Exploring the relationship between culture and well-being

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Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government

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## Glossary

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<th>Definition</th>
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<tr>
<td>BAME</td>
<td>Black, Asian and Minority Ethnic</td>
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<tr>
<td>LCA</td>
<td>Latent Class Analysis</td>
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<tr>
<td>NSW</td>
<td>National Survey for Wales</td>
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<tr>
<td>ONS</td>
<td>Office for National Statistics</td>
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<tr>
<td>WFG Act</td>
<td>Well-being of Future Generations Act</td>
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<tr>
<td>WG</td>
<td>Welsh Government</td>
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1. Introduction

Policy context

1.1 Culture is an increasing area of policy focus across the United Kingdom. In Wales, culture has been identified as making an important contribution towards helping individuals and communities out of poverty (Andrews 2014).1 This report aims to increase the evidence-base on culture and well-being, building on research (Welsh Government 2016, 2017, 2019)2 carried out following the inception of the Fusion programme, which aims to tackle poverty through culture. Fusion was launched following Baroness Kay Andrews’ report (2014) which called for better access to culture for deprived areas as a social justice issue.

1.2 The Well-Being for Future Generations (Wales) Act 20143 (WBFG Act) is a further area of policy which focuses on improving well-being and increasing cultural access in Wales. Two of the WBFG Act’s 3 goals which emphasise the relationship between culture and well-being are: ‘A Wales of vibrant culture and a thriving Welsh Language’ and ‘A healthier Wales’. The Fusion program fits within these key parts of the WBFG Act 3 (Welsh Government 2016).

1.3 Previous evaluations of the Fusion program have explicitly identified multiple gaps within the evidence base around culture and well-being (Welsh Government 2016, 2017, 2019)2. There has been some work aiming to fill these gaps around the links between culture and well-being, including research using the Taking Part survey (Department of Media Culture and Sport 2015)4 and the Understanding Society survey (Lakey et al. 2017)5. Analysis of data from the two surveys indicated that there may be a

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1 Andrews, K (2014) Culture and Poverty: Harnessing the power of the arts, culture and heritage to promote social justice in Wales.
relationship between attending or participating in arts, culture heritage, and well-being. Nevertheless, there are still numerous research gaps, including a lack of robust research on arts and cultural attendance and few large-scale research studies. These gaps are particularly prevalent in Wales where context specific large-scale research is lacking.

However, Wales currently has a unique resource in the National Survey for Wales (NSW)\(^6\), where questions were asked in 2017-18 (and in previous years) on cultural participation and attendance. The results from these questions have been aggregated to provide one of the indicators for the WBFG Act; namely, the percentage of people attending or participating in arts, culture or heritage activities at least 3 times a year. This created an opportunity to undertake large-scale, cross-sectional research focused on multiple types of arts, cultural and heritage engagement.

**Aims and objectives**

The main aims of the project were:

- To explore definitions of the arts, culture and well-being in order to facilitate research question development
- To discover if, in Wales, there are different groups who can be characterised by their relationship with the arts and culture
- To better understand patterns of cultural engagement in Wales
- To analyse the relationship between culture and well-being
- To provide new evidence about those who are more or less likely to undertake different cultural activities and the consequential impact on well-being

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\(^6\) The National Survey for Wales will be referred to by NSW or the National Survey throughout the report.
Introduction to the project methodology and dataset

1.5 The methodology of this project was specified by two main research needs. First, the need for more research on the impacts of culture, particularly on well-being, as identified in the first year evaluation of the Fusion programme. Second, a need to explore analysis possibilities with data that has been collected on the arts, culture and heritage in Wales. Therefore the approaches used in the project were exploratory in nature and each aimed to focus on making better use of existing data and focus on the evidence gaps identified in the literature review and previous evaluations of the Fusion programme (Welsh Government, 2016, 2017, 2019)\(^7\).

1.6 The structure of the analysis within the report is as follows. First of all, a summary of a literature review undertaken to better define culture and well-being and to identify evidence gaps is presented. Further background on engagement with culture, heritage and the arts in Wales is then provided through an overview of analysis from the NSW 2017-18 ‘Arts, Museums, Heritage and Libraries’ Statistical Bulletin (Welsh Government, 2019)\(^8\).

1.7 Next, the findings from a method known as latent class analysis (LCA) are outlined. This method was selected to both investigate the application of LCA on National Survey data and to explore relationships with the arts and culture. LCA was used to produce a typology of engagement with culture, which segments the population into discrete groups, each with a shared profile of cultural engagement.

1.8 Following the results of the LCA, this report presents the findings from a logistic regression. The method of logistic regression was used to explore the influence of cultural activities on well-being while controlling for other important explanatory factors. Background is provided by descriptive analysis cross tabulations. The descriptive statistics described the characteristics of people who did and did not engage with cultural activities

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Welsh Government (2017) *Creating opportunities through culture*.

and events; whilst the cross tabulation analysis explored the relationship between two key factors, to understand how culture and well-being might be related when other factors are not controlled taken into account.

1.9  The data set used in this report is from the National Survey for Wales (NSW). At the time of publication, the current NSW had been running for two years, succeeding five surveys previously commissioned by the government and three of its sponsored bodies (Natural Resources Wales, Sport Wales and The Arts Council of Wales). As the National Survey was created by merging several other existing surveys, this created many more opportunities for analysis on areas such as culture and well-being, which previously would not have been possible.

1.10  This report is based on NSW results collected between the beginning of April 2017 and the end of March 2018. The survey covered a randomly-selected sample of 11,381 adults aged 16+ living in residential addresses across Wales. Cultural participation questions were asked of all participants in the survey, creating a large dataset of results on arts attendance and participation, heritage and museums. For more information on the NSW please see the technical report⁹.

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2. Literature scoping and evidence review

Defining and measuring culture and well-being

2.1 Both well-being and culture are highly complex ideas and a relatively new area of research focus. As a result research on the topic is varied. In order to effectively appraise policy on culture and well-being it is vital to have clear definitions and an appropriate and robust way of measuring well-being. This section of the report will therefore outline various ways of defining and measuring culture and well-being.

Defining Culture

2.2 Culture is a complex idea to define. However, one way is to consider the different activities which are used as examples of culture. Research on the impact of culture on well-being often includes activities such as; theatre and dance, film, visual arts, photography, archives, storytelling, painting, listening to music and museum trips. This leads to a wide heterogeneity in the research base.

2.3 Previous work on Fusion defined culture as ‘not just the arts, but also heritage and the historic environment, including the contribution of museums, libraries and the media’ (Welsh Government 2016, pg. 10). This will be the meaning used throughout this report. However, this relatively broad definition can create difficulties for research. For instance, literature suggests there is a difference between the well-being benefits of social cultural activities and solitary cultural activities (Ferguson 2006; Adams, Leibbrandt and Moon 2011; Brajša-Žganec Merkaš and Šverko 2011).

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2.4 In some of the research literature, engagement with and exposure to culture are conflated. This is problematic as actively taking part in cultural activities, such as singing or art, is quite different to attending activities to watch or listen. This problem was demonstrated in research by research from the Scottish Government (2013) using Household Survey data, where a varied range of cultural activities were included in the research, such as, for instance, ‘reading’; whereas in the NSW only ‘story telling’ or ‘reading events’ were included. Similarly, qualitative research findings from McCall (2010) suggested that there was a lack of clarity in understandings of culture by those engaged in the cultural sector. It is therefore worth being mindful of how culture is defined within research.

**Defining Well-being**

2.5 This report focuses on the relationship between subjective well-being and culture. The What Works Centre for Well-being (2017, pg. 4) broadly defines subjective well-being as *the combination of feeling good and functioning well. That is, the experience of positive emotions and the sense that our life is going well most of the time*. Subjective well-being is a complex and multifaceted concept and it includes more than happiness and life satisfaction. Within the research literature, well-being can include positive and negative feelings, such as flourishing, self-esteem, happiness, enjoyment, purpose in life, quality of life, social connectedness, burnout, confidence, stress, anger, anxiety, and depression.

2.6 For clear and robust research it is necessary (even if difficult) to separate subjective well-being from the other factors that are associated with it. However, the What Works Centre for Well-being argues that subjective well-being can potentially be explained by anything that could possibly

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experience or happen in people’s lives (Dolan, Kudrna and Testoni 2017)\(^{14}\). It is likely that well-being and the many factors that influence it are in an iterative relationship, whereby they can influence one another. The complexity of well-being and the causal factors that influence it can create difficulties for research.

2.7 An Arts Council England (2014) evidence review \(^{15}\) into well-being demonstrates how literature also includes clinical understandings of mental and physical health within their research. This is particularly prevalent in studies conducted in Nordic countries, where some of the largest and most robust studies have demonstrated the impact of culture on well-being. For example an often cited population level study by Bygren et al. (2009)\(^{16}\) demonstrated the impact of attending cultural events on cancer mortality. Whilst the study did not focus on the relationship with subjective well-being, it demonstrated that attending cultural events may have a positive impact on physical health.

2.8 A conflation between subjective well-being and physical health can add confusion for two reasons. Firstly, mental and physical health are two factors that are highly associated with subjective well-being. There is a large body of literature that discusses the positive impacts of cultural activities on health in clinical settings (see Staricoff and Clift 2011 for a review of the evidence)\(^{17}\). Secondly, some study designs focus on physical activities which have been proven to improve participants’ physical health, meaning that it is then difficult to separate out complex causal relationships. When reviewing the evidence it is therefore vital to be clear about what is being measured and understood as ‘well-being’.

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Measuring well-being

2.9 There is no agreement in the literature reviewed on how well-being should be measured. However, the most well-known measurement of well-being has been created by the ONS (2016)\(^\text{18}\). The ONS have measured well-being since 2014 in their surveys, asking respondent to evaluate their well-being, on a scale of 1 to 10, using the following questions: (1) Overall, how satisfied are you with your life nowadays? (2) Overall, to what extent do you feel the things you do in your life are worthwhile? (3) Overall, how happy did you feel yesterday? (4) Overall, how anxious did you feel yesterday?

2.10 Research suggests that measuring well-being by asking participants questions on life satisfaction has a number of strengths. First, Ferrer-i-Carbonell and Frijters (2004)\(^\text{19}\) have demonstrated that there is a strong positive correlation between expressions of emotions such as smiling and frowning and answers to satisfaction questions. Second, Ferrer-i-Carbonell and Frijters (2004) proposed a widely tested hypothesis that suggested people share a common understanding of happiness. These two observations have led academics to conclude that life satisfaction can be translated to an ordinal scale. The evaluative approach described in section 2.9 has also been used widely throughout the world since around 1965. This allows for strong continuity and comparability across research studies using this approach.

2.11 However, some researchers are critical of using evaluative methods to measure subjective well-being, as responses can be highly influenced by the order and context of the survey questions\(^\text{20}\). This is a limitation of the evaluative method.

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An alternative to asking participants to evaluate their well-being is to directly capture experiences. An example of this would be the Day Reconstruction Method, outlined by Kahneman et al. (2004)\(^{21}\), where participants recall their day and how they were feeling at various points. This method is not without issues. For instance, it is possible to have a ‘bad day’ but still feel that one’s life in general is going satisfactorily.

**What is the impact of culture on well-being?**

This report will build on evidence presented in the Fusion research reports (Welsh Government 2016; 2017; 2019)\(^{22}\). Since the start of the Fusion program, interest in the impact of culture on well-being has continued to grow. This is reflected in the creation of the What Works Centre on Well-being which has contributed to the increasing evidence base by undertaking evidence reviews focusing on specific aspects of culture and subjective well-being.

Previous evidence reviews on culture, health and well-being have identified how often within research on culture, the benefits of participation are viewed as self-evident (Mansfield 2018; Gordon-Nesbitt 2015)\(^{23}^{21}\). However, whilst much of the literature on culture and well-being suggests that it is beneficial, there is evidence that this is not always the case. Mansfield’s (2018)\(^{24}\) systematic review on participation in dance activities for young women for example found it could have a negative impact. This was linked to participants’ concerns about their skills, competency and capabilities in undertaking the activity.

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\(^{23}\) Welsh Government (2017) *Creating opportunities through culture*.


Evidence on cultural participation and well-being

Visual arts projects

2.15 The evidence on music and singing on well-being focuses mostly on specific groups such as older people or pregnant women. Correspondingly, much of the evidence is small scale and highly situated. Nevertheless, it is possible to draw some conclusions across the evidence. A systematic review of the well-being outcomes of music and singing in adults found that singing can maintain a sense of well-being for older people, for those with and without diagnosed conditions (Daykin 2016)\textsuperscript{25}. This is due to the participatory aspects of the activity as well as the mental stimulation. Moreover, listening to music can alleviate anxiety and improve well-being in young adults. More generally, Daykin’s (2016, pp.4)\textsuperscript{26} systematic review highlighted how participants with diagnosed conditions reported, ‘a wide range of well-being benefits from singing including relaxation, distraction, reduction in anxiety, spiritual uplifting and improvements in mood, emotional well-being, confidence, enjoyment and a ‘feel good factor’.

Music projects

2.16 There is evidence that undertaking arts projects is beneficial to subjective well-being (What Works Centre for Well-being 2018)\textsuperscript{27}. However, little of the evidence reviewed on engaging with visual arts project was of a high quality (What Works Centre for Well-being 2018). Nevertheless, a review by the What Words Centre for Well-being (2018 pg. 6) that focused on arts projects for people with clinically diagnosed mental health disorders found that, ‘projects based on engaging with visual arts in non-clinical settings show that such engagement can be liberating, and transformative – in “normalising”


Some of the key themes from the research were that joining arts activities reduced social isolation, improved confidence and were sometimes a stepping stone to employment or volunteering.

**Evidence on cultural attendance and well-being**

2.17 Large scale quantitative studies demonstrate that cultural attendance is an important factor in predicting high well-being. Research by Grossi et al. (2012)\(^{28}\) on large-scale data set in Italy found that cultural access was the second most important indicator of well-being, whilst the absence of disease was the most important.

2.18 Similarly, evidence on Scottish Government Household Survey data\(^{29}\) analysed by Leadbetter and O’ Connor (2013)\(^{30}\) found that after controlling for other factors, attendance and participation in cultural activities are important predictors of life satisfaction.

2.19 Again suggesting that there is a relationship between the arts and well-being, research by Lakey et al. (2017)\(^{31}\) using the Understanding Society dataset found that arts participation and attendance meant that participants were more likely to have good health and higher life satisfaction.

2.20 Further analysis by Wheatly and Bickerton (2016) utilising the Understanding Society data set has also revealed that attending and participating in arts, cultural and heritage events increase levels of subjective well-being. Wheatly and Bickerton (2016) also found that frequency of engagement with culture improved individual’s evaluation of their subjective life satisfaction.

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\(^{30}\) Age, economic status; income; area deprivation, education qualification, disability/or long standing illness and smoking.

Does attending or participating in the arts and culture cause good well-being and health?

2.21 Longitudinal research studies are a more robust method of identifying if there is a causal relationship between culture and well-being than the research designs previously discussed. Drawing from a number of studies, the Gordon-Nesbitt (2015)\textsuperscript{32} report provides a useful resource on the longitudinal relationship between culture and health. Whilst the studies reviewed by Gordon-Nesbitt (2015) did not focus specifically on well-being, the research provides useful lessons for well-being research as many of the same difficulties emerge. For instance, the effects of culture on health are not clear, with many of the studies reviewed by Gordon-Nesbitt (2015) noting that cultural activities might actually be a proxy for socio-economic group or health. This is because research demonstrates that those in higher socio-economic groups are more likely to have better health, more likely to attend cultural activities and have better well-being. Conversely, factors such as obesity and other health issues may be barriers to undertaking cultural activities in the first place. Overall, Gordon-Nesbitt (2015) found that it was unclear if there was a causal relationship. The Gordon-Nesbitt report (2015)\textsuperscript{33} proposed a number of potential causal mechanisms for the improved health and well-being of those undertaking cultural activities, including: increased social capital, improved cognition, less stress and endocrine and metabolic benefits. However, the research evidence reviewed did not include any large-scale studies.

2.22 One study which focused on the longitudinal relationship between culture and health by Bygren et al. (2009)\textsuperscript{34} found that participants who rarely attended cultural events were more likely to have cancer related mortality. They claimed that cultural attendance was a preventative health choice.


similar to physical activity or not smoking, irrespective of health and socio-economic status. This study was able to follow participants over time and suggested that there may be a causal relationship between cultural event attendance and health. Nevertheless, the study was unable to determine whether the relationship was due to the higher socio-economic of those with less cancer related mortality.

2.23 In contrast, Carnwarth and Brown (2014) provided an alternative approach to understanding if there is a causal relationship between the arts and health and well-being. They focussed their literature review on the individual impacts of culture on health and well-being. Some of the methods they proposed for unpicking the causal relationship between culture and well-being included physiological testing, psychometric testing, and post-event surveying. In their review of alternative measurement techniques, Carnwarth and Brown (2014) found that art attendees experienced heightened feelings of: social bonding and bridging, aesthetic development, creative stimulation and, improved learning and thinking. They argued that their study provided evidence for some of the intrinsic benefits of the arts.

2.24 These few studies aside, there is a lack of evidence on the causal mechanisms between culture and well-being. Nevertheless, it is worth considering these claims as it avoids the assumption that culture is simply good for well-being. However, it was beyond the scope of this project to look at some of the causal mechanisms between culture and well-being. This could be an avenue for further research.

Evidence gaps

2.25 There are various evidence gaps regarding the influence of arts on well-being. Firstly, much of the evidence is focused on participatory cultural activities rather than attendance at cultural locations such as heritage site or museum visits. Whilst there are a few studies (including Fujiwara 2013 and

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Dodd and Jones 2014)\(^{36}\) which focus on the benefits of cultural attendance such as going to museums and art galleries, none of the research found as part of this scoping exercise was of a high quality. This is an important shortcoming as without robust evidence a relationship cannot be demonstrated.

2.26 In addition, people who undertake cultural activities at heritage sites or museums with friends and family often benefit from exercise and access to green-space at the same time. Research suggests that it could be the social aspect of cultural activities which may improve their well-being. There is also considerable evidence that exercise is good for well-being (see Alfermann and Stoll 2000; McAuley et al. 2000 for examples)\(^{37}\). Therefore, future research could focus on the intersection of these areas to fill this gap.

2.27 Much of the evidence for the impact of cultural activities on well-being is focused on specific groups. The result of this is that there is lack of large-scale, national level research. This means that there is a gap for research focusing on society more broadly as often studies focus on those who have pre-existing health conditions.

2.28 Moreover, many of the projects reviewed are small scale and focused on specific outcomes rather than considering the benefits of more everyday cultural activities. Whilst it is important to explore the impact of small local interventions aiming to improve well-being, this reduces the comparability of the studies. Therefore, there is a need for additional research which may be more widely applicable.

2.29 Although there are a few robust quantitative studies into culture and well-being, they are broad in scope and do not differentiate between different types of cultural activities. Conceptual clarity is lost when many types of

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Leicester: University of Leicester.

cultural activities are merged together, particularly if cultural participation and cultural attendance are seen as the same. In order to improve the evidence base it is necessary to take a more detailed look at the different types of cultural activities and their impact on well-being.

2.30 While there are several longitudinal studies looking broadly at the area of well-being and culture, they have a limited focus on health outcomes such as mortality and cancer diagnoses. This leaves a large gap for longitudinal research which is able to focus on the impact of cultural activities on subjective well-being and wider health outcomes.

2.31 Lastly, there is a research gap for projects that focus on culture, poverty and well-being. This is a key area, as many of the factors which are barriers to cultural access, such as disabilities, ethnic differences and being in a lower socio-economic group, also indicate low well-being (Viruell-Fuentes 2012)38. Bowleg (2012) states that these are known as intersecting categories of disadvantage39. It is therefore worth briefly outlining the idea of intersectionality to understand how these ‘categories’ of disadvantage interact with each other. In short, intersectionality states that belonging to multiple disadvantaged categories does not simply multiply the disadvantage people face but instead can increase the discrimination faced in a far more complex way (Valentine 2007)40. This point is key throughout this report, as individual factors which can increase or decrease well-being or access to culture are discussed. It is vital to note that although they are written as distinct factors in reality they are not. There is little research that focuses on this intersection in a systematic way.

3. **Findings**

*Introduction*

3.1 This section consists of three parts. Firstly, the extent of arts, culture and heritage participation will be outlined. In the second section, different patterns of cultural participation will be outlined. Four main modes of cultural engagement or exclusion will be discussed. The second section of the findings examines the relationship between different types of cultural activities and well-being in The National Survey for Wales 2017–2018. This is followed by a discussion of factors which influence both culture and well-being. Lastly, the relationship between culture and well-being is analysed using logistic regression.

3.2 It should be noted that all of the results mentioned in the following section are statistically significant. This means that the differences between the numbers of people reporting high life satisfaction for each cultural activity are likely to be found in the wider population, rather than being specific to a particular group of people who took part in the survey. However, it does not explain if there are underlying factors which may mean that those who attend cultural activities also report higher life satisfaction. If the relationship between two factors is investigated statistically the analysis is focused solely on those two factors. For instance, analysis in
3.3 Figure Error! No text of specified style in document. 7 shows that respondents who are active for more than thirty minutes per week are also more likely to attend cultural activities. However, this is likely to be the result of interlinked underlying factors such as deprivation and health. Therefore, to better understand the relationships it is more effective to use a method of analysis that can include multiple characteristics.

3.4 Moreover, some demographic factors that are conceptually known to play a role in influencing well-being and cultural access and have been captured in the National Survey for Wales will not be discussed. For instance, research by Stanton et al. (2017) and Semlyen et al. (2016) demonstrates the relationship between sexual orientation, well-being and ethnicity. The relevant numbers of people in the National Survey sample were too small for the type of analysis undertaken. This is a limitation of this study and further research could perhaps pool two or more years of survey data in order to also analyse ethnicity, sexual orientation, culture and well-being.

**Levels of cultural participation in Wales**

3.5 In order to give background to the analysis in the following report, this section briefly outlines the broad picture of attendance and participation in arts, heritage and culture in Wales. Greater detail on these topics can be found in National Survey for Wales Statistical Bulletin (2019).

*The key highlights from the bulletin are:*

- Overall, 75% of people attended or participated in arts, culture or heritage activities at least 3 times in the past year.

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- Families are likely to attend or participate in arts, culture or heritage activities, 89% of two adult families and 79% of single parent’s families made at least 3 visits in the past year.

- Younger people are more likely to attend or participant in arts, culture or heritage activities, 83% of 16-24 year olds attending or participating at least three times a year, compared with 57% of those aged over 75 and over.

- Arts activities are the most frequently undertaken. 69% of individuals visited arts activities in the last 12 months, whilst 63% visited heritage sites and 40% attended museums.

- Arts activities, such as visual arts and crafts and music are the least likely to be undertaken, 22% participated in these.

- Analysis of cultural activities across local authorities finds that 85% of people in Monmouthshire attended such events three or more times a year, compared with 65% in Gwynedd. Other local authorities with high percentages of cultural engagement were Vale of Glamorgan and Cardiff, with 84% and 83% respectively. This relationship may be linked to the distance needed to travel to cultural locations or may also reflect the levels of deprivation in the local authority. However, further research is needed on this topic.

- 67% of people living in Fusion Programme areas attended or participated in cultural activities three or more times a year, compared with 76% of people outside of these areas.

A typology of engagement with culture, the arts and heritage

3.6 Building on the background analysis in the National Survey for Wales statistical bulletin (2019)\(^{43}\), the following section discusses how Wales’ citizens can be grouped according to their relationship with, and barriers to accessing, culture and heritage.

\(^{43}\) Welsh Government (2019) *Arts, museums, heritage and libraries*. 
The results discussed in this section are the groups created using an analysis method known as Latent Class Analysis (LCA). LCA is an approach which takes the participants in a survey and groups together respondents who are alike. It is an exploratory statistical clustering method and provides suggestions to identify groups of people within the sample. The groups created are not wholly homogenous, however they are conceptually alike. The aim of the statistical procedure is to create natural, internally similar groups. For examples of the approach applied to museum visitors see Schreiber and Pekarik (2014) and Lewalter er al. (2015)\textsuperscript{44}.

The groups created are informed by three sources. First, by statistical tests in the software package used; second, the researchers’ subjective opinion of the conceptual clarity of the clusters; and finally, the groups are sense checked by sector specialists.

The following sections of the report outline the profiles of the different groups. The findings section will first discuss how the groups differ according to their cultural engagement, and then describe their demographic profiles. Through using LCA four groups of people sharing similar characteristics were identified.


**Figure 1**: Typology of engagement with the arts, culture and heritage

<table>
<thead>
<tr>
<th>Group</th>
<th>Description</th>
<th>Characteristics</th>
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<tbody>
<tr>
<td><strong>Group 1</strong></td>
<td>Engaged with arts, culture and heritage</td>
<td>University level education, Owner occupiers, Attended or participated in arts, culture or heritage three or more times per year, Very good health</td>
</tr>
<tr>
<td><strong>Group 2</strong></td>
<td>Little interest in arts, culture and heritage</td>
<td>Highest qualifications are GCSE’s or A Levels, Not interested in museums or heritage locations, Little internet access, Few barriers to accessing arts and culture</td>
</tr>
<tr>
<td><strong>Group 3</strong></td>
<td>Numerous barriers to arts, culture and heritage</td>
<td>Material deprivation, No time to visit heritage sites or museums, School level education, Carers</td>
</tr>
<tr>
<td><strong>Group 4</strong></td>
<td>Poor health as a barrier to arts, culture and heritage</td>
<td>Limiting longstanding illness or disability, No access to a car or a van, Social housing, Can’t visit heritage sites or museums because of poor health</td>
</tr>
</tbody>
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(Base: 11, 328)
### Group 1: Engaged with arts, culture and heritage

3.10 This group attend cultural events the most frequently of all the clusters. Almost all of the members of this group attended or participated in cultural events three or more times in the past year (relative to the date they were interviewed for the survey). Although they are some of the more engaged with cultural activities, when some members of this group do not visit museums or heritage sites they responded that it was because they have no time, they are not close enough or it never occurred to them.

3.11 This group is the least deprived. They are mainly highly educated with many having degree level qualifications and very few with no qualifications. They are the most likely to speak Welsh. This group is also very likely to volunteer. In terms of age, they are mainly in the middle age groups, between 25-44 and 45-64.
Group 2: Little interest in arts, culture and heritage

3.12 Disinterested in cultural activities, they are one of the larger groups. Overall, relatively few of them engaged with arts, culture or heritage. Those who did not visit heritage sites or museums responded that it was because they were not interested.

3.13 This research did not suggest any obvious barriers to cultural and arts engagement. They are mostly owner occupiers and few have degrees. They are generally in the lower income categories, however they are generally not deprived. This group also typically reported high or very high life satisfaction.

Group 3: Numerous barriers to arts, culture and heritage engagement

3.14 This group have many barriers to their engagement with arts, culture and heritage. They are the least likely to have attended or participated in any cultural activities more than three times in the last year. In the survey they state that they tend not to go to heritage sites or museums because they are too costly, or they have no one to attend with, or they cannot access them due to lack of transport.

3.15 This group are one of the most deprived. The highest qualifications this group is likely to have are GCSE’s and A levels. Almost half of this group have no access to a car or a van, and they tended to be both very lonely and anxious. This cluster had one of the highest smoking rates.

Group 4: Poor health as a barrier to arts, culture and health

3.16 The main barrier to this group’s engagement with arts and cultural events is poor health. In the survey, the majority of them stated the reason they did not visit heritage sites and museums was due to poor health. Nevertheless, some of them do engage with some forms of cultural activities three or more times per year.
3.17 This group is the most alike. They have very bad health, due to limiting disabilities, illnesses or infirmities. They are also highly deprived, with many of them living in social housing. Very few of this group are in work or have any qualifications. This group is also predominantly in the over 65 age category. This group has a majority of women, which differs from the other groups which are evenly split between genders.

**Exploring culture and well-being**

3.18 The following section outlines the relationships between culture and well-being. As the previous section identified four distinct groups that could be characterised by their relationship to culture, some of whom might be expected to have poorer well-being, this section will explore these relationships further. Moreover, by exploring these relationships it gives a suggestion of the factors that should be considered in the final more complex analysis in the following section, where the influence of culture on well-being is further analysed.

3.19 The analysis reports on those who attended arts events, visited heritage sites and museums, and participated in arts activities, three or more times per year\(^4\).

3.20 Very few respondents who participated in cultural activities reported low life satisfaction (4%) and the majority stated that they were satisfied or very satisfied with their lives (86%). This is in contrast with participants who did not participate in or attend cultural activities, who were more likely to report low life satisfaction (9%) and less likely to report high or very high life satisfaction (74%).

\(^{45}\) This way of measuring cultural participation and activity informs the well-being indicators for the Well-Being and Future Generations Act.
3.21 The proportion of those with very high life satisfaction varied by each cultural activity. The differences in high life satisfaction between those who did and did not participate in arts activities are the smallest (85% vs 81%). The largest difference between high and low life satisfaction is between those who did and did not visit a heritage site and those who did and did not attend an arts event. Only 13% of respondents who attended an arts event reported low or medium life satisfaction, whilst 27% of those who did not attend an arts event had low of medium life satisfaction. The difference between the two is 14%. Similarly, 14% of those who visited a heritage site had low or medium life satisfaction, whilst 24% of those who had not visited a heritage site had low or medium life satisfaction.
Which other factors influence cultural participation or attendance and well-being?

3.22 To better understand if attending or participating in cultural activities does play a role in improving well-being, it is important to consider other factors which may influence both well-being and cultural attendance and participation. This section is broken down into the individual characteristics and factors which are known to be barriers to cultural participation and high well-being. All of the factors discussed in the following section have a statistically significant relationship with either culture or well-being. This means that any differences between the sizes of groups reported is not down to chance and reflects an underlying relationship. However, it does not
signify causality. It is not possible to determine whether those with better well-being are more likely to attend or participate in cultural activities or if participating or attending cultural activities causes people to have better well-being. The relationship between access to, and participation with culture, heritage and the arts and well-being is likely to be complex and iterative. There may be other underlying factors which impacts the direction of the relationship.

**Individual characteristics**

3.23 Marital status, age and levels of physical activity are all known to strongly influence levels of well-being. Therefore, if we are looking at the unique impact of culture on well-being it is important to know how these factors also influence the relationship.

3.24 Marital status does not impact on cultural participation but it has a strong influence on well-being. A large majority of those who are married or a civil partnership report very high or high life satisfaction (88%), whilst those who are widowed (74%), divorced (72%) or single (79%) are less likely to do so. People who are separated or divorced are the most likely to report low life satisfaction (10%).

3.25 Age also has a strong impact on how well we feel. Middle aged people, between 45 and 64 are the least likely to report high life satisfaction and the most likely to report low life satisfaction (7%). Whereas, those in the upper age categories (65 +) are the most likely to have very high life satisfaction. For instance, 86% of people between 65 and 74 reported high or very high life satisfaction.
Figure Error! No text of specified style in document..5: Life satisfaction by age

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Very high</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-24</td>
<td>3%</td>
<td>12%</td>
<td>57%</td>
<td>29%</td>
</tr>
<tr>
<td>25-44</td>
<td>4%</td>
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<td>52%</td>
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<tr>
<td>45-64</td>
<td>7%</td>
<td>14%</td>
<td>48%</td>
<td>31%</td>
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<tr>
<td>65-74</td>
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<td>44%</td>
<td>42%</td>
</tr>
<tr>
<td>75+</td>
<td>5%</td>
<td>12%</td>
<td>40%</td>
<td>43%</td>
</tr>
</tbody>
</table>

(Base: 16-24 = 1541; 25-44 = 3307; 45-64 = 3701; 65-74 = 1589; 75+ = 1208)

3.26 Age also plays a role in determining cultural participation. People aged between 16 and 44 are most likely to have attended or participated in a cultural activity more than three times in the last 12 months (83%). People over the age of 75 are the least likely to have done cultural activities (57%).

Figure Error! No text of specified style in document..6: People attending or participating in cultural, art or heritage activities by age category

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Very high</th>
</tr>
</thead>
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<tr>
<td>16-24</td>
<td>83%</td>
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<td>25-44</td>
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<td>73%</td>
<td>68%</td>
</tr>
<tr>
<td>45-64</td>
<td>73%</td>
<td>68%</td>
<td>68%</td>
<td>57%</td>
</tr>
<tr>
<td>65-74</td>
<td>68%</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
</tr>
<tr>
<td>75+</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
</tr>
</tbody>
</table>

(Base: 16-24 = 1547; 25-44 = 3288; 45-64 = 3686; 65-74 = 1578; 75+ = 1189)
Whether or not someone can read, speak and write Welsh may also have a relationship with both well-being and cultural participation. Welsh speakers are slightly more likely to have attended or participated in cultural activities three or more times per year (79% vs 72%). Welsh speakers also report slightly higher life satisfaction than non-Welsh speakers. 86% of Welsh speakers report high or very high life satisfaction compared with 81% of non-Welsh speakers. These figures may indicate that there is an underlying factor which may drive higher life satisfaction and greater cultural participation amongst Welsh speakers.

A respondent’s level of physical activity also has an influence on both their well-being and cultural participation. Overall, 72% of respondents who attended or participated in cultural activities were also were active for 30 or more minutes per week. Moreover, people who were moderately to intensely physically active for 30 or more minutes each week are far more likely to report high life satisfaction. In total, 69% of people with high life satisfaction are active for 30 or more minutes per week. A large amount of prior research links physical activity to well-being\textsuperscript{46}.

**Figure 7:** Attendance and participation in cultural activities and levels of physical activity

| Attended or participated in arts, cultural or heritage event in the last 12 months | 72% | 28% |
| No cultural participation | 50% | 50% |

(Base = Attended arts events = 4,019; Did not attend arts events= 1,590)

**Figure 8:** Physical activity and life satisfaction

| High or very high | 69% | 31% |
| Low or medium | 52% | 48% |

(Base = Low or medium life satisfaction = 1,093; High or very high life satisfaction = 4,542)
Barriers to cultural participation and well-being

3.29 The following section will outline the factors which are barriers to both cultural participation and high well-being, focusing on deprivation and poverty. It has been previously established that poverty is both a barrier to cultural access and negatively impacts well-being\(^{47}\).

3.30 Within this report, poverty is conceptualised broadly with the variables for: whether or not a respondent is in material deprivation, housing tenure, highest qualification and long term illness or disability. In addition, the literature scoping indicated that transport access\(^{48}\) also plays a cross cutting role in influencing poverty and cultural access so this relationship will also be discussed.

3.31 Across the different measures of poverty included within this analysis, there is a clear relationship between deprivation and a lack of access to culture. Relatively few people living in material deprivation report that they accessed cultural activities. Only 60% of people living in material deprivation have accessed cultural activities more than three times in the last 12 months, whilst 78% of people not in material deprivation did. Similarly, few respondents without qualifications have engaged with cultural activities. Nearly all of the respondents with degrees accessed cultural activities (88%), whereas only 45% of participants without any qualifications did (see


Again, when looking at housing tenure, 78% of owner-occupiers attended or participated in cultural events whilst only 58% of those in social housing did.
3.33 In addition, prior research has found that poor health can be a barrier to cultural engagement\textsuperscript{49}. This was evident within the data, where just 64% of people with a long term illness or disability accessed cultural activities, compared with 80% of those without a long-term health condition. Even those with generally bad health are less likely to access cultural activities. Only 60% of people who reported they had bad or fair health accessed cultural activities, whilst 81% of people who reported their health as good or very good did.

3.34 People with access to a car or van are much more likely to have attended a cultural activity. In total, of those who accessed cultural locations three or more times per year 89% had access to a car or van.

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Figure Error! No text of specified style in document..10: Transport availability and cultural attendance

<table>
<thead>
<tr>
<th>Attended or participated in arts, cultural or heritage event in the last 12 months</th>
<th>89%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No cultural participation</td>
<td>74%</td>
</tr>
<tr>
<td></td>
<td>26%</td>
</tr>
</tbody>
</table>

(Base = Attended or participated in arts, culture or heritage events more than three times per year = 8,141; Did not attend or participate in arts, culture or heritage events more than three times per year = 3,136)

Does attending or participating in cultural activities influence our subjective well-being?

3.35 In this report logistic regression is a technique that is used to estimate the likelihood of someone in Wales\(^5\) reporting high or low well-being if they attended or participated in cultural activities. Previous analysis in other research projects has conceptualised well-being in multiple ways. For instance, research using Scottish Government Household Survey data\(^5\) examined the relationship between culture and well-being by comparing respondents who reported high or very high well-being with those that reported medium or low well-being. Contrastingly, in recent ONS analysis\(^5\)

\(^5\) It is possible to predict the likelihood of someone in Wales reporting high well-being because the survey is weighted. For more information about survey weighting please see: Welsh Government (2017) Technical Report: Regression analysis on the 2017-18 National Survey for Wales data and models produced.


\(^5\) Pyle, E and Manclossi, S; (2018) Understanding well-being inequalities. Who has the poorest personal well-being?.
researchers combined the ONS four well-being questions\textsuperscript{53} and analysed those who had low well-being across all the four areas.

3.36 As this research is exploratory in nature several different ways of turning the concept of well-being into something that could be measured were trialled. However, despite the size of the National Survey dataset, the numbers of respondents who reported low well-being across all of the ONS four well-being questions was too small for analysis. Therefore it was not possible to use the same approach as the ONS. Instead, as in the Scottish Government Household Survey, low and medium life satisfaction scores were combined and high and very high life satisfaction scores were combined. This means that the analysis in this section focuses on predicting the possibility of someone reporting high or very high life satisfaction.

3.37 A benefit of using logistic regression to understand if cultural activities have an impact on subjective well-being is that the research can then take into account other aspects of people’s lives (also known in this report as ‘variables’). For instance, the evidence base indicates that marital status and deprivation play a large role in people’s well-being\textsuperscript{54}. Therefore, to accurately understand the relationship between culture and well-being these additional factors must also be taken into account.

3.38 Many additional characteristics which are known to impact culture and well-being were tested for inclusion in the analysis. Factors which initially seemed to be associated with both well-being and cultural access, including car use and being a Welsh speaker, were not included in the final analysis. This is because they were not significant once they had been considered alongside other variables. This is usually because the influence that the characteristic has on well-being is explained by a different variable that has also been included. For example, once all of the factors had been added to the model, car availability no longer played a role in predicting well-being, potentially

\textsuperscript{53} See section 2.9 for full details of the ONS approach to measuring well-being.

\textsuperscript{54} Pyle, E and Mancossi, S; (2018) Understanding well-being inequalities. Who has the poorest personal well-being?.
because other variables such as tenure and deprivation explained the relationship.

**Does attending or participating in cultural activities play a unique role in increasing well-being?**

3.39 This regression analysis was designed to predict the possibility of someone in Wales reporting high or very high life satisfaction compared with low and medium life satisfaction. When considering the unique impact of cultural participation on well-being this analysis found that attending arts, cultural or heritage activities three times or more per year means that you are 23% more likely to report high life satisfaction\(^{55}\) (see Figure Error! No text of specified style in document.11). As the analysis has taken into account other factors which are known to influence well-being, such as marital status, there is greater certainty that there is a unique relationship between culture and well-being.

3.40 However, this does not mean that attending or participating in cultural activities increases well-being, as this analysis does not signify causality. It is not possible to determine whether those with better well-being are more likely to attend or participate in cultural activities or if participating or attending cultural activities causes people to have better well-being. The relationship between culture and well-being is likely to be complex and iterative.

3.41 Moreover, the impact of attending or participating in cultural activities on well-being is far smaller than other socio-economic factors. For instance, the predicted probabilities detailed in Figure 3.13 show that people in material deprivation are 67% less likely to report high well-being. Physical activity also impacts life satisfaction as those who are active for less than 30 minutes per week are 30% less likely to report high life satisfaction.

3.42 One explanation given for the better well-being of those participating in cultural activities is their higher socio-economic position. Previous research

\(^{55}\) See Annex 4.6 for the full results of the logistic regression analysis.
has conclusively found that those in poverty have far worse health and well-being and are less likely to participate in cultural activities\textsuperscript{56}. This model does try to address this relationship through the inclusion of important socio-economic factors such as tenure, material deprivation and qualifications. By including these characteristics and holding them constant in the regression model the role of culture in predicting high well-being appears to have a separate effect from that played by deprivation. However, further research is needed to determine this. It is likely that increased access to cultural engagement might be one of the many benefits to health and well-being facilitated by having a higher income.

What is the impact of different types of cultural activity on well-being?

3.43 One of the benefits of using the National Survey data is the separation of different cultural activities, including attending an arts event, participating in an arts activity, visiting a heritage location and visiting a museum. This enables analysis of different aspects of culture and their impact on well-being. Each of the four areas of culture in the survey were analysed alongside the other factors which had been found to
influence well-being. This enabled the unique effect of each of cultural activity on well-being to be explored.

3.44 However, of the four areas of culture analysed, only attending arts events played a unique role in predicting high life-satisfaction. People who attended arts events, such as; film, theatre and live music are 54% more likely to report high or very high life satisfaction. The influence on well-being of attending an arts event is strong even when taking into account deprivation, levels of activity and health.

3.45 Nevertheless, as arts events are the main area of cultural activity which are likely to incur a cost to attend, the better life satisfaction of those attending arts events may reflect some residual influence of income and class which has not been taken into account within the analysis. It is well established that well-being improves with income and socio-economic status. Therefore, the relationship between arts events and high well-being might reflect this. Further research is needed to look further at this relationship.

3.46 Attending heritage events was initially associated with participants who reported high life satisfaction. However, once levels of physical activity were taken into account, attending a heritage event was no longer a predictor of high life satisfaction. This indicates that it may be physical exercise undertaken at heritage events that increases people’s chances of reporting high life satisfaction. An example of this might be walking around a heritage site such as a castle. However, further analysis would need to be undertaken to confirm this relationship.
4. **Conclusion**

4.1 The findings of this report add to the evidence that access to arts, culture and heritage is highly dependent on intersecting socio-economic factors such as: tenure, employment, health and disability. This research also reflects prior evidence that people living in poverty have far poorer well-being.

4.2 There is some evidence that different groups tend to undertake cultural activities in different ways. For instance, respondents over 75 are less likely to be involved in participating in arts events. However, further research could focus on this area.

4.3 Overall, attending or participating in a wide range of cultural activities plays a role in predicting if someone will report high well-being. Respondents who attended or participated in cultural activities are 23% more likely to report high life satisfaction. This is the case even when other necessary explanatory factors are taken into consideration.

4.4 However, culture plays less of a role in predicting well-being than aspects of poverty and deprivation. For example, respondents living in material deprivation are 67% less likely to have high life satisfaction, and people who are unemployed are 56% less likely to have high well-being.

4.5 Considering each of the aspects of culture separately, this research suggests only arts attendance plays a role in predicting high life satisfaction. Analysis of arts participation, heritage activity and museum attendance alongside other explanatory factors found that they were no longer were instrumental in predicting high well-being. This is most likely because the other factors, such as physical activity, illness and poverty explain the underlying relationship between culture and well-being.

4.6 Nevertheless, arts attendance remains an important predictor of high life satisfaction. People who attended an arts event were 54% more likely to have high self-reported life satisfaction. This relationship remains even when considering socio-economic factors. However, this research does not demonstrate a causal relationship. It is not clear if attending arts events improves the well-being of adults. It is most likely that the relationship is bi-directional. For example, two potential explanations given by Gordon Nesbitt (2015) was that healthier people are more
likely to engage in cultural activities and therefore have higher well-being; or alternatively, that cultural activities improve well-being through the intrinsic benefits that they might bring\textsuperscript{57}.

Annex 1. Culture and life satisfaction regression analysis

Notes: Reference categories are in **bold**. The cells in dark grey are not significant. The other are significant at the $p = >0.05$ level. The dependant variable is high or very high life satisfaction and the reference category is low or medium life satisfaction. The reference category for each of the independent variables is in bold.

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<th>Variables</th>
<th>Odds ratio</th>
<th>CI</th>
<th>Cl</th>
</tr>
</thead>
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<tr>
<td>Attended an arts, cultural or heritage activity 3 times or more in the last 12 months</td>
<td>1.225946</td>
<td>1.004537</td>
<td>1.496154</td>
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<td>Living in material deprivation</td>
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<td>Economic status (employed)</td>
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<td>Unemployed</td>
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<td>0.277332</td>
<td>0.693595</td>
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<td>Inactive</td>
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<td>0.614553</td>
<td>0.996085</td>
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<td>Limiting long term illness or disability</td>
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<td>0.285741</td>
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<td>Gender (male)</td>
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<td>Separated or divorced</td>
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