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### Overview

This Guidance Note has been written for museums looking to develop their understanding of economic valuation estimates and how they can be applied in practice, such as to business cases and funding applications. The valuation approach outlined in this Guidance Note aligns with the Social Cost Benefit Analysis (SCBA) methods in the UK HM Treasury Green Book Guidance (2020)¹. The Green Book (2020) states that evaluation of public goods and services should account for the total costs and benefits to society in a way that goes beyond market prices.

The note aims to provide a resource to help you understand the value of your museum in ways that extend beyond traditional measures that look at market impacts e.g. GVA and job creation. The valuation approach described provides a more comprehensive account (when presented with other economic methods) as it attempts to include the value of the museum as a whole to both visitors and the local population that is not fully captured in commercial transactions. Without considering the latter, the estimated economic value could be a serious underestimate.

Arts and Cultural institutions provide a broad range of value to places and their communities. This Guidance Note, and accompanying research, seeks to estimate in monetary terms the value held by society that is not captured in existing economic measures like access fees or economic spend. Economists often use market prices to estimate the value that people place on a good, because if people thought a good was worth less than the price, they would not buy it. However, if for example, a museum is free to access and there is no price for entry, then there is no direct economic measure to estimate how much a visitor valued the experience.

Whilst every care has been taken to explain key terms, the guide assumes some familiarity with more traditional techniques to assess value, such as economic impact, or experience in producing business cases, such as when making a funding application. This note is divided into three sections:

- 1. A **brief explanation** of what Contingent Valuation (CV) and Willingness-To-Pay techniques are (and how to use them) and why these should be included in your decision-making and business cases, which is in line with Green Book Social Cost Benefit Analysis principles.
- 2. A **step-by-step guide** to trying to estimate your museum's total annual public benefit by transferring a representative Willingnessto-Pay (WTP) value calculated from other regional museums. This is based on a technique known as Benefits Transfer (BT). This note covers when and how this technique can be used and is directed specifically at museums in regional cities. The Guidance Note sets out how to use these values in business cases and in Social Cost Benefit Analysis. However, guidance on the application of nonmarket values to business cases for options appraisal is in a developmental **phase** and will be explored in more detail within the development of the Department for Digital, Culture, Media and Sport (DCMS) Culture and Heritage Capital (CHC) framework. Before applying these values to your own business case or Social Cost Benefit Analysis we recommend consulting a valuation professional/ economist at Arts Council England or other expert organisations.
- 3. A **checklist** to refer to when producing valuation estimates.

<sup>&</sup>lt;sup>1</sup>The UK HM Treasury released a 2020 update to the 2018 Green Book, which can be found here: https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent/the-green-book-2020

The **Appendix** provides an overview on how to undertake Contingent Valuation and a worked example of BT. There is also a reading list for those wishing to further their knowledge on BT techniques.

This Guidance Note does not show how to estimate the standard market value (financial) impacts in Gross Value Added (GVA) terms associated with tourism, employment, volunteering, and spend on goods and services. This is available, for example, in the Association of Independent Museum's (AIM) toolkits.<sup>2&3&4</sup> However, an evaluation that focuses only on market prices underestimates the full public value of a cultural institution. Rather, this Guidance Note shows you how to estimate the public benefit that your institution produces in monetary terms in a way that aligns with the Green Book principles of Social Cost Benefit Analysis. Non-market value can then be included in your business case alongside GVA economic impact evaluations.5

This Guidance Note and worked example should be used in combination with the set of pre-estimated and pre-validated **non-market** economic values for culture, which is based on valuations previously established from other cultural institutions. A **Benefit Transfer Table of Economic Values** has been developed by ACE and the Department for Digital, Culture, Media and Sport (DCMS) using valuation estimates derived from new and previous work by this note's authors – the latter also funded by Historic England and the Arts and Humanities Research Council.

Non-market economic values for a regional museum can be estimated from average WTP values of museums with broadly similar characteristics which have already been surveyed (The Great North Museum, Newcastle; The Ashmolean museum, Oxford; The National Railway museum, York and The World Museum, Liverpool).

The estimated average regional museum WTP for visitors (or users) and non-visitors (or non-users) consists of the average from the pooled set of survey responses, across all four museums, for visitors (use WTP) and non-visitors (non-use WTP) respectively. Willingness to pay is not a direct 'cashable' market price, but rather represents the value of a good or service in terms of its consequence for personal welfare. The pooled average then contains the variation in WTP values for the public within and between institutions. Assuming that the regional museums are indeed characteristically similar, this procedure should give a more robust and representative estimate of valuations for a regional museum than estimates based on a single site, and is therefore the value we recommend that you should use in your business case. We note that these values provide a 'point estimate' for the non-market value of the institution as a whole. The research has not as yet produced values that can be varied for different investment and cost options (known as marginal values). This is something that will be explored going forward as part of the DCMS Culture and Heritage Capital Framework.

To create this Guidance Note, we spoke to professionals working in the cultural sector to determine their working knowledge of economic methodology for valuing cultural sites, see the 'Measuring the Economic Value of Culture Research Project: Summary of interviews with sector participants on valuation' report. The finding from these interviews was that further guidance is required, specifically around practical uses of economic methods for the development of business cases. This Guidance Note seeks to address that.

As with all business case evidence, the onus is on institutions to be realistic and proportionate in the value they attribute to their activities and assets. Exaggerated estimates or making unrealistic assumptions (such as when using

<sup>&</sup>lt;sup>2</sup>We advise that analysts always check that any toolkit they use is compatible with HM Treasury Green Book and Magenta Book Guidance.

<sup>&</sup>lt;sup>3</sup> https://www.aim-museums.co.uk/wp-content/uploads/2017/02/Evidencing-Social-and-Environmental-Impacts-of-Museums-AIM-Advocacy-Toolkit.pdf

<sup>&</sup>lt;sup>4</sup> https://www.aim-museums.co.uk/wp-content/uploads/2017/02/AIM-Economic-Impact-Toolkit-2014.pdf

<sup>&</sup>lt;sup>5</sup> Note, if you have included valuations based on travel cost or house price uplift studies, then you should not add WTP values to your business case as this would lead to double counting of benefits.

estimates based on dissimilar institutions) will deter funders. The use of WTP values derived from this note should include adequate scoping of the comparability between your own museum and the museums that the valuations are based on. Applications of WTP values from this note should also provide evidence that the principles provided for business case valuation in this Guidance Note have been followed to reduce the risk of overestimation of values.

This Guidance Note is ACE's first attempt at providing direction on the way to include the social value of museums in a Social Cost Benefit Analysis. The Guidance is therefore open to iteration as the programme of work to better assess the economic value of culture continues and methodologies become more developed.

# **Glossary of technical terms**

| Term   | Definition  |
|--|---|
| Benefits Transfer (also known as Value Transfer) | The method of applying an estimated economic value (or benefits) of one or more sites to another site. This may be done by Simple, Adjusted, or Function Transfer.  |
| Contingent valuation (CV)                        | A survey method which looks to identify an individual's maximum Willingness-To-Pay (WTP) or Willingness-To-Accept (WTA) for an institution. In this method, a hypothetical scenario is presented in which the continuation of the institution in its current state is contingent on the individual's willingness to pay or in which its discontinuation is contingent on the individual's willingness to accept.      |
| Double-counting                                  | When a particular benefit is contained in two different value estimates leading to a risk of overattributing benefit if adding these estimates together.  |
| Gross Value Added                                | The value of output minus the value of intermediate inputs; it is a measure of the economic contribution made by an individual institution, industry, or sector.  |
| Non-use value                                    | Non-use value refers to the value for the cultural institution stated by those who have not visited or engaged with it within a designated period (e.g. the past three years). While these are expected to be <i>primarily</i> non-use values, non-visitors may hold elements of use value, such as the option value to visit the museum in the future or having used it online for research or recreational reasons. |
| Policy site                                      | <b>The site to be valued.</b> This is the site where there are no direct valuation estimates and to which the value will be transferred to  |
| Study site(s)                                    | The site(s) from which the value is transferred from. These sites must be similar in characteristics to the policy site for values to be appropriately transferred.   |

| Total Economic Value (TEV) | Total Economic Value refers to the whole estimated value of the institution. This includes both Use and Non-Use Values held by visitors and the wider public (non-users). It then accounts for the direct and indirect benefits from engaging with and knowing a cultural institution exists.  |
|----------------------------|--|
| Use value                  | Use value refers to the value stated by those who have visited or otherwise engaged with the cultural institution within a designated period (e.g. the past three years). While these are expected to be <i>primarily</i> use values, visitors may also hold non-use values for the preservation and maintenance of museum collections. Use value within this note refers exclusively to the WTP values held by museum visitors (i.e. users) for accessing the museum. |
| Willingness to pay (WTP)   | The maximum amount of money a person is willing to pay to continue to enjoy a good or service at its current 'business as usual' level. This can also include their willingness to pay for a change or improvement in the good or service, but this scenario is not covered in this Guidance Note.   |

# How can you estimate the economic value that your institution creates?

Imagine that you are in the management team at a regional museum. You have been asked to prepare a business case to outline the value that your museum creates for society, or to support a funding bid. This may be a business case for new investment (such as an expansion or refurbishment of the museum).

You know that your institution is important because thousands of people visit it annually, because it stores and displays culturally important objects, and because of its research, education, and outreach work for the wider community.

You also know, anecdotally, that even people who have never visited the museum value its presence, perhaps due to a sense of regional pride or awareness of the benefits that others gain from it.

However, none of this is necessarily reflected in market prices (i.e. the prices people pay). This may be because these entry prices are partially or fully subsidised (the latter when the museum offers free entry to the main collection). Where visitors only pay for temporary exhibitions, this also represents only a partial indication of the total value of the institution (i.e. current values cannot be used when there is a charge for general admission).

# Economic values for 'non-market' institutions?

The problem that many museums find is that the benefits they provide to society are not reflected in market prices. These benefits are termed 'non-market' goods or services because people benefit from them, but do not have to pay to enjoy them. This means that they do not show up on traditional monetary

balance sheets. Consequently, they often are not considered in economic business cases. There are, however, ways in which these non-market benefits can be quantified and understood within an economic framework.

When monetary estimates are provided to demonstrate the value of these institutions, it makes a stronger case that culture and the arts should continue to receive funding to benefit society. This is because Government guidance in the UK Treasury's Green Book (2018) recommends that non-market goods like culture be valued in monetary terms. An approved method to do this is the use of Stated Preference (SP) surveys.

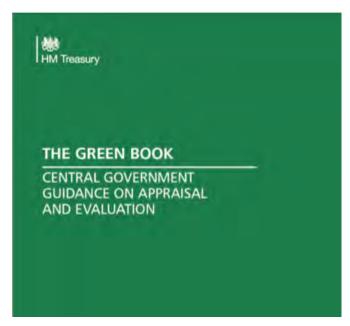


Figure 2 Business cases for cultural institutions should follow HM Treasury Green Book Guidance for Appraisal and Evaluation

SP surveys present relevant groups (visitors, users, residents, the general public) with information about a cultural good or service



(e.g. a museum with free entry) and asks how much they would be willing to pay to continue to enjoy that museum in a hypothetical scenario where entry was no longer free of charge. This method is currently used by other government bodies, such as the Department for Transport, in policy making and decisions around the value of transport-related impacts on iconic heritage sites.

This SP research technique is known as Contingent Valuation (CV). At the heart of CV is the careful design of surveys asking respondents directly to report their values:

- A maximum Willingness To Pay (WTP)
   for a positive change or to avoid a negative
   change. For example, what would be the
   maximum value that the respondent would
   be willing-to-pay to have extended open
   hours for a museum, or how much would
   they be willing-to-pay to prevent the closure
   of a museum in order to continue visiting.
- A minimum Willingness-To-Accept (WTA)
   in compensation for a negative change or
   to forego a positive outcome. For example,
   how much compensation would visitors
   require if this museum were to close.

The advantage of the CV method is that it can estimate the values that visitors obtain from an institution as a whole (direct and indirect use value, see Textbox 1 and Figure 1), as well as the optional value that they may get from being able to use it in the future and the values that individuals who do not use the institution may place on its continued existence and provision of its services to others (non-use value). While non-use values may contribute to the overall economic value of an institution, we urge caution when incorporating estimates in your analysis: there is a risk of over-estimation if a disproportionate population size is used for aggregation. Note again that in all cases in this report the values are for the museum as a whole and not for changes in the service offering of that museum.

Textbox 1 Use value and Non-Use value

Use value refers to the WTP stated by those who have visited or otherwise engaged with the cultural institution within a designated period. While these are expected to be *primarily* use values, visitors may also hold nonuse values for the preservation and maintenance of collections. Use value within this study refers exclusively to the WTP values held by museum visitors (i.e. users) for accessing the museum.

Non-use value refers to the WTP stated by those who have not directly visited or engaged with the cultural institution within a designated period. While these are expected to be *primarily* non-use values, non-visitors may hold elements of use value, such as the option value to visit the museum in the future or having used it online for research or recreational reasons.

<sup>&</sup>lt;sup>6</sup>The HM Treasury Green Book places market and so-called revealed preference (RP) methods above stated preference in terms of robustness. RP methods use observations on actual choices made by people to measure preferences. However, note that in many cases stated preference is the only method available to capture many of the non-market benefits that cultural institutions provide, and the only method which can capture hypothetical future changes in service provision and capture both use and non -use value.

#### Non-Use Value Value ٥ **Indirect** Altruistic Direct Option Existence **Bequest** use value use value value value value value For example: For example: For example: For example: For example: For example: Enjoyment of Increased civic Knowing our Inspiration Option to visit a Satisfaction in the related from visiting pride in children will regional knowing services, such as museum in the knowing be able to museums people can future region has a enjoy museum restaurant experience high-quality collections high quality museum museum collections

### **Total Economic Value**

# **Benefit Transfer Table of Economic Values for Culture**

The Benefit Transfer Table of Economic Values for Culture contains average estimates of WTP values for different categories of cultural institutions and heritage sites (for instance, regional museums). This database is based on research work undertaken to date by this note's authors for ACE, the Arts and Humanities Research Council (AHRC) and Historic England. It is a foundation for DCMS's Culture and Heritage Capital Framework project which will create a broader database of cultural and heritage values for the sector.

There are multiple benefits for your institution from using the Benefit Transfer Table of Economic Values for Culture:

- Business cases/cost benefit analysis/ impact assessments can incorporate a fuller economic value of the museum as a whole in terms of its contribution to society
- It reduces the need to perform costly data collection
- It makes it easier to estimate the economic value of your work using the database's Benefit Transfer table
- It provides an advantage in a competitive funding environment, where funders are looking for more robust rationales for using public money to invest in institutions

The WTP values for regional museums are estimated through primary data collection, surveying visitors to a museum ('users') as one sample, and people who had never visited that museum ('non-users') in another.

Four museums have been surveyed, with a minimum of 200 visitors and 200 nonvisitors in each case. Each survey respondent was asked what was their maximum willingness to pay to enter the museum, as an entry fee if the museum were no longer open for free, or as a donation to keep the museum open, in the case that they had never visited.

Each person asked provided a maximum willingness to pay estimate, providing us with a range of WTP values across the sample. From this, we take an average estimated WTP value for visitors and an average WTP for non-

visitors for each institution. The law of large numbers, in statistics, states that as a sample size grows, the average gets closer to the 'true' average of the whole population. For example, an average WTP taken from 200 visitors is more representative than an average WTP from twenty visitors and an average WTP from a pooled sample of across four regional museums is more representative than an average WTP from one regional museum. This allows you to transfer the WTP values from the Benefit Transfer Table of Economic Values for Culture to estimate the WTP per person/per household for your museum.

You can take this average estimated WTP value and apply it to similar cultural institutions using a Benefit Transfer method. For this, we take an average WTP value from each of the study sites and calculate a *pooled* 

We will now provide you with some information about the funding of the Ashmolean Museum.

The difficult financial situation has meant that many museums in England have suffered cuts in funding while having to cope at the same time with increased numbers of visitors and associated increases in maintenance and operating costs.

In the unlikely event that funding ceases to be provided, museums would need to charge an entry fee to raise enough money to support their activities and secure their long-time future.

For the next set of questions, please imagine a situation where funding for museums has been cut and museum(s) start charging an entry fee. In this situation, please think about how much a visit to the Ashmolean Museum would be worth to you if anything.

Think of this as if you were going to the museum today and that this is the only museum you will visit today.

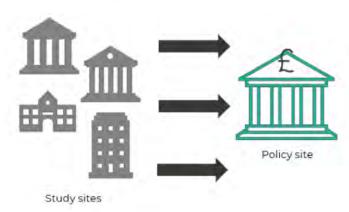
When answering this question, please ignore any other payment questions you might have answered in this survey and assume that this is the only payment you were asked for today. This is an entirely separate scenario for the Ashmolean Museum. The response should be strictly independent of any payment questions you may have already answered.

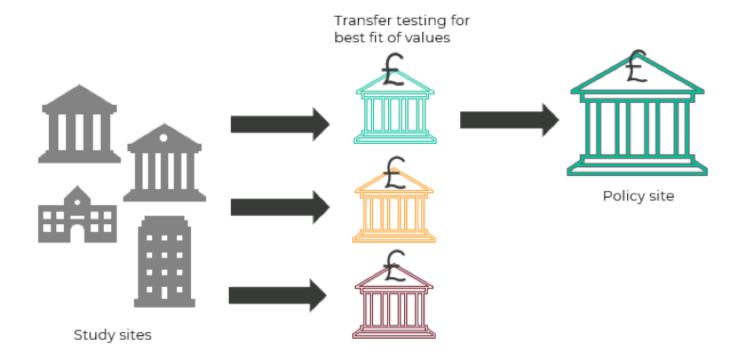
Would you be prepared to pay an entry fee to visit the Ashmolean Museum, even if this were only a small amount?

Yes Maybe No

Figure 3 Example of Contingent Valuation Survey used to elicit willingness to pay for regional museums

average representative of all study sites. We can apply this average to our museum to be valued (policy site). However, an average value will always be an approximation, and some error will be introduced if we assume that other museums have that same WTP value, because no two sites are the same. The Benefit Transfer Table of Economic Values for Culture tests for the robustness of the WTP values obtained by analysing the four regional museums' responses.





To do this, we follow best practice in European Union and UK Government studies<sup>7</sup> by **transfer testing**. It is generally recommended that at least four source sites should be used to transfer the value onto the valuation site. The fewer sites that are used the more likely it is that the value cannot reliably be transferred. To test whether the transfer of a predicted museum value to the business case museum is likely to be accurate, we compare the value of each one of the study sites to the pooled average of the other three study sites. This procedure recreates the process of transferring values from study sites to a policy site for business case purposes.

The WTP values in the Benefit Transfer Table of Economic Values for Culture have been 'transfer tested' in this way to estimate the amount of 'error' that is introduced when transferring these values to another regional museum. Transfer error is introduced when the museums surveyed as 'study sites' (and how people value them) are not representative of or comparable to other museums that you wish to value as a 'policy site'. As museums are not identical, we expect some error, but the Benefit Transfer Table of Economic Values for

Culture recommends only those WTP values be transferred which are within 'acceptable' levels of error (recommended as less than the relatively high 40% in the literature).8

The Benefit Transfer Table of Economic Values for Culture provides representative estimated WTP values for visitors and non-visitors to regional museums that can in principle be transferred to other comparable regional museums in England.

The next section provides a step-by-step guide on how to incorporate values from the Benefit Transfer Table of Economic Values for Culture into your own business cases or cost benefit analyses, outlining the kind of information required, and the decisions needed to ensure that your business cases accord with best practice Government guidance.

We have set up some simple rules for designing and analysing CV surveys in the Appendix, as well as a survey template that can be adjusted to the needs of your own institution if required. Institutions are encouraged to seek professional advice in calculating estimates, to avoid unrealistic or biased evaluations.

<sup>&</sup>lt;sup>7</sup> (Fujiwara et al. 2018; Lawton et al. 2018; Mourato et al. 2014)

<sup>&</sup>lt;sup>8</sup>Tests to verify that the estimated WTP values have low errors when transferring the value from one institution to another (i.e. Transfer tests) were performed between all four sites. All transfer errors scored below the recommended 40% threshold, for simple unit transfer, and for the transfer of visitor values using two more sophisticated approaches called adjusted and function transfer. This indicates that the WTP values can be considered representative of a comparable museum site with acceptable margins of error (Ready and Navrud, 2006).

### **Summary Section 1**

- Willingness to Pay (WTP) is an established Treasury-approved method for estimating the monetary value of museums to society. This provides important evidence for SCBA, business cases and funding applications to demonstrate the economic value of cultural institutions.
- WTP consists of both use and non-use values; use value representing the value held by visitors, whereas non-use values are held by those who still appreciate the museum but have not yet visited. Non-use values should only be incorporated in your analysis with realistic estimates of the population they are applied to in the museum's surrounding catchment area due to the risk of over-estimation if the incorrect population size is used for aggregation.
  - The Benefit Transfer Table of Economic Values for Culture provides value estimates for comparable museums that you may be able to use to value your own institution (rather than conducting your own willingness to pay research).
  - The next section provides a stepby-step guide to the kind of information you need to be able to incorporate values from the Benefit Transfer Table of Economic Values for Culture into your own business cases.

# Applying Economic Values to your Business Case: Worked Example

A Benefit Transfer (BT) is the exercise of taking estimated values from a sample of sites and applying them to another site. By valuing one or more sites, referred to as the *study* sites (i.e. the sites with previously estimated values in the Benefit Transfer Table of Economic Values for Culture), we can obtain transferable values that apply to a business case site (otherwise termed *'policy site'* in the technical literature, i.e. the institution that you want to value in your business case or SCBA).

This worked example is a first attempt at providing guidance on how to include the social value of museums in SCBA. It may be revised as the programme of work to better assess cultural value continues and methodologies become more developed.

The values in the Benefit Transfer Table of Economic Values for Culture represent a baseline for different types of cultural institution that provide an understanding of their value. We recommend that these values should be adjusted to the specific features of each institution, using data on visitor and local populations, and that this may be augmented through fresh survey data collection and potentially varied according to other observed characteristics of each institution.

The following is a worked example of Benefit Transfer of regional museum WTP values. In this example, a benefit transfer is conducted for a hypothetical regional museum based in Manchester in the North-West of England; this will be the 'policy site' for our business case.

A step-by-step checklist is provided in Section 3. However, it is the responsibility of each institution to ensure that they use best available data about their institution and that they consider the appropriate number of visitors and local population groups when calculating the economic value of their museum. We provide guidance below for each of these steps, to help you to construct the most realistic and robust business case for your museum, but institutions must be realistic about the reach and impact of their museum, to avoid over-attributing their value.

**Over-attribution** typically occurs where the business case over-estimates the positive societal impacts of their institution. Common mistakes include:

- 1. Over-estimating the number of people who benefit from it:

  Overstating the number of annual visits or the museum's reach into the local population (catchment area) leading to a corresponding overestimate of economic value.
- 2. Assigning an economic value for a larger museum (such as a regional museum) which is not commensurate with the size of the museum in your business case: An example might be if an otherwise characteristically similar small local museum assumed that the WTP value for regional museums could be applied to its own visitors. This could lead to an overestimated economic value.

We outline the steps by which WTP values in the Benefit Transfer Table of Economic Values for Culture can be applied to your own business case or impact assessment.

#### What you need to know:

- Initial scoping: How similar your institution is to the four regional museums in the Benefit Transfer Table of Economic Values for Culture: annual visitor numbers, regional location, reach and size of the museum
- Business case calculation:
   Information about annual number of visitors and the broad 'catchment area' or 'local reach' of your museum (to be done with advice of experienced valuation specialist/economist)



Figure 4 Regional museums surveyed for the Benefit Transfer Table of Economic Values for Culture: York National Railway Museum; the Great North Museum in Newcastle, the Liverpool World Museum, and the Ashmolean Museum in Oxford

### **Initial scoping**

The prospective business case writer should first consult the Benefit Transfer Table of Economic Values for Culture and establish whether any of the categories match their institution.

The database values are shown in Table 1. The database provides a robust set of WTP values which have been previously validated for Benefits Transfer (it is based on the study sites listed below).

In the case of 'Regional Museums' the first consideration is:

### Can your museum be classed as a 'regional museum'?

This classification is to some extent subjective and will be improved through continued engagement with the sector and application in case studies. Suggested definitions include:

#### A museum:

- with a minimum of at least 200,000 visits per year. Any institutions below this range are defined as being a smaller museum and so are not comparable with the regional museums surveyed for the Benefit Transfer Table of Economic Values for Culture.
- based in a major city within its County (for instance, York in North Yorkshire, Liverpool in Merseyside, Newcastle in Tyne and Wear, or Oxford in Oxfordshire).
- with 'reach' beyond the city in which it is based. This is defined broadly as having at least 25% of your annual visitors travel from an origin outside of the city boundaries.
- with collections of importance beyond the local population, i.e. collections of national significance.

 No 'standard' entry fee, that is, no fees for entry (save for special exhibitions).

# Museums where the values are less likely to be applicable

Based on the criteria above, there are circumstances where the estimated valuations for regional museums in the Benefit Transfer Table of Economic Values for Culture may not be applicable. Institutions should consider carefully whether any the following apply to them:

- Local museums: For instance, those based in smaller towns and villages and/or those with collections of importance mainly to the local population (such as museums on the history of the town or village). <a href="Iransfer of regional museum WTP values to these institutions may lead to over-estimation of economic value in SCBA and business cases.">Cases. A forthcoming study by the authors will provide valuation estimates for these.</a>
- Central London museums: The characteristics of London's national museums, for example the British Museum and National Gallery, are different to those of regional museums, with significantly larger collections, visitor numbers and a higher proportion of international visitors. London's population also has a very different demographic profile compared with England as a whole. These factors make the London museums less comparable with the regional museums in the Benefit Transfer Table of Economic Values for Culture. Transfer of regional museum WTP values to these institutions may lead to under-estimation of economic value in business cases. However, it may be feasible to transfer

these values to London museums located outside the centre (e.g. the Horniman Museum in Forest Hill). As no testing has been done for such transfers however there is still a **risk of inaccurate estimation** of economic value in business cases.

- Only museum in a town or city: If your museum is the only museum in the town/city and has no competitors in the immediate vicinity then it may not be comparable to the regional museums in the Benefit Transfer Table of Economic Values for Culture which have other museums in their local area. This may affect the values people hold for the museum leading to over or under-estimation (underestimation if your museum does not have potential substitute institutions nearby and over-estimation if the absence of other museums in the city/ town suggests that the museum is not of comparable size to those that the estimates are based on). Transfer of regional museum WTP values to the institution should therefore consider carefully how comparable it is to those the valuations are based on.
- Seaside towns: WTP for regional museums are not in general applicable to seaside communities due to large differences in reach and demographic characteristics<sup>9</sup>. <u>Transfer of regional museum WTP values</u> to these institutions will lead to inaccurate estimation of economic value in business cases.
- Less applicable outside of England: WTP
  values have been collected for regional
  museums in England and therefore may
  not be representative of valuations in
  Northern Ireland, Scotland and Wales; care
  should also be taken to consider cultural

differences to avoid **inaccurate estimation of economic value** in business cases.

If your museum is not comparable due to the dissimilar visitor and local population characteristics and does not meet the initial scoping requirements, we recommend consulting a valuation professional/economist on whether a BT method is available that accounts for these differences for your business case (refer to Economic Value of Culture report<sup>10</sup>).

### **Business case/SCBA calculation**

If your museum passes the initial scoping exercise and can be considered comparable to the regional museums surveyed in the Benefit Transfer Table of Economic Values for Culture, this suggests that it may be eligible to transfer the WTP estimate from the Benefit Transfer Table of Economic Values for Culture to calculate the WTP per person/per household for your museum.

The Benefit Transfer Table of Economic Values for Culture provides two types of estimated WTP values for the museum as a whole: visitors (user WTP) and non-visitors in the general population (non-user WTP). We discuss both in turn. Note, the total value of visits and non-visitor values can be added together to form the total non-market value of the museum (see Table 2) in the final business case, provided that the correct decisions have been made at each stage in the calculation below.

#### Visitor (user) WTP: Data required

The main data required to transfer visitor WTP from the Benefit Transfer Table of Economic Values for Culture to your own museum are estimates of the number of visits to your museum each year.

#### Non-visitor (non-user) WTP: Data required

Non-use value is an important element of the societal benefits that museums and other cultural institutions provide to the public.

<sup>&</sup>lt;sup>9</sup> Such as higher levels of residents over the pension age, lower employment rates, higher seasonal work, and higher deprivation rates than the national averages. These differences are detailed in the 'England's Seaside Towns: A Benchmarking Report':

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/7624/englishseasidetowns.pdf

<sup>&</sup>lt;sup>10</sup> https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/745780/The\_Economic\_Value\_of\_Culture\_-\_A\_Benefit\_Transfer\_Study\_-\_Final\_report.pdf

However, the quantification of non-use value is also in its early stages, meaning that many uncertainties still exist around how to apply non-use values in SCBA and business cases.<sup>11</sup> We recommend that non-use values should be aggregated in the most conservative way possible. One approach to addressing these uncertainties would be for non-use values be aggregated to a realistic catchment area - typically this should be the local region to avoid over-attribution of non-use value to any single institution. For transfer of non-visitor WTP to your local population, it is important that you select an appropriate catchment threshold for your 'local non-visitor population'. An unrealistically large catchment area will lead to over-estimation of non-visitor value in your business case, which will reduce the credibility of your results. Definition of the non-visitor population will differ depending on each institution. It is to some extent subjective, but through continued engagement with the cultural sector it is hoped to improve the guidance for performing this analysis over time. The suggested approach is defined below:

• Local catchment area: The appropriate local catchment area may be defined as the geographical area within which residents are likely to have heard of your museum even if they have never visited. Typically, an area will be considered outside the catchment area if its residents are more likely to visit/have heard of a museum in another city than your museum. We note that this definition of 'local reach' is subjective, and urge institutions to be cautious when constructing business cases, since extending the reach of your museum is the most common way values can be over-attributed, making business cases less credible. Where possible. primary data collection may be undertaken to better understand the local population's awareness of, and engagement with the museum. Note that for consistency with HM Treasury's Green Book (2020), overseas visitors should not be included in business case estimates.

- Evidence and assumptions used to define the non-visitor population must be clearly presented. Where supporting empirical evidence is not available, you should provide justification for the definition of the non-visitor population used. See the Eftec Valuing Environmental Impacts (2009) Report for ideas (in the Further Readings list within the Appendix).
- Number of households in local area: Non-visitor WTP values are based on a willingness to pay per household for adult residents. Once you have defined your local catchment area, estimate how many households there are in this area. We expect that museums will already have a sense of their catchment area and the size of the population within it from existing audience and community engagement research. If not, public resources do exist such as the Office for National Statistics (ONS's) 2011 census data at the local authority, country, and regional level.<sup>12</sup>

In all cases it is the **responsibility of the museum** to ensure that the catchment area is an accurate reflection of its reach and does not lead to over-attribution of values in the business case.

**Table 1** presents the average estimated WTP values in the Benefit Transfer Table of Economic Values for Culture. Subject to the guidance presented in this document, these values may be transferred into business cases for your own museums to provide a fuller estimate of their economic value to society than one that is based only on market prices. You should identify the value that best fits your own institution (by choice of visitor or nonvisitor population group) and follow the steps outlined above.

<sup>&</sup>lt;sup>11</sup> For discussion of the issues and uncertainties around non-use WTP values, see Bandara and Tisdell 2005

<sup>12</sup> https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?opt=3&theme=&subgrp=

Table 1 Benefit Transfer Table of Economic Values for Culture: Regional Museums

| <b>Willingness to pay for regional museums.</b> Based on WTP values for Great North Museum (Newcastle), World Museum (Liverpool), National Railway Museum (York), Ashmolean Museum (Oxford) |   |  |  |  |
|---|---|--|--|--|
| Population group  | 2020 WTP value (2018 value)                   |  |  |  |
| Visitor WTP for access  | Visitor WTP for access – User value per visit |  |  |  |
| Visitor WTP entry fee to access museum (per visit) £6.16 (£6.01)  |   |  |  |  |
| General population WTP to maintain museum and its collections –<br>Non-user/Non-visitors  |   |  |  |  |
| Non-visitor (non-user) WTP £3.25 (£3.17)  |   |  |  |  |

Note: All WTP values are based on the lower bound of the 95% confidence interval (CI). This is recommended wherever CV values are applied to business case aggregation to account for biases that can operate on hypothetical surveys, following HM Treasury Green Book (2018, A5.9) "Optimism bias should be applied to operating costs and benefits, as well as capital costs. Where there is no appropriate measurement of typical bias, the confidence intervals of key input variables can be used." All values reported can be transferred to business cases with acceptable levels of transfer error (<40% transfer error within their respective transfer method of adjusted transfer for user WTP and simple unit transfer for non-visitor WTP.

# Estimate combined visitor and non-visitor value for your museum

**Step 1**. Multiply annual domestic visit numbers<sup>13</sup> for your museum (adult) by the average visitor (use) WTP value.

- In the worked example, our museum is based in Manchester and has 426,367 domestic visits per year (Table 2). Multiply visit numbers by WTP for a visit in the North West from Table 2 (£6.16).
- The total (aggregate) value of our museum to its visitors is £2,626,421 per year (as in Table 2).
- This value estimate can be included in your business case alongside estimates of GVA impact. Note that if you have included economic valuations based on RP methods such as travel cost or house price uplifts, then you should not add WTP values to your business case as this will lead to double counting of benefits.

**Step 2**. Multiply number of households in your local catchment area by the relevant average non-visitor (non-user) WTP.

- Average Non-visitor (non-user) WTP in the Benefit Transfer Table of Economic Values for Culture is £3.25.
- The worked example uses the population for the Greater Manchester region according to the 2011 Census.<sup>14</sup> This is arguably appropriate given that the hypothetical museum is based in the centre of Manchester, and its catchment area (the area in which people will have heard of the museum and would be more likely to visit that museum than one in another city) may not extend to other regions like Merseyside or West Yorkshire.
- To avoid double counting of visitors who live in the local catchment area and local non-visitors, the number of local visitors should be subtracted from the local resident population (i.e., household numbers). In

<sup>&</sup>lt;sup>13</sup>We recommend only counting domestic visitors to your museum if this information on visitors is available. This is consistent with the position of the Green Book (2020).

<sup>&</sup>lt;sup>14</sup> Census data retrieved from: https://www.ons.gov.uk/census/2011census/2011censusdata

- cases where this data on local vs non-local visitors is not available, we recommend subtracting a plausible percentage of local resident population to provide a more conservative estimate of the total non-visitor (non-use) value.
- To derive accurate estimates of visitors in the local population, we recommend that analysts run a bespoke survey of the local population. In the absence of accurate local survey data, one way of deriving a plausible percentage of visitors in the local population is to use an estimate from national data as a proxy. In this case, we take data from the Understanding Society survey, a nationally representative UK household survey which suggests that 38% of the national sample had visited a museum or gallery in the past 12 months. In the absence of data on the proportion of the local resident population who have visited a single institution, therefore, we might use the figure of 38%. However, as the estimate
- from Understanding Society is a measure for visiting any museum this is likely an over-estimate. We suggest using a lower threshold of 20%, that is, subtract 20% of local households from the local catchment area when aggregating non-visitor (non-use) values.<sup>15</sup>
- Subtracting 20% of presumed visitors (102,149) from the local population (510,746 local households) gives an estimated local population of non-visitors of 408,597.
- The estimated total non-market value of the museum to its local non-visitor population comes out as £1,327,940 per year (as in Table 2).
- **Step 3**. Combine annual visits WTP (£2,626,421) with the local population non-visitor WTP (£1,327,940) to calculate the total economic (non-market) value of your museum (£3,954,361 in the worked example).

Table 2 Worked example: Benefit transfer from Benefit Transfer Table of Economic Values for Culture to case study of a museum in Manchester (2020 prices)

|  | Visits (user WTP) | Local population<br>non-visitor<br>(non-user WTP)   |  |
|--|-------------------|---|--|
| Worked example museum WTP                                    | £6.16             | £3.25   |  |
| Worked example relevant group                                | 426,367 visits    | 408,597 local households<br>of non-visitors (510,746<br>local households – 20% of<br>possible local visitors) |  |
| Aggregate Value  | £2,626,421        | £1,327,940  |  |
| Total non-market value:<br>Combined User and<br>Non-User WTP | £3,954,361        |   |  |
| Indicative annual museum operating costs                     | £1,978,146        |   |  |

Note: All monetary values are uprated to 2020 values using the CPI. Given the uncertainty in the original estimates rounding to the first decimal point is reasonable for total values (i.e. £2.6 million and £1.3 million).

<sup>&</sup>lt;sup>15</sup>This is a conservative estimate, as we expect that some people in the local area will have visited the museum and therefore cannot be counted towards the non-visitor group.

For the purposes of SCBA, it is necessary to place these non-market benefits alongside the operating cost of running the museum (e.g. programmes, marketing, cost of generating funds, governance, overheads, care, conservation and acquisition of collections). In this example, the cost of running a museum of this size in North West England might be assumed to be £1,978,146.16 And earned income for a museum of this size might be assumed to be £1,065,450 (in addition to public funding subsidies of £962,402).<sup>17</sup> The total non-market value estimated in this worked example is larger than that of the total running cost of the museum, suggesting that the museum has a positive Benefit-Cost-Ratio. and therefore provides net social benefits to society. Likewise, the total non-market value is more than the total income received by the museum, which suggests that non-market value is a substantial part of its overall societal offering of this museum, and that failing to account for it substantially underestimates the benefits that the museum provides to its visitors and the local population. The combined earned income and non-market value could then be presented in a business case which attempts to demonstrate the total value of the museum to funders and the public.

The numbers in the example are given in unrounded form as this is the basis on which calculations are typically undertaken, but when presenting findings users should consider the degree of accuracy they round numbers to in order to avoid spurious accuracy.

# Possible application to changes in the site (marginal value estimation)

This Guidance Note is primarily focused on the Total Economic Value<sup>18</sup> of a museum in its current (baseline) state using the Benefit Transfer method. This is the value of the existence of the museum, in terms of the estimable non-market benefits it provides to society. In many cases, the WTP values in the Benefit Transfer Table of Economic Values for Culture can be presented alongside estimated market impacts (such as on GVA) from traditional impact assessments. Note that this represents a point estimate for the museum as a whole, rather than an estimate of what the value of a change to the site (marginal value) would be.

However, with careful consideration of National Audit Office Value for Money requirements<sup>19</sup> and adjustments for different options appraisal, the BT technique listed within this guidance note may also be applied to valuing other museum activities when combined with new primary data collection. This falls outside of the scope of the current Guidance, but might include:

- 1. **Museum Expansions**, where a museum might want to value a building extension (for example, new or refurbished facilities) based on user and non-user satisfaction with their institution as it currently stands. For example, the use value can be applied to estimate the value of an investment that increases the number of visits to the site, based on the visitor experience remaining the same.
- 2. **Maintaining and conserving museum collections**, where the museum's collections (not on display) need to be valued or alternatively the conservation work that the museum undertakes could be valued.

Future research by DCMS may provide an evidence-based theoretical framework for the value of such cultural collections to society.

3. **Conducting research work**, where a museum wishes to value the research it undertakes, whether that research is in studying, collecting or conserving goods, or in understanding visitor wellbeing.

<sup>&</sup>lt;sup>16</sup>This figure was the average value provided by the National Portfolio Organisations and Major Partner Museums Annual Submission within Arts Council England's Annual Data Survey 2018-19.

<sup>&</sup>lt;sup>17</sup>This figure was the average value provided by the National Portfolio Organisations and Major Partner Museums Annual Submission within Arts Council England's Annual Data Survey 2018-19.

<sup>&</sup>lt;sup>18</sup> The Total Economic Value of a museum represents the estimated value of both Use and Non-Use values held by visitors and the wider public

<sup>19</sup> https://www.nao.org.uk/successful-commissioning/general-principles/value-for-money/assessing-value-for-money/

### **Section 2 Summary**

- This section provides a worked example to follow if you wish to estimate an economic value for your regional museum using the Benefit Transfer Table of Economic Values for Culture.
- The values can be aggregated using your museum's annual visit numbers and local catchment area population to estimate the total economic value of your museum and place it alongside operating costs and other sources of income for business cases and funding applications.
- Importantly, applications of WTP values from the Benefit Transfer
   Table of Economic Values for Culture should have adequate scoping of the comparability between the site of interest and the museums in the Benefit Transfer Table of Economic Values for Culture, and evidence that the principles of this Guidance Note have been followed to reduce the risk of overestimation of values.
- Before applying these values to your own business case or SCBA we recommend consulting a valuation professional/economist at Arts Council England, Simetrica-Jacobs, Nesta or other expert organisations.

# **Checklist on application of values**

The table below is a quick checklist to break down the steps involved in conducting a Benefit Transfer.<sup>20</sup>

**Table 3 Benefit Transfer Simple Checklist** 

| Step  | Visits (user WTP)   | Completed<br>( ) |
|---|---|------------------|
|   | Conduct initial scoping by comparing your museum's characteristics to the database sites' characteristics.  |                  |
|   | Identify what information/data is required  |                  |
|   | Seek advice from qualified valuation professionals/economists   |                  |
|   | Identify the relevant population (i.e. users, non-users)  |                  |
| 1 Identify context for the Benefit Transfer | Identify the relevant context: Do you need a baseline non-market value of the museum in its current condition?  |                  |
|   | <b>If Yes</b> , proceed with estimates from Benefit Transfer Table of Economic Values for Culture   |                  |
|   | If No, and you are making a business case for a change in the museum service offer (e.g. expansion, extension of opening hours, change in collections on display), then this will need new primary data collection using the Contingent Valuation Survey Template |                  |
|   | Identify what data you already have (Benefit<br>Transfer Table of Economic Values for Culture,<br>visitor numbers, catchment area, etc.)  |                  |
| 2 Identify and collect data                 | Provide justifications for definitions of survey populations  |                  |
|   | Collect primary data (if required) to collect specific information on your visitors and local catchment area, potentially using the Contingent Valuation Survey Template to elicit valuation estimates specific to your museum                                    |                  |

<sup>&</sup>lt;sup>20</sup> For an in-depth checklist, we recommend reading the Eftec (2009) 'Valuing Environmental Impacts: Practical Guidelines for the Use of Value Transfer in Policy and Project Appraisal' document and following the Value Transfer Checklist provided.

| Step                | Visits (user WTP)   | Completed ( ) |
|---------------------|---|---------------|
| 3 Conduct           | Conduct Benefit Transfer following the worked example in this Guidance Note   |               |
| Benefit Transfer    | Record what processes you included and the reasons why  |               |
| 4 Conduct post      | Aggregate values to relevant population using<br>the Worked Example in this Guidance Note<br>and with reference to the HM Treasury Green<br>Book Guidance on Social Cost Benefit Analysis<br>(2018) |               |
| transfer procedures | The Benefit Transfer Table of Economic Values for Culture is based on 2020 prices. If you require to uprate, calculate inflation using the ONS Consumer Price Index                                 |               |
|                     | Include values in business cases with assistance of valuation professional/economist  |               |
| 5 Report            | Reference this Guidance Note by providing evidence that the principles for business case valuation have been followed in full to reduce the risk of overestimation of values                        |               |

### **Conclusion**

#### Conclusion

- The checklist provides detailed steps to design CV surveys and calculate BT values. However, this document is intended to be used as a guidance and not an in-depth assessment of a specific site. Always consult a valuation professional/economist and Government Guidance, including the HM Treasury Green Book (2018).
- The estimates provided in the worked example can still help to inform the development of a business case and the value for money of proposed investments.
- The Guidance Note outlines a simple method for estimating values for museums; however, our recommendation is that the design and analysis of such methods should generally be conducted by an expert for a more robust analysis.
- All applications of WTP values from the Benefit Transfer Table of Economic Values for Culture should include caveats that the robustness of benefit transfer is dependent on adequate scoping of the comparability between the site of interest and the museums in the Benefit Transfer Table of Economic Values for Culture, and that the principles of this Guidance Note have been followed in full and to always consult an economist to reduce the risk of overestimation of values.

### **Appendix**

### A.1. Designing a Contingent Valuation survey to elicit Willingness to Pay

CV surveys estimate a value for a cultural good or service by presenting a hypothetical scenario in which the respondent's continued enjoyment for themselves or for others either through use, access, or maintenance in its current condition – is contingent upon their being willing to pay some monetary amount. Stated preference surveys require that respondents find the hypothetical scenario to be meaningful and realistic, and that it reflects as closely as possible a real-life payment decision. In this method, we assume the individual will choose what they value the most in real life and that the results of the survey will be an accurate reflection of how people would behave if actual markets for these cultural goods existed.

We note that the design and analysis of contingent valuation data should be performed with detailed sensitivity analysis and validity testing which requires more sophisticated analysis. If you are not experienced in quantitative survey work, it is recommended that experts should be consulted.

There are four key elements to consider in the design of a CV survey:

- Is it believable that the cultural good or service really will be taken away, lost, or deteriorate in the way suggested? For example, the hypothetical deterioration of a local museum would probably be an unlikely scenario if the museum receives a high number of visitors.
- 2. Who is the relevant group to survey about the value of the cultural institution? Visitors, users, passers-by, local people, professionals, or the wider national population may all be relevant sample groups. But they may require different survey questions and their WTP values may need to be reported separately. A museum visitor may hold very different sets of values

for a museum they visit regularly compared to a member of the public who lives in a different part of the country but appreciates the existence of the museum now and for future generations. They may also be demographically distinct, with museum visitors possibly being older, more affluent, and more personally interested in cultural heritage than the average member of the general public. We would therefore want to report the average WTP of a museum's visitors separate to the average WTP of a member of the public who does not visit the museum in question.

- 3. Would the respondent be expected to pay in the way suggested? For instance, would raising a national tax on the general population be proportionate to protect a small local museum? Options for WTP payment mechanism include:
- Entry fee: Applicable where access is currently free and public access can in principle be restricted (e.g. museums and galleries). It is less applicable where the public good is freely available, such as sculpture parks or street art. Advantage: it is then a compulsory payment (it is impossible to 'free-ride' and continue to enjoy the cultural good/service without paying).

  Disadvantage: the introduction of entry fees can be a sensitive issue with the public who may believe they are entitled to the good (i.e. free entry), even when hypothetical.
- Tax (local or national): Applicable to all publicly funded cultural goods, whether paid or free, publicly accessible or excludable. Advantage: it is then a compulsory payment. Disadvantage: taxes can be unpopular, leading to strategic behaviour among respondents. This behaviour typically occurs when a respondent answers untruthfully by overestimating their WTP to bias the results, which they believe will allow the institution to receive more funding without them having to pay any increased taxes.

- Donation: Applicable to all cultural goods, whether paid or free, publicly accessible or excludable. Advantage: the donation can be made to an independent not-for-profit fund which therefore avoids strategic behaviour and payment sensitivity issues. Disadvantage: it is a voluntary payment, where it is therefore possible to 'free-ride' and continue to enjoy the cultural good/service without paying.
- Consideration should also be made to the payment term: One-off, recurring annual, and fixed period payments will result in different value estimates and will therefore affect the total calculated value of the museum in the business case analysis. This decision should be based on the most realistic payment approach for your relevant institution. In the DCMS Museums Benefit Transfer report (2018), a one-off entry fee was elicited for each of the four museums selected, even if the respondent reported they had visited only two of the four museums within the past three years. This one-off entry fee method established a WTP use and non-use value for four museums; a recurring payment would have likely resulted in skewed WTP values as respondents would have likely reduced their WTP due to the number of sites to value within the same survey.
- 4. How is the value elicited from the respondent? In other words, how do we get respondents to state a maximum £ value they would pay? The following options are ordered in terms of robustness. We recommend using a payment card (see example template below). This method offers respondents a range of monetary

amounts to choose from. This provides respondents with a visual aid and simplifies decision-making. This method is also more appropriate when sample sizes are smaller (i.e., below 300 respondents per sample group). However, the selected range can bias responses if not carefully calibrated (i.e., presenting a lot of low numbers will draw the respondent to the lower end of the scale, while a very high maximum value will skew their responses upwards).<sup>21</sup>

### A.2. Calculation of WTP

CV surveys have the advantage that WTP estimates are easy to calculate.

- Average WTP is simply calculated across the total sample. An important step is to include those who would not be willing to pay in principle, to ensure that their legitimate statement of no value<sup>22</sup> is included in the average WTP amount as £0 values.
- An additional analytical step is introduced through the use of a payment card elicitation mechanism, which means that respondents' stated WTP values must be taken as a lower bound of their actual willingness to pay (Bateman et al. 2002). This is because the actual amount they are willing to pay will lie somewhere between the amount they choose (e.g., £10) and the next amount on the payment card (e.g., £15). To overcome this, a midpoint is taken between all stated WTP values and the next value up. For example, the midpoint between £10 and £15 would be £12.50.<sup>23</sup>

<sup>&</sup>lt;sup>21</sup> Other options for elicitation method include dichotomous choice which randomly presents respondents with an initial bid ("would you be willing to pay £10?"). The best practice is to include 'double-bounded' dichotomous choice, which then asks a second question ("If yes, would you be willing to pay £15, or if no, willing to pay £5?"). Although the dichotomous choice method is more incentive compatible (i.e. it follows how people make transactional decisions in real life) it is also more difficult to apply in practice as it requires large sample (500+) and extensive piloting of WTP values. Open end: generally avoided in modern CV studies, this method asks respondents to give their maximum WTP with no visual guides. It is equivalent to 'picking a number from the air' and produces unpredictable and unreliable WTP estimates.

<sup>&</sup>lt;sup>22</sup>There are examples where the recording of a zero WTP is a 'protest vote' and does not reflect the actual benefit to the individual of the good. However, identifying protest zeros requires more in-depth exploration of the data and should only be performed with expert consultation.

<sup>&</sup>lt;sup>23</sup> Where an iterative-bidding technique is employed, such as dichotomous choice survey questions, the true WTP value falls between the interval of the bid amount. For example, if a respondent said they would be willing to pay more than £5 but less than £12, the true WTP value would lie between £5 and £12. Thereby, the average WTP can be calculated from the midpoint of the bid function in a regression analysis. This bid function includes the bid levels and any explanatory variables. Follow-up bids, or variance in bid selections between respondents, are highly recommended to shorten this interval in order to obtain a valid WTP value.

Further advanced analysis can also be performed. The following steps represent optional but good practice techniques to improve the accuracy of WTP results:

- Explore invalid WTP values (which may be £0 or larger positive values than the norm) by analysing the reasons given by respondents for being willing to pay. For example, we may classify invalid responses for those who state they do not 'believe [they] would have to pay' as an indicator of severe bias. In short, the hypothetical scenario may not have appeared real enough for the respondents to answer as they would in reality.
- Those familiar with regression techniques<sup>24</sup> can check the estimated values to their expectations on cultural engagement. For example, we expect individuals with higher income and those with an interest in culture to have higher WTP value on average. If income and cultural interest produce a positive and statistically significant value in regression, we can then confirm our expectation that higher income individuals report higher WTP values. We would therefore have greater confidence in the robustness of our study.
- One subset of validity checks test the certainty in which respondents express how sure they are that they would pay the stated fee to enter a museum (i.e. museum visitor; user WTP) or the donation to support the museum (Bedate et al. 2009).

# A.3. Contingent Valuation Survey Template

In this section we provide a template example of a good practice valuation survey for use by practitioners who wish to perform primary data collection.

This provides an easy to use template valuation survey for contingent valuation, in appropriate ordering, with placeholders for institutions to input their own specific information (Blank spaces here and elsewhere to be completed with the corresponding institution's/activity's details).

First, ensure the respondent is the appropriate target audience. For example, if the cultural good was a regional museum in the North-West, the survey would be targeting respondents from this region.

# Q.1. Where are you currently living in the UK?

- North East
- North West
- Yorkshire and the Humber
- West Midlands
- East Midlands
- South West
- South East
- London
- East of England

### Or What is your closest town/ city?

Ask whether the respondent has been to any similar cultural goods (including the good to be valued), and whether they have visited this site recently (consider what time limit you would like to impose – 12 months? 2 years?)

<sup>&</sup>lt;sup>24</sup> Regression analysis allows the researcher to simultaneously explore multiple relationships between variables, holding other social and demographic factors constant. This allows us to isolate the association between changes in a variable of interest, such as cultural engagement, on an outcome, like WTP. Regression analysis can be performed in statistical packages like R, Stata, and SAS, or in simple form in excel.

# Q.2. Which of the following sites have you visited for recreational and/or educational purposes?<sup>25</sup>

| A museum or<br>gallery   | Monument such as a castle, fort, or ruin   | Historic building<br>open to the public<br>(non-religious)                  | Site of<br>archaeological<br>interest (i.e.<br>roman villa,<br>ancient burial<br>site) | Historic park or<br>garden open to<br>the public |
|--|--|---|--|--|
| Site connected with sports heritage (i.e. Wimbledon) (not visited for the purpose of watching sport) | A place connected with industrial history (i.e. an old factory, dockyard, or mine) or historic transport system (i.e. old ship or railway) | A historic place of<br>worship attended<br>as a visitor (not to<br>worship) | None   | Don't know/<br>rather not say                    |

### Q.3. Which of the following sites have you visited within the last (timeframe)?<sup>26</sup>

| (Example Art  | (Example Historic | (Policy Museum | (Example Library | (Example Sports |
|---------------|-------------------|----------------|------------------|-----------------|
| Gallery site) | site)             | site)          | site)            | Heritage site)  |

Second, investigate whether the respondent is a current member of an organisation related to the cultural good? For example, if the respondent is a current member of the Museums Association, that may be important information for later analyses.

# Q.4. Are you a member of any heritage, conservation, cultural, or environmental organisation?

- Yes, Member of the National Trust or English Heritage
- Yes, Member of the Museums Association
- Yes, Member of another heritage, conservation, cultural, or environmental organisation
- None

Third, investigate the respondent's values:

# Q.5. Which of the following are the top five do you think are deserving of government funding?

| Education | International Aid     | Environment    | Healthcare  | Sports    |
|-----------|-----------------------|----------------|-------------|-----------|
| Heritage  | Public order & safety | Arts           | The economy | Transport |
| Housing   | Other                 | Rather not say |             |           |

<sup>&</sup>lt;sup>25</sup> These answers are standardised and have been taken from the DCMS Taking Part Survey, 2017.

<sup>&</sup>lt;sup>26</sup>This question specifically determines users and non-users for the policy site by asking respondents whether they have visited the site in question, amongst other sites, before the respondent is aware that they will be valuing the policy site. We have included examples of sites that you may like to replace with examples from your region.

| rourth, introduce the information on the g | e good to be valued a<br>good:  | ana proviae tne re                       | sponaent with ciea                     | ar and concise                      |
|--|---|--|--|-------------------------------------|
| collection). It has a<br>The provi         | ed in, was elso housed (exhibiting des educational ser less such as                               | ions). It hosts arc<br>vices for schoolc | ound visito                            | ors per (year).                     |
|  | is (free/ entry fo<br>llections of the<br>s.  |  |  |                                     |
| Following this, chec                       | k whether the respor  | ndent was already                        | aware of the info                      | rmation provided.                   |
| Q.6. How familiar v                        | were you with this i  | nformation?                              |  |                                     |
| Not familiar at all                        | Slightly familiar   | Moderately<br>familiar                   | Very familiar                          | Extremely familiar                  |
| period, will continue without funding. Pay | cal scenario where the<br>to function in its cur<br>yments are thereby b<br>ntary payments, incre | rent state or whet<br>peing sourced fron | her the state of the the community, a  | and possibly public                 |
|  | question to determine<br>ng the payment card i  | -  | WTP (or in rare ca                     | ases WTA if                         |
| -  | n we will ask you to<br>will result in a  | _  |  | -                                   |
|  | who have visited the<br>charging an entry fee   | , , ,                                    |  | where the museum                    |
| -  | e will be c<br>nning its' (outreach   | _  | <b>-</b>                               | eum accessible to all<br>etc.).     |
|  | seum already charges<br>donation will be elicit   | ,  | entry fee scenario                     | o cannot be                         |
| the acc<br>courses, etc.). TI              | ected from the comressible to all and contesse payments will continues to be                      | ontinue running i<br>be (a one-off dor   | ts (outreach prog<br>nation / an ongoi | rams, educational ng annual fee) to |
| Include an oath scrip                      | ot or remind responde   | ents of other cost                       | S:                                     |                                     |
| than they would pa                         | n that people answ<br>ay in reality. Please<br>Please keep in mind                                | answer what yo                           | u believe you wo                       |                                     |

### Present the Payment card: Which of the following values would you be willing to pay/ accept if the\_\_\_\_ were to close:

| £0.00 | £0.01 | £0.10 | £0.50        | £1.00                         |
|-------|-------|-------|--------------|-------------------------------|
| £1.50 | £2.00 | £2.50 | £3.00        | £4.00                         |
| £5.00 | £7.50 | £10   | £15          | £20                           |
| £25   | £30   | £40   | £50          | £75                           |
| £100  | £150  | £200  | Other amount | Don't know/<br>Rather not say |

Enquire the respondents reasoning for their WTP/WTA value. This provides a validity check; it provides information on the reason why respondents provided the stated value and whether they were protesting (stating £0 because they don't believe they should have to pay for it).

### Q.8. Please tell us the reasons for your allocation choice:

| <ul><li>I think the is in need of funds</li></ul>  |
|--|
| <ul> <li>I think the preservation of the is more important than similar sites</li> </ul> |
| I frequently visit the   |
| The is important for this area   |
| <ul> <li>The is important and should remain open for others to enjoy</li> </ul>          |
| <ul><li>I may want to visit the in the future</li></ul>                                  |
| The is not important to me   |
| <ul><li>I don't think the is in need of funds</li></ul>                                  |
| <ul><li>I should not have to pay for the</li></ul>                                       |
| <ul> <li>I did not fully understand the question</li> </ul>                              |
| <ul><li>I would not pay anything for the</li></ul>                                       |
| <ul> <li>I cannot afford it</li> </ul>   |

- Other reason
- Don't know

Lastly, collect demographics and thank the respondent for their participation. Provide an open response for respondents to make any final comments on the survey.

### Q.9. What is your age group?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+
- Prefer not to answer

### Q.10. What is your gender?

- Male
- Female
- Other
- Prefer not to answer

# Q.11. How many dependent children (younger than 16 years) do you have?

- 0
- 1
- 2
- 3
- 4+
- Prefer not to answer

## Q.12. What is your current legal marital status?

- Single and never married or never in a legally recognised civil partnership
- Married
- A civil partner in a legally recognised partnership
- Separated but legally married
- Divorced
- Widowed
- Former civil partner
- Co-habiting
- Prefer not to answer

# Q.13. What is your highest educational level or qualification?

- Primary education
- O level/GCSE/GCE
- A level/HNC/HND/etc.
- Professional qualification
- College/University degree
- Higher degree (Master's, Doctorate)
- Prefer not to answer

### Q.14. What is your current work status?

- Self-employed
- Employed full-time (>30hrs/week)
- Employed part-time (<=30hrs/week)</li>
- Student
- Unpaid family worker
- Retiree
- Inactive not seeking work
- Inactive unable to work
- Unemployed
- Prefer not to answer

### Q.15. What is your ethnicity?

- Asian/ Asian British
- Black/ African/ Caribbean/ Black British
- Mixed/ Multiple ethnic groups
- White British
- White Other
- Other ethnic group
- Prefer not to answer

# Q.16. Do you consider yourself a disabled person?

- Yes
- No
- Prefer not to answer

## Q.17. What is your total annual household income before tax?

- £0-14,999
- £15.000-19.999
- £20,000-29,999
- £30,000-39,999
- £40,000-49,999
- £50,000-59,999
- £60,000-79,999
- £80,000-99,999
- £100,000-149,999
- £150,000+
- Prefer not to answer

# Q.18. Please use the box below to provide any final comments on the survey.

### **Further reading**

The following readings are recommended if you would like to find out more about Benefit Transfers and how they have been applied in the cultural sector:

DCMS (2017), 'Tailored Review of Arts Council England'. <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/610358/FINAL\_Arts\_Council\_England\_Tailored\_Review\_Report.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/610358/FINAL\_Arts\_Council\_England\_Tailored\_Review\_Report.pdf</a>

DCMS (2018), 'The Economic Value of Culture: A Benefit Transfer Study Executive Summary', Nesta and Simetrica: <a href="https://www.gov.uk/government/publications/the-economic-value-of-culture-a-benefit-transfer-study">https://www.gov.uk/government/publications/the-economic-value-of-culture-a-benefit-transfer-study</a>

Eftec (2009) 'Valuing Environmental Impacts: Practical Guidelines for the Use of Value Transfer in Policy and Project Appraisal', Eftec: <a href="https://www.gov.uk/government/publications/valuing-environmental-impacts-guidelines-for-the-use-of-value-transfer">https://www.gov.uk/government/publications/valuing-environmental-impacts-guidelines-for-the-use-of-value-transfer</a>

Mendoza, N. (2017), 'The Mendoza Review: an independent review of museums in England', DCMS. <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/673935/The Mendoza Review an independent review of museums in England.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/673935/The Mendoza Review an independent review of museums in England.pdf</a>

Ready, R., & Navrud, S. (2006). International benefit transfer: Methods and validity tests. Ecological economics, 60(2), 429-434.

UK Treasury's The Green Book (2020) <a href="https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent/the-green-book-2020">https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent/the-green-book-2020</a>

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