities for government on the arts. Hence, the primary determinants of these indicators are probably not demographic or socio-economic.

Some other potential dependent variables do give rise to models with adequate goodness-of-fit, but for reasons of space these are briefly described in the following text, rather than being tabulated.

The survey found that 27% of people had downloaded arts-related material in the previous 12 months. Multivariate modelling shows that downloading material is strongly related to factors one might expect to determine the ownership of computers and access to broadband. Accordingly, downloading material is more likely if an individual is young, working or a student, educated and lives in an urban/suburban location.

Barriers to Participation

Respondents were asked whether they faced any difficulties in attending arts events or participating in the arts. A model employing this subjective response as the dependent variables shows that the unemployed, home-makers, retired people, those with children and non-whites are significantly more likely to say that they face barriers. This model of a subjective response is thus consistent with the findings detailed in Section 4 above.²¹

Data constraints prevent the use of multivariate modelling to examine the barriers to participation that people face. However, a brief univariate

21. The goodness-of-fit of this model is not such that odds ratios can be compared with confidence, although the statistical significance of the relationships listed is robust.

examination of the specific barriers mentioned suggests a variety of barriers face those who do not work, but that poor health and transport are problems for retired people, while non-whites and those with children cited time as their primary difficulty.

Awareness of Arts Officers and Centres

A final set of models, which is of more direct policy relevance, is supplied in Appendix G. In these models, the dependent variables are whether a person is aware of the existence of their local authority arts officer and whether they are aware of their local arts centre. These responses produce models with surprisingly good fit.

If part of the aim of the arts officer posts and arts centres is to reach out to less well-off communities, the results are not encouraging. Dealing first with arts officers, some 20% of people are aware of them. However, those with third-level degrees have nearly twice the odds of being aware of the local arts officer, relative to a person with second-level qualifications, and more than four times the odds relative to someone with no qualifications.²² Additionally, those with income above €30,000 have around twice the odds of being aware of the officers, and those in higher social classes higher odds also. Note that because income and educational attainment tend to go hand in hand, this means that a graduate who earns a higher than average salary is some eight times more likely to be aware of their local arts officer than someone without qualifications who earns somewhat less than average income. Arts officers are also more familiar to women and older people, while there is also a strong regional bias, with those in Leinster and Connaught/Ulster approximately twice as likely to be aware of the local arts officer.

The picture for arts centres is somewhat similar, but the socio-economic bias is considerably less strong. For arts centres, awareness is 43%. People with higher educational attainment are more likely to be aware of the local arts centre, but this effect disappears once income is added to the model, such that those with income over €30,000 have considerably greater odds (a ratio of 1.72) than those of lower income. Again, women and older people have higher awareness of arts centres. There is also a strong effect of location: those categorised as urban/suburban have the lowest awareness, while the odds that someone living in a large town is aware of their local arts centre are more than three times higher.

22. A significant interaction in the model suggests that men with lower educational attainment are particularly unlikely to be aware of arts officers.

7 Conclusions

It is in the nature of an exploratory statistical analysis such as this that the relevant results are many, disparate and at different levels of detail. Thus, it is important to pull together the themes running through the findings, in order to offer some broad conclusions, potential explanations, and to draw any policy implications.

Main Findings

There is one overriding theme that emerges from the analysis with respect to attendance at art events in Ireland, both by type and by venue. There appears to be a very strong impact of socio-economic background, such that those in more disadvantaged circumstances are very much less likely to attend arts events. The odds ratios presented in Tables 4, 7 and 14 estimate the effect of educational attainment, social class and income respectively, with all other variables controlled for. These odds ratios make for stark reading. Yet it is also the case that where two or more of these variables occur within the same model, the effects are compounded. That is, educational attainment, social class and income are highly correlated (graduates are much more likely to be higher earners and to be in social classes A, B or C1), and so the figures presented in Section 4 are probably even an underestimate of the scale of the socio-economic impact. For example, using the odds ratios from the model presented in Table A2 of Appendix A, model 2 (exp $[\beta]$), a graduate in a higher social class (ABC1) with an income above €30,000 has just under four ($1.797 \times 1.608 \times 1.349$) times the odds of going to see a play than someone with second-level qualifications, of lower social class, with income below €30,000. Once the comparison is with an unqualified person, the figure climbs to six or eight times the odds.

In comparison with the univariate breakdowns offered in previous reports (Hibernian Consulting, 2006; NESF, 2007), once a full multivariate analysis is conducted, which controls for other relevant factors such as gender, age, location, region and so on, the impact of socio-economic status, as measured by educational attainment, income and social class, is stronger than the univariate analysis reveals. Thus, the primary conclusion of the current exercise is that the association between socio-economic disadvantage and attendance at arts events is stronger than has been stated in previous reports.

A second conclusion of note is that a similar impact can be found with respect to reading for pleasure. Once again, higher socio-economic status makes a person much more likely to read all kinds of literature.

However, the first two conclusions may be set against a third, which is that the relationship between socio-economic status and active participation in the arts appears to be fairly weak, although educational attainment does appear to be somewhat significant.

This leads us to a fourth conclusion. Of the different socio-economic measures available for this analysis, educational attainment has the most consistent association with involvement across the range of arts activities covered.

A fifth conclusion echoes the previously reported finding that women are more involved in the arts than men. They also appear simply to be more interested. However, men are no more likely to attend no arts events at all, although they are more likely not to engage in any reading of literature.

Finally, the socio-economic pattern with respect to the arts is mirrored, rather than counterbalanced, by awareness of local arts officers and, to a much lesser extent, arts centres. Those in more advantageous circumstances are much more likely to be aware of arts officers in particular.

Potential Explanations

It is tempting to interpret a strong relationship between a socio-economic indicator like educational attainment and attendance at arts events as being about access to those events, or exclusion, in one form or another. Nevertheless, the number of potential causal routes between socio-economic status and involvement in the arts is such that to offer a single explanation for the primary conclusion just arrived at is a daunting task.

Take educational attainment. An individual with higher attainment is more likely to have been born to educated parents, who in turn would be more likely to be involved in the arts themselves. She or he will have spent longer in full-time education, surrounded by people also more likely to have a connection to the arts and, in many cases, to be studying them. After moving into the labour force, the individual is more likely to be surrounded by a network of other educated people, who have experienced the same advantages. Note that all of these advantages listed thus far do not take into account the simple possibility that education itself stimulates interest in the arts and promotes faculties useful for comprehending and enjoying

them. Which of these potential factors matters more, which is the strongest influence on involvement, which has no influence, the present data cannot tell us.

Nevertheless, there is some evidence arising from the present study that the impact of socio-economic factors extends beyond their influence on interests and tastes. The models described in Section 5 show that even comparing individuals who profess the same interest in the arts and who watch or listen to television, radio, CDs or DVDs of a particular artform, those in more advantageous circumstances are still considerably more likely actually to attend an event.

One obvious potential factor is cost – it is more expensive to attend arts events than to watch or listen. Recall that a more accurate measure of household income would be likely to be still more strongly related to involvement in the arts than is indicated by the figures presented. Another potentially important factor, as implied by the example of educational attainment just described, is networks. We do not have data on how people first become involved, or what leads them to develop the habit of attending arts events, but social and family networks may be very instrumental.

8 Policy Implications

NESF (2007) makes extensive policy recommendations with respect to 'cultural inclusion', which are summarised in the Foreword to this report. The recommendations are motivated by the view that many groups in Irish society are not benefiting from the arts to the degree that they could. Our findings certainly confirm that view and therefore add to the weight of evidence on which the policy recommendations are based.

However, there are some additional policy implications that arise from the multivariate analysis. In calling for greater priority to be given to inclusion, the NESF (2007) notes on p.108 that:

"...none of the mainstream arts organisations are required by any national policy or legislative provision to allocate funding to programmes to promote cultural inclusion."

Policy-makers must strike a balance, weighing up the need for time, funding and other resources to be directed towards cultural inclusion, against the requirement that they be directed to other priorities with respect to the arts. However, logically speaking, whatever case already exists for directing more efforts to tackle cultural exclusion, it is strengthened by the main conclusion of this current report. The impact of socio-economic circumstances on involvement in the arts is more severe than previously articulated and, therefore, a policy response is more pressing.

The strength of the socio-economic bias leads to a second policy implication. As has been recently pointed out in the related field of participation in sport (Lunn, 2006), there is a serious concern regarding the justification for public funding when the beneficiaries of that funding are strongly biased towards the better-off. The issue of justifying 'regressive' public support for the arts – the public subsidy of activities that benefit the disproportionately better-off – has a more substantial pedigree in arts policy than in sports policy (see Peacock, 2000, for a recent summary of the arguments). There are important differences between the justifications for public subsidy in the two areas. There are also similarities. For instance, a substantial amount of revenue in both areas is generated by the National

Lottery.²³ Thus, not only is the money spent regressively, the method of collection increases the regressive transfer, because lottery tickets are bought disproportionately by those of lower social class (DKM, 2002; Farrell and Walker, 1997). The present findings, similarly to the case with sport, mean that if overall policy does not explicitly and successfully target those in lower socio-economic groups, it is harder to justify.

A third policy implication arises from the finding that awareness of arts officers is heavily skewed towards higher socio-economic groups. This raises a concrete example of the kind of resource trade-offs that policy-makers must make. The result does not imply that arts officers do not do a good job, for that depends on how much emphasis is to be placed on reaching out to more disadvantaged communities as opposed to other duties. Certainly, it suggests that if cultural inclusion is to be taken seriously, a degree of redirection and training, as envisaged in NESF (2007) will be required.

The findings of Section 5 relating to interest and taste suggest a fourth policy implication. If differences in people's preferences were driving the social gradient in arts-related activity, there would be little point funding subsidised entry or marketing aimed at target groups – they would be unlikely to respond. However, the results suggest, instead, that there are interested individuals in less well-off groups who are interested in the arts. The data analysed here also provide some suggestion that cost may be a factor for them, and so subsidies to reduce ticket prices associated with targeted marketing could be fruitful.

Finally, the strength of the kind of analysis described in the above sections is not necessarily to point to specific policy recommendations, but to reveal the statistical reality of the situation to those in a position to act. In this case, the statistical reality is plain and striking. Awareness of the scale of the relationship between socio-economic circumstances and involvement in the arts, among both policy-makers and those who implement policy, may itself lead to changes in the effectiveness of specific policies.

23. The precise disbursement of lottery money is not easy to track. Tables for 2006, contained in the Department of Finance's *Revised Estimates for Public Services 2007*, list expenditure of €399 million under 'Expenditure Part-funded by the National Lottery'. In fact, €200 million of this is lottery money – almost exactly half. Of the total expenditure listed, €82 million goes to the Arts Council. Thus, while it is not possible to be precise, a reasonable estimate for lottery funding going to the arts is in the region of €40 million. Certainly, it is a substantial sum.

9 Further Research

The survey that formed the basis for the present analysis reveals some strong general patterns in the data and therefore permits concrete conclusions to be drawn. There is, nevertheless, more potentially useful work that can be done using this data. One of the difficulties of modelling involvement in the arts is the many different types of event and genre. Recent work in the UK has employed latent class analysis to group people by type of involvement, allowing better multivariate models to be constructed (Sturgis & Jackson, 2004; Chan & Goldthorpe, 2007).²⁴ It is possible that applying the same technique to the survey would improve the inferences that can be made from the data, although this is not certain, as the sample size involved is smaller than those used in the UK studies.

More generally, there is a data problem in relation to the arts. *The Public and the Arts* survey is very limited in the degree to which it can be used to investigate the causes of the relationships uncovered. It was not designed with this purpose in mind, but instead to allow comparison with 1994 data and to record public attitudes to the arts and arts policy. In particular, no details of individual and regular involvements with the arts were collected, such as duration, time, context, cost, frequency, initial contact etc. Moreover, the range of background characteristics was narrow.

There are other existing data-sets that may contain useful information about involvement in the arts. For instance, the micro-data from the most recent (2004-2005) Household Budget Survey, carried out by the Central Statistics Office, will be made available to researchers in late 2007 and contains data for household spending on cinema and theatre trips, for 8,000 households, complete with extensive background information. Arts policy is, nevertheless, at a considerable disadvantage compared to other policy areas, where a much greater pool of useful data exists. The comparison with sport is instructive. Since 2003 the Irish Sports Council has commissioned a series of surveys to provide multiple data sources, involving an initial sample of over 3,000 adults and 6,000 schoolchildren. In 2007, the Irish Sports Monitor is collecting data on sporting participation information

24. Latent class analysis is a statistical method used by researchers to find subtypes of related cases (latent classes) from multivariate categorical data.

from over 9,000 adults, while a module attached to the CSO's Quarterly National Household Survey (QNHS) will collect more limited data from over 30,000 households. The richness of these larger data-sets means that more is known about the factors that drive participation in sport than about those relevant to involvement in the arts. Findings from these surveys are currently being fed back into the sports policy process.

As practitioners of this kind of data-analysis, we would urge the arts policy community to follow suit. Funding similarly high-quality quantitative research would take a tiny fraction of the arts budget and yet provide invaluable information regarding how effectively that budget is spent. A larger survey of arts behaviour that, in addition to collecting more data on recent episodes of involvement, also sought information on household composition, family structure, parental characteristics, health status, transport access, academic interests, and more, would be likely to reveal much about why it is that some people are heavily involved with the arts, while others are not.

10 References

Chan, T. W. & Goldthorpe, J. H. (2007) 'Social Stratification and Cultural Consumption: Music in England'. *European Sociological Review*, 23 (1), pp 1–19.

DKM Economic Consultants (2002) *An Assessment of the Economic Impact of the National Lottery 1987-2001*. Dublin: DKM Economic Consultants.

Farrell, L. & Walker, I. (1997) *It Could be You! But What's it Worth? The Welfare Gain from Lotto*. London: Institute for Fiscal Studies.

Hibernian Consulting with Insight Statistical Consulting, and Martin Drury (2006) *The Public and the Arts*. Dublin: Arts Council.

Hosmer, D. & Lemeshow, S. (1989) *Applied Logistic Regression*. New York: John Wiley & Sons.

Lunn P. (2006) *Fair Play? Sport and Social Disadvantage in Ireland*. Dublin: ESRI.

NESF (2007) *The Arts, Cultural Inclusion and Social Cohesion*. Dublin: National Economic and Social Forum.

Peacock, A. (2000) 'Public Financing of the Arts in England', *Fiscal Studies*, 21 (2), pp 171-205.

Sturgis, P. & Jackson, J. (2004) *Examining Participation in Sporting and Cultural Activities: Analysis of the UK 2000 Time Use Survey*. London: Department of Culture, Media and Sport.

Appendices

Explanatory Note

The regression tables reported in these appendices are laid out as follows. The dependent variable is given in the title. Every numbered column represents a different model. For each explanatory variable, listed on the left-hand side, there are three figures reported: the estimated coefficient (β), its standard error (in brackets underneath), and the associated odds ratio ($\exp(\beta)$). In addition, asterisks are used to indicate the level of statistical significance associated with the coefficient, according to the key at the bottom of each table. In addition, at the bottom of the table are reported the sample-size (N) and various diagnostics, as described in Section 2, 'methods', in the main text.

Column (1) is the main effects model derived from the full sample. In column (2), income variables are added to the model. Because income data is only available for just over one half of the sample, the sample size is lower. Column (3) presents the main effects model with variables added that relate to interest. This indicates an individual's expressed interest in the arts ('interest') or whether they have watched or listened to the particular artform on television, radio, CD etc. The question addressed by these models is whether the inclusion of these variables, which control for individual interest, has any impact on the coefficients relating to the other explanatory variables, such as gender, educational attainment, age etc. Lastly, column (4) repeats the exercise with both income and interest variables included, allowing the effect of income to be assessed while controlling for level of interest. Where only two columns are presented, this is because either the income variables were non-significant (Table B2), or because a measure of interest is the dependent variable (Appendices E and F).

Appendix A Attendance at Art Activities

Table A1 Logistic regression models for the determinants of attending mainstream film

Explanatory Variable	(1)		(2)		(3)		(4)	
	β	exp(β)	β	exp(β)	β	exp(β)	β	exp(β)
Age (Ref = 35-44)								
15-24	0.720*** (0.270)	2.054	0.720* (0.380)	2.055	0.890*** (0.287)	2.434	0.783* (0.401)	2.189
25-34	0.169 (0.204)	1.184	0.196 (0.286)	1.217	0.142 (0.215)	1.152	0.146 (0.298)	1.158
45-54	-0.327 (0.225)	0.721	-0.373 (0.312)	0.689	-0.356 (0.240)	0.701	-0.366 (0.327)	0.694
55-64	-0.514** (0.243)	0.598	-0.657* (0.344)	0.518	-0.645** (0.258)	0.525	-0.786** (0.362)	0.456
65+	-1.191*** (0.399)	0.304	-1.186** (0.545)	0.305	-1.313*** (0.424)	0.269	-1.270** (0.582)	0.281
Work Status (Ref = Works)								
Unemployed	-0.971*** (0.346)	0.379	-0.750 (0.510)	0.472	-1.225*** (0.365)	0.294	-1.052* (0.539)	0.349
Homemaker	-0.623*** (0.197)	0.537	-0.402 (0.272)	0.669	-0.667*** (0.208)	0.513	-0.516* (0.284)	0.597
Student	0.242 (0.302)	1.274	0.693 (0.498)	2.001	0.033 (0.317)	1.034	0.504 (0.517)	1.656
Retired	-0.619* (0.351)	0.539	-0.152 (0.492)	0.859	-0.597 (0.377)	0.550	-0.085 (0.530)	0.918
Education (Ref = Second Level)								
Primary or Less	-0.975*** (0.306)	0.377	-0.643 (0.396)	0.526	-0.843*** (0.320)	0.430	-0.655 (0.416)	0.520
Attended Second Level	-0.447*** (0.167)	0.639	-0.697*** (0.247)	0.498	-0.430** (0.176)	0.651	-0.618** (0.255)	0.539
Third Level	1.060*** (0.226)	2.887	0.690** (0.302)	1.993	0.966*** (0.235)	2.628	0.709** (0.315)	2.032
Post-Graduate	0.550** (0.239)	1.733	0.262 (0.341)	1.299	0.404 (0.252)	1.498	0.263 (0.353)	1.300

Location (Ref = Urban/Suburban)

Large Town	-0.493*** (0.190)	0.611	-0.737*** (0.258)	0.479	-0.603*** (0.201)	0.547	-0.806*** (0.270)	0.447
Town	-1.217*** (0.210)	0.296	-1.413*** (0.316)	0.243	-1.217*** (0.222)	0.296	-1.528*** (0.329)	0.217
Rural	-0.658*** (0.169)	0.518	-0.722*** (0.233)	0.486	-0.664*** (0.178)	0.515	-0.792*** (0.244)	0.453
Ethnicity (Ref = White)								
Non-White	-1.059** (0.479)	0.347			-1.150** (0.510)	0.317		
Income (Ref = €30,000 - €44,999)								
< €15,000			-0.788** (0.318)	0.455			-0.694** (0.328)	0.500
€15,000 - €29,999			0.088 (0.248)	1.092			0.149 (0.259)	1.161
€45,000 - €59,999			0.451* (0.269)	1.569			0.371 (0.281)	1.450
€60,000 - €74,999			1.144** (0.483)	3.140			1.063** (0.495)	2.894
€75,000 +			1.323** (0.567)	3.756			1.397** (0.573)	4.044
Interest Measures								
Interest					0.403** (0.163)	1.496		
Watched Mainstream Film					1.550*** (0.156)	4.712	1.453*** (0.221)	4.278
Constant								
	0.982*** (0.205)	2.669	0.936*** (0.305)	2.549	-0.304 (0.268)	0.738	-0.019 (0.348)	0.981
N		1197		657		1197		657
-2 Log Likelihood		1340.926		705.453		1231.708		658.621
Nagelkerke R-Square		.294		.350		.385		.418
Hosmer and Lemeshow		.135		.590		.215		.687

* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_i = 0$)

Table A2 Logistic regression models for the determinants of attending a play

Explanatory Variable	(1)		(2)		(3)		(4)	
	β	exp(β)	β	exp(β)	β	exp(β)	β	exp(β)
Gender (Ref = Male)								
Female	0.711*** (0.150)	2.036	0.694*** (0.206)	2.001	0.569*** (0.159)	1.766	0.561** (0.218)	1.753
Age (Ref = 35-44)								
15-24	-0.333 (0.304)	0.717	0.000 (0.398)	1.000	-0.284 (0.317)	0.753	0.008 (0.424)	1.008
25-34	0.381* (0.225)	1.463	0.331 (0.298)	1.393	0.396* (0.238)	1.486	0.420 (0.322)	1.522
45-54	0.964*** (0.250)	2.623	0.937*** (0.334)	2.552	0.785*** (0.264)	2.192	0.844** (0.357)	2.325
55-64	1.296*** (0.279)	3.656	1.373*** (0.378)	3.949	0.953*** (0.296)	2.594	0.897** (0.411)	2.453
65+	1.901*** (0.410)	6.691	1.788*** (0.527)	5.978	1.235*** (0.441)	3.437	1.104* (0.569)	3.016
Social Class (Ref = Working Class)								
Middle Class (Lower – Upper)	0.454*** (0.157)	1.575	0.475** (0.221)	1.608	0.553*** (0.167)	1.738	0.562** (0.237)	1.754
Work Status (Ref = Works)								
Unemployed	-0.425 (0.463)	0.654	-1.472 (1.050)	0.229	-0.253 (0.478)	0.776	-1.290 (1.063)	0.275
Homemaker	-0.463** (0.223)	0.630	-0.101 (0.291)	0.904	-0.449* (0.234)	0.638	-0.091 (0.310)	0.913
Student	0.757** (0.305)	2.132	0.518 (0.434)	1.678	0.691** (0.316)	1.995	0.553 (0.451)	1.738
Retired	-0.899** (0.363)	0.407	-0.770 (0.484)	0.463	-0.589 (0.386)	0.555	-0.359 (0.517)	0.699

Education (Ref = Second Level)								
Primary or Less	-1.315*** (0.351)	0.269	-1.232*** (0.440)	0.292	-1.001*** (0.360)	0.367 (0.460)	-0.989** (0.460)	0.372
Attended Second Level	-0.529*** (0.194)	0.589	-0.590** (0.285)	0.554	-0.391* (0.204)	0.676 (0.305)	-0.523* (0.305)	0.593
Third Level	0.578*** (0.201)	1.782	0.299 (0.271)	1.349	0.525** (0.212)	1.690 (0.290)	0.263 (0.290)	1.300
Post-Graduate	0.729*** (0.236)	2.072	0.700** (0.321)	2.015	0.553** (0.250)	1.738 (0.344)	0.567* (0.344)	1.762
Family (Ref = No Children Aged <18)								
Children Aged 18 or Less	0.453*** (0.158)	1.573	0.364* (0.216)	1.438	0.456*** (0.166)	1.577 (0.228)	0.431* (0.228)	1.539
Ethnicity (Ref = White)								
Non-White	-2.376** (1.045)	0.093			-2.374** (1.074)	0.093		
Income (Ref = < £30,000)								
£30,000 - £75,000 +			0.586*** (0.221)	1.797			0.413* (0.237)	1.511
Interest Measures								
Interest					0.323* (0.188)	1.381		
Watched and Listened to Play					1.551*** (0.164)	4.714	1.703*** (0.212)	5.492
Constant								
	-2.099*** (0.249)	0.123	-2.421*** (0.365)	0.089	-2.676*** (0.295)	0.069	-2.811*** (0.400)	0.060
N	1190	653	1190	653	1190	653	1190	653
-2 Log Likelihood	1276.310	696.203	1172.992	628.479	1172.992	628.479	1172.992	628.479
Nagelkerke R-Square	.188	.216	.291	.334	.291	.334	.291	.334
Hosmer and Lemeshow	.640	.447	.263	.647	.263	.647	.263	.647

* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_1 = 0$)

Table A3 Logistic regression models for the determinants of attending no arts events

Explanatory Variable	(1)		(2)		(3)		(4)	
	β	exp(β)	β	exp(β)	β	exp(β)	β	exp(β)
Age (Ref = 45+)								
Under 45	-0.605*** (0.213)	0.546	-0.517* (0.289)	0.596	-0.692*** (0.222)	0.501	-0.707** (0.304)	0.493
Work Status (Ref = Works)								
Unemployed	1.181*** (0.366)	3.258	0.872* (0.484)	2.391	1.252*** (0.381)	3.497	0.885* (0.501)	2.422
Homemaker	0.507** (0.234)	1.661	0.060 (0.323)	1.062	0.632*** (0.244)	1.881	0.130 (0.335)	1.138
Student	-1.111** (0.491)	0.329	-1.399 (1.055)	0.247	-0.942* (0.499)	0.390	-1.082 (1.064)	0.339
Retired	0.785*** (0.288)	2.193	0.248 (0.387)	1.281	0.760** (0.301)	2.139	0.206 (0.399)	1.228
Education (Ref = Second Level)								
Primary or Less	1.460*** (0.276)	4.305	1.474*** (0.370)	4.367	1.313*** (0.289)	3.718	1.420*** (0.383)	4.137
Attended Second Level	1.162*** (0.212)	3.195	1.090*** (0.295)	2.975	1.143*** (0.219)	3.136	1.094*** (0.307)	2.986
Third Level	-0.969** (0.489)	0.379	-0.389 (0.573)	0.678	-0.933* (0.497)	0.393	-0.230 (0.581)	0.794
Post-Graduate	-0.108 (0.448)	0.898	-0.477 (0.794)	0.621	-0.051 (0.457)	0.951	-0.399 (0.809)	0.671

Social Class (Ref = Working Class)								
Middle Class (Lower – Upper)	-0.497** (0.233)	0.608	-0.739** (0.374)	0.478	-0.311 (0.242)	0.733 (0.385)	-0.630 (0.385)	0.533
Location (Ref = Large Town and Smaller)								
Urban/Suburban	-0.514** (0.204)	0.598	-0.596** (0.277)	0.551	-0.393* (0.210)	0.675	-0.443 (0.286)	0.642
Income (Ref = < €30,000)								
€30,000 - €75,000 +			-0.766*** (0.274)	0.465			-0.647** (0.284)	0.523
Interest Measures								
Interest			-1.118*** (0.194)	0.327			-0.895*** (0.261)	0.409
Never Watched Anything (last 12 months)			1.299*** (0.337)	3.667			1.525*** (0.483)	4.597
Constant								
N		1202		657		1202		657
-2 Log Likelihood		828.418		454.389		779.810		431.237
Nagelkerke R-Square		.278		.327		.335		.373
Hosmer and Lemeshow		.566		.951		.812		.209

* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_1 = 0$)

Appendix B Venues attended for an Arts Event

Table B1 Logistic regression models for the determinants of attending a pub/hotel for an arts event

<i>Explanatory Variable</i>	β	exp(β)	β	exp(β)	β	exp(β)	β	exp(β)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Work Status (Ref = Works)								
Unemployed	0.295 (0.194)	1.343 (0.266)	0.273 (0.195)	1.314 (0.195)	0.315 (0.195)	1.370 (0.268)	0.297 (0.268)	1.346 (0.268)
Homemaker	-0.594 (0.402)	0.552 (0.569)	-0.716 (0.403)	0.489 (0.403)	-0.559 (0.403)	0.572 (0.573)	-0.678 (0.573)	0.508 (0.573)
Student	-0.226 (0.283)	0.798 (0.437)	0.002 (0.437)	1.002 (0.437)	-0.261 (0.284)	0.770 (0.441)	-0.080 (0.441)	0.923 (0.441)
Retired	-0.732** (0.313)	0.481 (0.386)	-0.215 (0.386)	0.807 (0.386)	-0.711 (0.314)	0.491 (0.388)	-0.210 (0.388)	0.810 (0.388)
Education (Ref = Second Level)								
Primary or Less	-0.647** (0.273)	0.523 (0.361)	-0.830** (0.361)	0.436 (0.361)	-0.570** (0.274)	0.566 (0.364)	-0.807** (0.364)	0.446 (0.364)
Attended Second Level	-0.806*** (0.170)	0.447 (0.241)	-0.735*** (0.241)	0.479 (0.241)	-0.790*** (0.171)	0.454 (0.242)	-0.703*** (0.242)	0.495 (0.242)
Third Level	0.110 (0.180)	1.117 (0.250)	0.306 (0.250)	1.357 (0.250)	0.065 (0.181)	1.068 (0.252)	0.237 (0.252)	1.267 (0.252)
Post-Graduate	0.036 (0.207)	1.037 (0.294)	0.261 (0.294)	1.298 (0.294)	-0.038 (0.210)	0.963 (0.299)	0.166 (0.299)	1.181 (0.299)
Region (Ref = Dublin)								
Rest of Leinster	0.760*** (0.169)	2.139 (0.242)	0.417* (0.242)	1.517 (0.242)	0.727*** (0.169)	2.070 (0.243)	0.418** (0.243)	1.519 (0.243)
Munster	0.486*** (0.169)	1.626 (0.242)	0.713*** (0.242)	2.040 (0.242)	0.448*** (0.169)	1.565 (0.243)	0.719*** (0.243)	2.053 (0.243)
Connacht/Ulster	1.280*** (0.191)	3.596 (0.252)	0.801*** (0.252)	2.228 (0.252)	1.321*** (0.192)	3.746 (0.254)	0.851*** (0.254)	2.343 (0.254)

Marital Status (Ref = Married or was)²⁵

Single	0.328 (0.140)**	1.388	0.328* (0.198)	1.388	0.368*** (0.142)	1.445	0.383* (0.201)	1.466
Income (Ref = €30,000 - €44,999)								
< €15,000			-0.835*** (0.293)	0.434			-0.812*** (0.295)	0.444
€15,000 - €29,999			-0.540** (0.235)	0.583			-0.530** (0.236)	0.589
€45,000 - €59,999			-0.555** (0.251)	0.574			-0.598** (0.253)	0.550
€60,000 - €74,999			-0.900** (0.398)	0.406			-0.971** (0.401)	0.379
€75,000 +			-1.249*** (0.430)	0.287			-1.312*** (0.434)	0.269

Interest Measures

Interest					0.484*** (0.154)	1.623	0.594*** (0.207)	1.812
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Constant

	-1.008*** (0.211)	0.365	-0.400 (0.305)	0.670	-1.389*** (0.245)	0.249	-0.870** (0.349)	0.419
N		1196		654		1196		654
-2 Log Likelihood		1488.781		809.502		1478.588		800.612
Nagelkerke R-Square		.134		.163		.144		.178
Hosmer and Lemeshow		.464		.669		.904		.575

* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_j = 0$)

25. Includes individuals who are divorced and widowed.

Table B2 Logistic regression models for the determinants of attending an open-air venue for an arts event

<i>Explanatory Variable</i>	β	(t)	$\exp(\beta)$	β	(z)	$\exp(\beta)$
Age (Ref = 35-44)						
15-24	0.274 (0.202)		1.316	0.268 (0.202)		1.307
25-34	-0.021 (0.191)		0.979	-0.017 (0.191)		0.983
45-54	-0.987*** (0.242)		0.373	-1.007*** (0.242)		0.365
55-64	-0.598** (0.237)		0.550	-0.630*** (0.237)		0.533
65+	-2.060*** (0.423)		0.127	-2.073*** (0.423)		0.126
Education (Ref = Second Level)						
Primary or Less	0.019 (0.311)		1.019	0.079 (0.313)		1.082
Attended Second Level	-0.210 (0.174)		0.811	-0.197 (0.174)		0.821
Third Level	0.499*** (0.184)		1.648	0.472** (0.185)		1.604
Post-Graduate	0.516** (0.210)		1.675	0.471** (0.212)		1.601

Region (Ref = Dublin)

Rest of Leinster	0.380** (0.186)	1.462	0.355* (0.187)	1.426
Munster	0.669*** (0.176)	1.953	0.648*** (0.177)	1.911
Connacht/Ulster	1.102*** (0.195)	3.010	1.128*** (0.195)	3.088
Interest Measures				
Interest			0.320** (0.159)	1.377
Constant				
	-1.017*** (0.201)	0.362	-1.242*** (0.231)	0.289
N		1204		1204
-2 Log Likelihood		1393.587		1389.440
Nagelkerke R-Square		.151		.155
Hosmer and Lemeshow		.503		.640

* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_i = 0$)

Appendix C Reading

Table C1 Logistic regression models for the determinants of reading a novel

Explanatory Variable	(1)	(2)	(3)	(4)
	β	β	β	β
	exp(β)	exp(β)	exp(β)	exp(β)
Gender (Ref = Male)				
Female	0.819*** (0.126)	0.949*** (0.176)	0.734*** (0.129)	0.830*** (0.180)
2.269	2.584	2.084	2.294	
Social Class (Ref = Working Class)				
Middle Class (Lower – Upper)	0.568*** (0.141)	0.541*** (0.205)	0.489*** (0.144)	0.485*** (0.210)
1.764	1.717	1.630	1.625	
Work Status (Ref = All Other Categories)¹⁶				
Retired	0.753*** (0.257)	1.212*** (0.347)	0.792*** (0.264)	1.227*** (0.356)
2.124	3.360	2.208	3.411	
Education (Ref = Second Level)				
Primary or Less	-1.702*** (0.297)	-1.457*** (0.378)	-1.684*** (0.303)	-1.528*** (0.390)
0.182	0.233	0.186	0.217	
Attended Second Level	-0.566*** (0.160)	-0.615** (0.242)	-0.567*** (0.163)	-0.600** (0.247)
0.568	0.541	0.567	0.549	
Third Level	0.451** (0.191)	0.249 (0.256)	0.420** (0.195)	0.146 (0.262)
1.570	1.283	1.522	1.157	
Post-Graduate	0.727*** (0.239)	0.622** (0.317)	0.666*** (0.242)	0.522 (0.321)
2.068	1.862	1.946	1.686	

Region (Ref = All Other Regions)²⁷

Connacht/Ulster	-0.493*** (0.167)	0.611	-0.415* (0.221)	0.661	-0.413** (0.172)	0.661	-0.375* (0.225)	0.687
Income (Ref = < €30,000)								
€30,000 - €75,000 +			0.658*** (0.192)	1.931			0.581*** (0.195)	1.789
Interest Measures								
Interest					0.978*** (0.155)	2.659	1.008*** (0.216)	2.740
Constant								
	-0.469*** (0.125)	0.626	-1.081*** (0.223)	0.339	-1.148*** (0.170)	0.317	-1.697*** (0.268)	0.183
N		1202		657		1202		657
-2 Log Likelihood		1473.778		785.089		1432.220		762.227
Nagelkerke R-Square		.197		.230		.236		.268
Hosmer and Lemeshow		.500		.443		.850		.791

* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_1 = 0$)

26. Includes working, unemployed, homemaker and student.

27. Includes Dublin, rest of Leinster and Munster.

Table C2 Logistic regression models for the determinants of reading a biography or autobiography

Explanatory Variable	(1)		(2)		(3)		(4)	
	β	exp(β)	β	exp(β)	β	exp(β)	β	exp(β)
Age (Ref = 35-44)								
15-24	-0.301 (0.275)	0.740	0.123 (0.371)	1.131	-0.282 (0.277)	0.755	0.115 (0.373)	1.122
25-34	0.040 (0.209)	1.041	0.224 (0.290)	1.251	0.047 (0.212)	1.048	0.207 (0.295)	1.229
45-54	0.357 (0.237)	1.429	0.441 (0.331)	1.554	0.323 (0.241)	1.382	0.360 (0.335)	1.433
55-64	0.693*** (0.242)	1.999	0.669* (0.350)	1.952	0.605*** (0.245)	1.831	0.486 (0.354)	1.626
65+	0.346 (0.326)	1.414	0.350 (0.435)	1.419	0.336 (0.333)	1.400	0.265 (0.441)	1.303
Social Class (Ref = Lower Middle Class)								
Upper Middle Class	-0.107 (0.216)	0.898	-0.034 (0.298)	0.966	-0.067 (0.219)	0.935	-0.02 (0.301)	0.980
Skilled Working Class	-0.608*** (0.183)	0.545	-0.441* (0.257)	0.644	-0.544*** (0.185)	0.581	-0.406 (0.260)	0.666
Semi-Skilled Working Class	-0.566*** (0.205)	0.568	-0.411 (0.310)	0.663	-0.471** (0.208)	0.625	-0.329 (0.314)	0.720
Unskilled Working Class	-1.389*** (0.318)	0.249	-1.391*** (0.480)	0.249	-1.293*** (0.321)	0.275	-1.335*** (0.484)	0.263
Education (Ref = Second Level)								
Primary or Less	-1.249*** (0.367)	0.287	-0.612 (0.427)	0.542	-1.165*** (0.371)	0.312	-0.567 (0.433)	0.567
Attended Second Level	-0.409** (0.190)	0.665	-0.616** (0.301)	0.540	-0.407** (0.193)	0.666	-0.594* (0.305)	0.552

Third Level	0.709*** (0.191)	2.032	0.633** (0.263)	1.882	0.674*** (0.194)	1.962	0.529** (0.267)	1.697
Post-Graduate	0.630*** (0.228)	1.878	0.657** (0.319)	1.929	0.558** (0.230)	1.747	0.541* (0.324)	1.718
Region (Ref = All Other Regions)²⁸								
Munster	-0.474*** (0.155)	0.623	-0.536** (0.241)	0.585	-0.527*** (0.157)	0.590	-0.566** (0.243)	0.568
Work Status (Ref = All Other Categories)²⁹								
Student	0.611** (0.285)	1.843	0.188 (0.437)	1.207	0.550* (0.286)	1.733	0.086 (0.437)	1.090
Income (Ref = < €30,000)								
€30,000 - €75,000 +			0.438* (0.231)	1.549			0.393* (0.233)	1.482
Interest Measures								
Interest					0.965*** (0.189)	2.625	1.004*** (0.269)	2.730
Constant								
	-0.613*** (0.208)	0.542	-1.201 (0.356)	0.301	-1.389*** (0.264)	0.249	-1.916*** (0.415)	0.147
N		1202		657		1202		657
-2 Log Likelihood		1321.739		697.462		1292.431		681.610
Nagelkerke R-Square		.150		.151		.181		.182
Hosmer and Lemeshow		.171		.474		.176		.145

* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_i = 0$)

28. Includes Dublin, rest of Leinster and Connacht/Ulster.

29. Includes working, unemployed, homemaker and retired.

Table C3 Logistic regression models for the determinants of reading no book

Explanatory Variable	(1)		(2)		(3)		(4)	
	β	exp(β)	β	exp(β)	β	exp(β)	β	exp(β)
Gender (Ref = Male)								
Female	-0.901*** (0.135)	0.406	-0.896*** (0.186)	0.408	-0.784*** (0.140)	0.457	-0.742*** (0.192)	0.476
Social Class (Ref = Lower Middle Class)								
Upper Middle Class	-0.286 (0.289)	0.751	0.025 (0.406)	1.026	-0.375 (0.297)	0.687	0.025 (0.416)	1.026
Skilled Working Class	0.414** (0.185)	1.514	0.243 (0.264)	1.275	0.318* (0.189)	1.375	0.218 (0.269)	1.244
Semi-Skilled Working Class	0.645*** (0.196)	1.906	0.244 (0.292)	1.276	0.495*** (0.203)	1.641	0.118 (0.301)	1.125
Unskilled Working Class	0.946*** (0.256)	2.575	0.687* (0.378)	1.988	0.877*** (0.266)	2.403	0.701* (0.387)	2.017
Education (Ref = Second Level)								
Primary or Less	1.640*** (0.277)	5.153	1.445*** (0.359)	4.243	1.641*** (0.288)	5.159	1.531*** (0.372)	4.622
Attended Second Level	0.524*** (0.161)	1.689	0.649*** (0.239)	1.914	0.538*** (0.166)	1.712	0.643*** (0.244)	1.903
Third Level	-0.655*** (0.224)	0.519	-0.572* (0.302)	0.564	-0.641*** (0.230)	0.527	-0.515* (0.309)	0.598
Post-Graduate	-1.060*** (0.321)	0.346	-0.986** (0.421)	0.373	-0.977*** (0.325)	0.376	-0.885** (0.425)	0.413
Work Status (Ref = All Other Categories)⁹⁰								
Retired	-0.703*** (0.265)	0.495	-0.996*** (0.349)	0.369	-0.754*** (0.278)	0.470	-0.982*** (0.361)	0.375

Location (Ref = Large Town or Bigger)

Town or Smaller (Rural)	0.358** (0.139)	1.431	0.581*** (0.190)	1.787	0.306** (0.143)	1.357	0.567*** (0.194)	1.763
Income (Ref = €30,000 - €44,999)								
< €15,000			0.487** (0.298)	1.627			0.449 (0.308)	1.567
€15,000 - €29,999			0.300 (0.248)	1.350			0.280 (0.253)	1.323
€45,000 - €59,999			-0.131 (0.273)	0.877			-0.057 (0.279)	0.945
€60,000 - €74,999			-1.357** (0.652)	0.258			-1.328** (0.671)	0.265
€75,000 +			-1.355** (0.670)	0.258			-1.313* (0.680)	0.269
Interest Measures								
Interest					-1.185*** (0.154)	0.306	-1.063*** (0.209)	0.345
Constant								
	-0.708*** (0.181)	0.493	-0.570** (0.281)	0.565	0.200 (0.219)	1.221	0.135 (0.319)	1.145
N		1202		657		1202		657
-2 Log Likelihood		1338.601		720.169		1278.308		693.852
Nagelkerke R-Square		.241		.285		.296		.327
Hosmer and Lemeshow		.161		.050		.369		.044

* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_i = 0$)

30. Includes working, unemployed, homemaker and student.

Appendix D Arts Participation

Table D1 Logistic regression models for the determinants of participating in any arts activity

Explanatory Variable	(1)		(2)		(3)		(4)	
	β	exp(β)	β	exp(β)	β	exp(β)	β	exp(β)
Gender (Ref = Male)								
Female	0.741*** (0.137)	2.097	0.650*** (0.189)	1.915	0.664*** (0.139)	1.943	0.510*** (0.194)	1.666
Work Status (Ref = Works)								
Unemployed	0.294 (0.343)	1.342	0.720 (0.459)	2.055	0.308 (0.346)	1.361	0.762 (0.472)	2.142
Homemaker	-0.460** (0.207)	0.631	-0.324 (0.277)	0.723	-0.461** (0.208)	0.631	-0.307 (0.281)	0.735
Student	0.637*** (0.202)	1.891	0.971*** (0.366)	2.639	0.604*** (0.203)	1.829	0.897** (0.373)	2.453
Retired	-0.007 (0.261)	0.993	0.111 (0.348)	1.118	-0.014 (0.264)	0.986	0.057 (0.355)	1.059
Education (Ref = Second Level)								
Primary or Less	-0.328 (0.275)	0.720	-0.654* (0.370)	0.520	-0.245 (0.279)	0.783	-0.670* (0.379)	0.512
Attended Second Level	-0.159 (0.172)	0.853	-0.449* (0.251)	0.639	-0.136 (0.173)	0.873	-0.408 (0.256)	0.665
Third Level	0.369** (0.184)	1.446	0.241 (0.253)	1.272	0.323* (0.185)	1.382	0.151 (0.258)	1.163
Post-Graduate	0.505** (0.208)	1.657	0.440 (0.290)	1.553	0.420** (0.209)	1.522	0.307 (0.296)	1.360

Region (Ref = Dublin)

Rest of Leinster	0.263 (0.173)	1.301	0.330 (0.234)	1.390	0.210 (0.174)	1.233	0.318 (0.237)	1.375
Munster	-0.189 (0.172)	0.828	0.100 (0.250)	1.105	-0.244 (0.174)	0.783	0.093 (0.253)	1.098
Connacht/Ulster	0.241 (0.188)	1.273	0.179 (0.255)	1.196	0.289 (0.191)	1.336	0.249 (0.260)	1.282
Income (Ref = €30,000 - €44,999)								
< €15,000			-0.669** (0.298)	0.512			-0.592* (0.303)	0.553
€15,000 - €29,999			-0.375 (0.238)	0.687			-0.325 (0.243)	0.723
€45,000 - €59,999			-0.673** (0.260)	0.510			-0.755*** (0.264)	0.470
€60,000 - €74,999			-0.941** (0.417)	0.390			-1.048** (0.420)	0.351
€75,000 +			-0.243 (0.408)	0.784			-0.326 (0.411)	0.722
Interest Measures								
Interest				0.728*** (0.167)	2.070	1.092*** (0.239)		2.981
Constant								
	-1.257*** (0.163)	0.285	-0.824*** (0.247)	0.439	-1.754*** (0.205)	0.173	-1.583*** (0.310)	0.205
N		1202		657		1202		657
-2 Log Likelihood		1448.566		784.466		1428.298		761.035
Nagelkerke R-Square		.080		.106		.102		.150
Hosmer and Lemeshow		.055		.170		.017		.418

* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_i = 0$)

Appendix E Arts Interest

Table E1 Logistic regression models for the determinants of being interested in the arts

Explanatory Variable	β	(1)	$\exp(\beta)$	β	(2)	$\exp(\beta)$
Gender (Ref = Male)						
Female	0.717***	(0.144)	2.048	0.886***	(0.197)	2.424
Education (Ref = Second Level)						
Primary or Less	-0.630**	(0.260)	0.533	-0.277	(0.342)	0.758
Attended Second Level	-0.206	(0.180)	0.814	-0.234	(0.249)	0.792
Third Level	0.255	(0.239)	1.291	0.810**	(0.348)	2.249
Post-Graduate	0.488	(0.320)	1.629	0.991**	(0.444)	2.693
Social Class (Ref = Lower Middle Class)						
Upper Middle Class	-0.231	(0.292)	0.794	-0.072	(0.426)	0.931
Skilled Working Class	-0.462**	(0.208)	0.630	-0.167	(0.289)	0.846
Semi-Skilled Working Class	-0.820***	(0.217)	0.441	-0.585*	(0.310)	0.557
Unskilled Working Class	-0.707**	(0.282)	0.493	-0.303	(0.409)	0.739
Age (Ref = 45+)						
Under 45	-0.363**	(0.167)	0.696	-0.681***	(0.227)	0.506

Work Status (Ref = All Other Categories)³¹			
Student	0.531** (0.253)	1.701	0.879* (0.492)
Region (Ref = Dublin)			
Rest of Leinster	1.429*** (0.302)	4.176	0.255 (0.404)
Munster	1.175*** (0.261)	3.237	0.262 (0.352)
Connacht/Ulster	0.604** (0.288)	1.829	-0.064 (0.370)
Location (Ref = Urban/Suburban)			
Large Town	-1.097*** (0.303)	0.334	-0.128 (0.409)
Town	-1.088*** (0.275)	0.337	-0.394 (0.376)
Rural	-1.096*** (0.281)	0.334	-0.349 (0.354)
Income (Ref = < €30,000)			
€30,000 - €75,000 +			0.422* (0.225)
Constant			
	1.367*** (0.244)	3.922	0.972*** (0.372)
N		1202	657
-2 Log Likelihood		1227.272	674.752
Nagelkerke R-Square		.149	.167
Hosmer and Lemeshow		.638	.588

* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_i = 0$)

31. Includes working, unemployed, homemaker and retired.

Appendix F Viewing and Listening to the Arts

Table F1 Logistic regression models for the determinants of viewing and listening to rock and pop music

<i>Explanatory Variable</i>	(1)	(2)
	β	β
	$\exp(\beta)$	$\exp(\beta)$
Gender (Ref = Male)		
Female	-0.280** (0.134)	-0.191 (0.183)
Age (Ref = 35-44)		
15-24	1.352*** (0.250)	1.206*** (0.365)
25-34	0.915*** (0.205)	0.715** (0.278)
45-54	-0.852*** (0.222)	-1.077*** (0.294)
55-64	-1.350*** (0.244)	-1.467*** (0.333)
65+	-1.323*** (0.315)	-1.694*** (0.419)
Education (Ref = Second Level)		
Primary or Less	-0.812*** (0.310)	-0.515 (0.384)
Attended Second Level	-0.221 (0.171)	-0.254 (0.247)

Third Level	0.307 (0.200)	1.359	-0.163 (0.263)	0.850
Post-Graduate	-0.008 (0.223)	0.992	-0.252 (0.301)	0.777
Region (Ref = All Other Regions)³²				
Dublin	0.676*** (0.150)	1.966	0.547*** (0.202)	1.728
Marital Status (Ref = Married or was)³³				
Single	-0.386** (0.180)	0.680	-0.390 (0.246)	0.677
Ethnicity (Ref = White)				
Non-White	-0.852* (0.474)	0.426		
Income (Ref = < €30,000)				
€30,000 - €75,000 +			0.517** (0.205)	1.678
Constant				
	0.231 (0.191)	1.260	0.270 (0.321)	1.310
N		1193		655
-2 Log Likelihood		1362.647		745.939
Nagelkerke R-Square		.287		.289
Hosmer and Lemeshow		.216		.692
* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_1 = 0$)				

32. Includes rest of Leinster, Munster and Connacht/Ulster.

33. Includes individuals who are divorced and widowed.

Table F2 Logistic regression models for the determinants of viewing and listening to country and western music

Explanatory Variable	(1)		(2)	
	β	exp(β)	β	exp(β)
Age (Ref = 35-44)				
15-24	-0.816** (0.344)	0.442	-0.741* (0.446)	0.477
25-34	-0.254 (0.236)	0.776	-0.335 (0.317)	0.716
45-54	1.082*** (0.236)	2.952	1.123*** (0.320)	3.074
55-64	1.289*** (0.237)	3.630	1.286*** (0.334)	3.617
65+	1.043*** (0.270)	2.838	0.721** (0.365)	2.056
Location (Ref = Urban/Suburban)				
Large Town	0.537* (0.298)	1.711	0.625 (0.420)	1.867
Town	0.804*** (0.269)	2.234	0.802** (0.394)	2.230
Rural	1.028*** (0.262)	2.795	1.197*** (0.371)	3.309
Region (Ref = Dublin)				
Rest of Leinster	0.112 (0.296)	1.119	0.228 (0.419)	1.256
Munster	-0.365 (0.257)	0.694	-0.528 (0.389)	0.590
Connaught/Ulster	0.199 (0.288)	1.220	-0.105 (0.393)	0.900

Work Status (Ref = All Other Categories)³⁴

Student	-0.767*	0.464	-0.927	0.396
	(0.453)		(0.672)	
Income (Ref = €30,000 - €44,999)				
< €15,000			0.248	1.281
			(0.286)	
€15,000 - €29,999			-0.168	0.846
			(0.257)	
€45,000 - €59,999			-0.438	0.645
			(0.283)	
€60,000 - €74,999			-1.605***	0.201
			(0.578)	
€75,000 +			-0.660	0.517
			(0.523)	
Constant				
	-1.869***	0.154	-1.607***	0.201
	(0.222)		(0.329)	
N		1207		661
-2 Log Likelihood		1205.474		676.878
Nagelkerke R-Square		.219		.248
Hosmer and Lemeshow		.554		.553

* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_1 = 0$)

34. Includes working, unemployed, homemaker and retired.

Appendix G Arts Awareness

Table G1 Logistic regression models for the determinants of being aware of arts officer in local authority

Explanatory Variable	(1)	(2)	(3)	(4)
	β	β	β	β
	exp(β)	exp(β)	exp(β)	exp(β)
Gender (Ref = Male)				
Female	0.342** (0.156)	0.591*** (0.213)	0.212 (0.160)	0.442** (0.219)
Age (Ref = 35-44)				
15-24	-0.730*** (0.280)	-0.357 (0.388)	-0.749*** (0.283)	-0.411 (0.394)
25-34	-0.181 (0.233)	-0.160 (0.315)	-0.158 (0.237)	-0.161 (0.321)
45-54	-0.063 (0.265)	-0.161 (0.362)	-0.080 (0.269)	-0.230 (0.367)
55-64	0.394 (0.265)	0.302 (0.379)	0.323 (0.269)	0.119 (0.384)
65+	0.896*** (0.328)	0.937*** (0.442)	0.928*** (0.339)	0.891** (0.455)
Education (Ref = Second Level)				
Primary or Less	-0.970*** (0.366)	-0.807* (0.484)	-0.812** (0.374)	-0.757 (0.492)
Attended Second Level	-0.605** (0.235)	-0.714** (0.357)	-0.577** (0.238)	-0.694* (0.362)

Third Level	0.596*** (0.217)	1.815	0.644** (0.284)	1.905	0.571*** (0.220)	1.770	0.533* (0.288)	1.703
Post-Graduate	0.553** (0.251)	1.739	0.487 (0.348)	1.628	0.461* (0.254)	1.586	0.325 (0.355)	1.384
Region (Ref = Dublin and Munster)								
Leinster	0.874*** (0.181)	2.396	0.594** (0.241)	1.810	0.844*** (0.183)	2.325	0.611** (0.244)	1.843
Connacht/Ulster	0.824*** (0.200)	2.281	0.602** (0.267)	1.826	0.931*** (0.205)	2.536	0.697** (0.273)	2.008
Social Class (Ref = Working Class)								
Middle Class (Lower – Upper)	0.441** (0.178)	1.554	0.349 (0.245)	1.417	0.334* (0.180)	1.397	0.268 (0.249)	1.307
Income (Ref = < €30,000)								
€30,000 - €75,000 +			0.666*** (0.254)	1.947			0.552** (0.256)	1.736
Interest Measures								
Interest					1.350*** (0.257)	3.857	1.432*** (0.359)	4.186
Constant								
	-2.108*** (0.247)	0.121	-2.571*** (0.385)	0.076	-3.111*** (0.330)	0.045	-3.506*** (0.480)	0.030
N		1138		625		1138		625
-2 Log Likelihood		1060.022		584.982		1025.095		564.527
Nagelkerke R-Square		.143		.163		.186		.207
Hosmer and Lemeshow		.524		.106		.626		.315

Table C2 Logistic regression models for the determinants of being aware of arts centre in locality

<i>Explanatory Variable</i>	(1)	(2)	(3)	(4)
	β	$\exp(\beta)$	β	$\exp(\beta)$
Gender (Ref = Male)				
Female	0.490*** (0.128)	1.632	0.690*** (0.182)	1.993
			0.437*** (0.130)	1.548
				0.591*** (0.186)
				1.806
Age (Ref = 45+)				
Under 45	-0.392*** (0.141)	0.676	-0.247 (0.200)	0.781
			-0.369*** (0.141)	0.692
				-0.170 (0.203)
				0.844
Education (Ref = Second Level)				
Primary or Less	-0.849*** (0.275)	0.428	-1.350*** (0.366)	0.259
			-0.755*** (0.278)	0.470
				-1.294*** (0.371)
				0.274
Attended Second Level	-0.439*** (0.169)	0.645	-0.823*** (0.252)	0.439
			-0.427*** (0.169)	0.652
				-0.785*** (0.254)
				0.456
Third Level	0.098 (0.188)	1.103	-0.310 (0.264)	0.734
			0.077 (0.188)	1.080
				-0.379 (0.267)
				0.684
Post-Graduate	0.424* (0.225)	1.527	-0.181 (0.307)	0.835
			0.388* (0.226)	1.475
				-0.263 (0.311)
				0.769
Location (Ref = Urban/Suburban)				
Large Town	0.266 (0.220)	1.304	1.157*** (0.314)	3.179
			0.310 (0.222)	1.364
				1.195*** (0.318)
				3.303
Town	-0.308 (0.235)	0.735	0.519 (0.345)	1.680
			-0.235 (0.238)	0.791
				0.599* (0.349)
				1.820
Rural	0.315 (0.212)	1.371	0.599** (0.296)	1.821
			0.383* (0.214)	1.466
				0.640** (0.299)
				1.896

Region (Ref = All Other Regions)³⁵

Dublin	-0.714*** (0.199)	0.490	-0.338 (0.281)	0.713	-0.660*** (0.201)	0.517	-0.318 (0.283)	0.727
Income (Ref = < €30,000)								
€30,000 - €75,000 +			0.542*** (0.200)	1.720			0.472** (0.203)	1.604
Interest Measures								
Interest					0.433*** (0.158)	1.542	0.663*** (0.228)	1.941
Constant								
	0.125 (0.224)	1.133	-0.555 (0.345)	0.574	-0.252 (0.264)	0.777	-1.04*** (0.387)	0.353
N		1074		578		1074		578
-2 Log Likelihood		1398.159		711.447		1390.569		702.811
Nagelkerke R-Square		.107		.192		.116		.209
Hosmer and Lemeshow		.183		.300		.134		.739

* p<0.1; ** p<0.01; *** p<0.001 (p-values for Wald test of $\beta_1 = 0$)

35. Includes rest of Leinster, Munster and Connacht.

Terms of Reference and Constitution of the NESF

1. The role of the NESF will be:
 - to monitor and analyse the implementation of specific measures and programmes identified in the context of social partnership arrangements, especially those concerned with the achievement of equality and social inclusion; and
 - to facilitate public consultation on policy matters referred to it by the Government from time to time.

2. In carrying out this role the NESF will:
 - consider policy issues on its own initiative or at the request of the Government; the work programme to be agreed with the Department of the Taoiseach, taking into account the overall context of the NESDO;
 - consider reports prepared by Teams involving the social partners, with appropriate expertise and representatives of relevant Departments and agencies and its own Secretariat;
 - ensure that the Teams compiling such reports take account of the experience of implementing bodies and customers/clients including regional variations;
 - publish reports with such comments as may be considered appropriate; and
 - convene meetings and other forms of relevant consultation appropriate to the nature of issues referred to it by the Government from time to time.

3. The term of office of members of the NESF will be three years. During the term alternates may be nominated. Casual vacancies will be filled by the nominating body or the Government as appropriate and members so appointed will hold office until the expiry of the current term of office of all members. Retiring members will be eligible for re-appointment.
4. The Chairperson and Deputy Chairperson of the NESF will be appointed by the Government.
5. Membership of the NESF will comprise 15 representatives from each of the following four strands:
 - the Oireachtas;
 - employer, trade unions and farm organisations;
 - the voluntary and community sector; and
 - central government, local government and independents.
6. The NESF will decide on its own internal structures and working arrangements.

NESF Publications

(i) NESF Reports

Report No	Title	Date
1.	Negotiations on a Successor Agreement to the PESP	Nov 1993
2.	National Development Plan 1994 – 1999	Nov 1993
3.	Commission on Social Welfare - Outstanding Recommendations	Jan 1994
4.	Ending Long-term Unemployment	June 1994
5.	Income Maintenance Strategies	July 1994
6.	Quality Delivery of Social Services	Feb 1995
7.	Jobs Potential of Services Sector	April 1995
8.	First Periodic Report on the Work of the Forum	May 1995
9.	Jobs Potential of Work Sharing	Jan 1996
10.	Equality Proofing Issues	Feb 1996
11.	Early School Leavers and Youth Employment	Jan 1997
12.	Rural Renewal - Combating Social Exclusion	Mar 1997
13.	Unemployment Statistics	May 1997
14.	Self-Employment, Enterprise and Social Inclusion	Oct 1997
15.	Second Periodic Report on the Work of the Forum	Nov 1997
16.	A Framework for Partnership – Enriching Strategic Consensus through Participation	Dec 1997
17.	Enhancing the Effectiveness of the Local Employment Service	Mar 2000

18.	Social and Affordable Housing and Accommodation: Building the Future	Sept 2000
19.	Alleviating Labour Shortages	Nov 2000
20.	Lone Parents	July 2001
21.	Third Periodic Report on the Work of the Forum	Nov 2001
22.	Re-integration of Prisoners	Jan 2002
23.	A Strategic Policy Framework for Equality Issues	Mar 2002
24.	Early School Leavers	Mar 2002
25.	Equity of Access to Hospital Care	July 2002
26.	Labour Market Issues for Older Workers	Feb 2003
27.	Equality Policies for Lesbian, Gay and Bisexual People: Implementation Issues	April 2003
28.	The Policy Implications of Social Capital	June 2003
29.	Equality Policies for Older People: Implementation Issues	July 2003
30.	Fourth Periodic Report on the Work of the NESF	Nov 2004
31.	Early Childhood Care & Education	June 2005
32.	Care for Older People	Nov 2005
33.	Creating a More Inclusive Labour Market	Mar 2006
34.	Improving the Delivery of Quality Public Services	Feb 2007
35.	The Arts, Cultural Inclusion and Social Cohesion	Mar 2007
36.	Mental Health and Social Inclusion	Oct 2007

(ii) NESF Opinions

Opinion No	Title	Date
1.	Interim Report of the Task Force on Long-term Unemployment	Mar 1995
2.	National Anti-Poverty Strategy	Jan 1996
3.	Long-term Unemployment Initiatives	Apr 1996
4.	Post PCW Negotiations – A New Deal?	Aug 1996
5.	Employment Equality Bill	Dec 1996
6.	Pensions Policy Issues	Oct 1997
7.	Local Development Issues	Oct 1999
8.	The National Anti-Poverty Strategy	Aug 2000

(iii) NESF Opinions under the Monitoring Procedures of Partnership 2000

Opinion No	Title	Date
1.	Development of the Equality Provisions	Nov 1997
2.	Targeted Employment and Training Measures	Nov 1997

(iv) Social Inclusion Forum: Conference Reports

1.	Inaugural Meeting on 30th January 2003	
2.	Second Meeting of the Social Inclusion Forum	Jan 2005
3.	Third Meeting of the Social Inclusion Forum	April 2006

(v) NESF Research Series

1.	A Study of Labour Market Vulnerability & Responses to it in Donegal/Sligo and North Dublin	Jun 2005
2.	The Economic of Early Childhood Care & Education	Sept 2005
3.	Delivery of Quality Public Services	Sept 2006
4.	Mental Health in the Workplace: Research Findings	Oct 2007

(vi) NESF Occasional Series

1.	Evidence-based Policy Making: Getting the Evidence, Using the Evidence and Evaluating the Outcomes	Jan 2007
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