

Culture and Sport Evidence programme: the drivers, impacts and value of sport - summary

What is the CASE programme?

The CASE (Culture and Sport Evidence) programme is a joint strategic research initiative led by the Department for Culture, Media and Sport (DCMS) and its sector-leading arms-length bodies: Arts Council England, English Heritage, Museums, Libraries and Archives Council and Sport England

Working jointly on more challenging and shared research agendas CASE can deliver better value for sport, arts, libraries, museums and heritage than working separately and in isolation.

What is the aim of the CASE programme

The aim of CASE is to use interdisciplinary research methods and analysis to inform the development of policy in culture and sport.

The programme was set up in 2008 and the 'drivers, impact and value of engagement' project was commissioned in December of that year. A year and half later, and the largest single piece of policy research in culture and sport is published.

There are three main strands to the CASE programme as set out below

1. The Drivers of Engagement

The objective of this part of the project was to answer the question: What drives engagement in culture and sport?

This included new analysis looking to: a) Understand the impact of background factors, such as age and income, on the likelihood that people engage in culture and sport; b) Using a 'systems dynamic model to understand the impact of policy interventions, such as promoting engagement through advertising or reducing cost, on the likelihood that people engage in culture and sport.

1.1 Understand the impact of background factors, such as age and income, on the likelihood that people engage in culture and sport

A statistical analysis was undertaken to assess the drivers of engagement. The modelling approach used (regression analysis) enables understanding of the effect on engagement of one particular factor, while controlling for the effect of all the others.

Results for Sport:

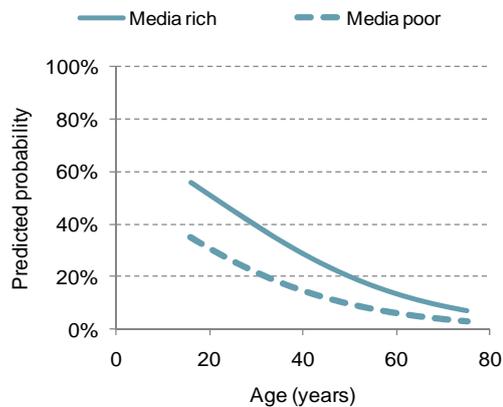
Using Taking Part data moderate or strong associations were found between participation in sport (1 million sport indicator - 3x30 mins moderate a week) and:

- age;
- gender;
- alcohol consumption;
- cycling to get from place to place;
- childhood experience of sport; socio-economic variables;
- limiting illness or disability;
- educational attainment
- unemployment
- TV and internet use;
- the proximity of and influence on local sports facilities

Much of this analysis confirms our own work with the Active People Survey and other modelling work – eg in terms of the importance of age, social class, limiting illness and

gender, proximity to facilities; educational attainment. More novel however is the relationship to childhood experience and TV/internet use. It is also interesting that sport differs from other cultural sectors in that only sport has a decrease with age and lower levels of engagement by women.

2b. Participating in sport

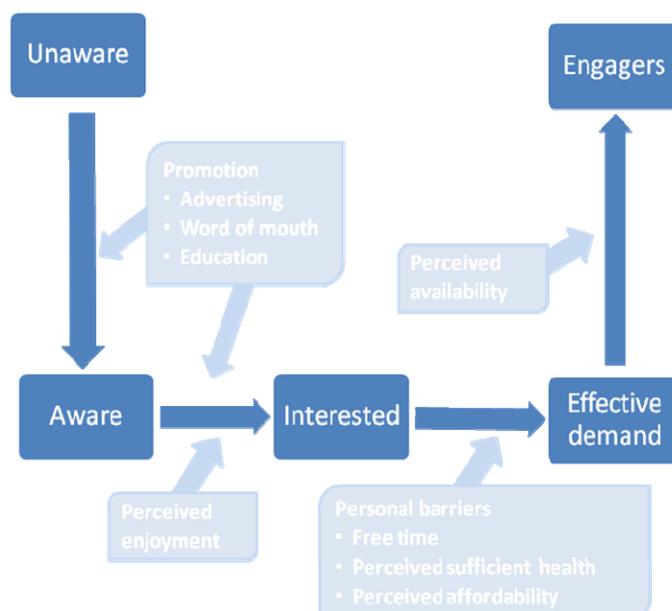


1.2 The impact of policy on engagement: A simulation (systems dynamic) model

What is the 'systems dynamic model'?

Limitations with the available data means that statistical analysis is able to generate only limited evidence on the effect of policy. In order to overcome these limitations, a computer simulation model was built. The simulation acts as both a model to generate sensible predictions about the effects of policy on engagement, and as a tool for policy makers and analysts to interact with when developing future policy.

The simulation model predicts how people move between the states involved in the decision to engage in culture and sport, from total disengagement (comprising being unaware, uninterested and unable to engage) to engagement. The diagram below shows the model structure. People move across the different 'states' from unaware to engagers by the application of certain levers or barrier reduction.



The model although a simplification of the real world is still highly complex. It is designed to run for 1,254 different combinations of activity and groups of people. It can be run for overall sports participation (3 x30 mins) or for a range of specific sports; for males and females separately; for different age groups; and different income groups. Its strength is the ability to test strategic 'what if' scenarios within a logical decision making chain and to provide global orders of magnitude on the relative impacts on participation if interventions are made at different stages in the decision-making process. Its weaknesses are related to poor data in some areas (where it raises the need for further research to fill these gaps) and an inability to reflect local variation. The model is capable of continuous evolution and development as the evidence base improves over time.

2. The impacts of engagement

Systematic reviews (a rigorous scientific process for assessing evidence of impact from high quality studies) were conducted across the culture and sporting sectors to examine what interventions are effective in delivering positive learning outcomes for young people. These reviews draw evidence from the CASE research evidence database established by the EPPI Centre at the University of London that includes over 5,700 sources.

Results for Sport:

- Young people's participation in organised sports activities, when compared to non-participation, improves their numeracy skills.
- Young people's participation in extra-curricular activities linked to organised sport, when compared to non-participation in extra-curricular activities linked to organised sport, improves a range of learning outcomes for underachieving pupils.

These findings are based on six 'high' quality studies conducted in the United Kingdom and North America. Study populations included young people within the range of 4-16 years old.

The size of the impacts identified could be interpreted as follows:

- The participation of young people in organised sport could increase their numeracy scores, on average, by 8% above that of non participants (all other things being equal).
- The participation of underachieving young people in extra-curricular learning activities linked to sport could increase their numeracy skills, on average, by 29% above that of non participants (all other things being equal). These findings apply to both primary and secondary school aged children
- The participation of underachieving young people in extra-curricular learning activities linked to sport could increase their transferable skills, on average, by between 12% and 16% above that of non participants (all other things being equal). These findings apply to both primary and secondary school aged children.

These are powerful results in making the case for sport with the review carried out by the world leading Systematic Review (EPPI) Centre at the University of London. But the lack of studies is a concern – only 6 were above the quality bar. This is part consequence of the standard being very quantitatively focused and requiring pre and post measures and control groups. There are arguments that other sorts of evidence (outside of the standard medical model') should also count. But it does also argue for not just more but better research in this area. The review does suggest the need for better theoretical thinking in the design of interventions and their evaluation and a greater focus on understanding the mechanisms (processes) that make an intervention work and in what context.

3. The Value of Engagement

The objective of this strand of the research was to:

- Understand the short-term individual value of engagement – specifically the improvement in subjective well-being generated by engagement in culture and sport.
- Understand the value of long-term health benefits of engagement – specifically the healthcare costs saved and improved health-related quality of life generated by doing sport.
- Engagement in culture and sport was defined as attendance at cultural events / sites and participation (3X30 mins moderate) in sport

Short term individual value – subjective wellbeing

The first of the two pieces of analysis undertaken to value engagement was the use of Subjective Wellbeing (SWB) measures to value the short-term private gain associated with engagement. The use of SWB measures offers a way to overcome the lack of evidence on the value of engagement in culture and sport. Compared to the traditional economic approach, which focuses on people's willingness to pay, the SWB approach also has the potential to value engagement in a way that is much more relevant to the sectors key strength – enhancing people's quality of life.

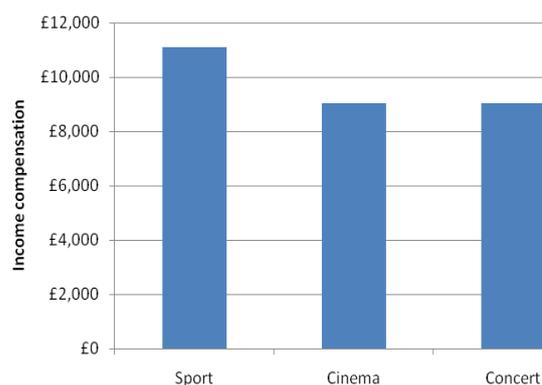
SWB is valued monetarily using the 'income compensation approach'. That is, the analysis estimates the increase in SWB generated by a £1 increase in income. This effect is then used to estimate the amount of income that would generate the same increase in SWB as engaging in culture and sport. The analysis has been carried out using data from the British Household Panel Survey which follows the same individual's behaviours over time (longitudinally).

Results for Sport:

Analysis demonstrates that engagement in culture and sport has a positive effect on SWB. Further, a higher frequency of engagement is generally associated with a higher level of SWB.

The 'income compensation' approach can be used to convert estimates of the SWB effect of policy outcomes, such as engagement in culture and sport, into estimates of the monetary value of these policy outcomes. Figure 13 shows the IC estimates for doing sport, attending a cinema, and attending a concert at least once a week (based on actual measures of engagement). It demonstrates that, for instance, doing sport at least once a week generates SWB the equivalent to a £11,000 increase in annual household income for someone on a median income.

Figure: Income compensation estimates for engagement in culture and sport (at least once a week).



Income compensation valuation of SWB is contentious and a developing area of public policy research. It has to be seen as a relative measure of value rather than taken too literally. There are also some data limitations inherent in this estimate. The good news is that it makes a strong case for sport – with high relative value of £11,000. The way to interpret this is ‘for someone on a median income participating regularly in sport (as opposed to not participating) brings the equivalent increase in sense of wellbeing (happiness) as earning an additional £11,000 a year would bring’. This is not to say however that you can translate this to mean that someone would necessarily forego £11,000 income to participate in sport!

Measuring long-term health benefit of engagement

This work was only carried out for sport due to the physical component associated with participation. A model-based approach was adopted. The approach taken draws on accepted best practice as recommended by the National Institute for Health and Clinical Excellence’s (NICE).

The model distinguished between the impacts for five different age groups, and considered the varying intensity, duration, and frequency of engagement in different types of sport. It estimated the impact of doing different sports on the likelihood of experiencing four different health states: chronic heart disease (CHD), colon cancer, stroke, and type II diabetes. These effects were then valued in terms of health costs avoided and health-related quality of life gains.

The lifetime healthcare cost saving generated by doing different sports varies between £1,750 per person (badminton) and £6,900 per person (health and fitness), and the total economic lifetime value (health care costs saved and improved health-related quality of life) generated by doing different sports varies between £11,400 per person (badminton) and £45,800 per person (health and fitness). The variation in value is a result of three factors: the intensity level of the activity, the duration of the activity and frequency with which a sport is undertaken

It should be noted that the calculation of these values is based on an analysis of people taking part in each sport separately rather than in combinations and although covering a number of the major chronic diseases it does not include all the potential health benefits for which there is a growing evidence base (including mental health). It is therefore likely to be an underestimate of the total value. However it should also be noted that the calculation does not take into account the costs associated with sport related injuries.

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21st July 2010