

# ANNEX FIVE: COVENTRY CITY OF CULTURE ECONOMIC IMPACT ASSESSMENT



PREPARED BY

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# Coventry City of Culture 2021

Economic Impact Assessment



**Coventry University**

# **Coventry City of Culture 2021**

Economic Impact Assessment

October 2023

Reviewed and approved by	
Signature	
Name	Graham Russell
Job Title	Chief Executive
Date	October 2023

This document including appendices contains 143 pages

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## ***Glossary***

<b>ACE</b>	Arts Council England, the national development agency for creativity and culture
<b>APS</b>	Annual Population Survey
<b>Baseline data</b>	A set of information used to compare other data acquired afterwards (typically, collected before an intervention)
<b>BEIS</b>	Department for Business, Energy and Industrial Strategy
<b>BID</b>	Business Improvement District
<b>BRES</b>	Business Register and Employment Survey
<b>BSD</b>	Business Structure Database
<b>CCC</b>	Coventry City Council
<b>Combined Authority</b>	A legal body that enables a group of two or more councils to collaborate and take collective decisions across council boundaries
<b>Social Cost benefit analysis</b>	A way of expressing the value of a proposed policy to society by expressing the full costs and benefits of policies in monetary terms so that the consequences of a diverse range of policies can be compared using a common metric (Fujiwara and Campbell, 2011)
<b>Cultural and creative industries</b>	The definition used for Cultural and Creative Industries uses the DCMS sub-sectors of Cultural, Creative and Digital. A breakdown of the SIC codes for each sub-sector can be found in Appendix B
<b>CWLEP</b>	Coventry and Warwickshire Local Enterprise Partnership (LEP - see below)
<b>DCMS</b>	Department for Culture, Media and Sport
<b>DfT</b>	Department for Transport
<b>DIT</b>	Department for International Trade
<b>EIA</b>	Economic Impact Assessment
<b>ESFA</b>	Education and Skills Funding Agency
<b>FDI</b>	Foreign Direct Investment
<b>FTE</b>	Full time equivalent, a unit employed to measure employed persons in a way that makes them comparable although they may work a different number of hours per week
<b>GBSLEP</b>	Greater Birmingham and Solihull LEP
<b>GBTS</b>	Great Britain Tourism Survey, commissioned by Visit Britain to estimate overnight (domestic) visitor numbers
<b>GTS</b>	Global Tourism Solutions

<b>GVA</b>	Gross Value Added – measures the contribution to the economy of each individual producer, industry or sector. Simplistically it is the value of the amount of goods and services that have been produced, less the cost of all inputs and raw materials that are directly attributable to that production
<b>HCA</b>	Homes and Communities Agency (now Homes England)
<b>HESA</b>	Higher Education Statistics Agency
<b>IPS</b>	International Passenger Survey, commissioned by ONS to capture tourism from overseas only
<b>LEP</b>	Local Enterprise Partnership. Business-led partnerships which play a central role in determining local economic priorities and undertaking activities to drive economic growth and job creation, improve infrastructure, and raise workforce skills within the local area
<b>LSOA / MSOA</b>	Lower or Middle Super Output Area – these are designed to improve the reporting of small area statistics and are built up from groups of output areas
<b>Micro business</b>	A business with less than 10 employees
<b>NEET</b>	Not in education, employment or training
<b>OA</b>	Output areas, the lowest geographical levels at which Census estimates are provided which are built from clusters of adjacent unit postcodes
<b>ONS</b>	Office for National Statistics
<b>PM&amp;E</b>	Performance Measurement and Evaluation
<b>Productivity</b>	The effectiveness of production as measured by the rate of GVA per unit of input (for example, GVA per hour worked)
<b>SIC</b>	Standard Industrial Classification, which is used to classify business establishments and other standard units by the type of economic activity in which they are engaged
<b>SME</b>	Small and medium-sized enterprise employing up to 249 people
<b>SOC</b>	Standard Occupational Classification, a common classification of occupational information in the UK
<b>SROI</b>	Social Return on Investment, a way of incorporating social, environmental, economic and other values into decision-making processes
<b>STEAM model</b>	A tourism economic impact model produced by Global Tourism Solutions
<b>‘The Trust’</b>	Coventry City of Culture Trust
<b>UK CoC</b>	UK City of Culture
<b>UKC</b>	UK Central
<b>UNWTO</b>	United Nations World Tourism Organisation
<b>UoW</b>	University of Warwick

**VfM**

Value for Money, which measures the optimal use of resources to achieve intended outcomes

**WMCA**

West Midlands Combined Authority



# Executive Summary

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## Executive Summary

### i. Context

AMION Consulting (AMION) was appointed by the Coventry City of Culture Trust (the Trust) in April 2020 to produce an Economic Impact Assessment (EIA) of the UK City of Culture (UK CoC) 2021 in Coventry. However, the Trust went into administration in February 2023. Subsequently, Coventry University on behalf of a wider partnership commissioned AMION to produce a more limited EIA with two main purposes:

- quantification of the attendances, local spending, employment, Gross Value Added (GVA), volunteering, funding, image, and other impacts of UK CCoC 2021 at a local level; and
- a value for money (VfM) assessment of UK CCoC 2021 at the national level as well as a place-based analysis in compliance with HM Treasury and relevant Departmental guidance.

This report has been compiled using a variety of sources including primary data on income and expenditure, events, volunteering, and attendances, as well as secondary data on socio-economic conditions in the area. Qualitative information was derived through audience, resident, and volunteer surveys, along with interviews and discussions with partners and other key stakeholder organisations.

It must be stressed at the outset that UK CoC 2021 was held under particularly unfavourable circumstances – namely the COVID-19 pandemic and associated lockdowns which disrupted both its planning and delivery. For instance, it was originally envisaged that UK CoC 2021 would run throughout the calendar year 2021 but, following the onset of the pandemic, this was revised so that it ran from May 2021 to May 2022.

### ii. Economic Impact Assessment

The EIA has considered the impacts of the Programme at a local level (Coventry and Warwickshire) in terms of visitor expenditure, employment and GVA, volunteering, funding, wider sector effects, image, and strategic added value.

Despite the disruption, the UK CoC 2021 Programme comprised over 700 events, hosted in Coventry city centre, in neighbourhoods across the city and in Warwickshire. It is calculated the UK CoC 2021 attracted 492,816 in-person attendees and 516,119 online attendees during the year itself, along with 37,741 in-person attendees and 43,528 online attendees during the build-up period from 2017.

Furthermore, over 3,000 community dancers, musicians, poets, and makers participated, and 1,515 volunteers provided over 37,000 volunteer hours of support. An indication of some of the more qualitative benefits derived is that some 91% of the volunteers stated that they felt a sense of belonging to Coventry (as compared to the local average of 54%), whilst 86% felt wellbeing benefits as a result of the programme.

The UK CoC 2021 Programme engaged with 111 schools, as well as some 600 households who undertook home-based educational activities. The Green Futures programme, which was part of UK CoC 2021, is calculated to have attracted 3,100 participants to workshops.

Several high-level targets were set for the Programme. These were identified pre-COVID and inevitably **the pandemic resulted in under-achievement in certain areas for the UK CoC 2021 – particularly those related to participation and engagement**. For example:

- a target of attracting some 2.55m additional visitors during the year was set whereas just 492,816 actual attendees were attracted – although this was increased to over 1m through on-line attendances (around **40% of the total visitor engagement target**);
- similarly, a target of enabling 80% of Coventry residents to experience at least three events was set. To meet this at a minimum over 800,000 visits to events would need to have been from Coventry residents – whereas the actual figure was 288,020 (around **36% of the target for engaging with Coventry resident**); and
- it was intended the Programme would involve some 16,000 volunteers and participants. In reality, some 1,515 fully trained volunteers were engaged plus 3,000 community dancers, musicians, poets, and makers, and 3,000 participants in workshops – combining to a total of 7,515 volunteers and participants (around **47% of the volunteer and participants target**).

Despite the circumstances, the UK CoC 2021 Programme made good progress against a number of the other targets<sup>1</sup>. In terms of “starting a wave of cultural investment across the region”, it is estimated to date that Coventry has secured some **£183.1m (current prices) of related capital investment** at least in part due to the award of UK CoC 2021 as follows:

- £40.6m direct income secured for the management and delivery of the Programme by the Trust;
- £1.6m related to research activities and sector development by the Universities;
- £71.7m for cultural and heritage asset improvements;
- £18.3m for the construction of a new hotel; and
- £50.9m for infrastructure works (public realm and transport) and city readiness.

Some contribution towards the target of “making long-lasting, tangible social change in Coventry” is also evident (through, for example, the above investment plus estimated job creation and GVA impacts as set out below) but the long-term effects remain uncertain at present. The Assessment has quantified the following impacts of the Programme to date:

- **£20.9m (2023/24 prices) net additional off-site and organisational expenditure** in Coventry and Warwickshire;
- **225 1-year net additional full time equivalent (FTE) jobs from off-site visitor and organisational expenditure** in Coventry and Warwickshire;

<sup>1</sup> Targets regarding “Increasing audience attendance from BAME communities by 20%” and “transforming who holds the power to create and curate in the City” have not been assessed as part of this Economic Impact Assessment.

- **£11.6m net additional GVA** (2023/24 prices) arising from this expenditure in Coventry and Warwickshire.

Whilst it is not possible to attribute the increase to UK CoC 2021, there has been an **additional £10.8m cultural revenue funding per annum** (or a 22.1% total expansion) made available between 2023 and 2026 from Arts Council and other local partners to organisations in Coventry.

In addition, the award of the title UK CoC 2021 also provided a boost to a range of other wider regeneration projects within the city by, for example, increasing the profile of Coventry. In total, schemes with an investment value of more than £1bn<sup>2</sup> are either now complete, underway, or proposed. However, it is not possible to directly attribute the influence of UK CoC 2021 on these investments.

### iii. Value for Money

The value for money (VfM) assessment of the UK CoC 2021 Programme has examined its economic costs and benefits at a national and local (place-based) level in compliance with the latest HM Treasury Green Book and relevant Departmental guidance.

It is calculated that **if the target 2.55m visitors for UK CoC 2021 had been achieved, the programme could have generated a monetised BCR of 1.7:1**. However, COVID-19 had a substantial impact on visitor attendances and other potential benefits and costs including:

- limited ticket allocation for some events due to social distancing;
- reduced tourism, domestic and especially international, due to travel restrictions;
- lessened attendances as people were more cautious about going to large events; and
- financial difficulties arising from a lack of ticket sales and income, as well as higher costs in meeting requirements such as social distancing and personal protection.

Furthermore, the Trust entering administration has led to:

- reduced social and legacy outputs; and
- a narrower economic impact assessment and constrained VfM assessment (especially relating to reduced monetisation of benefits of UK CoC 2021) given reduced resources and data availability.

Given this difficult context, **the UK CoC 2021 Programme achieved a monetised BCR of 1.0:1 at the national level and 1.1:1 at the local level**. The combination of monetised and non-monetised benefits means that UK CoC 2021 provided **acceptable VfM** with several significant non-monetised benefits such as the ‘moderate to large beneficial’ impacts from local cultural, heritage and regeneration investment.

<sup>2</sup> The West Midlands Investment Prospectus 2023 identifies the forecast value of three of the regeneration projects: Friargate - £700m; Coventry City Centre South - £450m; and Coventry City Centre Cultural Gateway - £150m. Note – the EIA baseline report identified a figure of £500m. However, the £1bn quoted in this report is not an increase in investment but rather reflects the published project data now available.

# Section 1

## Background

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# 1 Introduction

## 1.1 Purpose of the report

AMION Consulting (AMION) was appointed in April 2020 to produce an Economic Impact Assessment (EIA) of Coventry UK City of Culture 2021 (UK CoC 2021) over the period 2020-2024 by the Coventry City of Culture Trust (the Trust). The analysis forms part of the overall Performance Measurement and Evaluation (PM&E) Strategy for the UK CoC 2021 which has been delivered by a partnership including the Trust, Coventry University, the University of Warwick (UoW), and the Insight Team from Coventry City Council (CCC or the Council).

In September 2020, a report was prepared to outline the scope of the EIA, the methodology that would be used to assess economic impact and the extent to which the UK CoC 2021 Programme had delivered Value for Money (VfM). Due to the Coronavirus (COVID-19) pandemic the timetable for delivery of the main UK CoC 2021 Programme was amended to run from May 2021 to May 2022. A baseline report was prepared in July 2021 to establish the reference figures from which the impact of the Programme would be measured and used to provide an indication of both the investment secured to that date and the economic impacts arising from the capital works completed or underway<sup>3</sup>.

On 28th February 2023, the Trust went into administration. Subsequently, AMION was appointed by Coventry University on behalf of the evaluation partnership to produce a more limited EIA<sup>4</sup>. For example, given the change in circumstances, certain advanced techniques from our original methodology such as spatial discontinuity approaches to undertake econometric counterfactual impact evaluations could not be pursued.

Therefore, this report has two main purposes:

- (i) an EIA to quantify the attendances, local spending, employment, Gross Value Added (GVA), volunteering, funding, image, and other impacts of UK CoC 2021 at a local level; and
- (ii) a VfM assessment of UK CoC 2021 at the national level and local place-based level in compliance with the HM Treasury Green<sup>5</sup> and Magenta<sup>6</sup> Books, as well as relevant Departmental guidance including that published by the Department of Culture, Media, and Sport (DCMS).

## 1.2 UK Cities of Culture – their history and purpose

The 'UK City of Culture' title was created following the success of Glasgow and Liverpool as 'European Capitals of Culture' in 1990 and 2008 respectively. This title is a designation given through a competition to a city every four years for a period of one calendar year, during which the successful bidder hosts cultural events and other activities. The overall aim is "to encourage

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<sup>3</sup> [Economic Impact Assessment – Evaluating Coventry UK City of Culture 2021 \(coventry21evaluation.info\)](https://www.coventry21evaluation.info)

<sup>4</sup> For example, the original commission included provision for a longer term analysis of the legacy, which was to include econometric modelling.

<sup>5</sup> HM Treasury (2022), The Green Book: appraisal and evaluation in central government

<sup>6</sup> HM Treasury (2020), The Magenta Book, Central Government guidance on evaluation, March 2020

the use of culture and creativity as a catalyst for regeneration, to promote the development of new partnerships, and to encourage ambition, innovation and inspiration in cultural and creative activity”<sup>7</sup>.

The UK-wide programme is administered by the DCMS and aims to "build on the success of Liverpool's year as European Capital of Culture 2008, which had significant social and economic benefits for the area"<sup>8</sup>. Prior to Coventry's successful bid for 2021, previous winners were Derry in 2013 and Kingston upon Hull in 2017. Bradford has been awarded the title for 2025.

A summary of the Hull's City of Culture programme and its overall outputs, outcomes, and benefits based on its Main Evaluation Findings and Reflections report<sup>9</sup> is set out in **Figure 1.1: Hull City of Culture Summary**.

### Figure 1.1: Hull City of Culture Summary

The Hull City of Culture programme ran throughout 2017 with more than 2,800 events, exhibitions, installations, and cultural activities. It was delivered across Hull and the East Riding of Yorkshire. Its aims related to the development of:

- the area's arts and cultural sector;
- perceptions of Hull as a place;
- the local economy; and
- the wellbeing and engagement of residents.

The £32.8m project comprised a curated cultural programme of events and activities directly commissioned by Hull 2017 Ltd, as well as by existing arts and cultural organisations and through a grant funding initiative. Of this total budget, £22.1m was from public and Lottery sources.

The programme was supported by a series of public engagement activities, including a **2,400-strong volunteering programme** and a learning and participation programme in more than **100 schools** involving around 56,000 children and young people.

**More than 5.3m people**, including more than 90% of Hull's residents, attended at least one of the **2,800 City of Culture events and activities** during 2017. Arts attendance increased by about 6% in both 2017 and 2018 – and 37% of children said they wanted to take part in more creative or heritage-related activities. However, ethnic minorities and the city's most deprived citizens were underrepresented among City of Culture audiences and engaging 16 to 34-year-olds also proved difficult.

It is estimated that the City of Culture programme was directly responsible for **at least £89.3m of investment in the city** and contributed to a 9.7% increase in tourism that year. More than £32m was fundraised – double Hull City Council's original goal – and the 465 new commissions far exceeded the target of 60. Major capital investments included public realm enhancement and significant developments of the Ferens Art Gallery and Hull New Theatre.

<sup>7</sup> Department for Culture, Media & Sport, UK City of Culture 2021, Guidance for Bidding Cities

<sup>8</sup> Op cit

<sup>9</sup> Cultural Transformations: The Impacts of Hull UL City of Culture 2017, Main Evaluation Findings and Reflections, Originally published in November 2019 and revisited in April 2021 - Culture, Place and Policy Institute, University of Hull



The durability of benefits is, however, open to some doubt as visitor numbers at local cultural institutions fell once the City of Culture year was over. The report highlights a “cliff-edge effect” was identified by a number of cultural sector stakeholders, who said that going from a 365-day programme to no programme meant that 2018 felt unusually quiet. One cultural sector stakeholder suggested that a build-up and build-down programme could have been implemented, and this might have avoided the dramatic change of pace felt in 2018”.

In relation to VfM the report states that, based on research by Paul Frijters (Professor of Wellbeing Economics at the Centre for Economic Performance, London School of Economics and Political Science), Hull 2017, “...brought local residents a temporary increase in community pride that was visible in the life satisfaction of the population, essentially at a price of £1,364 per WELLBY<sup>10</sup>. By comparison, the NHS buys a WELLBY at an estimated £2,500, though Frijters notes that there have been National Lottery programmes that bought a WELLBY for under £500 and that there are also more cost-effective mental health programmes. Frijters adds that the costs per WELLBY of the 2012 London Olympics were considerably higher than for Hull 2017”<sup>11</sup>.

The main VfM conclusions of the report are that Hull UK City of Culture 2017 had a hard to measure market value (using standard cost-benefit analysis), but improved VfM once wellbeing benefits were taken into account, with the data showing that the majority of those attending the various activities in the Hull UK City of Culture 2017 programme enjoyed themselves.

Lessons identified for future UK City of Culture programmes include: the popularity of events and activities based around heritage and history; the critical role of the BBC and wider national media for marketing; the challenges of attracting international visitors; the importance of the balance between commissioning local and external artistic partners; and the importance of making a strong start to the year.

<sup>10</sup> A WELLBY is a “Wellbeing-adjusted Life Year.” It is defined as a change in life satisfaction of 1 point on a scale of 0 to 10, affecting one person for one year.

<sup>11</sup> Given the scale of the Olympics, this comparison by Professor Frijters is not comparing similar-sized interventions nor capturing the longer-term legacy impacts.



### 1.3 Coventry City of Culture 2021

In October 2015, the Trust was incorporated as an independent, private company to coordinate Coventry’s bid to be UK CoC 2021. In 2016, it was registered as an independent charity. The bid had wide-ranging support with over 150 cross-sectoral partners. On 7th December 2017, Coventry was awarded the title of UK CoC 2021 following which detailed planning commenced. The Trust’s principal partners were CCC, the West Midlands Combined Authority (WMCA), DCMS, Arts Council England (ACE), National Lottery Heritage Fund, Spirit of 2012, Warwickshire County Council, the UoW, and Coventry University.

It was originally envisaged that UK CoC 2021 would run throughout the calendar year 2021. However, following the onset of the COVID-19 pandemic, a revised timetable for delivery was agreed in July 2020 between the Trust and its principal partners, including the DCMS and the Council. The revision meant that Coventry’s year as UK City of Culture ran from May 2021 to May 2022.

Coventry launched its UK CoC 2021 online on 15th May 2021, with the first large scale event in the city (Coventry Moves) held on 5th June 2021. The year concluded on 31st May 2022, after which the Trust entered its legacy phase which was intended to run until March 2024. The Trust’s Legacy Plan comprised several key strands of activity, including delivery of:

- **the Assembly Festival Garden** – a city centre festival site, operating across the summer of 2022;
- **the Legacy Commissioning Programme** – overseeing and commissioning an interactive and engaging arts and cultural programme that supports the Green Futures agenda;
- **a Grants Programme** – supporting cultural and community organisations to build capacity, create extraordinary activities and improve their Green Futures credentials; and
- **the Reel Store** – the digital gallery, launched in May 2022, as a visitor destination for which the Trust planned to secure a longer-term operating model by the end of March 2024.

However, as the Trust went into administration in February 2023 the proposed legacy activities have had to be revised, with delivery of an amended programme now taking place through other routes (see **Section 4.5** below). **Table 1.1** shows the timeline of key dates relating to the Trust as set out in the recent National Audit Office (NAO) review of funding of Coventry City of Culture Trust<sup>12</sup>.

<sup>12</sup> National Audit Office, Funding of Coventry City of Culture Trust, Department for Culture, Media and Sport, Session 2022-23, 18 July 2023, HC 1663

**Table 1.1: Timeline of key dates relating to the Trust between October 2015 and May 2023**

Date	Event
4 October 2015	Coventry City of Culture Trust is incorporated to oversee Coventry's bid to the UK City of Culture in 2021 and, if the bid is successful, to run the year of events
April 2017	The Trust submits the initial bid for UK City of Culture 2021. There are 11 bids in total
September 2017	The Trust submits the final bid for UK City of Culture 2021. There are five cities on the shortlist
8 December 2017	Coventry is named UK City of Culture 2021
27 May 2020	The Trust agrees to postpone Coventry's year as UK City of Culture from the period January to December 2021 to the period May 2021 to May 22, because of the health and safety risks posed by the COVID-19 pandemic
15 May 2021	Digital launch of Coventry's year as UK City of Culture
5 June 2021	First live event, Coventry Moves, takes place
July 2021	Baseline economic impact assessment is published
31 May 2022	Coventry's year as UK City of Culture ends and the Trust starts its work on ensuring its cultural legacy from the year
28 February 2023	The Trust is placed into administration
4 May 2023	The administrators' statement of proposals is published

Source: NAO (2023)

## 1.4 Our approach

This report has been compiled using the following sources:

- financial information (including income and expenditure), fundraising, and attendance data provided by the partners involved in the management, delivery and monitoring of UK CoC 2021 including the Trust, CCC, Coventry University, the UoW, Historic Coventry Trust, ACE, and other cultural institutions;
- performance management and monitoring data, including ticketing information, which was collected throughout the delivery of the Programme;
- audience, resident, and volunteer survey data;
- online and other secondary data sources; and
- interviews/discussions with key stakeholder organisations (including CCC, WMCA, DCMS, Historic Coventry Trust, Coventry University, and the UoW).

## 1.5 Report structure

The report has the following structure:

- **Section 2 - Methodological approach:** the additionality, logic model, stocks and flows, and benefit mapping of the UK CoC 2021 Programme have been considered in line with HM Treasury's 2022 Green Book and associated Departmental guidance;
- **Section 3 - Contextual conditions:** the conditions in Coventry before and during the Programme have been reviewed, alongside a description of the context within which the events were delivered relating to the COVID-19 pandemic;
- **Section 4 - UK CoC 2021 Programme:** the headline targets for the Programme have been set out, along with the Programme costs and funding, an analysis of the visitors to UK CoC 2021, and a description of the Legacy Programme that is now proposed;
- **Section 5 - Economic Impact Assessment:** an assessment of visitor and organiser expenditure, employment, GVA, volunteering, funding and image impacts on the local economy and cultural sector, as well as a broader analysis of strategic added value;
- **Section 6 - Value for money assessment:** a Green Book compliant VfM assessment consisting of economic costs, economic benefits, and non-monetised impacts<sup>13</sup> at the national level, along with a place-based analysis; and
- **Section 7 - Conclusions:** a summary of the impacts and VfM assessment against the headline targets and industry standard benchmarks (in particular Benefit Cost Ratios (BCRs)).

There are five supporting appendices, an Updated Baseline and Trends Report (**Appendix A**), sector definitions (**Appendix B**), technical methodology notes in relation to the Revealed Preference Analysis – Travel Cost Method (**Appendix C**), Distributional Analysis (**Appendix D**), and Benefit Values (**Appendix E**)

<sup>13</sup> [Future Trends: Innovations in Economic Impact Assessment – Evaluating Coventry UK City of Culture 2021 \(coventry21evaluation.info\)](https://www.coventry21evaluation.info)

## Section 2

# Methodological approach

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## 2 Methodological approach

### 2.1 Overview

This EIA is based on an assessment of the:

- local economic effects of the UK CoC 2021, based on an analysis of local expenditure, employment and GVA impacts. This has been assessed using a bespoke impact model utilising assumptions from surveys of attendees, attendance estimates, published statistics and other research/evaluation evidence. In addition, the volunteering, funding, cultural sector, and image effects have also been assessed, along with the broader strategic added value of the Programme; and
- a national level social cost benefit analysis (SCBA), based on the approach set out in the HM Treasury Green Book and Departmental guidance. The Green Book states that a SCBA quantifies in monetary terms the effects on UK social welfare. Costs to society are given a negative value and benefits to society a positive value. Costs to the public sector are counted as a social welfare cost. A SCBA generates a measure of net social value. When combined with an appropriate public sector cost measure a BCR is produced which provides a social unit cost measure. In addition, in line with the Green Book, a place based (local level) analysis has also been undertaken since the Programme has geographically defined objectives.

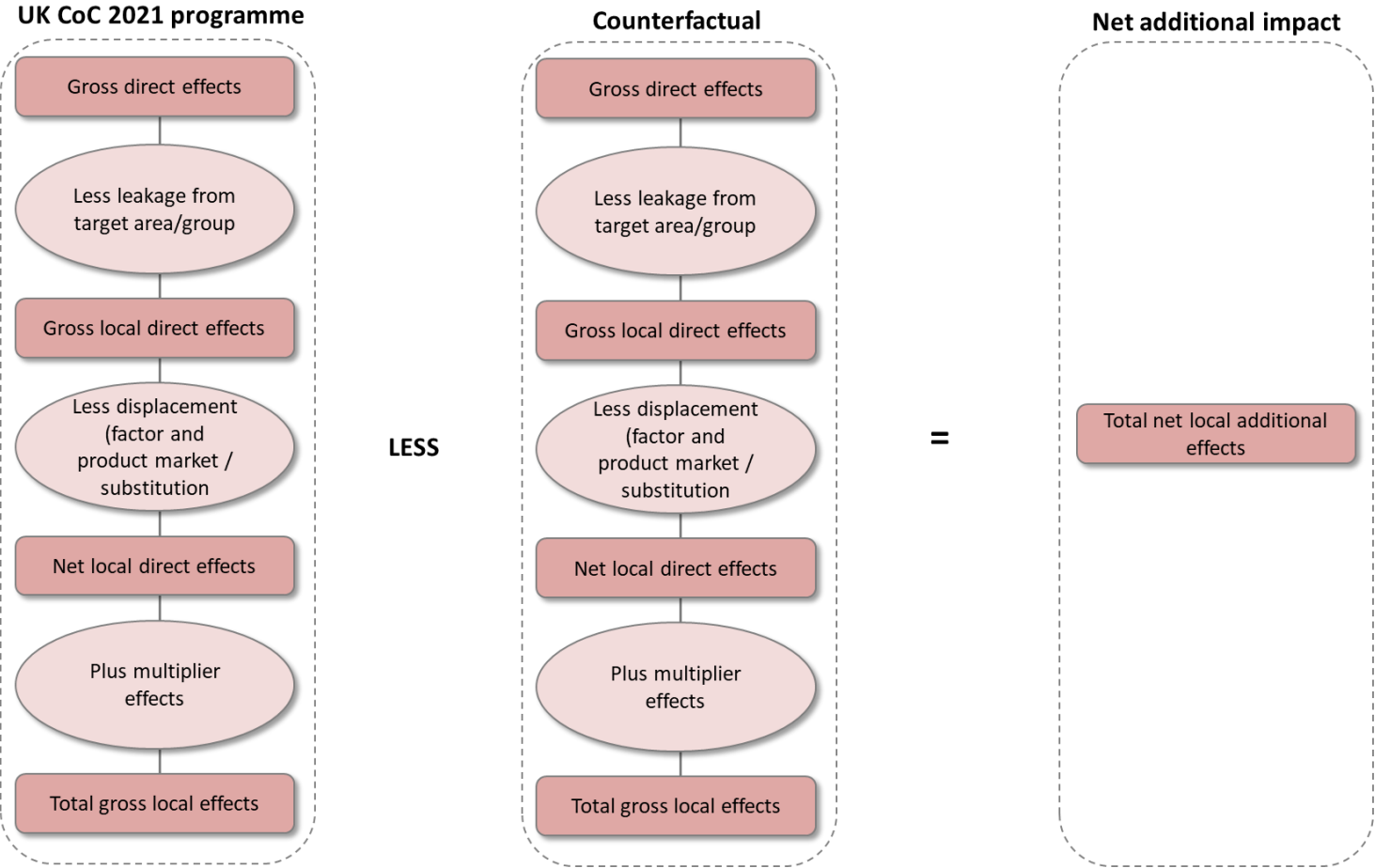
### 2.2 Additionality

Of key importance in assessing the impact of the UK CoC 2021 Programme on the local and national economy is the extent to which activity is truly additional, in other words it would not have happened in the absence of the intervention. Furthermore, it is important to understand who benefitted from the impacts generated and the degree to which further demand and investment was stimulated. To assess the net additional impact of the proposals and overall anticipated additionality of the proposed Programme, the following factors have been considered:

- **Leakage** – the proportion of outputs that benefit those outside of the Programme’s target area or group;
- **Displacement** – the proportion of Programme outputs accounted for by reduced outputs elsewhere in the target area;
- **Multiplier effects** – further economic activity associated with additional local income and local supplier purchases; and
- **Deadweight (the counterfactual)** – outputs which would have occurred anyway without the project.

The approach to assessing the net additional local impact of a programme, considering the above adjustments, is shown diagrammatically in **Figure 2.1**.

**Figure 2.1: Assessing the net additional impact**



It is important to note that:

- the EIA is presented at the local level, in line with guidance for place-based analysis; and
- the VfM assessment is undertaken at the national level and separately at the local level in relation to the place-based analysis in line with Green Book guidance.

Specific assumptions for each assessment are set out in their respective sections below.

## 2.3 Logic model

To ensure the calculation of impacts and benefits is robust and comprehensive, the UK CoC 2021 Logic Model was used to identify the range of outputs, outcomes, and impacts that were expected to arise as a result of the Programme.

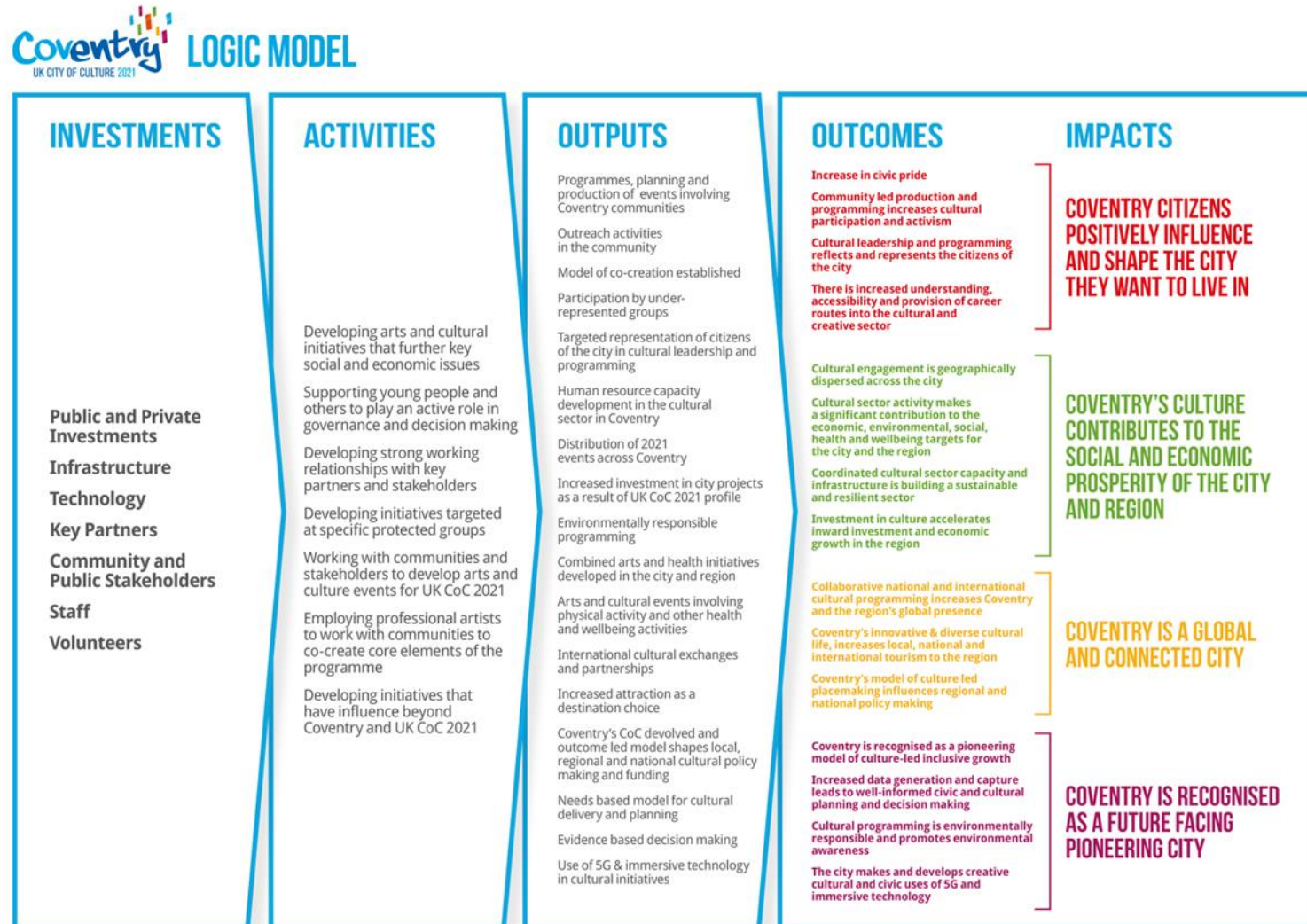
The Logic Model for the UK CoC 2021 is presented in Figure 2.2 overleaf.

As can be seen, four broad impact areas were expected to arise from a series outputs and outcomes:

- Coventry citizens positively influence and shape the city they want to live in;
- Coventry's culture contributes to the social and economic prosperity of the city and region;
- Coventry is a global and connected city; and
- Coventry is recognised as a future facing pioneering city.

These impact areas were taken forward into the EIA and are subsequently used to inform the scope of the SCBA.

Figure 2.2: UK CoC 2021 Logic Model





## 2.4 Stocks and flows

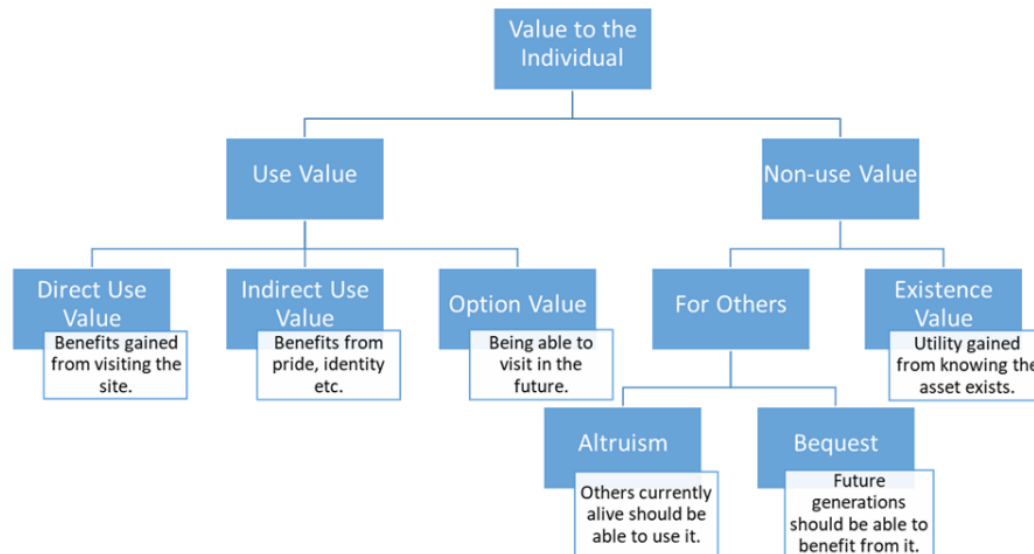
UK CoC 2021 combines investment in cultural and heritage assets and funding for events (services). Using the DCMS recommended stock and flows framework<sup>14</sup> for assessing benefits, the UK CoC 2021 SCBA analysis combined assets (stocks and flows) and consumptions services (flows) analyses.

The DCMS Cultural and Heritage Portal<sup>15</sup> presents an evidence base for measuring the value to individuals. To estimate the value of a cultural or heritage assets to an individual, we must look beyond market prices for three reasons. Firstly, admissions are often subsidised and not reflective of market powers: for example, many museums in England are free at the point of use. Secondly, heritage and culture are often consumable without entry: for example, admiring a historic house during your commute. Thirdly, people attribute value to culture and heritage without directly consuming it themselves (i.e. non-use value). We must, therefore, look at both market and non-market values to capture the full range of benefits.

This understanding of value, as the reflection of individual preference, is at the root of the UK Government’s concept of value for use in decision-making. To inform this willingness to pay, DCMS has collated previous research that values the benefits of cultural and heritage capital and published the results of these studies within the “DCMS Rapid Evidence Assessment: Culture and Heritage Valuation Studies” report<sup>16</sup>.

Individuals gain value from the benefits of culture and heritage in many ways, as shown in Figure 2.3. The stocks and flows analysis of UK CoC 2021 ensures that our SCBA considers both use and non-use values.

**Figure 2.3: Types of values for culture and heritage assets to an individual**



Source: DCMS (2021), *Valuing culture and heritage capital: a framework towards informing decision making*

<sup>14</sup> DCMS (2021, Valuing culture and heritage capital: a framework towards informing decision making,

<sup>15</sup> <https://www.gov.uk/guidance/culture-and-heritage-capital-portal>

<sup>16</sup> DCMS (2022), Rapid Evidence Assessment: Culture and Heritage Valuation Studies and its Culture and Heritage Capital Evidence Bank

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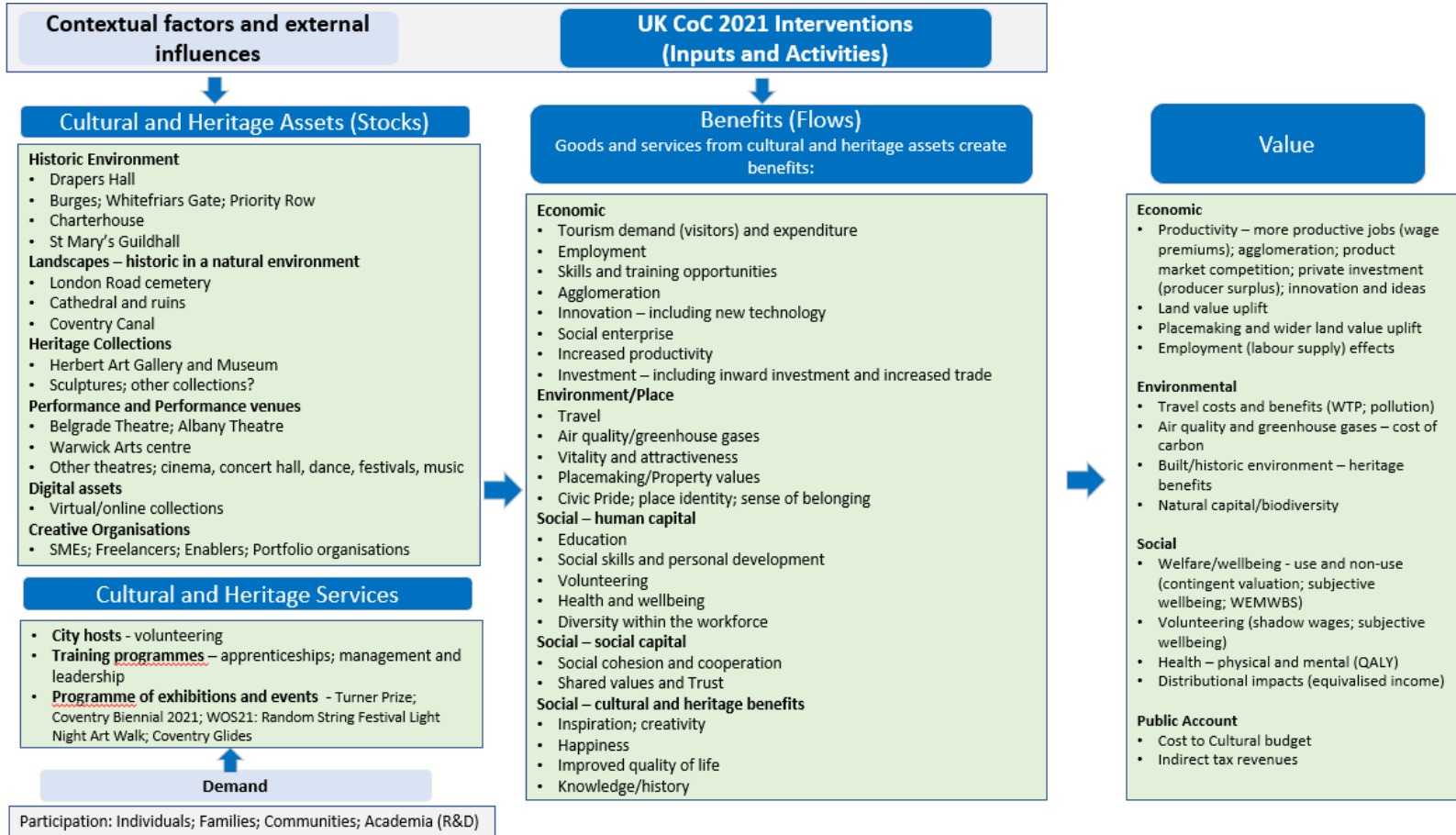
The definition of use and non-use values, and their relevance to the UK CoC 2021 Programme, are as follows:

- **Use values** measure the direct and indirect value of consumption and the value of having the option to consume. In the case of the cultural events and assets within UK CoC 2021, use value measures the value of attendance. The option value is of less relevance to the UK CoC 2021 as the Programme largely relates to one-off events within a single year. A bespoke Travel Cost Method (TCM) for revealed preference has been undertaken to capture the direct use value of physical attendees. Appropriate contingent valuation (stated preference) studies for online access to culture have been used to value the benefit to virtual attendees.
- **Non-use values** measure the value to the general population of the event and/or asset even if they never intend to visit now or in the future physically. This value can arise from altruism, bequest, or existence value. As the UK CoC 2021 Programme relates to one-off events within a single year, long-term existence and bequest values do not apply. An appropriate study relating to contingent valuation (stated preference) for events has been chosen to reflect this within the VfM assessment.

Externalities were also considered in the analysis such as, positive externalities including potential placemaking effects, and negative effects such as congestion and carbon impacts.

The stocks and flows analysis of UK CoC 2021 is presented in **Figure 2.4** and formed the analytical framework which underpinned the SCBA.

**Figure 2.4: UK CoC 2021 Stocks and Flows Analysis**



The stocks and flows framework informed the identification of potential cultural intervention benefits and dis-benefits to be assessed during the SCBA. A matrix was produced of compliant Green Book and DCMS benefits against the assets and services associated with the UK CoC 2021 Programme.

The conclusion of this benefit mapping exercise is presented in **Figure 2.5** overleaf. The matrix provides a comprehensive list of potential benefits that could arise from the UK CoC 2021 Programme.

Using the matrix, the VfM assessment scoped the scale of the expected benefit. Where benefits were judged to be negligible or of limited importance, these were excluded from the analysis.

The benefit assessment subsequently considered which benefits could be robustly assessed using the project outputs/outcomes and HM Treasury/DCMS compliant methodologies. These benefits were taken forward into the SCBA as presented in **Section 6.3**. **It should be noted that the VfM assessment has considered the effects arising from the direct investment into the UK CoC 2021 Programme before or during 2021.** Effects arising from influenced investments around the city, such as the additional capital cultural, heritage and regeneration investment, which the UK CoC 2021 played a role in have been excluded – as many of these programmes received further public funding which has not been included in the assessment. A wider scope would be required to assess all of the costs and benefits arising from this city regeneration programme of investment<sup>17</sup>.

Where insufficient evidence is available or benefits cannot be suitably monetised using compliant methodologies, the matrix has been used to inform the non-monetised impact assessment in line with the Appraisal Guide 2023 from the Department of Levelling Up, Housing and Communities (DLUHC). This non-monetised assessment is set out in **Section 6.4** and informs the assessment of VfM. Key non-monetised benefits include image and regeneration arising from the wider capital cultural, heritage and regeneration programme, as well as potential longer-term legacy impacts which are difficult to robustly monetise at this stage.

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<sup>17</sup> An assessment of this kind would overshadow the value for money assessment of the direct investment into the UK CoC 2021 Programme due to the scale of regeneration and public funding across the city. Additionally, property and public realm schemes tend to have a much longer appraisal period of around 30 years. Therefore, no capital projects which are outside of the UK CoC 2021 Programme have been assessed within the SCBA due to the funding from other public sources and the complexity of assigning the benefits to UK CoC 2021

**Figure 2.5: UK CoC 2021 Benefit Mapping Matrix**

Cultural Intervention Impacts		Coventry City of Culture 2021 Investment:								
		Historic Environment	Natural Environment	Heritage Collections	Performance and Venues	Digital Assets	Creative organisations	City Hosts	Training programmes	Exhibitions and events
Social	S1	Welfare/w elbeing - use	✓	✓	✓	✓	✓			✓
	S2	Welfare/w elbeing - non-use/existence	✓	✓	✓	✓	✓			✓
	S3	Acces sibility - Generalised Travel Costs (individuals)	✓	✓	✓	✓				✓
	S4	Transport - Active mode	✓	✓	✓	✓				✓
	S5	Volunteering	✓	✓	✓	✓		✓		✓
	S6	Health - physical activity and mental w elbeing	✓	✓	✓	✓		✓		✓
	S7	Educ ation/Skills - w elfare/w elbeing							✓	✓
	S8	Plac emaking - wider land value uplift (Hedonic pricing)	✓	✓	✓	✓				✓
	S9	Amenity impacts	✓	✓	✓	✓				✓
	S10	Distributional Impacts (Marginal Utility of Income - equalised distributional income)	✓	✓	✓	✓	✓	✓	✓	✓
Economic	Ec1	Productivity - Agglomeration (static or dynamic clustering)				✓				✓
	Ec2	Productivity - Product market competition (output c hange in imperfectly competitive markets)				✓				✓
	Ec3	Productivity - Private investment (producer surplus)				✓				✓
	Ec4	Productivity - Idea flow s/innovation/R&D				✓	✓	✓		✓
	Ec5	Productivity - Labour supply impacts				✓				✓
	Ec6	Productivity - Movement to more (or less) productive jobs (w age premium)				✓		✓		✓
	Ec7	Tourism - additional national added value	✓	✓	✓	✓				✓
	Ec8	Land Value Uplift				✓				✓
	Ec9	Employment (labour supply) effects				✓		✓		✓
	Ec10	Productivity - Education/Skills							✓	
	Ec11	Acces sibility - Generalised Travel Costs (businesses)	✓	✓	✓	✓				
Environmental	En1	Transport costs	✓	✓	✓	✓				✓
	En2	Air quality and greenhouse gases	✓	✓	✓	✓				✓
	En3	Built/historic Environment - heritage benefits	✓							
	En4	Natural capital/biodiversity		✓						
Public Accounts	Pa1	Cost to public sector budget - capital and revenue (gross and net)	✓	✓	✓	✓	✓	✓	✓	✓
	Pa2	Tax Implications	✓	✓	✓	✓	✓	✓	✓	✓

# Section 3

## Contextual conditions

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## 3 Contextual conditions

### 3.1 Introduction

This Section summarises socio-economic conditions and trends in Coventry and comparator areas (Coventry and Warwickshire, West Midlands, and England) in order to understand the contextual conditions for UK CoC 2021 and, where sufficient current data is available, to assess how indicators changed during the Programme period. In addition, the impact of the COVID-19 Pandemic, which significantly affected the Programme, is also considered.

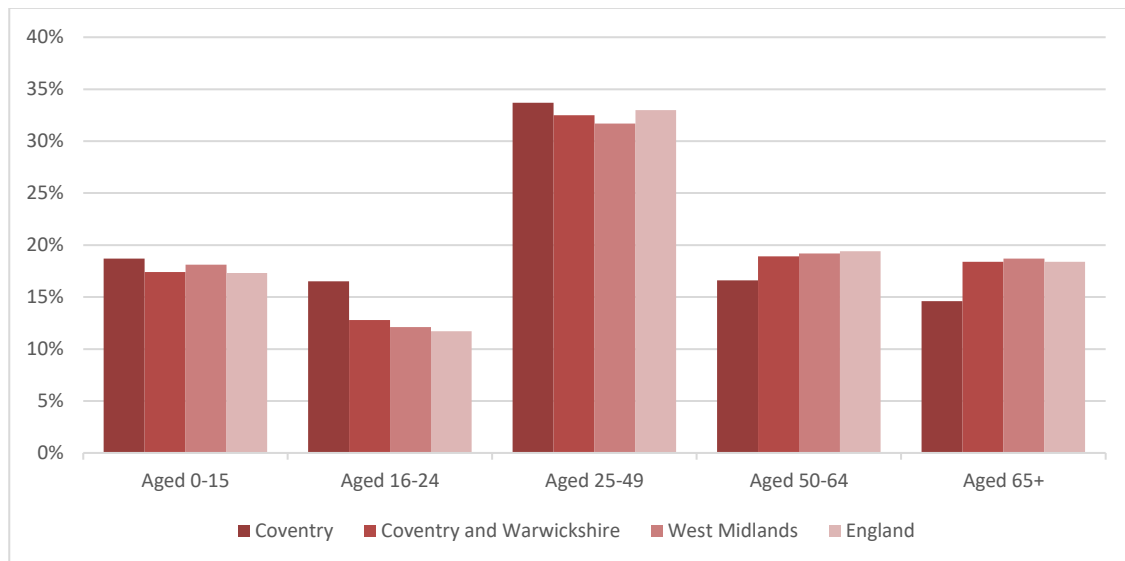
A more detailed review of the baseline information and trends is set out in Appendix A.

### 3.2 Socio-economic context

#### 3.2.1 Population

Coventry has an estimated population of 345,321 (Census 2021), of which 19.8% are aged 0 to 15, 65.6% are of working age (16 to 64), and 14.6% are aged 65 or over. The city’s population is generally younger than comparator areas such as the West Midlands and England, with a larger working age population and more children. **Figure 3.1** shows this difference and highlights the city’s large population aged 16 to 24 years – largely driven by students living in the city<sup>18</sup>. It also demonstrates that whilst the city has a larger young population, the wider area (Coventry and Warwickshire), has a population age distribution more similar to regional and national trends.

**Figure 3.1: Population by Age Band (2021)**

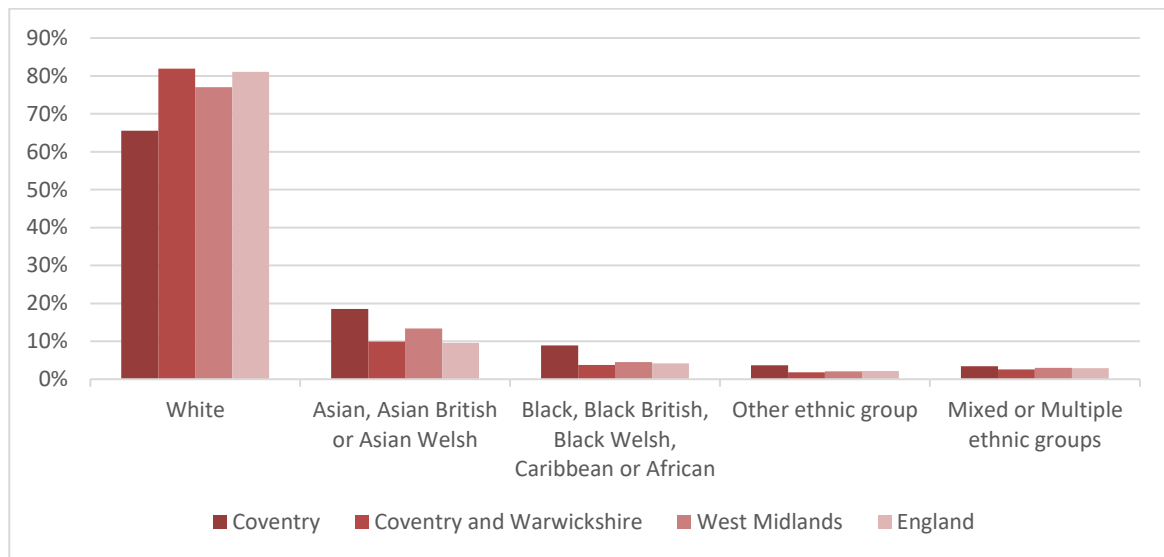


Source: Census 2021

<sup>18</sup> The Census survey was undertaken in March 2021 and due to Covid-19, local universities returned fully to face-to-face contact in September 2021 therefore, the student population of Coventry is likely even higher.

Based on the Census 2021, around 65.5% of Coventry’s population is White, compared to 77.0% and 81.0% across the West Midlands and England respectively. The local population is thus more diverse than the county, region, and country. In particular, the city has higher representations from the Asian and Black communities than the average across the country, as shown in **Figure 3.2**. These demographic conditions informed the Trust’s objectives and desire to engage with the local minority population who are historically less likely to access cultural events. For example, only 62.9% of the Asian residents and 60.9% of Black residents across England took part in the arts over the previous year (2019/2020), compared to 78.3% of White residents<sup>19</sup>.

**Figure 3.2: Population by Ethnicity (2021)**



Source: Census 2021

The population in Coventry suffers from relatively high levels of deprivation. Around 39% of its population is located within the top 30% most deprived Lower Super Output Areas (LSOAs) in the country, including 14% in the top 10% most deprived parts of the country. The UK CoC 2021 Programme was designed with a hyper-local focus, which included engaging with the most deprived communities as identified by the Index of Multiple Deprivation (IMD). Individuals from lower income groups are less likely to attend cultural and creative events and were also impacted more significantly by the pandemic<sup>20</sup>. Designing the Programme to engage with these communities was therefore intended to help to address this underperformance.

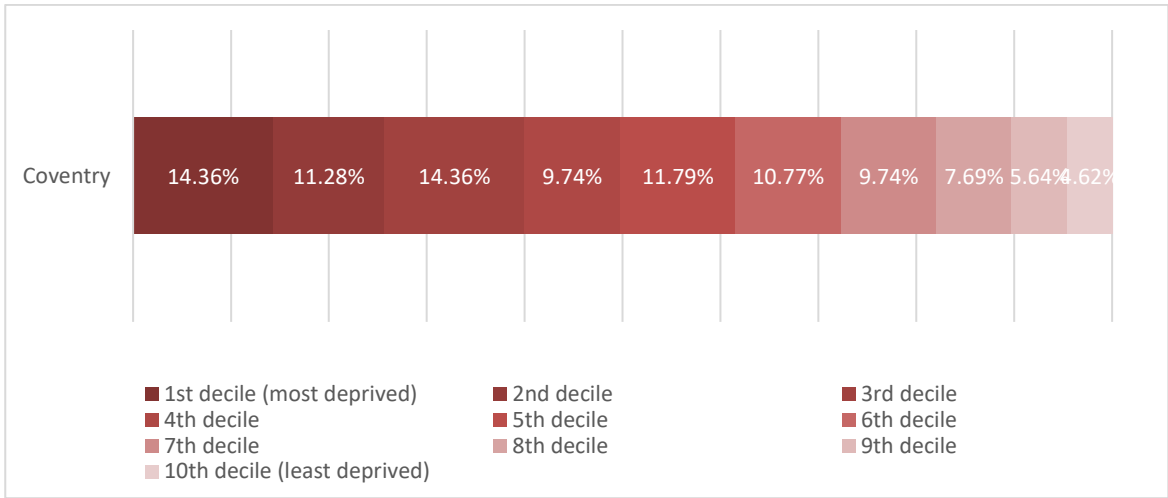
The split of the LSOAs in Coventry by IMD deciles is shown in **Figure 3.3**. Again, this informed the hyper local focus of elements of the Programme.

<sup>19</sup> DCMS (2023), Taking part in the arts, culture, and heritage. Available from: <https://www.ethnicity-facts-figures.service.gov.uk/culture-and-community/culture-and-heritage/taking-part-in-the-arts-culture-and-heritage/latest#by-ethnicity-taking-part-in-the-arts>

<sup>20</sup> Arts Council England, Equality (2022) Diversity & Inclusion – A Data Report, Available at: <https://www.artscouncil.org.uk/equality-diversity-and-inclusion-data-report-2020-2021>



**Figure 3.3: Coventry LSOAs by IMD Decile (2019)**



Source: English indices of deprivation 2019, DLUHC

**3.2.2 Economy and labour market**

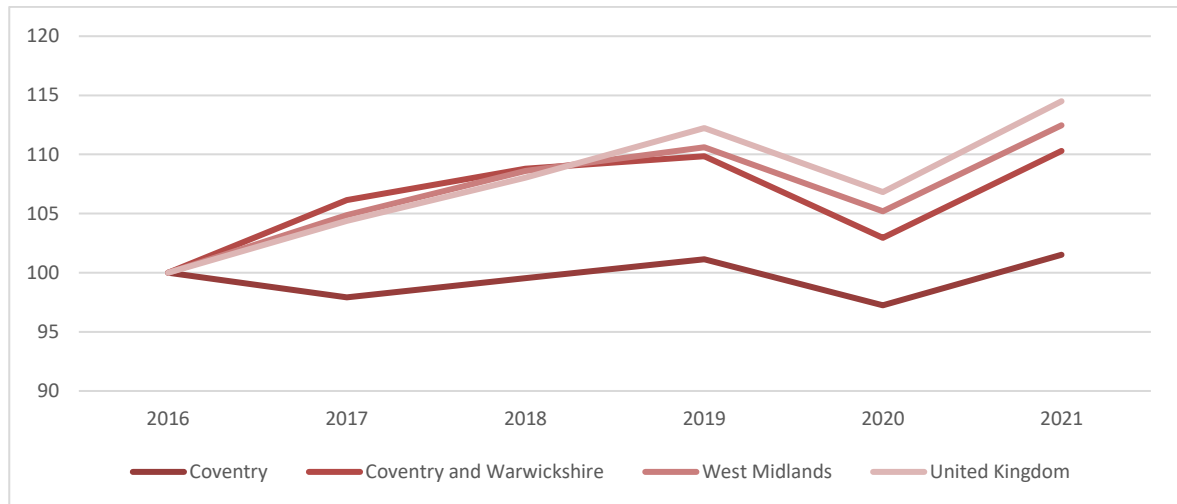
This sub-section examines the period prior to COVID-19 (data between 2016 to 2019) and the year of UK CoC 2021 (data between 2020 to 2021). Analysis of these two periods enables the consideration of baseline trends and any subsequent changes in Coventry which may be due to UK CoC 2021. Commentary for 2019 to 2020 has been largely excluded due to COVID-19.

**GVA**

Between 2016 and 2019, the overall growth in GVA (current prices) in Coventry is significantly below that of the comparator areas of Coventry and Warwickshire, West Midlands, and the UK. This trend for overall GVA in the economy continued during the year of 2021, where Coventry hosted the UK CoC 2021 but experienced GVA growth of 4.4% across the economy compared to 6.9% in the West Midlands and 7.2% in the UK<sup>21</sup>. This trend is presented in **Figure 3.4**.

<sup>21</sup> ONS (2023), Regional gross value added (balanced) by industry

**Figure 3.4: Indexed change in GVA, 2016-2021 (2016 = 100)**

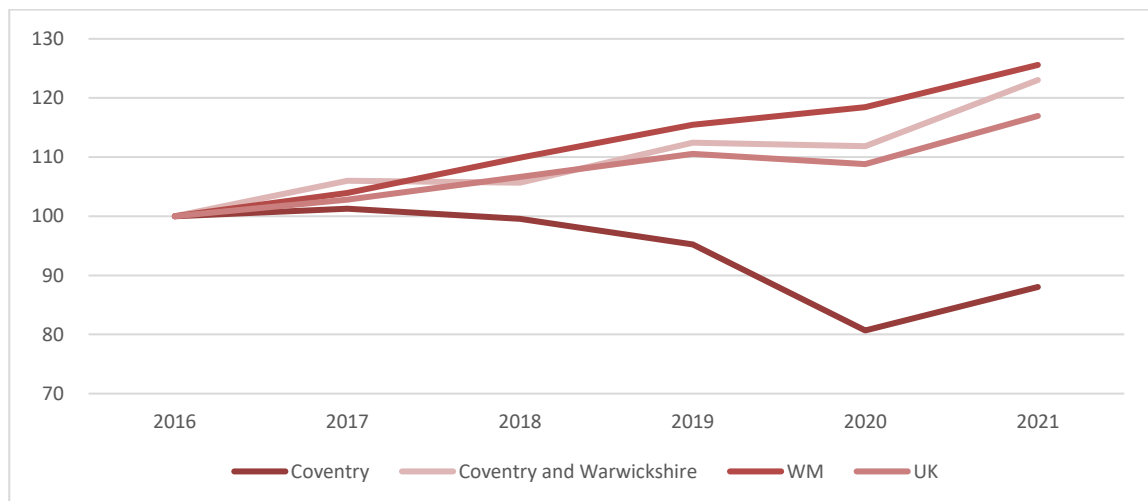


Source: ONS (2023), Regional gross value added (balanced) by industry

Between 2016 and 2019, GVA (current prices) in the creative and cultural industries<sup>22</sup> in Coventry fell significantly by 19%. All comparator areas experienced growth in this period. However, during the year of 2021, the creative and cultural sector in Coventry experienced faster GVA growth (9.1%) than within the West Midlands (6.0%) and nationally (7.5%)<sup>23</sup>, which may have been as a result of UK CoC 2021. This trend is presented in **Figure 3.5**.

However, it should be noted that the data underpinning this analysis should be treated with some caution, as Coventry and Coventry and Warwickshire GVA figures are estimates constructed from the available ONS and BRES data, which will be subject to rounding errors.

**Figure 3.5: Change in Creative and Cultural Industries GVA, 2016-2021 (2016 = 100)**



Source: ONS (2023), Regional gross value added (balanced) by industry and Business Register and Employment Survey

<sup>22</sup> Creative and cultural industries (i.e. DCMS sectors) have been defined as creative, digital, cultural, telcoms, gambling, sports, and tourism

<sup>23</sup> ONS (2023), Regional gross value added (balanced) by industry and Business Register and Employment Survey

### **Businesses**

The overall growth in businesses between 2016 and 2019 for Coventry (5.9%) largely matches the averages for Coventry and Warwickshire (5.4%), West Midlands (6.7%), and the UK (6.4%)<sup>24</sup>.

During the year of 2021, the number of businesses in Coventry grew from 10,120 to 10,210 – an increase of 0.9%. This is in contrast to the decline experienced across Coventry and Warwickshire (-1.2%), and the West Midlands, (-1.1%), and above the growth in the UK (0.6%).

The trend for creative and cultural industry-related businesses between 2016 and 2019 matched the overall trend for businesses, with the growth in Coventry (5.2%) broadly similar to averages for the comparator areas which were between 4.4% and 7.2%.

Perhaps surprisingly, the number of creative and cultural businesses in Coventry reduced by 8.2% during the year of 2021 whilst UK CoC 2021 was being delivered in the city. This reduction was greater than that experienced across Coventry and Warwickshire (-4.6%), West Midlands (-1.6%), and the UK (-3.4%). From these figures, it does not appear that the UK CoC 2021 prevented the closure of cultural businesses in Coventry, although the decline could have been greater in the absence of the Programme.

### **Employment**

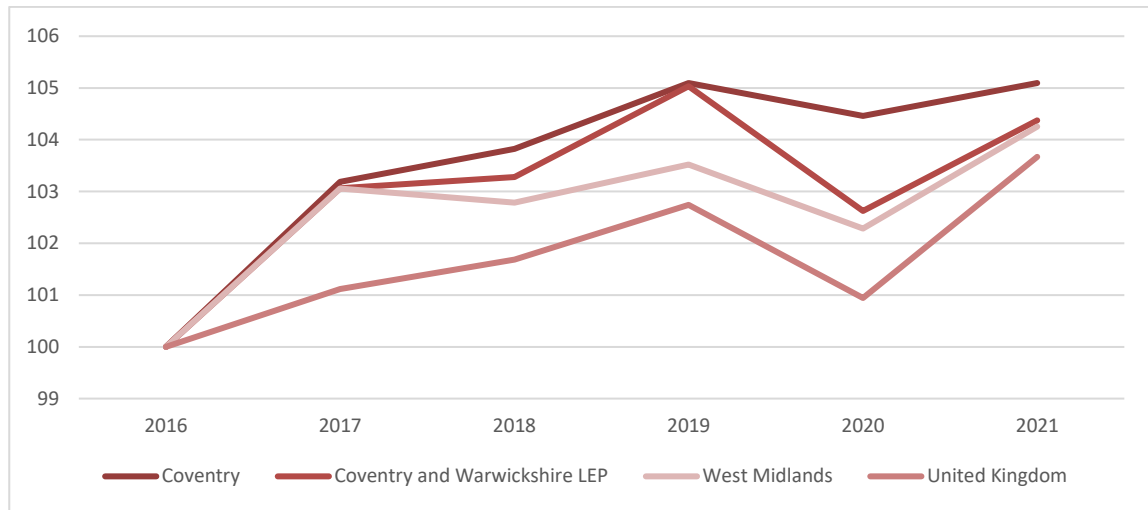
Between 2016 and 2019, employment grew by 5.1% in Coventry which was similar to the Coventry and Warwickshire average (5.0%) but above the growth in the West Midlands (3.5%) and the UK (2.7%)<sup>25</sup>.

During 2021, the employment growth in Coventry (0.6%) was marginally behind the rates experienced across Coventry and Warwickshire (1.7%), West Midlands (1.9%), and the UK (2.7%). As shown in **Figure 3.6**, a large reason for this was that total employment did not contract as much in Coventry in 2020 during the initial COVID-19 lockdowns compared to other areas.

<sup>24</sup> ONS (2023), UK Business Counts 2016-2022

<sup>25</sup> ONS (2023), Business Register and Employment Survey

**Figure 3.6: Change in overall employment, 2016-2021 (2016 = 100)**

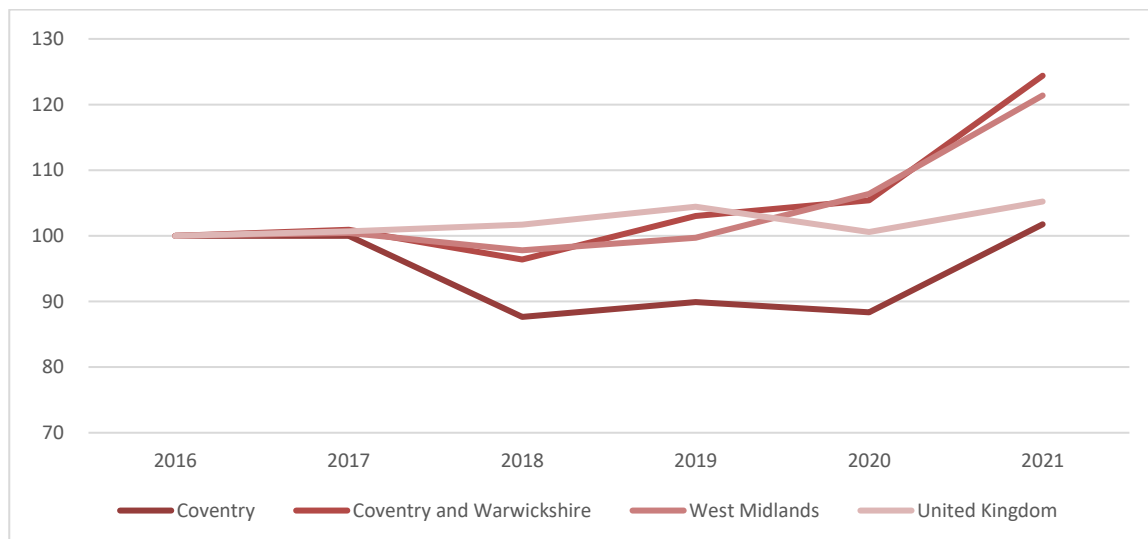


Source: ONS (2023), Business Register and Employment Survey

During 2016 to 2019, the employment in creative and cultural sectors in Coventry fell by 10.1%. The sector appears to be performing worse prior to COVID-19 compared to the comparator areas, with Coventry and Warwickshire experiencing growth of 3.0% and the UK growth of 4.4%. The West Midlands employment in this sector stayed largely stable (-0.3%).

During 2021, the creative and cultural employment in Coventry experienced a revival with growth of 15.2% – with UK CoC 2021 likely to have influenced this cultural employment creation. This increase is slightly below the Coventry and Warwickshire average (18.0%) but exceeds the regional (14.1%) and UK (4.6%) averages which reverses the previous trend as shown in **Figure 3.7**. This may also, as noted, indicate a positive impact of UK CoC 2021.

**Figure 3.7: Change in creative and cultural industries employment, 2016-2021 (2016 = 100)**



Source: ONS (2023), Business Register and Employment Survey

**Labour market**

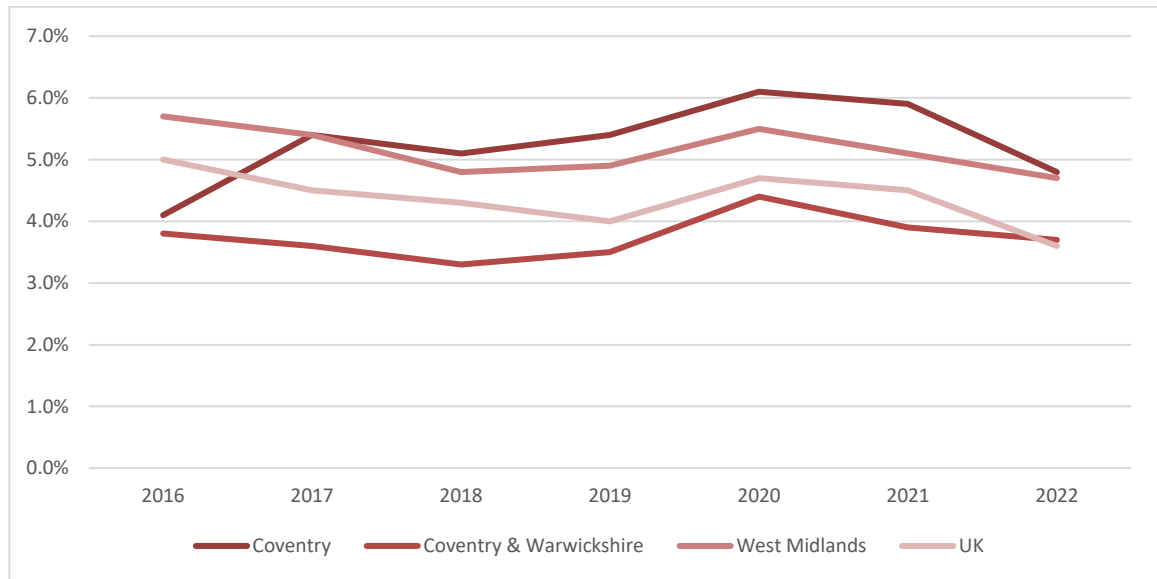
The unemployment rate in Coventry increased from 4.1% to 5.4% between 2016 to 2019<sup>26</sup> – which was above the comparator areas as shown in **Figure 3.8**.

The increase in unemployment in Coventry from 5.4% to 6.1% between 2019 to 2020, during the initial shock due to the COVID-19 pandemic, was similar to the percentage increase across Coventry and Warwickshire (3.5% to 4.4%), West Midlands (4.9% to 5.5%), and the UK (4.0% to 4.7%). These figures suggest that the Coventry economy was not at full employment when it hosted UK CoC 2021 with 11,400 unemployed residents available to work if opportunities arose.

The unemployment rate in Coventry in 2021 fell slightly from 6.1% to 5.9%. The rates within the comparator areas experienced either an equal or greater fall therefore, unemployment was still higher during UK CoC 2021.

As data is available for 2022, this analysis has been included. The unemployment rate in Coventry dropped from 5.9% to 4.8%, which brought unemployment nearly in line with the West Midlands but still above the LEP (3.7%) and the UK (3.6%).

**Figure 3.8: Unemployed rate (2016-2022)**



Source: ONS (2023), Annual Population Survey (January 2016 to December 2022)

The economic activity rate in Coventry increased from 71.8% in 2016 to 77.2% in 2019. This increase meant it was largely in line with the region (77.7%) and UK average (78.8%). Between 2020 and 2021, the economic activity rate in Coventry decreased very marginally from 76.0% to 75.9%. The comparator areas all experienced a similar small reduction in economic activity during this year.

Employment rates among ethnic minority groups in Coventry have been consistently lower compared to the population as a whole over the last 5 years. For example, the employment rate

<sup>26</sup> ONS (2023), Annual Population Survey (January 2016 to December 2022)

of ethnic minority groups was 57.3% in Coventry in 2016 compared to 68.9% for the population as a whole.

The employment rate for ethnic minority groups in Coventry increased to 63.6% in 2019 but has subsequently fallen to 60.7% in 2021. These employment rates for ethnic minority groups in 2021 in Coventry remains below that of Coventry and Warwickshire (66.8%), regional (64.5%), and national (66.9%) averages.

### 3.2.3 Tourism

Visitor numbers for 2020 and 2021 in Coventry were, understandably, less than the 2019 numbers. The reduced visitor numbers directly impacted businesses and employment in the tourism sector in Coventry, with only 2,754 FTEs in 2019 and 5,367 FTEs in 2021 compared to the pre-COVID-19 baseline of 6,760 in 2019<sup>27</sup>. This evidence from STEAM demonstrates that the sector was not at full capacity due to the pandemic.

However, data suggests the city is recovering well following the COVID-19 pandemic in relation to tourism and visitors. Analysis of the STEAM data for Coventry demonstrates that 2022 was a record year for the city, with visitor figures surpassing the 2019 baseline. The West Midlands Growth Company identifies the UK CoC 2021 as one potential driver of recovery, amongst other major events (such as BBC Radio 1's Big Weekend, and the Birmingham 2022 Commonwealth Games). Visitor numbers peaked in May (the finale of the UK CoC 2021 and Big Weekend) and August 2022 (Commonwealth Games 2022). The employment in the tourism sector in 2022 (7,354 FTEs) now exceeds the pre-COVID-19 baseline from 2019. The impact of the pandemic and evidence of the recovery in visitor numbers is illustrated on **Figure 3.9**.

**Figure 3.9: Total number of visitors to Coventry – 2016-2022**



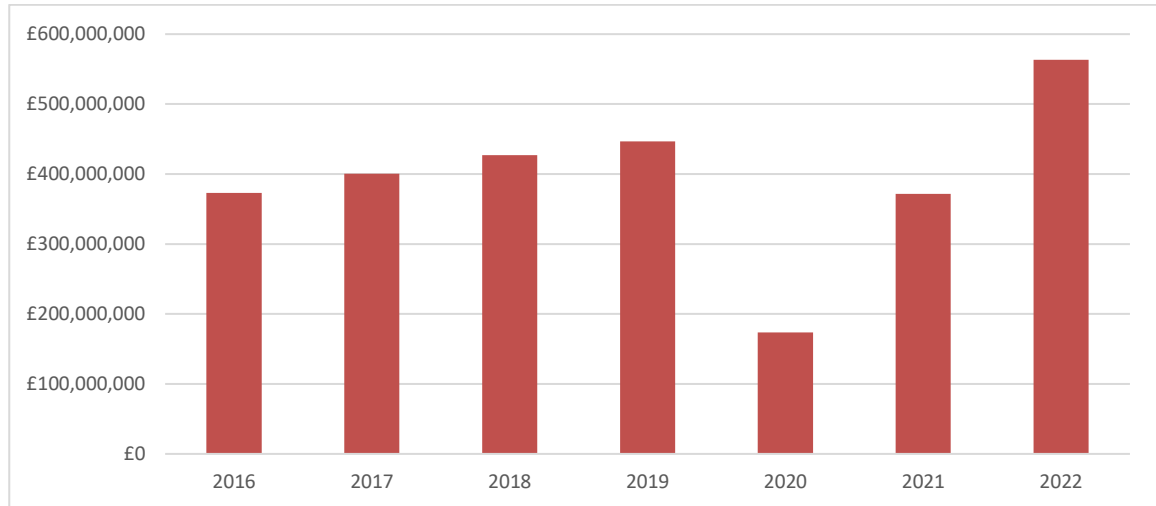
Source: STEAM report for Coventry 2016-22; GTS

The direct expenditure of tourism in Coventry declined from £447 million in 2019 to £173 million in 2020, a fall of 61.2% (due to COVID-19). Coventry has shown a strong recovery from this, with

<sup>27</sup> Global Tourism Solutions (2023), STEAM report for Coventry 2016-22

the direct expenditure of tourism being £371 million in 2021 and £564 million in 2022, which is £117 million higher than the 2019 baseline level.

**Figure 3.10: Direct visitor expenditure in Coventry – STEAM model**



### 3.2.4 Summary

The local conditions were important in shaping the focus of the UK CoC 2021 Programme with its emphasis on engagement and hyper local events reflecting the age profile, ethnicity, and relatively high levels of deprivation in Coventry.

It is difficult without a much longer time series of data to say with any certainty what the impact of UK CoC 2021 was on key socio-economic indicators, not least because of the COVID-19 Pandemic. However, it is interesting to note that:

- Coventry’s creative and cultural industries experienced faster GVA growth during 2021 than within the West Midlands and nationally;
- there was a greater rate of growth in employment in the creative and cultural industries compared to the West Midlands and, in particular, the UK during 2021;
- as expected, the visitor numbers and employment in the tourism sector in Coventry during 2020 and 2021 were greatly below 2019 levels due to COVID-19 demonstrating the sector was not at full capacity; and
- the tourism sector in Coventry has made a strong recovery with data showing visitor numbers in 2022 were 10% higher than 2019 (pre-COVID-19 pandemic), tourism employment in 2022 was 9% higher than 2019, and direct visitor expenditure was 26% above 2019 levels.

Other indicators, such as the number of businesses in the creative and cultural industries which decreased relatively rapidly in Coventry, are less indicative of a positive sectoral impact. However, it is possible that the local performance would have been even worse in the absence of UK CoC 2021.

An updated baseline from the previous report is provided in **Appendix A**. Due to the amended scope, the latest statistics have been provided for context, but a full review has not been undertaken.

### 3.3 COVID-19 Pandemic

The Trust had to deliver the City of Culture year in unique and unprecedented conditions due to the COVID-19 pandemic. The unpredictable nature of the pandemic and the transition in and out of lockdown restrictions before and during the year created a unique set of business planning and delivery challenges. As formal restrictions lifted, such uncertainties remained as society sought to return to a post-pandemic normal. This context made delivery of a mass cultural programme of city-wide scale extremely difficult as well as inevitably impacting on event planning, costs, attendances, and the extent of the events' geographic catchments in terms of participation and visits.

As set out in **Section 1**, the UK CoC 2021 Programme extended from May 2021 to May 2022. This period aligned with the many social distancing and other restrictions across the country due to COVID-19 (see **Table 3.1**). Based on the consultations with key stakeholders, this is likely to have had the following effects:

- limited ticket allocation for some events due to social distancing;
- reduced tourism, domestic and especially international, due to travel restrictions;
- lessened attendances as people were more cautious about going to large events; and
- financial difficulties arising from a lack of ticket sales and income, as well as higher costs in meeting requirements such as social distancing and personal protection.



**Table 3.1: Timeline of lockdown restrictions during UK CoC 2021**

Date	Restriction
<b>2021:</b>	
6 January	England enters third national lockdown.
22 February	Roadmap for lifting lockdown restrictions is published.
8 March	Schools reopen and recreation in outdoor public spaces (following the guidance) published.
29 March	Outdoor gatherings of either six people or two households allowed, including in private gardens. Outdoor sports facilities also reopen. "Stay at home" order ends, replaced by "Stay local".
12 April	Non-essential retail, hairdressers, public buildings (e.g. libraries and museums) reopen. Outdoor venues, including pubs and restaurants, zoos and theme parks also open, as well as indoor leisure (e.g. gyms). Self-contained holiday accommodation opens. Wider social contact rules continue to apply in all settings – no indoor mixing between different households allowed.
17 May	Limit of 30 people allowed to mix outdoors. 'Rule of six' or two households allowed for indoor social gatherings. Indoor venues will reopen, including pubs, restaurants, cinemas. Up to 10,000 spectators can attend the very largest outdoor-seated venues like football stadiums.
19 July	Most legal limits on social contact removed in England, and the final closed sectors of the economy reopened (e.g. nightclubs).
8 December	Move to Plan B measures announced.
10 December	Face masks compulsory for most public indoor venues.
15 December	NHS COVID-19 Pass becomes mandatory in specific settings, such as nightclubs.
<b>2022:</b>	
27 January	Restrictions lifted, including mask mandate.
24 February	All domestic legal COVID restrictions lifted in England.

Restrictions put a stop to in-person cultural activity for significant periods of time between 2020 and 2022. Retail, leisure, and tourism activity was heavily affected by lockdown restrictions and the wider impacts of COVID-19.

In regard to the timing of the UK CoC 2021, a pre-year sentiment survey conducted by M-E-L Research disclosed a strong sense that UK CoC 2021 would play an important role in the city's recovery from the pandemic. Around 93% of respondents indicated that having the UK CoC 2021 title was fairly or very important to helping the local economy recover, and 92% saw it as fairly or very important to helping the city's image recover from the pandemic. However, the UK CoC 2021 was both directly and indirectly affected by COVID-19 in terms of costs and significantly reduced demand.

# Section 4

## UK CoC 2021 Programme

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## 4 UK CoC 2021 Programme

### 4.1 Introduction

This section presents a summary of the UK CoC 2021 original headline targets, and the Programme costs and funding. It also sets out an analysis of the actual visitor numbers to the Programme and their characteristics, which are key inputs into the impact assessment. The original headline targets are returned to within the conclusion of this report to compare the forecast and actual performance of the Programme. The revised proposed legacy programme is also detailed in this section.

### 4.2 Headline targets

UK CoC 2021 provided Coventry with the opportunity to strengthen its existing cultural and creative sectors and to use culture-led investment to achieve a legacy of positive social, cultural, environmental, and economic impacts for the city, the region, its citizens, communities and visitors.

The Trust’s five-year business plan defined the high-level step changes that UK CoC 2021 was intended to secure as:

- uplifting the local economy;
- increasing tourism;
- growing and strengthening the cultural and creative sectors;
- attracting investment into the city and wider Coventry and Warwickshire area; and
- promoting inclusive growth.

While not explicitly setting targets, the bid document quantified several of the changes that the Programme was intended to achieve. For the purpose of this assessment, the Trust’s specific goals have been summarised in **Table 4.1**. It should be noted that this bid document was produced before COVID-19 and the targets were not subsequently adjusted after the pandemic. The effects of the pandemic, such as social distancing, are likely to have made it difficult for UK CoC 2021 to achieve its pre-pandemic targets.

Table 4.1: Headline Targets
Attracting and welcoming 2.5m additional visitors during 2021
Increasing audience attendance from BAME communities by 20%
Enabling 80% of the City’s residents to experience at least three events
Making long-lasting, tangible social change in Coventry
Transforming who holds the power to create and curate in the City
Activating more than 16,000 volunteers and participants
Starting a wave of cultural investment across the region

### 4.3 Programme costs and funding

**Table 4.2** overleaf sets out the income and expenditure of the Trust between October 2015 to June 2022 as provided by the Trust. Overall, the UK CoC 2021 is estimated to have incurred costs of £40.6m (current prices) over this period, with half of the expenditure having been spent on events. Staff costs accounted for almost a quarter of the costs. Total public sector funding (including the Heritage Lottery Fund) is estimated to be some £28.7m over the period out of a total income of £42m, although this excludes a subsequent CCC loan of £1m which is included in the VfM analysis below.

The NAO review of funding of Coventry City of Culture Trust<sup>28</sup> identified that DCMS and its arm's length bodies awarded £22.8m to the Trust – of this approved total £21.3m was paid. In addition, CCC gave £5.6m. The total public sector funding awarded to the Trust was £28.4m and the total paid was £26.9m. The ACE awarded £3.0m in grants from National Lottery funding to other local organisations to support UK CoC 2021's Programme of events. A further £10m of funding was provided to CCC by central government and the National Lottery to support Coventry's year as UK City of Culture. The majority of the latter funding was provided as capital funding to refurbish and upgrade key heritage and culture assets.

In comparison, Hull 2017 was estimated to have incurred expenditure of some £32.8m (in current prices), with public sector investment of £22.1m. Allowing for inflation, the total cost of UK CoC 2021 is higher but not significantly above that of Hull 2017. However, the average expenditure per local resident (in 2023 prices) was slightly lower for UK CoC 2021 (£134.20) compared to Hull 2017 (£144.36).

<sup>28</sup> National Audit Office, Funding of Coventry City of Culture Trust, Department for Culture, Media and Sport, Session 2022-23, 18 July 2023, HC 1663

**Table 4.2: UK CoC 2021 Trust – Income and Expenditure (October 2015 – June 2022)**

Current prices	15 months	12 months	12 months	3 months	12 months	12 months	12 months	3 months	Total
	Oct 2015 to Dec 2016	Jan 2017 to Dec 2017	Jan 2018 to Dec 2018	Jan 2019 to Mar 2019	Apr 2019 to Mar 2020	Apr 2020 to Mar 2021	Apr 2021 to Mar 2022	Apr 2022 to Jun 2022	Oct 2015 to Jun 2022
<b>Income</b>									
Coventry City Council grant	£166,415	£95,664	£330,000	£0	£0	£0	£0	£500,000	£1,092,079
Arts Council grant	£0	£50,000	£140,000	£461,000	£1,744,586	£1,549,000	£1,762,240	£250,000	£5,956,826
Heritage Lottery Fund	£0	£95,993	£564,299	£119,352	£334,123	£604,769	£2,154,648	£431,492	£4,304,676
DCMS	£0	£0	£201,250	£298,750	£0	£1,100,000	£5,715,000	£1,300,000	£8,615,000
Other grants and donations	£385,980	£716,065	£1,022,661	£444,600	£1,329,073	£2,618,125	£6,306,215	£605,706	£13,428,425
UK City of Culture 2021 contract income	£0	£0	£0	£0	£2,000,000	£3,100,000	£2,670,148	£0	£7,770,148
UK City of Culture 2021 ticket sales	£0	£0	£0	£0	£0	£143,274	£487,331	£109,666	£740,271
Merchandise retail	£0	£0	£0	£0	£0	£4,303	£62,759	£16,566	£83,628
Bank interest	£295	£111	£301	£100	£2,600	£3,228	£7		£6,642
<b>Total income</b>	<b>£552,690</b>	<b>£957,833</b>	<b>£2,258,511</b>	<b>£1,323,802</b>	<b>£5,410,382</b>	<b>£9,122,699</b>	<b>£19,158,348</b>	<b>£3,213,430</b>	<b>£41,997,695</b>
<b>Expenditure</b>									
Fundraising and development	£33,026	£44,001	£11,833	£849	£42,200	£17,285	£42,925	£1,706	£193,825
Merchandise cost of sales and set up		£0	£0	£0	£0	£13,737	£42,857	£36,713	£93,307
Staff costs	£54,500	£385,823	£385,823	£203,812	£1,585,015	£2,529,777	£3,789,830	£662,645	£9,597,225
Events	£95,168	£226,898	£821,989	£283,776	£1,122,414	£2,670,391	£12,776,000	£2,348,579	£20,345,215
Marketing	£63,719	£198,088	£114,300	£28,290	£372,744	£739,358	£1,231,689	£237,337	£2,985,525
Programming	£5,869	£18,363	£32,107	£5,928	£311,500	£985,311	£1,356,054		£2,715,132
Office costs	£7,545	£30,643	£54,633	£17,431	£152,152	£293,308	£302,164	£237,815	£1,095,691
Research and development	£0	£25,000	£20,524	£21,785	£212,913	£413,292	£421,357	£142,931	£1,257,802
Community engagement	£146	£2,331	£3,449	£2,100	£0	£5,000	£5,563	£0	£18,589
Employees and advisers' costs	£129,138	£130,100	£161,724	£28,632	£86,349	£135,126	£371,476	£43,873	£1,086,418
Travel and subsistence	£0	£4,549	£29,210	£13,251	£88,241	£95,858	£122,989	£10,107	£364,205
Bad and doubtful debts	£0	£0	£0	£0	£21,500	£11,500	<b>-£33,000</b>	£117,043	£117,043
Depreciation	£0	£0	£4,243	£2,722	£22,619	£45,193	£71,577	£117,043	£263,397
Loss on sale of tangible fixed assets	£0	£0	£0	£0	£646	£1,044	£1,778	£0	£3,468
VAT adjustment	£0	£0	£0	£0	£0	£0	£26,691	£0	£26,691
Auditors remuneration	£5,400	£5,000	£8,400	£2,100	£8,650	£8,900	£9,350	£11,900	£59,700
Legal and professional fees	£0	£4,164	£1,870	£6,948	£48,843	£185,552	£138,768	£33,534	£419,679
<b>Total expenditure</b>	<b>£394,511</b>	<b>£1,074,960</b>	<b>£1,650,105</b>	<b>£617,624</b>	<b>£4,075,786</b>	<b>£8,150,632</b>	<b>£20,678,068</b>	<b>£4,001,226</b>	<b>£40,642,912</b>

Source: Coventry City of Culture Trust

## 4.4 Visitor analysis

### 4.4.1 Visitor numbers

The estimated visitor numbers to UK CoC 2021 were provided by Indigo<sup>29</sup>. Their audience engagement database concluded that UK CoC 2021 **achieved over 1m points of engagements with audiences** (either in person attendees or virtual attendees).

This is substantially lower than **the target of 2.5m additional in-person attendees**<sup>30</sup>. However, it should be noted that Coventry hosted the UK CoC 2021 during an extraordinarily difficult period due to the COVID-19 pandemic. This is likely to have played a significant role in the lower attendance numbers than expected and to have resulted in higher costs and lower income than expected.

The UK CoC 2021 achieved 1m engagements - split between 395,090 in-person ticketed attendees, 97,726 in-person unticketed attendees, and 516,119 online attendees. A breakdown of visitors is provided in **Table 4.3**, as set out in Indigo's report. Specific details of their methodology is set out in their report, together with measures to mitigate free events. Indigo is confident of the accuracy of ticketing data from the various ticket channels due to their access to:

- raw ticketing data from the Ticket Factory – these came straight from the box office system and can therefore be verified;
- box office reports from the Belgrade Theatre and Warwick Arts Centre – similarly these have been verified;
- data on Visitor numbers from Compton Verney, supplied from their own visitor figures;
- visitor numbers from the BBC for the Radio 1 Big Weekend;
- box office reports from Assembly Festival Gardens for 2021 – these were verified by viewing box office system reports;
- box office reports from AFG for 2022 were not available due to ongoing payment/contractual issues between AFG and the Trust. However, these have been estimated using the ongoing sales vs targets report that the Trust used throughout the year; and
- internal 'tracking' sales vs targets sheets, maintained by the Ticketing Manager.

<sup>29</sup> Indigo Ltd (2023), Estimated Audience Engagement for Coventry 2021

<sup>30</sup> As set out in the Coventry Final Bid Document

**Table 4.3: Estimated points of engagement**

Estimated points of engagement	Type	Attendees	Data source and notes
<b>In person attendances</b>			
Ticket Factory	Paid ticket	187,861	Ticket Factory raw data
Warwick Arts Centre	Paid ticket	4,579	WAC Spektrix reports
Belgrade Theatre	Paid ticket	11,182	Belgrade Theatre Spektrix reports
AFG 2021	Paid ticket	76,594	Assembly box office
AFG 2022	Paid ticket	18,000	Sales vs Target report
Compton Verney	Paid or member ticket	12,874	Compton Verney visitor figures
Radio 1 Big Weekend	Paid ticket	84,000	BBC/Coventry City Council
Unticketed engagements	Unticketed	97,726	Clicker count, pre-registrations, number of bookers, data from partners <sup>31</sup>
<b>Sub-total</b>		<b>492,816</b>	
<b>Virtual attendees</b>			
YouTube	Virtual (free)	86,142	Unique views only, 1% of total views
Facebook	Virtual (free)	241,961	Excluding Coventry moves. Unique views > 60 seconds. 4% of total views.
Our Wilder Family	Virtual (free)	52,428	All direct and unique views
Coventry Moves Facebook	Virtual (free)	135,588	75% of total unique views, watched > 20% of the total content
<b>Sub-total</b>		<b>516,119</b>	
<b>Total</b>		<b>1,008,935</b>	

Source: Indigo Ltd, 2023

The visitor numbers from Indigo do not consider the additional audience figures from the bidding and build-up period. The Great Places programme of events from 2017 to 2021, which was funded by National Lottery Heritage Fund and ACE investment into the UK CoC 2021, attracted 37,741 in-person attendees (unticketed) and 43,528 online attendees. These attendees have been included in the VfM assessment.

The audience impact could potentially be higher during the build-up period as the Trust also provided support to other existing events such as Godiva Festival. However, the additional impact associated with this assistance is unclear therefore, no further impacts have been included.

The above figures focus on the Trust's Programme. They do not include broadcasting figures – which is in line with usual assessments of attendances at cultural events. The TV reach of the UK CoC 2021 specific programmes attracted more than 4.5m viewers on the BBC and the Sky Arts content had a reach of 367,000. The BBC viewers have been excluded from VfM assessment as

<sup>31</sup> Events where the Trust was responsible for counting attendees used clicker counts operated by Trust staff (76,734); other events had pre-registrations (209), or used a count of how many information booklets they distributed to attendees as a proxy for attendance (549); finally some projects relied upon counts provided by the event organisers or cultural partners (15,866) or events which formed part of Coventry Opens where venues reported engagement numbers to the Coventry Opens Project Co-ordinator (4,368).

this programming is funded through the TV licence fee; however, the Sky Arts viewers have been included as virtual attendees.

#### 4.4.2 Visit type

Detailed survey data relating to day visitors and overnight stays are available for five case study projects<sup>32</sup>. The surveys for these case studies are detailed and robust and the characteristics of this attendance profile (128,913) has been used as a proxy for the overall in-person attendance at major events (263,778).

The five case study projects have a total attendance of 128,913. This attendance is split between 123,643 day-visits (96%) and 4,714 overnight visits (4%). None of the events had especially large numbers of tourists staying overnight, who generate a much higher spend and therefore economic impact than day visitors tourists.

This proportion of day visitors (96%) to overnight staying visitors (4%) has been applied to the attendance at major events across UK CoC 2021 to calculate the split of visitors. However, not all events could be considered ‘major events’ and it would be unrealistic to apply this split to the smaller hyper-local events. It is therefore assumed that all attendees at ‘hyper-local’ events (229,038) were day visitors rather than overnight tourists.

The split of in-person attendances is shown below in **Table 4.4**.

<b>Additional activity</b>	<b>Total attendance</b>	<b>Day Visitors</b>	<b>Staying Visitors</b>
Attendance at major events >1,000	263,778	254,091	9,687
Attendance at small events <1,000	229,038	229,038	0
<b>Total</b>	<b>492,816</b>	<b>483,129</b>	<b>9,687</b>

The origin of attendees is shown in **Table 4.5**, based on a sample of UK CoC 2021 events with robust postcode data from the Ticket Factory database.

Unsurprisingly given the context of the pandemic and associated restrictions on travel and attendance at events, more than 3 out of every 4 attendees at the events came from the Coventry and Warwickshire area – the vast majority from Coventry. Attendances from beyond the WMCA area were very low with negligible international visitors.

However, the Trust set a target for all Coventry residents to attend three events. Given the population of Coventry (345,321), it does not appear that this target was achieved due to the overall reduced attendance numbers compared to those predicted prior to the COVID-19 pandemic.

<sup>32</sup> Godiva Festival, Coventry Glides, May Celebration Weekend: Gratte Ciel (outdoor acrobatics show), May Celebration Weekend: This is the City Parade; and May Celebration Weekend: Our Wilder Family (drone/light show).



**Table 4.5: Origin of attendees**

Origin	Sample projects	Overall attendances	%
Coventry	106,904	288,028	58.4%
Warwickshire	33,772	90,991	18.5%
Rest WMCA Area	15,292	41,201	8.4%
Other West Midlands	3,214	8,659	1.8%
London	5,235	14,104	3.1%
Other England	17,148	46,201	9.4%
Wales	427	1,150	0.2%
Scotland	334	900	0.2%
International	423	1,140	0.2%
<b>Total</b>	<b>182,913</b>	<b>492,816</b>	<b>100%</b>

Note: the overall attendee breakdown has been based on the sample projects

By using the IMD analysis of the origin (by Lower Super Output Area – LSOA) of attendees’ residence in England can give a crude approximation of their socio-economic characteristics.

The split of attendees by IMD ranking of resident LSOA is shown in Error! Reference source not found. based on the sample projects for all ticketed attendees where place of residence is known. The analysis suggests that residents of the most deprived areas in the country were less likely to attend events than those resident in more prosperous localities. However, it should be noted that as the below breakdown is built up from the sample projects, which were all ticketed, it is likely to be skewed away from lower income groups. It is expected that a higher proportion of lower income groups would have attended unticketed events. Given the below sample of events required tickets which made it more difficult for those on lower income to attend, there is considered to be a reasonable representation from those in the 30% most deprived communities.

**Table 4.6: Attendees resident in England by IMD ranking of resident LSOA (where known)**

Resident LSOA	Attendees	Attendees %	Coventry residents %
1 <sup>st</sup> decile (most deprived)	12,248	6.7%	14.4%
2	12,101	6.7%	11.3%
3	18,006	9.9%	14.4%
4	19,951	11.0%	9.7%
5	21,034	11.6%	11.8%
6	21,215	11.7%	10.8%
7	22,343	12.3%	9.7%
8	21,759	12.0%	7.7%
9	15,881	8.7%	5.6%
10 <sup>th</sup> decile (least deprived)	17,027	9.4%	4.6%
	<b>181,565</b>	<b>100%</b>	<b>100%</b>

Note: the above breakdown of attendees is based on the sample projects, all of which were ticketed events with postcode data

Analysis by evaluators shows that as of 30<sup>th</sup> June 2022, of the tickets issued to Coventry postcodes, 40.6% were issued to residents who were in lower socio-economic groups using the ACORN categories – financially stretched, facing urban adversity or not in private households (see **Table 4.7**). This is broadly consistent with the above IMD analysis, which includes all tickets including those outside of Coventry.

**Table 4.7: ACORN Socio-Economic Category of ticketed attendees**

ACORN Category	% Share of Tickets with Valid Coventry Postcodes	% Share of All Coventry Households	% Difference of Tickets Against Coventry Households
1 Affluent Achievers	20.42	13.1	7.32
2 Rising Prosperity	2.15	1.8	0.35
3 Comfortable Communities	36.81	29.4	7.41
4 Financially Stretched	24.2	29.6	-5.4
5 Urban Adversity	13.24	25.3	-12.06
6 Not Private Households	3.17	0.8	2.37

Whilst the figure of 40.6% remains under-representative of the general Coventry population by 15.1%, it is a significant percentage of citizens who have historically not participated in or have benefited least from publicly invested culture and are from majority-minority ethnic neighbourhoods.

The success in reaching low-income and majority-minority ethnic residents is a significant contrast with audience data from ACE for 2020–2021 which suggests that 8% of attendees for publicly funded cultural organisations in England identified as non-white and 31% were from the lowest income groups<sup>33</sup>.

This analysis indicates that there is evidence to suggest that producing hyper-local and co-created events is a positive driver for increasing cultural participation and engagement for those that would typically not engage with publicly funded culture. An element of this is producing events and activities which are local and low-cost or free at the point of access. Those that were Financially Stretched and facing Urban Adversity attended co-created and hyper-local events at a higher rate than the Programme overall – for example, for events within the Love Coventry programme strand, 53% of tickets issued to Coventry postcodes went to those in lower economic groups. The majority of the events within Love Coventry were free of charge and taking place within communities across the city.

Additionally, the consultations with key stakeholders indicated that UK CoC 2021 had made cultural activities accessible to individuals who have not tended to have the opportunity to experience this offer previously. The Council are looking to build on the momentum created by UK CoC 2021 by fostering a rejuvenated community sector comprising theatres, youth centres, and employment centres (See **Section 4.5**).

<sup>33</sup> Arts Council England, Equality (2022) Diversity & Inclusion – A Data Report, Available at: <https://www.artscouncil.org.uk/equality-diversity-and-inclusion-data-report-2020-2021>

## 4.5 Legacy programme

Following the Trust entering administration, Coventry’s cultural, creative, heritage and wider partner organisations have come together, with representatives from the City Council and both universities, to collectively reflect on ‘What next?’ for culture in the city, and to plan how cultural legacies from UK City of Culture 2021 can be sustained and delivered in the context of wider city strategies and partnerships.

Coventry Culture Works is a new partnership established in June 2023 to help progress and deliver Coventry’s ambitious 10-year Cultural Strategy<sup>34</sup>. The partnership includes the city’s Principal Partners (CCC, Coventry University, and the UoW) who are committed to joining with leaders from the cultural, creative, and wider sectors in the city in the partnership. The partnership builds from the city’s pilot Cultural Compact and will work to: deliver the city’s cultural strategy refresh; develop and support the cultural and creative sectors; secure legacies; and attract investment into the cultural and creative economy for the wider benefit of the city (see **Figure 4.1**).

**Figure 4.1: Coventry Culture Works**



<sup>34</sup> Coventry City Council (2017), Coventry Cultural Strategy 2017-2027

It is proposed the Legacy programme being delivered by Coventry Culture Works will focus on delivering the following legacy outcomes:

- cultural leadership and programming reflects and represents the citizens of the city;
- community-led production and programming increases cultural participation and activism;
- increase in civic pride;
- there is increased understanding, accessibility, and provision of career routes into the cultural and creative sector;
- cultural sector activity makes a significant contribution to the economic, environmental, social, health and wellbeing, and community safety targets for the city and the region;
- cultural engagement is geographically dispersed across the city;
- coordinated cultural sector capacity and infrastructure is building a sustainable and resilient sector and circular economy;
- investment in culture accelerates inward investment and fairer economic growth in the region;
- Coventry’s model of cultural focused placemaking influences regional and national policy making; and
- Coventry's innovative and diverse cultural life increases local, national and international tourism to the region.

It is not possible to robustly monetise the forecast legacy impacts within the VfM assessment in **Section 6** therefore, these effects form part of the non-monetised assessment.

# Section 5

## Economic Impact Assessment

AMION  
CONSULTING

## 5 Economic Impact Assessment

### 5.1 Overview

This section assesses the impacts that have arisen due to the UK CoC 2021 Programme. In preparing this report, AMION has received visitor information and survey data from CCC, Coventry University, the UoW, and Indigo.

The assessment considers the following impacts:

- visitor and organiser expenditure, employment and GVA;
- volunteering;
- funding;
- wider sector effects;
- image; and
- broader strategic added value.

### 5.2 Employment and GVA

#### 5.2.1 *Visitor expenditure-related*

The approach to the assessment of benefits has been developed in line with best practice guidance, including the HM Treasury Green Book and the Homes England (formerly the Homes and Communities Agency) Additionality Guide<sup>35</sup>.

The following assumptions have been made relating to additionality:

- **Deadweight** – a rate of 10% has been used based on the attendance to events that take place anyway compared to the total number of attendees;
- **Leakage** – a rate of 0% has been applied as all employment and GVA is assumed to have arisen in Coventry and Warwickshire based on the location of the events;
- **Displacement** – in usual circumstances, where the economy is at full capacity, a rate of 65% would have been applied to those attending the major events based on analysis of survey data and the postcodes of attendees whilst 85% would have been applied to those attending hyper-local events<sup>36</sup>. This rate is based on the day visitors that were from Coventry and Warwickshire, which implies a significant amount of displacement (to take account of spending in the area that would have taken place anyway). This spend would have taken place at different leisure facilities and/or on other activities. However, to account for the reduced

<sup>35</sup> Homes and Communities Agency, Additionality Guide, Fourth Edition, 2014

<sup>36</sup> This displacement calculation is distinct from the displacement considered in the VfM assessment, as it considers spending at events (which would have likely taken place elsewhere) whilst the VfM considers the additional social value to attendees from the events (which exceeds alternatives).

spend elsewhere in the economy due to COVID-19 and thus stimulated additional demand by UK Coc 2021, the usual displacement rates have been adjusted based on STEAM expenditure data for 2021 compared to 2019<sup>37</sup>. Based on this, a displacement rate of 51% has been applied to the major events and a displacement rate of 67% has been applied to hyper-local events; and

- **Multiplier** – a composite local employment multiplier of 1.38 has been applied at the Coventry and Warwickshire level which takes account of national guidance and benchmarks, specifically the HCA Additionality Guide which provides figures for recreation projects.

The off-site visitor expenditure in Coventry and Warwickshire has first been calculated in order to inform the employment and GVA calculations. The virtual attendances have been excluded from this analysis, as they do not contribute additional spending in the local area.

Using the split of in-person visitors from Section 4, the total off-site visitor expenditure has been calculated using (Coventry specific) average spend per visit data from national surveys. An average visitor spend per day of £32.84<sup>38</sup> has been applied to the total day visitors and an average spend per staying tourist (per trip) of £194.74<sup>39</sup> has been applied to the total overnight visits. The average expenditure on tickets (£6.89 per person) has been subtracted from the average spend per trip data to give an average off-site expenditure of £25.95 per day visitor and £187.85 per staying trip.

The number of one-year FTE jobs supported by the visitor spend has been calculated by applying an industry-standard benchmark of £61,074<sup>40</sup> of visitor expenditure per job. The gross GVA supported by these jobs has been calculated by applying £37,415 GVA per FTE from Experian forecasts for the visitor economy in Coventry.

The additionality factors as stated above have been applied to convert the gross job and GVA impacts into net additional impacts.

The gross and net spending, employment and GVA impacts are shown in **Table 5.1**. The net additional impact from UK CoC 2021 is calculated to generate **£7.6m visitor expenditure**, supporting **124 1-year FTE jobs** and **£4.6m GVA**.

<sup>37</sup> STEAM data for Coventry indicates that, once expenditure has been adjusted to 2023 prices, expenditure in 2021 was 79% of that in 2019 (pre-COVID-19). Therefore, the spend generated by Coventry is likely to have resulted in less displacement than usual as it stimulated additional spending in a period of economic downturn (non-full employment) due to COVID-19. To account for this, only 79% of the expenditure from Coventry and Warwickshire residents is considered displacement.

<sup>38</sup> Great Britain Day Visitor Survey, Coventry average 2019 inflated to 2021

<sup>39</sup> Great Britain Tourism Survey, Coventry average 2019 inflated to 2021

<sup>40</sup> The Economic Contribution of the tourism economy in the UK 2013, inflated to 2021. This report is considered the industry-standard benchmark as the methodology assesses the marginal spend to create one additional job in the sector.

<b>Table 5.1: Expenditure, employment, and GVA impacts from UK CoC 2021</b>			
<b>Additional activity</b>	<b>Off-site visitor expenditure (£m)</b>	<b>1-year FTE jobs supported by visitor spend</b>	<b>GVA (£m)</b>
<b>Gross impacts</b>			
Attendance at major events >1,000	£8.41	138	£5.16
Attendance at small events <1,000	£5.95	97	£3.64
<b>Total</b>	<b>£14.36</b>	<b>235</b>	<b>£8.80</b>
<b>Net additional impacts</b>			
Attendance at major events >1,000	£5.11	84	£3.13
Attendance at small events <1,000	£2.4	40	£1.50
<b>Total</b>	<b>£7.56</b>	<b>124</b>	<b>£4.63</b>

### 5.2.2 *Organiser expenditure-related*

In addition to the impacts derived from visitor expenditure (set out above), a significant amount of expenditure was incurred in preparing for and delivering the City of Culture which in turn will have had an impact on jobs and GVA in Coventry and Warwickshire. Excluding staff costs, depreciation and VAT, the Trust incurred total expenditure of £30.6m between October 2015 and June 2022 as set out in **Table 5.2**.

<b>Table 5.2: Expenditure incurred by Coventry City of Culture Trust</b>	
	<b>October 2015 to June 2022 (£000)</b>
Fundraising and development	194
Merchandise cost of sales and set up	93
Events	20,345
Marketing	2,986
Programming	2,715
Office costs	1,096
Research and development	1,258
Community engagement	19
Employees and advisers' costs	1,086
Travel and subsistence	364
Auditor's remuneration	60
Legal and professional fees	420
<b>Total</b>	<b>30,636</b>



Data from the Business Register and Employment Survey and the Annual Business Survey indicates that £132,110 of turnover in the West Midlands’ economy supports one full time equivalent (FTE) job. This would suggest that the £30.6m of expenditure supported 232 1-year FTE jobs.

Data from the Annual Business Survey (ABS) indicates that every £1.00 of turnover provides £0.53 of GVA which would mean that the £30.6m of expenditure is likely to have generated £16.14m of GVA between October 2015 and June 2022.

The following assumptions have been made relating to additionality:

- **Deadweight** – zero deadweight has been assumed on the basis that none of this expenditure would have taken place without the City of Culture designation;
- **Leakage** – a rate of 65% has been applied on the basis of a detailed analysis of Coventry City Culture Trust supply chain database which shows that 35% of purchases (by value) were made with companies, organisations and individuals based in Coventry and Warwickshire;
- **Displacement** – 10% displacement has been assumed to acknowledge the potential for displaced activity within the supply chain if businesses cannot meet other demand; and
- **Multiplier** – a composite local multiplier of 1.38<sup>41</sup> has been applied at the Coventry and Warwickshire level which takes account of national guidance and benchmarks, specifically the HCA Additionality Guide which, as noted above, provides figures for recreation projects.

The additionality factors have been applied to convert the gross job and GVA impacts into net additional impacts. The gross and net spending, employment and GVA impacts are shown in **Table 5.3**. The net additional impact from UK CoC 2021 is calculated to generate **£13.3m organiser spend**, supporting **101 1-year FTE jobs** and **£7.0m GVA**.

<b>Additional activity</b>	<b>Coventry City of Culture expenditure (£m)</b>	<b>1-year FTE jobs supported by organiser spend</b>	<b>GVA (£m)</b>
<b>Gross impacts</b>			
Organiser expenditure	£30.6m	232	£16.14m
<b>Net additional impacts</b>			
Organiser expenditure	£13.3m	101	£7.0m

### 5.2.3 Total employment and GVA impact

**Table 5.4.** sets out the combined gross effects of off-site visitor expenditure and organiser spend.

<sup>41</sup> National sector multiplier is 1.54 from ONS input-output tables. This rate provides confidence to our analysis, considering the Additionality Guide states the regional recreation multiplier is 1.56 and the local multiplier is 1.38

**Table 5.4: Gross impacts – expenditure, employment and GVA**

	Gross expenditure	Gross employment (1 year FTE)	Gross GVA
Off-site visitor expenditure	£14.4m	235	£8.8m
Organisational expenditure	£30.6m	232	£16.1m
<b>Total</b>	<b>£45.0m</b>	<b>467</b>	<b>£24.9m</b>

Table 5.5 shows the estimated net additional GVA of £11.6m and 225 1-year FTE jobs.

**Table 5.5: Net additional impacts – expenditure, employment and GVA**

	Net additional expenditure	Net additional employment (1 year FTE)	Net additional GVA
Off-site visitor expenditure	£7.6m	124	£4.6m
Organisational expenditure	£13.3m	101	£7.0m
<b>Total</b>	<b>£20.9m</b>	<b>225</b>	<b>£11.6m</b>

### 5.3 Volunteering impacts

The volunteering impacts assessment is based on monitoring data provided by EnV and CUSU, who were the delivery partners for the City Host programme.

As of 30<sup>th</sup> June 2022, there had been 4,185 registrations of interest to become a City Host. Of the 4,185 registrations, **1,515 were fully trained and deployed** and collectively had undertaken **37,901 hours of volunteering** across 14,696 volunteering shifts and 262 events.

The final City Host Monitoring Survey was undertaken in April/May 2022. This survey secured 223 valid responses from the fully trained City Hosts.

The results of the survey are presented in **Table 5.6**, with comparisons provided to the 2022 Household Survey for Coventry where possible. These results demonstrate an overwhelmingly positive view towards UK CoC 2021 and the impact the Programme had on the volunteers' wellbeing, pride, and skills. For example, 91% of City Hosts felt a sense of belonging to Coventry compared to the 54% average for residents in the area.

**Table 5.6: City Host Monitoring Survey results**

Survey Question	City Host Monitoring Survey	2022 Household Survey for Coventry
<b>Pride of place comparisons</b>		
Respondents had a fairly strong or very strong sense of belonging to Coventry	91%	54%
Respondents were fairly or very satisfied with their local area as a place to live	80%	67%

<b>Table 5.6: City Host Monitoring Survey results</b>		
<b>Survey Question</b>	<b>City Host Monitoring Survey</b>	<b>2022 Household Survey for Coventry</b>
Respondents had a fairly strong or very strong sense of belonging to the local area in which they live	78%	52%
<b>City Hosts review of UK CoC 2021</b>		
Respondents agreed or strongly agreed that they interacted with people they wouldn't have normally	94%	-
Volunteering as City Host has improved wellbeing	86%	-
Respondents strongly agreed or agreed that being a City Host improved their experience while attending or participating in events.	80%	-
Respondents agreed or strongly agreed that they had gained new skills or improved existing skills through being a City Host	68%	-
Respondents stated their confidence had increased as a result of the City Host programme	61%	-
Respondents were likely to or extremely likely to recommend becoming a City Host to family and friends	56%	-
A Net Promoter Score <sup>42</sup> for the City Host Volunteering Programme	39%	-

UK CoC 2021 has provided significant opportunities for volunteering in the area. These volunteers felt an increase in their pride and sense of belonging to Coventry as well as an improvement to their wellbeing, all measures which can be captured in the VfM assessment in Section 6 in line with DCMS and Green Book Wellbeing Guidance. The net promoter score of 39% (anything above 20% is considered favourable and anything over 50% is excellent) demonstrates the positive view felt towards UK CoC 2021 by the City Hosts.

The social wellbeing attained by volunteers is assessed as part of the value for money assessment in **Section 6**, using Green Book compliant methodologies.

<sup>42</sup> The Net Promoter Score is a measure of experience and can measure loyalty and likelihood to recommend being a City Host to friends and family. The score can range from -100 (a detractor and will not recommend the City Host programme) to +100 (a promoter who has high loyalty and will recommend the City Host programme). Anything over 0 is considered good, anything over 20 is favourable, anything over 50 is excellent and anything over 80 is world class.

## 5.4 Funding impacts

### 5.4.1 Overview

As part of the consultation process, key stakeholders noted that the UK CoC 2021 Programme had given the city momentum and credibility in terms of attracting investment for infrastructure, and social and cultural capital. More generally, Coventry has become more attractive for investors as a result of the increased investment.

The UK CoC 2021 also either directly or indirectly had an impact on a range of capital and revenue funding, including:

- research and development;
- cultural and heritage;
- city readiness and infrastructure; and
- wider regeneration projects.

Furthermore, developing the bid brought together people from various communities across the city, as well as 160 local companies, on a scale never done before. It resulted in ongoing collaboration between the UoW, Coventry University, and the Council. It also strengthened existing partnerships within the city and wider area including with public bodies such as central government and with private sector organisations. This approach will help to ensure better coordinated investments over the longer term.

As set out in Section 2, the wider effects UK CoC 2021 may have played in relation to cultural and heritage, city readiness and infrastructure and wider regeneration investment have been excluded from the VfM assessment because many of these programmes received further public funding which has not been included in the assessment and it is difficult to accurately attribute impact. A wider scope would be required to assess all the costs and benefits arising from this city regeneration investment programme. The regeneration effects have however, been considered as a non-monetised impact. The monetised impacts of the research and development funding have been included in the VfM analysis.

### 5.4.2 Research and development

Coventry University and the UoW were key partners in the development and delivery of the UK CoC 2021 from the outset. They were engaged at the bidding stage and award of the title in 2017, and the partnership has since jointly:

- been responsible for the preparation of the overall PM&E strategy for UK CoC 2021;
- contracted four focus studies commissioned by the Trust (at a total investment of £160k);
- supported (and jointly co-funded) nearly 60 diverse research projects - working with more than 60 new community partners and 20 creative artists in a variety of ways and settings;
- developed and submitted around a dozen new collaborative funding bids ranging from £50k - £50m; and

- developed new innovative approaches such as ‘Coventry Creates’, which involved the funding and commissioning of collaborative work to help support the artistic community in the city during COVID-19.

At the bidding stage, a target of £2m investment in Research was anticipated. Over the period 2017/2018 – 2022/23, the Universities estimate investment in Research to be in the region of approximately **£1.6m** comprising:

- UoW - including staffing costs, research funding internally, research funding for open calls and funding for Coventry Creates; and
- Coventry University – including the digital archive Coventry Digital, numerous Staff and Student City of Culture Grants, Coventry Creates, match funding for Focus Studies, Coventry City of Culture Leadership Programme support, Strategic Impact Funds, Coventry Modern, and staffing costs to support partnership activity, legacy and impact and monitoring and evaluation.

Other examples of cultural investments beyond research in support of UK CoC 2021 include the Coventry University Group Cultural Strategy and investments in Coventry Dance, Orchestra in Residence, Cathedral Quarter Alliance, Coventry River Cultural Consortium, Metropolis and the provision of the ‘civic centre site’ for the duration of City of Culture and home to the Coventry UK City of Culture 2021 Assembly Festival site. In addition, Coventry University is to be a key investor in the proposed Cultural Gateway project (see below) where it is planning to create a cultural research, teaching, knowledge exchange and public engagement cultural hub on the top two floors of the former IKEA building.

Meanwhile, UoW investments included Warwick Arts Centre, one of the biggest arts venues outside of London which encourages direct student involvement in running one of the most active arts scenes in the country. Some of the University’s new collaborations have also been with the Herbert Art Gallery and Belgrade Theatre.

### 5.4.3 *Cultural and heritage funding*

#### **Capital**

The cultural capital programme comprised a range of projects providing lasting improvements to the city’s cultural, heritage, educational, and visitor assets. Consultations have identified that these investments would not have otherwise happened without UK CoC 2021. Overall, around 15 capital projects were supported by the programme, with the five largest investments from this capital programme as follows:

- **Belgrade** – major refurbishment including the main stage, auditorium, foyer, and refreshment facilities. It will generate increased footfall outside of theatre show times and provides new workshop and meeting rooms to encourage theatre participation and related activities.
- **St Mary's Guildhall** - restoration and refurbishment of one of the only remaining medieval buildings in Coventry as a major visitor attraction housing Coventry Tapestry which is over 500 years old and is thought to be the oldest tapestry still in its original place in the UK.

- **The Albany Theatre** – redevelopment of the existing studio, building of three new studios, and updating the current café. The existing studio will act as an incubator for emerging talent, whilst the three new studios will be used for community performances, learning and engagement, conference and meeting spaces, and a hire facility for performing arts.
- **Drapers Hall** – since reopening in November 2021, the restored Drapers Hall is the headquarters for Coventry Music and is now run by Historic Coventry Trust. It provides educational facilities to grow musical talent as well as being a performance venue.
- **Cathedral** - improvements allowing the Cathedral to host a more diverse range of events and educational visits and provide a better all-round experience for visitors.

Overall, the cultural and heritage capital programme expenditure is estimated to have totalled some **£71.7m**.

The award of the UK CoC 2021 has also assisted the construction of a new high-quality hotel situated in the City Centre in the Iconic Telegraph building at 157 Corporation Street - home to the city’s newspaper for more than 50 years. The ‘Telegraph Hotel Coventry’, officially opened in May 2021, providing 88 bedrooms including penthouse suites, an all-day restaurant, a large, flexible events space, and a rooftop bar overlooking Belgrade Square. Complex Development Projects identified that the hotels construction involved expenditure of **£18.3m**.

**Revenue**

The ACE has recently announced its latest three-year programme of revenue funding which will run from April 2023 to March 2026.

In total, ACE provide £56.1m per annum to arts, heritage and cultural organisations (known as National Portfolio Organisations - NPOs) across the West Midlands compared to £46.9m per annum in the previous funding round (a **19.5% increase**) which ran from April 2018 to March 2022 (2022/23 was treated as an extension year).

<b>Table 5.7: Arts Council Funding impacts</b>			
	<b>2018-2022</b>	<b>2023-26</b>	<b>Increase</b>
Annual funding across all portfolio organisations in the West Midlands	£46,938,188	£56,112,217	£9,174,029

In particular, Coventry has fared well in the new funding round with four organisations becoming National Portfolio Organisations or ACE Investment Principle Support Organisations and now receive regular revenue funding from ACE:

- Arts and Homelessness International - £90,000 per annum ACE funding;
- Culture Central - £275,000 per annum ACE funding;
- EGO Performance Company Ltd - £380,000 per annum ACE funding; and
- Godiva Awakes Trust - £300,000 per annum ACE funding.

In addition to the four organisations above, a number of cultural organisations in Coventry achieved continued NPO status and uplifts to their annual revenue funding from ACE for the period 2023 to 2026:

- Belgrade Theatre Trust (Coventry) Ltd – an additional £287,337 per annum.
- Culture Coventry – an additional £7,360 per annum.
- Open Theatre Company – an additional £302,760 per annum.
- Talking Birds Theatre Company Ltd – an additional £1,872 per annum.
- University of Warwick – an additional £9,054 per annum.

Overall, Coventry’s NPOs are now receiving £1.65m more per annum than before the City of Culture, representing a **79% increase** in annual funding.

**Table 5.8: Additional funding**

	2018-2022	2023-26	Increase
Arts & Homelessness International	£0	£90,000	£90,000
Belgrade Theatre Trust (Coventry) Ltd	£942,215	£1,229,552	£287,337
Culture Central	£0	£275,000	£275,000
Culture Coventry	£400,000	£407,360	£7,360
EGO Performance Company Ltd	£0	£380,000	£380,000
Godiva Awakes Trust	£0	£300,000	£300,000
Open Theatre Company	£150,000	£452,760	£302,760
Talking Birds Theatre Company Limited	£101,748	£103,620	£1,872
University of Warwick	£492,114	£501,168	£9,054
<b>Total</b>	<b>£2,086,077</b>	<b>£3,739,460</b>	<b>£1,653,383</b>

#### 5.4.4 City readiness and infrastructure investment

In preparation for the delivery of UK CoC 2021, CCC worked with regional and sub-regional partners (WMCA and the Coventry and Warwickshire Local Enterprise Partnership (CWLEP)) to secure funding to deliver a programme of high-quality public realm and highway improvements within and surrounding the city centre. In total, **£44.8m investment into public realm and infrastructure** was overseen by the CCC, which also benefited the wider sub-region in hosting the Commonwealth Games in July 2022.

There were 21 public realm projects across the city. A major £26.1m scheme was delivered on Upper Precinct Smithford and Market Way. The regeneration of the precinct’s spaces enhances and pays homage to the original Gibson design, featuring water features, new lighting, new paving stones, new art pieces and more greenery. A £1.7m scheme was delivered at Bull Yard. This investment comprised a gold-coloured resin-bonded gravel and a new water feature. New lighting was installed, along with new benches and a children’s play area.

The City also ringfenced funding in the region of **£6.1m to deliver a City Readiness Programme**. This funding enabled staff within the Council to support the maximisation of benefits by aligning investment in areas such as city infrastructure, destination promotion and marketing, cultural capital, skills, and sector development.

#### 5.4.5 Wider Regeneration funding

The UK CoC 2021 award also provided a boost to wider regeneration activity in the area and is likely to have further promoted several major initiatives taking place within the city by, for example, increasing the profile of Coventry. These include:

- **Friargate** - a new development which will create a central business district for Coventry and a new gateway into the city centre from the rail station.
- **City Centre South** - a future plan to regenerate Coventry city centre in response to changing requirements and demand. The regeneration scheme will involve the creation of new space for retail, leisure, and residential uses, as well as a cinema, hotel, restaurants, co-working space, and community space.
- **Cathedral Lanes** - a former shopping centre in the city centre which has been redeveloped into a leisure venue with restaurants and shops occupying the reconfigured space.
- **Coventry Station Masterplan** – expansion of the station and its infrastructure to meet current and expected passenger growth using funding from WMCA, CWLEP and CCC.
- **Former Co-Operative building** - the former Co-operative building has been redeveloped to include residential, leisure and commercial uses.

Overall, these regeneration projects will, if fully delivered, result in **investment substantially in excess of £1bn**<sup>43</sup>. However, it is not possible to directly attribute the influence of UK CoC 2021 on these investments.

### 5.5 Local sector impacts

Alongside the cultural funding impacts on NPOs, as outlined in Section 5.4.3 above, the UK CoC 2021 Performance Measurement and Evaluation Supplementary Report (published September 2022) highlights that the Coventry UK CoC 2021 Programme itself comprised over 700 events, hosted in the city centre, in neighbourhoods and in Warwickshire. **Over 3,000 community dancers, musicians, poets, and makers participated.** As part of the Green Futures programme, it is calculated around **3,100 individuals were involved in workshops.**

The Trust invested in the immediate arts sector in Coventry and Warwickshire in three distinct ways: first, investing in developing artists by allowing them to create and undertake projects with and for local communities; second, the Trust invested into organisational development and enhancing the cultural infrastructure of the city through the funding of key institutions; and thirdly, through spending locally within the design and delivery of the UK CoC 2021 Programme.

The Trust indicated that it spent around **£7m supporting local businesses, artists, and cultural infrastructure** to maximise the long-term lasting impact of UK CoC 2021. The breakdown of this funding and specific examples of the support are presented in **Table 5.9.**

<sup>43</sup> The West Midlands Investment Prospectus 2023 identifies the forecast value of three of the regeneration projects: Friargate - £700m; Coventry City Centre South - £450m; and Coventry City Centre Cultural Gateway - £150m. Note – the EIA baseline report identified a figure of £500m. However, the £1bn quoted in this report is not an increase in investment but rather reflects the published project data now available.



**Table 5.9: Local sector impacts**

Category	Amount (£m)	Commentary
Developing artistic practice	£0.41m	<ul style="list-style-type: none"> <li>Over £0.32m on 50 grants to develop and nurture ideas in the build-up period to the UK CoC 2021 year. Specific funds were created in response to the need of underrepresented and underfunded groups, these included the Black Artists Fund, Under-Fives Project Grants, and a fund for LGBTQ+ Communities.</li> <li>£0.08m on 31 projects in 21 countries through two rounds of the International Changemakers Bursary. The grants allowed Coventry artists to work internationally and create new cultural exchanges with 400 new connections made globally by local artists.</li> <li>Ten micro-grants of £1,000 (a total value of £10,000) to artists from Coventry and Warwickshire who identify as D/deaf, disabled and neurodivergent.</li> </ul>
Organisational development and cultural infrastructure	£1.7m	<p>Seven projects including:</p> <ul style="list-style-type: none"> <li>Support for the Belgrade Theatre in developing their programme for the UK CoC 2021 year and through the appointment of three Co-Artistic Directors and a Community Producer</li> <li>Support for Coventry Empire in their move from Far Gosford Street to Hertford Street.</li> </ul>
Programme spend on local artists	£4-5m	<p>Between £4-5m on activities involving local artists including:</p> <ul style="list-style-type: none"> <li>Coventry Moves which was led by Justine Themen of the Belgrade Theatre who has lived and worked in Coventry since 2003. Over 500 people were involved in Coventry Moves with just under half being community performers from the city rather than professional performers.</li> <li>Hyper-local events such as the Spon Spun Festival, Abundance and Radford Bubbles all made use of local talent.</li> <li>The Caribbean community were supported in producing Love Coventry: Caribbean Reggae Fever which involved local music acts from a Caribbean background.</li> <li>The HOME Festival developed artists from the city with lived experience of homelessness.</li> </ul>

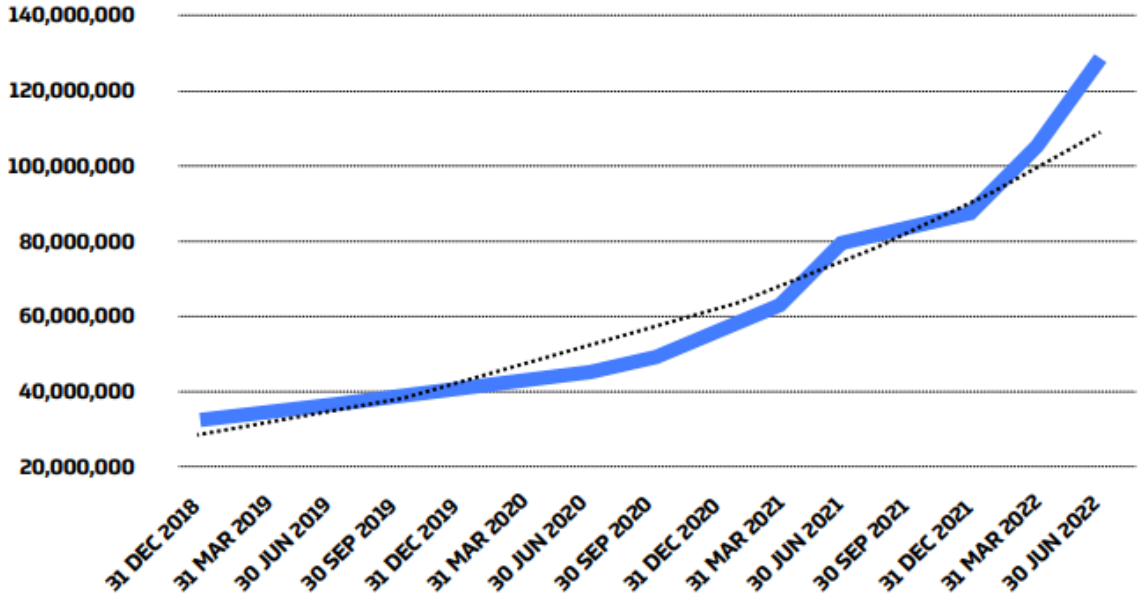
## 5.6 Image impacts

UK CoC 2021 also had impacts on the image of Coventry. Kantar Media undertook the media monitoring on behalf of the Trust, measuring the Advertising Value Equivalent (AVE) of UK CoC 2021. Their method applied the cost rate of placing a full-page advertisement in the publication divided by the page size to produce a cost per cm<sup>2</sup>. This was then multiplied by the cm<sup>2</sup> size of the clipped article to produce the value figure that was attributed to the article. For online sources AVE was estimated based on an overall value for the entire site – this was calculated through a methodology which combined unique visitor data, the amount of clicks an ad on that site received and cost per click the advertiser pays. As this value is not considered a societal benefit, it has not

been included in the social cost benefit analysis in **Section 6**. However, it has been assessed as a non-monetised benefit as part of the overall assessment.

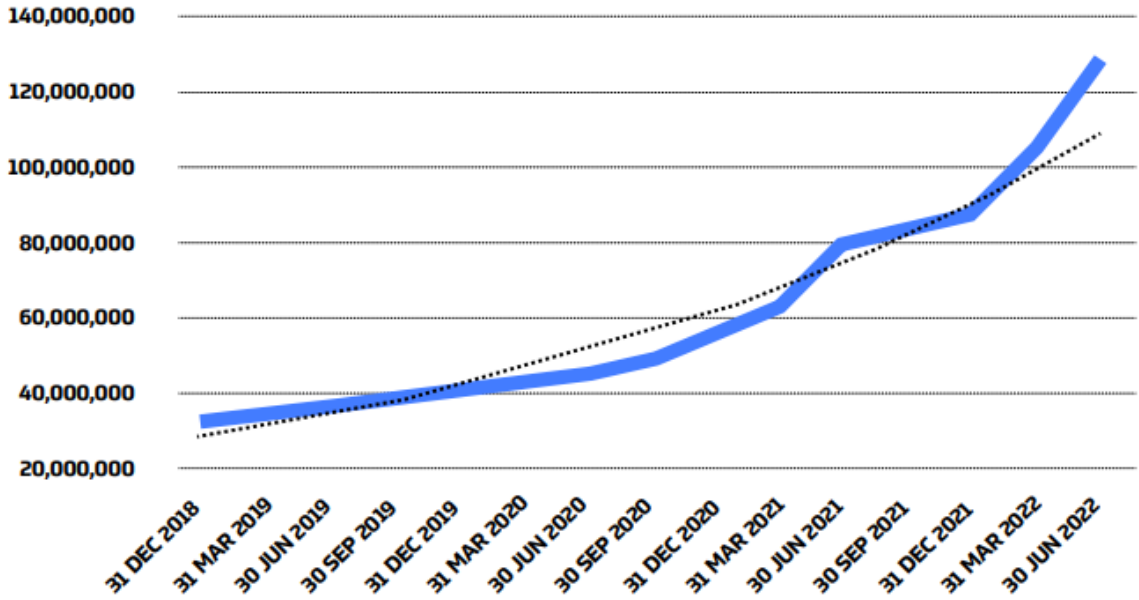
Kantar Media assessed that the cumulative media value related to UK CoC 2021 between 1 November 2015 and 30 June 2022 was £127.4m. The Trust had an initial target of generating £50m in media value by December 2021; this was exceeded 12 months earlier in December 2020.

**Figure 5.1**



shows the media value growth over time between 31 December 2018 and 30 June 2022. The more rapid growth periods coincide with the beginning of the UK CoC 2021 Programme and then during the final six months of Coventry’s time as CoC 2021. This growth can be explained, as several large-scale projects and events that took place between January and the end of May 2022.

**Figure 5.1: Media value growth over time**



A breakdown of Media Value by UK CoC 2021 phase is shown in **Table 5.10**. The media value for the three main phases is similar, although the build-up period extended over a much longer timeframe.

**Table 5.10: Breakdown of media value**

Time Period	UK CoC 2021 Phase	Amount	Notes
November 2015 – December 2017 (2 Years, 1 Month)	Bidding Period	£1,929,797	Please note this was calculated outside of Kantar Media.
January 2018 – March 2021 (3 Years, 3 Months)	Build-Up Period	£40,815,630.80	
April 2021 – September 2021 (6 Months)	End of Build-Up Period and Start of Delivery Period	£40,274,584.73	
October 2021 – June 2022	End of Delivery Period and Start of Legacy Period	£44,413,147.52	

Media value was reported quarterly hence the overlapping of periods in relation to the UK CoC 2021 timeline.

The media coverage following closure of the Trust has been of a more negative nature. However, much of this relates to the management and operation of the Trust, rather than Coventry itself.

## 5.7 Strategic added value

Interviews with City of Culture partners identified a range of strategic impacts and lessons from UK CoC 2021, as follows:

### 5.7.1 Application

- City of Culture was a good strategic fit with the aspirations of the 10 year Cultural Strategy for the city produced in 2017. The decision by the Council to invest in UK CoC 2021 was driven by goals for wider city outcomes including increasing the leisure tourism offer.
- Developing the bid brought people from various communities across the city together on a scale never seen before. This included the involvement of 160 companies. It drove new collaborations between Coventry University, the UoW and the Council and also strengthened existing partnerships within the city and with wider stakeholders including the private sector, Warwickshire County Council, the WMCA, and central government.
- CCC recognised the potential for investment in cultural assets to generate economic impact and were committed to leveraging the benefits of this form of investment.

### 5.7.2 Impacts on the physical infrastructure

- UK CoC 2021 brought forward investment in heritage assets, including the restoration of St. Mary’s Guildhall, creation of bespoke tourism accommodation in the surrounding city walls, Daimler Wharf redevelopment, reopening of Draper’s Hall, support for the Warwick Arts Centre, Albany Theatre project, and also support for Belgrade Theatre. Many of these investments would not have otherwise happened. The Council managed some 15 capital projects supported as a result of UK CoC 2021. This has resulted in increased competence and capacity to manage cultural infrastructure projects.

- UK CoC 2021 Programme brought a cultural offer to people who had not had the opportunity to experience it before. The legacy, whilst not as originally proposed, is that the Council and local partners are building on the momentum generated to create a rejuvenated community sector. This could be attributed to the approach taken to emphasise and focus on the social value of the UK CoC 2021 year with hyper local events as well as city wide activities and how it would affect the residents of Coventry in the long-term rather than focusing on large performances and events targeted at attracting visitors. Having an engaged resident population can potentially create sustainable demand for arts and culture venues and performances and can have wider inclusivity benefits by increasing pride in the city and its spaces, (potentially reducing crime and vandalism) and supporting social cohesion and wellbeing, especially where engagement has been achieved amongst traditionally excluded groups. Greater community engagement can also support routes to employment.
- The UK CoC 2021 created a momentum and credibility in terms of attracting investment in infrastructure, social and cultural capital. The City has become more attractive for investors in the cultural ecosystem, as well as more general investors, as a result of the development of the city's infrastructure. The proposed significant investment into the reuse of the IKEA building – Coventry Cultural Gateway – including for major national arts collections is a prime example. Substantial public realm improvements are also evident across the city, which support the business and city environment.
- The Council have had an opportunity to develop relationships with central government, national organisations and key individuals that would not have been possible without UK CoC 2021 and generated successes such as the proposed British Council and Arts Council national arts collection relocation and these relationships are expected to result in future successes.
- Legacy impacts included immediate linkages with the 2022 Birmingham Commonwealth Games and the hosting of activities, which meant that the focus remained on the West Midlands region, its cities, and its cultural and sporting activities.

### 5.7.3 Challenges

- Delay to the start of the Programme affected substantially the effectiveness of delivering impacts. Restrictions due to COVID-19 also impacted on this – for example, the ticket allocation for some events was limited due to social distancing, travel restrictions limited tourist visits, and people were more cautious about going out to events and attractions even as restrictions reduced or were removed.
- The Trust going into administration has had an impact on the Programme and this is not yet resolved. For example, some of the funding applied for has been held back and may not be awarded. Certain local parts of the sector have been left with unpaid invoices and, more widely, it has caused substantial anxiety, dismay, and at times anger amongst the local cultural sector.
- A lot of activity was focused through the Trust - whilst the Council was able to develop relationships with central government/agencies and key individuals, this access could have been more widely available to benefit some of the larger cultural organisations' strategic capacity and therefore sustainability.

**5.7.4** *The future and legacy*

- There is now an emphasis on separating the situation with the Trust from the title of UK CoC 2021 and moving on. It is unlikely that a similar organisation to the Trust would be created for future City of Culture awards. In Coventry, the new Coventry Cultural Works partnership has been established to continue delivery of the Cultural Strategy post UK CoC 2021, including building on progress and learning from the year. This is not likely to have the same legacy budget that would have been available had the Trust still been in operation.
- A key legacy project is the Cultural Gateway project – this will provide a new home for nationally recognised collections managed by Arts Council England, Arts Council Collection, CV Life, and the British Council located in a repurposed building previously occupied by IKEA. Greater public access to the collections will also be possible through local partnerships, and parts of the building will be open to the public to access. In addition, Coventry University is planning to create a cultural hub on the top two floors, with a range of facilities benefiting students, visitors and the community. Other capital legacy projects have evolved throughout the process and a revised programme is proposed to be delivered by Coventry Culture Works.



# Section 6

## Value for Money

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## 6 Value for Money

### 6.1 Overview

The assessment of economic costs and benefits for the UK CoC 2021 Programme has been undertaken in compliance with the latest HM Treasury Green Book and relevant Departmental guidance, such as DCMS, DLUHC, and the Department for Business, Energy and Industrial Strategy (BEIS).

In line with Green Book guidance, the core VfM assessment has taken place at the national level, with a supporting place-based VfM assessment at a local level presented in Section 6.5.

There are several overarching assumptions which apply to the VfM assessment (unless otherwise stated):

- the costs and benefits of the intervention options are presented in net terms and relative to the counterfactual. Adjustments have also been made for additionality where appropriate (as detailed below);
- monetised costs and benefits have been converted to 2023/24 prices using the Gross Domestic Product (GDP) deflators. This includes costs from the Programme (2015-22), benefits arising prior to UK CoC 2021, and benefits arising during UK CoC 2021;
- as all benefits and costs have been inserted in Year 0 with appropriate 2023/24 values applied, there is no discounting required in the analysis; and
- zero optimism bias has been applied as the costs are known and have been expended. Additionally, no optimism bias has been applied to the benefits as the analysis is based on actual outputs. However, the uncertainty in any values is explained.

As set out within the DLUHC Appraisal Guide<sup>44</sup>, projects should be appraised based on a **Benefit Cost Ratio (BCR)**. As the name suggests, this is a ratio of the present value of benefits over the present value of costs and represents how much benefit in £s could be supported by £1 of public investment. BCRs are widely used in governmental appraisals and are the recommended VfM metric in the HM Treasury's Green Book.

All relevant costs and benefits which may arise from an intervention should be valued and included in SCBA unless it is not proportionate to do so. In respect of the benefits of UK CoC 2021 this exercise was undertaken through the benefit mapping as set out in Section 2.4. This approach also includes considering public costs beyond, in this case, the direct expenditure of the Trust. The additional costs by other partners have therefore, been considered as part of the VfM assessment.

Of key importance in assessing the impact of the Programme is the extent to which new activity is truly additional, in other words, it does not simply displace existing activity. Furthermore, it is important to understand who is likely to benefit from the impacts generated and the degree to which further demand and investment is stimulated.

<sup>44</sup> Accessed from: [DLUHC appraisal guide - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/64444/dluhc-appraisal-guide.pdf)



At the national level, leakage is excluded from the analysis. Governmental guidance also recommends multiplier effects are excluded from a VfM assessment. The deadweight and displacement assumptions for the national SCBA<sup>45</sup> are as follows:

- **Counterfactual (Deadweight):** as noted above, it is difficult without a much longer time series of data to say with any certainty what the impact of UK CoC 2021 has had on key socio-economic indicators, not least because of the COVID-19 Pandemic. However, it is interesting to note that GVA and employment in the creative and cultural industries performed relatively well in Coventry during 2021. In contrast, other indicators, such as the number of businesses in the creative and cultural industries which decreased relatively rapidly in Coventry are less indicative of a positive sectoral impact. However, it could be argued that in the absence of UK CoC 2021 conditions in Coventry and Warwickshire would have been worse than they were (i.e. a negative counterfactual). For the purposes of this VfM analysis a more cautious approach has been taken.

In relation to the visitor assessment, the additional visitors to events for UK CoC 2021 has been assessed based on what would have been expected to have happened in the absence of the Programme. A 10% deadweight factor has been applied to the use value from physical attendees based on the attendance to events that take place anyway (e.g. Godiva Festival) compared to the total number of attendees.

For labour market impacts, the sector was not at full capacity due to COVID-19 and therefore, the intervention provided much-needed stimulus for businesses and workers in Coventry and Warwickshire. In the short-term, this stimulation of demand would lead to productivity gains if it enables the employment of workers that would otherwise have remained unemployed. Therefore, in this case specific deadweight adjustments have been applied to the labour market analysis – see below.

- **Displacement:** a 20% displacement rate has been applied to all benefits, representing a low displacement figure as set out in the HCA Additionality Guide<sup>46</sup> and the lower end range for promoting image/culture schemes as set out in the BIS Additionality Paper<sup>47</sup>. Much of the Programme delivered by UK CoC 2021 represents additional benefits as it is a unique proposition awarded to a single city every four years. The economic value of the events and assets are based on the audience survey results which indicate the uniqueness of the UK CoC 2021 Programme compared to potential alternatives – therefore, low displacement for the benefit calculations is considered appropriate. This additionality calculation for the VfM assessment is distinct from the displacement considered in the visitor impact assessment, as this considers the value from the events (which exceed the alternatives) as compared to spending at the events (which would have likely taken place elsewhere). As the attendees at the events in Coventry were unlikely to attain the same wellbeing value from existing activities, a low level of displacement is considered appropriate.

<sup>45</sup> The additionality assumptions for the local place-based value for money assessment are provided in Section 6.5.

<sup>46</sup> Homes & Communities Agency (2014), Additionality Guide Fourth Edition

<sup>47</sup> Department for Business, Innovation & Skills (2009), Research to improve the assessment of Additionality

## 6.2 Economic costs

The financial costs of the Programme have been provided by The Trust, utilising expenditure figures from each public sector delivery partner as reported by the financial team as part of their accounts during implementation. In addition to the costs within the accounts, the Council has provided an additional £1m loan to the Trust which has been included in the profile as it is unlikely that this will be repaid. Overall, the public sector costs are comparable with those identified by the recent NAO report.

The NAO identified a further £10m of funding that was provided to CCC by central government and the National Lottery to support Coventry’s year as UK City of Culture. However, the majority of the latter funding was provided as capital funding to refurbish and upgrade key heritage and culture assets. Since the longer term benefits associated with these assets have not been assessed these costs have been excluded from the assessment of the UK CoC 2021 Programme.

To align with guidance in the Green Book, it should be noted that the following steps have been taken:

- public sector costs funded by CCC (including an additional £1m loan which will not be repaid), Arts Council, Heritage Lottery Fund, and DCMS investment have been included in the assessment;
- the contract income for the UK CoC 2021 largely originated from the Council or other public sector sources and therefore have also been included;
- the grants and donations from private or public sources were considered to be transfer payments and therefore have been excluded in line with Green Book guidance; and
- financial costs have been converted to economic costs by using the HM Treasury’s GDP deflator index to convert previous expenditure to constant (2023/24) prices.

**Table 6.1** presents the economic costs of the UK CoC 2021 Programme. The financial costs are also presented by each delivery partner such that the calculations are clearly set out. The total public sector economic cost of the Programme is **£31.4m**.

**Table 6.1: Economic costs of UK CoC 2021 (£000s)**

Funding	2015 / 2016	2017	2018	2019 / 2020	2020 / 2021	2021 / 2022	2022 / 2023	Total
<b>Financial costs</b>								
Coventry City Council	166	96	330	-	-	-	1,500	<b>2,092</b>
Arts Council	-	50	140	2,206	1,549	2,762	250	<b>6,957</b>
Heritage Lottery Fund	-	96	564	453	605	2,155	431	<b>4,305</b>
DCMS	-	-	201	299	1,100	5,715	1,300	<b>8,615</b>
Contract income	-	-	-	2,000	3,100	2,670	-	<b>7,770</b>
<b>Total</b>	<b>166</b>	<b>242</b>	<b>1,236</b>	<b>4,958</b>	<b>6,354</b>	<b>12,302</b>	<b>3,481</b>	<b>28,739</b>
<b>Economic costs</b>								
Coventry City Council	202	114	386	-	-	-	1,518	<b>2,219</b>
Arts Council	-	60	164	2,537	1,671	1,905	259	<b>6,596</b>
Heritage Lottery Fund	-	114	660	522	652	2,329	447	<b>4,725</b>
DCMS	-	-	235	349	1,187	6,177	1,345	<b>9,295</b>
Contract income	-	-	-	2,291	3,345	2,886	-	<b>8,522</b>
<b>Total</b>	<b>202</b>	<b>288</b>	<b>1,445</b>	<b>5,700</b>	<b>6,855</b>	<b>13,298</b>	<b>3,569</b>	<b>31,356</b>

Note: To assist with the presentation of the data, 2015/16 contains data from October 2015 to December 2016; and 2019/20 contains data from January 2019 to March 2020. Figures may not add up to the total due to rounding.

## 6.3 Economic benefits

### 6.3.1 Outputs and outcomes

The VfM analysis has been undertaken based on the achieved outputs of the Programme, such as the visitor numbers, visitor spend, and additional job creation as set out in the impact assessment above.

However, it would be inappropriate not to consider the socio-economic context that surrounded the delivery of UK CoC 2021, namely COVID-19 and its significant impacts on attending events of this kind. Prior to its delivery, **UK CoC 2021 was predicted to attract 2.55m attendees** to cultural events. This target was considered realistic based on industry standard methodologies and recent City of Culture successes such as Hull (over five million visitors). The ratio of ticketed to unticketed from the Indigo report for the achieved UK CoC 2021 has been applied to this 2.55m target.

Therefore, two scenarios have been assessed during the economic benefit assessment: the achieved values and the target levels prior to COVID-19. The achieved values clearly form the core part of the analysis. However, it is important to consider the level of impact COVID-19 had on the success of the Programme. For clarity, the outputs and outcomes of both options are presented in **Table 6.2**.

<b>Table 6.2: Economic outputs and outcomes</b>		
<b>Outputs and outcomes</b>	<b>UK CoC 2021</b>	<b>UK CoC 2021 target</b>
<b>Visitor and employment</b>		
In person attendees (ticketed) <sup>48</sup>	395,090	2,044,332
In person attendees (unticketed) <sup>49</sup>	135,467	543,409
Virtual attendees <sup>50</sup>	926,647	410,528
Net additional 1-year FTE jobs supported by visitor spend	124	404
Net additional 1-year FTE jobs supported by organiser spend	101	101
<b>Community</b>		
Volunteers (City Hosts)	1,515	1,515
Schools engaged	110	110
Home-based learning (households)	2,000	2,000
Participations in Green Futures workshops	5,500	5,500
Participations in Caring City Beneficiary initiative	250	250
Events as part of the Wildlife Gathering	46	46

### 6.3.2 Benefits

The framework for assessing benefits has been produced in line with **Green Book guidance** and Departmental guidance for BEIS and DCMS.

Given the nature of the interventions, **a particular focus has been placed on DCMS guidance** such as their Rapid Evidence Assessment: Culture and Heritage Valuation Studies and its supporting Culture and Heritage Capital Evidence Bank<sup>51</sup>.

As set out in Section 2.4, careful consideration has been given to the use and non-use value of culture arising from the UK CoC 2021. Bespoke methodologies have been used to assess the use values of physical attendees, whilst appropriate studies from the DCMS Culture and Heritage Capital Evidence Bank have been utilised to capture non-use benefits by using a benefits transfer approach, which involves applying monetised estimates of value from existing studies of comparable activities to another context.

The benefit mapping exercise, as presented in Section 2.4, considered the portfolio of impacts that may arise from the Programme. The following benefits were deemed appropriate to robustly quantify and monetise based on their scale and their alignment with guidance. The assessment does not assess environmental costs separately as the Travel Cost Method (TCM) below takes

<sup>48</sup> Achieved figures are based on attendees to ticketed events within the Indigo report

<sup>49</sup> Achieved figures are based on the attendees to unticketed events within the Indigo report (97,726) and the attendees to Great Places events during the build-up period (37,741)

<sup>50</sup> Achieved figures are based on the virtual attendees within the Indigo report (516,119), the virtual attendees to Great Places events during the build-up period (43,528), and the UK CoC 2021 Sky Arts content viewers (367,000). The Target scenario includes the latter two categories.

<sup>51</sup> DCMS (2022), Rapid Evidence Assessment: Culture and Heritage Valuation Studies and its Culture and Heritage Capital Evidence Bank

account of transport external costs including congestion, greenhouse gas emissions, air quality, and noise<sup>52</sup>.

The benefits are therefore, as follows:

- **Cultural value:** A variety of different economic values arise from the delivery of the UK CoC 2021 Programme of events, comprising:
  - **Revealed preference value (physical attendees to ticketed events):** the in-person visitors to ticketed and non-ticketed events place an economic value on this attendance, which can be quantified through the TCM based on revealed preference. TCM estimates the economic value associated with visiting a particular destination or attending an event. By analysing the costs individuals incur, such as travel expenses and time, TCM allows researchers to estimate the willingness to pay (WTP) for accessing the UK CoC 2021 events or their UK CoC 2021 experience. TCM aligns with DCMS's approach to valuing the benefits provided by culture and heritage assets. Through this analysis of user costs, AMION Consulting have concluded that each physical attendee placed a value of £15.50 per visit to a UK CoC 2021 event. The TCM is the lowest possible value compared with alternative wellbeing or stated preference approaches as it does not measure the utility of the event itself but only the indirect cost of consumption. However, it is based on actual attendee behaviour and also includes allowance for external travel costs, such as environmental impacts. This value has been applied to the 395,090 in person ticketed attendees at UK CoC 2021 (and to the target attendees in the alternative scenario). To be prudent, the non-ticketed in person attendees (97,726) have been excluded from the assessment as set out in Appendix C, which provides full details of the TCM analysis, but have been assessed using willingness to pay metrics from the Culture and Heritage Capital Evidence Bank.
  - **Stated preference value (physical attendees to unticketed events):** The Programme attracted 97,726 attendees to unticketed events during UK CoC 2021 as well as 37,741 visitors to supported events during the build up period. The DCMS Cultural and Heritage Capital Evidence Bank assesses that attendees were willing to make a one-off payment of £8.90 (2020 prices) for their area to hold a similar festival<sup>53</sup>. This contingent valuation assessment is considered an appropriate comparator to the UK CoC 2021 and has been used directly within this analysis. Using this benefit transfer approach, this value (adjusted to £9.01 in 2023/24 prices) has been applied to the 135,467 physical attendees to non-ticketed events in the UK CoC 2021 Programme.
  - **Wellbeing use value (virtual attendees):** cultural activities have a value to those who use the good or services, and there is available literature which provides evidence that this applies to both in person engagement and engagement with digital content. UK CoC 2021 supported 516,119 virtual online attendees and 367,000 Sky Arts viewers<sup>54</sup>. A review of currently available literature, supported by input from DCMS, identified two

<sup>52</sup> Further detail on this assessment is provided in Appendix C, including how external costs are calculated to produce the net weighted Generalised Travel Cost (GTC).

<sup>53</sup> Morethanoutputs led by Tim Goodspeed, with support from the London School of Economics and Scotinform (2017), An Evaluation of Social Return using Willingness to Pay (based on Bradford Literature Festival)

<sup>54</sup> The BBC viewers have been excluded from the following assessments as this requires additional public support and licensing fees

main sources of evidence relating to the value of the digital cultural content. The first is a study<sup>55</sup> from 2021 by the British Film Institute (BFI) which undertakes a contingent valuation Willingness to Pay (WTP) survey of Britain on Film and provides evidence on the benefits of online access to film heritage. The second is a Creative Industries Policy and Evidence Centre study<sup>56</sup>, also undertaken in 2021, which included a WTP survey designed to elicit use values from users relating to the digital offer of four museum sites. Across the two studies, the mean value per month for the digital content (based on a monthly subscription payment vehicle) ranged from £2.54 to £3.21 per unique user. It has been assumed that each virtual attendee (unique user) received a month's worth of content as the UK CoC 2021 online programme exceeds the requisite amount in the studies. Therefore, the average of the two studies (£3.42 once adjusted to 2023/24 prices) has been applied to the 928,647 digital attendees of UK CoC 2021. As such a benefit transfer approach has been used to estimate the virtual attendees use value.

- **Wellbeing non-use value (residents):** the TCM method does not consider how an individual may attribute value to an event even if they do not physically visit or engage with it (called “indirect use” or “non-use value”). For example, residents may value having the UK CoC 2021 Programme due to increased pride and altruism for others (i.e. others can attend events), even if they themselves did not attend, watch, or engage. As noted in Section 2.4, the UK CoC 2021 Programme relates to one-off events within a single year therefore, existence and bequest values do not really apply except potentially to virtual artefacts<sup>57</sup>. The DCMS Cultural and Heritage Capital Evidence Bank assesses that residents were willing to make a one-off payment of £4.98 (2020 prices) for their area to hold a similar festival in the UK based on specifically increased pride and altruism for others<sup>58</sup>. This contingent valuation assessment is considered an appropriate comparator for the UK CoC 2021 and has been used directly within this analysis. The value (adjusted to £5.16 in 2023/24 prices) has been applied to the population of Coventry and Warwickshire (942,473 according to ONS Census 2021) as the primary target area. The enhanced pride benefits from hosting the UK CoC 2021 Programme could be lower due to the Trust going into administration and the adverse effects this situation may have on future legacy impacts. However, the comparator value is considered appropriate and the non-use benefits have been estimated using the benefit transfer approach, by applying £5.16 to the 942,473 residents in the target area.
- **Volunteering wellbeing benefits:** as set out in the Green Book Supplementary Guidance for Wellbeing<sup>59</sup>, volunteering is associated with enhanced wellbeing. Some 1,515 volunteers engaged with the UK CoC 2021 Programme as City Hosts. The Supplementary Guidance for Wellbeing identifies that the main approach that has been used to monetise the wellbeing impact associated with volunteering is the subjective wellbeing valuation approach, which

<sup>55</sup> [Britain on Film impact study](#)

<sup>56</sup> Creative Industries Policy & Evidence Centre (2021) Arts Council England: Digital Offer Research Report.

<sup>57</sup> This potential bequest value for virtual artefacts has been assessed as part of the non-monetised legacy impacts

<sup>58</sup> Morethanoutputs led by Tim Goodspeed, with support from the London School of Economics and Scotinform (2017), An Evaluation of Social Return using Willingness to Pay (based on Bradford Literature Festival)

<sup>59</sup> HM Treasury (2021), Wellbeing Guidance for Appraisal: Supplementary Guidance

gives a value of £911 (2020 prices) per volunteer per year on average<sup>60</sup>. As this value is recommended within HM Treasury guidance, we have applied it (£983 in 2023/24 prices) to the volunteers within the UK CoC 2021 Programme using a benefit transfer approach.

- Labour market / wage impact:** as part of the VfM methodologies, the Green Book assumes that the UK is at full employment. However, the UK CoC 2021 Programme took place when the UK was not operating at full equilibrium due to COVID-19, with higher unemployment rates and lower business output than usual. Based on evidence from the impact evaluation of the Cultural Recovery Fund (CRF)<sup>61</sup>, which provided capital and revenue support to cultural organisations during a similar period affected by COVID-19, the UK CoC 2021 is considered likely to have helped stimulate the economy and reduced unemployment during the COVID-19 pandemic. This will have led to increased economic output via the wages earned by workers that would have otherwise been unemployed (or underemployed). For the UK CoC 2021, this effect lasted for one year based on the Programme's timeframe of 1 year. As set out in the impact assessment, there is significant job creation from the UK CoC 2021 events delivery, totalling 124 net additional 1-year FTEs related to the visitor economy and 101 net additional 1-year FTEs from organiser spend. In line with Green Book guidance, the multiplier effect has been removed from the national VfM assessment. The CRF evaluation indicates workers whose jobs were safeguarded earned an annual salary of £31,375 (in line with estimated earnings for DCMS sectors<sup>62</sup>). Based on analysis of the labour market and the additionality adjustments in the impact assessment, it is considered all of the net additional direct jobs (163 once multiplier effects are removed) will be occupied by those who are either underemployed or unemployed due to the unique circumstances caused by COVID-19. The additional wage impact to the UK economy has been calculated by applying the annual salary to the net additional direct jobs from the UK CoC 2021 Programme<sup>63</sup>.
- Employment wellbeing:** research presented in supplementary Green Book guidance for Wellbeing (2021) shows that a wellbeing value of £5,980<sup>64</sup> (£6,637 in 2023/24 prices) can be associated with someone moving from unemployment into full-time employment. This value has been applied to the number of net additional direct jobs from the UK CoC 2021 programme. A benefit transfer approach has been used to estimate the employment wellbeing benefits of UK CoC 2021.
- School wellbeing or resilience programmes:** the Green Book Supplementary Guidance for Wellbeing identifies that life satisfaction improves based on participation in school wellbeing or resilience programmes. Indigo have indicated that 110 schools were engaged with the Programme and around 2,000 households were involved in house-based activities. As the data tracking only logged schools rather than pupils, we have used the same ratio of schools to students as the Hull City of Culture evaluation to calculate individual participant. We have monetised this effect at £2,366<sup>65</sup> per year (£2,710 in 2023/24 prices) for each participant, from research which is cited in the Wellbeing guidance using a benefits transfer approach,

<sup>60</sup> What Works Centre for Wellbeing (2020), Volunteering and Wellbeing Rapid Evidence Assessment

<sup>61</sup> Ecorys, BOP Consulting, Ipsos MORI (2022), Evaluation of the Culture Recovery Fund

<sup>62</sup> ONS, Annual Survey of Hours and Earnings

<sup>63</sup> A proportion of the employment in the target scenario has been included in this assessment as this scenario is based on a non-Covid-19 world where the economy is near full capacity.

<sup>64</sup> Sarah Fleche and George Ward (2018), The Origins of Happiness: Online Materials

<sup>65</sup> Lordan and MacGuire (2019), Healthy Minds evaluation report

applied for a single year based on the length of the Programme. We have assumed that 1/52 (e.g. one week of learning) of this value is applicable to each individual participant. These education wellbeing benefits are estimated based on the analysis undertaken by Indigo.

- Personal, social, and civic development:** the Green Book Supplementary Guidance for Wellbeing also notes that life satisfaction improves based on participation in personal, social, and civic development programmes. The Green Futures evaluation by the UoW and Coventry University identified that there were 5,500 participations in workshops. The diverse communities of the city were able to share their stories in green and blue spaces across the city. We have assumed that 1/12 (e.g. one month worth of personal development) of this value is applicable to each individual participant. The Caring City Evaluation by UoW and Coventry University identified some 250 direct beneficiaries from the Caring City programme. This programme of cultural activities sought to address some of Coventry's most significant social issues. Based on the benefit outcome surveys from this programme, we have applied a full year of value to each individual participant. We have monetised this effect at £5,200<sup>66</sup> per year (£6,082 in 2023/24 prices) for each participant, from research which is cited in the Wellbeing guidance using the benefits transfer approach, applied for a single year based on the length of the UK CoC 2021. These social wellbeing benefits are estimated based on the Green Futures evaluation by the UoW and Coventry University.
- R&D Benefits:** There has been direct investment into the UK CoC 2021 Programme which has helped secured £1.6m related to research activity and sector development by the universities. The social value arising from this activity has been calculated using a BEIS commissioned report<sup>67</sup> and a recent UNBOXED study<sup>68</sup>. The overarching figures presented in the BEIS study, which indicate annual returns to private investment in R&D of 30% per annum, have been used. In line with this report, the estimation of returns to the UK CoC 2021 Programme secured investment include allowance for a depreciation rate of 15% per annum and a lag of 2 years between investments and returns. This means all returns to UK CoC 2021 investments are expected to be delivered from 2023 onwards. The returns have been deflated to 2023 prices using the Office for Budget Responsibility long-term inflation forecasts<sup>69</sup>, and discounted at a social discount rate of 3.5% to obtain the net present value of the estimated future returns.
- Distributional analysis:** the approach used to calculate these is that set out in the HM Treasury Green Book, based on equivalised disposable household income and welfare weights (the estimate of the marginal utility of income). Using this approach, a distributional weight of 1.3 has been applied to the benefits. The inclusion of this analysis is critical and noteworthy, given the context of the UK CoC 2021 and its award to Coventry to deliver a step-change in the ability of deprived communities to access events which they have not previously had the opportunity to attend. The ability of deprived residents to access the events is demonstrated by the split of attendees by IMD decile as shown in **Section 3**. Where benefits relate to user benefits, this distributional effect has been applied to the proportion of visitors

<sup>66</sup> Bates et al (2020), National Citizen Service 2018 Evaluation

<sup>67</sup> Frontier Economics on behalf of the Department for Business, Innovation, and Skills (BIS) (2014), Rates of return to investment in science and innovation

<sup>68</sup> UNBOXED (2013), Creativity in the UK Annex 3: Evaluation Technical Methodology

<sup>69</sup> Office for Budget Responsibility (2023), Forecast Inflation Report



within the top 30% most deprived IMD deciles (23.3% as shown in **Table 4.5**). Where benefits relate to non-user or employment benefits, this distributional effect has been applied to the proportion of Coventry residents within the top 30% most deprived IMD deciles (40.0%). Further details on the approach for distributional analysis is provided in **Appendix D**.

**Table 6.3** presents the benefits arising from each of these categories. **Appendix E** provides the benefit values, beneficiaries, and evidence for each category.

Benefits	UK CoC 2021	UK CoC 2021 Target
Cultural: Revealed Preference use value (ticketed)	4.4	24.9
Cultural: Stated Preference use value (unticketed)	1.0	3.9
Cultural: Wellbeing use value (virtual attendees)	2.5	1.1
Cultural: Wellbeing indirect/non-use value (residents)	3.9	3.9
Volunteering wellbeing benefit	1.2	1.2
Labour market / wage impact	5.2	5.4
Employment wellbeing	0.9	1.0
School wellbeing and resilience	2.7	2.7
Personal, social, and civic development	3.4	3.4
Research and development	2.2	2.2
Distributional	2.8	4.3
<b>Total</b>	<b>31.0</b>	<b>54.3</b>

Note: Figures may not add up to the total due to rounding

## 6.4 Non-monetised impacts

In line with latest DLUHC Appraisal Guide best practice, an assessment of non-monetised impacts has been undertaken using a seven-point scale from 'large adverse to large significant' based on the following definitions:

Impact	Commentary
Large adverse	Large disbenefit likely to materially impact on VfM
Moderate adverse	Important disbenefit but will not on its own significantly impact on VfM
Slight adverse	Small disbenefit unlikely to have material impact on VfM
Neutral	No impact
Slight beneficial	Small benefit unlikely to have material impact on VfM
Moderate beneficial	Important benefit but will not on its own significantly impact on VfM
Large beneficial	Large benefit likely to materially impact on VfM

The following non-monetised benefits have been identified and assessed below. Certain impacts, such as the likely increased BAME attendance at events, have been excluded due to a lack of data.

- **Image:** UK CoC 2021 also had impacts on the image of Coventry. Kantar Media assessed that the cumulative media value related to UK CoC 2021 between 1 November 2015 and 30 June 2022 was £127.4m. Additionally, the Programme of events has sustained and enhanced the image of the area as a business location and tourism destination. The investment should help to establish a ‘virtuous circle’ of development and investment that will enhance perceptions of the area, both internally and externally. However, this impact is likely to have been lessened by the impact of COVID-19 and the consequential failure to deliver event and visitor outputs in line with targets, the financial performance of the Trust, and the ability to fully deliver legacy outcomes. This impact is assessed to be **‘moderate beneficial’** but could potentially have reached **‘large beneficial’** if the Trust had been able to operate sustainably and to deliver long-term changes.
- **Regeneration:** as discovered in the consultations with key stakeholders, the Programme gave the city momentum and credibility in terms of attracting investment for infrastructure, social and cultural capital. Coventry has become more attractive to investors as the Council have increased investment and has developed stronger relationships with central government. As well as direct investment in the UK CoC 2021 Programme, several supporting cultural, heritage and other regeneration investments were delivered. These investments were overseen by the Council and comprised a £71.7m cultural and heritage capital programme and a further package of £44.8m investment into public realm and infrastructure. The award of the UK CoC 2021 Programme substantially contributed to attracting this investment, creating the conditions for long-term change. The culture, heritage, regeneration and public realm schemes will deliver benefits relating to placemaking, employment, culture, and amenity. Many of these benefits are likely to be at least in part attributable to the UK CoC 2021 Programme. This benefit could be monetised through Green Book methodologies (such as land value uplift and amenity benefits) but has been excluded from the monetised assessment as further public sector funding was required to deliver these schemes and the costs have not been included in this assessment. This impact is assessed to be **‘moderate to large beneficial’** at the city level.
- **Legacy benefits:** The value for money assessment accounted for impacts during the build-up or within the UK CoC 2021 Programme, as well as the future R&D impacts. However, the legacy impacts are uncertain and thus difficult to monetise. It is though worth noting that the labour market and tourism analysis suggests tourism jobs in Coventry were increasing after UK CoC 2021. The Programme is also likely to have presented new networking opportunities for the sector to enable potential sustainable growth. Additionally, the UK CoC 2021 Programme planned to deliver a series of legacy activities to maximise long-term benefits for the local community. These activities included The Assembly Festival Garden, The Legacy Commissioning Programme, A Grants Programme, and The Reel Store. If delivered in line with the intended proposals, these actions would have seen a long-term digital gallery and support to cultural and community organisations for their Green Futures agenda and extraordinary activities. However, many of the legacy activities have been halted due to the financial performance of the Trust. One proposed legacy project is the relocation by the British Council and Arts Council of their national art collections from London to Coventry to be housed in the planned Coventry Cultural Gateway - a repurposed building previously

occupied by IKEA. Therefore, the impact is assessed to be ‘**slight beneficial**’ but would have reached ‘**moderate beneficial**’ if delivered in line with proposals.

## 6.5 Value for money assessment

### 6.5.1 National level assessment

The key results of the value VfM assessment based on monetised and non-monetised benefits are summarised in the Evaluation Summary Table (see **Table 6.5**).

As can be seen below, **the UK CoC 2021 has a BCR of 1.0:1 at the national level**. There are several non-monetised benefits, including ‘moderate/large beneficial’ benefits, which mean that the Programme can be seen to represent acceptable VfM.

**If the pre COVID-19 targets for UK CoC 2021 were achieved, it is forecast that it would have reached a higher VfM assessment with a BCR of 1.7:1.** The difference in the BCR between the UK CoC 2021 and the target for the Programme is driven by the number of physical attendees – 492,816 achieved attendees during UK CoC 2021 compared to the target of 2.55 million. These conclusions are also supported by the non-monetised impacts, where the targeted outputs deliver more substantial benefits than the achieved outputs by UK CoC 2021 – particularly relating to image and legacy benefits – largely due to the COVID-19 pandemic.

<b>(2023/24 prices)</b>	<b>UK CoC 2021</b>	<b>UK CoC 2021 Target</b>
A. Present Value Benefits (£m)	£31.0	£54.3
B. Present Value Costs (£m)	£31.4	£31.4
C. Net Present Social Value (A-B)	-£0.4	£23.0
D. BCR (A)/B)	1.0:1	1.7:1
E. Significant non-monetised impacts	<b>Image:</b> Moderate beneficial <b>Regeneration:</b> Moderate to large beneficial <b>Legacy:</b> Slight beneficial	<b>Image:</b> Large beneficial <b>Regeneration:</b> Moderate to large beneficial <b>Legacy:</b> Moderate beneficial
F. Switching values	n/a	Benefits: -33% Costs: 49%
G. Public sector financial costs (£m)	£28.7	£28.7
H. Optimism bias	n/a	n/a

### 6.5.2 Local place-based analysis

In line with the latest Green Book and Departmental guidance, a place-based analysis has been undertaken to produce a local BCR assessment at the Coventry and Warwickshire level as the primary focus for the intervention.

Place-based analysis is needed when either a) the objective of the proposal is aimed at a particular place, area, or type of area; or b) the proposal is likely to have different impacts on different areas.

As the UK CoC 2021 was awarded to Coventry to stimulate cultural activity in the city region and increase the quality of experience available to residents, the project is clearly aimed at a particular area. Coventry and Warwickshire are deemed the appropriate target area, using the postcode data of attendees to events and stakeholder discussions with local communities.

Additionality has been assessed for the Coventry and Warwickshire area as follows:

- **Deadweight** – as above, 10% deadweight has been applied to the physical attendees and adjustments have been made to the labour market impacts.
- **Displacement** – at a local level, there is expected to be minimal displacement (0%) of the cultural benefits as the area lacked alternative opportunities of this quality and scale, particularly during 2021 due to COVID-19. Displacement is assumed to remain at 20% for the other benefits as identified at a sub-regional level within the BIS Additionality Paper.
- **Leakage** – postcode data has been used to calculate the number of attendees who live outside the catchment area, which totals to 23.1% as shown in **Table 4.5**. This rate has been applied to physical and virtual attendees. Origin-destination data<sup>70</sup> has been used to account for opportunities in Coventry being occupied by residents from outside the catchment area, which totals to 17.7%. This rate has applied to the employment benefits. No leakage has been applied to the non-use or other wellbeing (educational programme, volunteering, and social programme wellbeing) benefits as these relate to residents in Coventry and Warwickshire.
- **Multiplier** – a composite local employment multiplier of 1.38 has been applied at the Coventry and Warwickshire level which takes account of national guidance and benchmarks and specifically the HCA Additionality Guide which provides specific figures for recreation projects. This multiplier has been applied to the employment-related and R&D benefits.

The place-based analysis is presented in the table below. The additionality adjustments at a local level counterbalance each other, as the reduced displacement and inclusion of the multiplier increases the total benefits but, the level of leakage reduces the benefits. Therefore, the BCR at a local level is similar to the national BCR.

The project is assessed to have a **local BCR of 1.1:1**. The Programme will deliver greater non-monetised benefits at a local level, which provides further support to an **acceptable VfM assessment**.

<sup>70</sup> ONS (2023), Census 2011 origin-destination: location of usual residence and place of work

**Table 6.6: Place-based value for money – Evaluation Summary Table**

	C&W impact	Rest of UK impact	UK impact
A. Present Value Benefits (£m)	£33.1	-£2.1	£31.0
B. Present Value Costs (£m)	£31.4	£0.0	£31.4
C. Net Present Social Value (A-B)	£1.7	-£2.1	-£0.4
D. BCR (A)/B)	1.1:1	N/A	1.0:1
E. Significant non-monetised impacts	<b>Image:</b> Moderate beneficial <b>Regeneration:</b> Large beneficial <b>Legacy:</b> Moderate beneficial	N/A	<b>Image:</b> Moderate beneficial <b>Regeneration:</b> Moderate to large beneficial <b>Legacy:</b> Slight beneficial

# Section 7

## Conclusions

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## 7 Conclusions

### 7.1 Research findings

The UK CoC 2021 Programme comprised over 700 events, hosted in the city centre and in neighbourhoods across the city and in Warwickshire, and is calculated to have attracted 492,816 in-person attendees and 516,119 online attendees during the year itself. The UK CoC 2021 Programme also attracted 37,741 in-person attendees and 43,528 digital attendees during the build-up period from 2017.

During the year of UK CoC 2021, over 3,000 community dancers, musicians, poets, and makers participated, and 1,515 volunteers provided over 37,000 volunteer hours of support. Around 91% of the volunteers felt a sense of belonging to Coventry (as compared to the local average of 54%), whilst 86% felt wellbeing benefits.

Some 111 schools were engaged with as part of the Programme, as well as 600 households who undertook home-based educational activities. The Green Futures programme also attracted 3,100 participants to workshops.

The following impacts have been quantified as part of the economic impact assessment which fed into the value for money assessment.

- **£20.9m (2023/24 prices) net additional off-site and organisational expenditure** in Coventry and Warwickshire
- **225 1-year net additional FTE jobs from off-site visitor and organisational expenditure** in Coventry and Warwickshire
- **£11.6m net additional GVA (2023/24 prices)** arising from this expenditure in Coventry and Warwickshire

The economic impact assessment also quantified the following indirect impacts of UK CoC 2021 however, these impacts have not been included in the value for money assessment. This exclusion was due to the need for additional public funding to deliver the schemes and the complexity of assigning or attributing indirect/influenced schemes to UK CoC 2021. The VfM assessment focusses on the direct investment into the UK CoC 2021 Programme.

- an estimated **£183.1m (current prices) of related capital investment** has been secured at least in part due to the award of UK CoC 2021, comprising:
  - £40.6m direct income secured for the management and delivery of the Programme by the Trust;
  - £1.6m related to research activities and sector development by the Universities<sup>71</sup>
  - £71.7m for cultural and heritage asset improvements;
  - £18.3m for the construction of a new hotel; and
  - £50.9m for infrastructure works (public realm and transport) and city readiness.

<sup>71</sup> This effect was included in the value for money assessment as there was direct expenditure in the UK CoC 2021 Programme relating to R&D

- **additional £10.8m cultural revenue funding per annum** (or a 22.1% total increase) between 2023 and 2026 from Arts Council and other local partners
- the award of the title also provided a boost to a range of **other wider regeneration projects within the City** by, for example increasing the profile of Coventry. In total schemes with an investment value of **more than £1bn**<sup>72</sup> are either now complete, underway or proposed. However, it is not possible to directly attribute the influence of UK CoC 2021 on these investments.

**Table 7.1** presents the key impacts of the UK CoC 2021 Programme against the high-level targets set for the scheme. The Programme has made significant progress against one of the targets, as well as positive progress against others. Unfortunately, the impact of COVID-19 and other related issues have meant some targets relating to participation and engagement were not fully achieved.

Target	Achieved outcomes	Conclusion
Attracting and welcoming 2.55m additional visitors during 2021	<ul style="list-style-type: none"> <li>• 492,816 in person attendees in 2021</li> <li>• Over 1m total engagements</li> </ul>	Target was not met due to COVID-19 pandemic and other issues
Increasing audience attendance from BAME communities by 20%	<ul style="list-style-type: none"> <li>• £7m Trust funding on local artists (including ethnic minority and deprived community programmes)</li> <li>• Consultations concluded culture offer was brought to new audiences who previously did not have the opportunity to experience it</li> </ul>	Not assessed as part of this Economic Impact Assessment. These issues are considered elsewhere in the other PM&E Reports.
Enabling 80% of the City's residents to experience at least three events	<ul style="list-style-type: none"> <li>• 288,020 total attendees were from Coventry</li> <li>• Based on population of 345,321, over 800,000 visits to events would need to be from Coventry residents</li> </ul>	Target was not met due to COVID-19 pandemic and other issues
Making long-lasting, tangible social change in Coventry	<ul style="list-style-type: none"> <li>• Over £100m funding in cultural, regeneration, and public realm schemes</li> <li>• 225 1-year FTE jobs and £11.6m GVA in 2021/22</li> <li>• Material change in pride and sense of place in Coventry</li> </ul>	Some contribution towards target but long-term effects uncertain
Transforming who holds the power to create and curate in the City	<ul style="list-style-type: none"> <li>• £7m Trust funding on local artists (including ethnic minority and deprived community programmes)</li> <li>• £10.8m p.a. additional cultural funding up to 2026</li> <li>• 111 schools engaged with</li> <li>• 23.4% attendees from top 30% most deprived parts of country</li> </ul>	Not assessed as part of this Economic Impact Assessment. These issues are considered elsewhere in the other PM&E Reports.

<sup>72</sup> The West Midlands Investment Prospectus 2023 identifies the forecast value of three of the regeneration projects: Friargate - £700m; Coventry City Centre South - £450m; and Coventry City Centre Cultural Gateway - £150m. Note – the EIA baseline report identified a figure of £500m. However, the £1bn quoted in this report is not an increase in investment but rather reflects the published project data now available.



Activating more than 16,000 volunteers and participants	<ul style="list-style-type: none"> <li>• 1,515 fully trained volunteers</li> <li>• 3,000 community dancers, musicians, poets, and makers</li> <li>• 3,000 participants in workshops</li> </ul>	Some contribution towards target
Starting a wave of cultural investment across the region	<ul style="list-style-type: none"> <li>• £71.7m investment in cultural and heritage asset improvement</li> <li>• £50.9m investment in public realm/infrastructure and city readiness</li> <li>• £10.8m p.a. additional cultural funding up to 2026</li> </ul>	Significant contribution towards target

Overall, Coventry hosted the UK CoC 2021 during a difficult period due to the COVID-19 pandemic. The impact of the pandemic is likely to have played a significant role in the lower attendance numbers than expected and to have resulted in higher costs and lower income. In addition, the Trust entering administration means that the legacy impacts are not now going to be as significant as originally envisaged.

Given this difficult context, **the UK CoC 2021 Programme achieved a monetised BCR of 1.0:1 at the national level and 1.1:1 at the local level.** The combination of monetised and non-monetised benefits means that UK CoC 2021 provided **acceptable Vfm** with several significant non-monetised benefits such as the ‘moderate to large beneficial’ impacts from local cultural, heritage and regeneration investment.

Furthermore, it is calculated that **if the pre-COVID-19 target of 2.55m visitors for UK CoC 2021 had been achieved, the programme could have generated a monetised BCR of 1.7:1.**

## 7.2 Research and guidance gaps

As well as informing the assessment of the economic impact and the Vfm of UK CoC 2021, this research has also highlighted several gaps in the evidence base and areas for future research and guidance, as follows:

- further research to better map the benefits of cultural and heritage projects and programmes against types of intervention in order to assist in the identification of the key benefits to be assessed and guidance on how these assessments should be undertaken;
- approaches to ensure that negative and positive externalities are included in the evaluation (and appraisal) of cultural and heritage projects and programmes, including:
  - external costs – for example, in the case of this study, the Department for Transport approach to assessing marginal external costs were included in the TCM assessment;
  - positive external impacts – such as placemaking effects. For example, our original research programme included longer term analyses using spatial discontinuity approaches to undertake econometric counterfactual impact evaluations, other techniques such as geographical regression discontinuity could also be explored;

- additional research to assess the user and non-user benefits of events and programmes including the triangulation and comparison of results using alternative approaches (such as contingent valuation/stated preference and revealed preference);
- research to enhance the TCM approach to develop a better-informed profile of user benefits through the use of questionnaires to collect information on issues such as trip purpose and views on the event. Other data such as the use of polygon-level mobile/GPS data to examine footfall/dwell time metrics could also be investigated and may be more generally useful;
- research to assess the additionality of the user benefits (including wellbeing) of heritage and cultural projects – in other words to what extent is an increase in user benefits additional compared with what would have happened anyway;
- research to develop approaches to including distributional weighting into the evaluation (and appraisal) of cultural and heritage projects; and
- the development of DCMS appraisal and evaluation guidance through the Cultural and Heritage Capital programme, so a wider set of benefits and costs can be valued along with reducing the uncertainty in valuation of impacts.

# Appendices

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# Appendix A

## Coventry City of Culture: Baseline and Trend Analysis Update 2023

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## Appendix A – Coventry City of Culture: Baseline and Trend Analysis Update 2023

### 1. Introduction

This Appendix provides an update on the baseline position for the key outcome indicators used to consider the achievement of the UK CoC 2021 economic objectives. They are considered under the following headings:

- GVA
- Business Base
- Employment
- Inward Investment
- Tourism
- Inclusive Growth

Data is presented for Coventry, Coventry and Warwickshire, the West Midlands and the United Kingdom (UK).

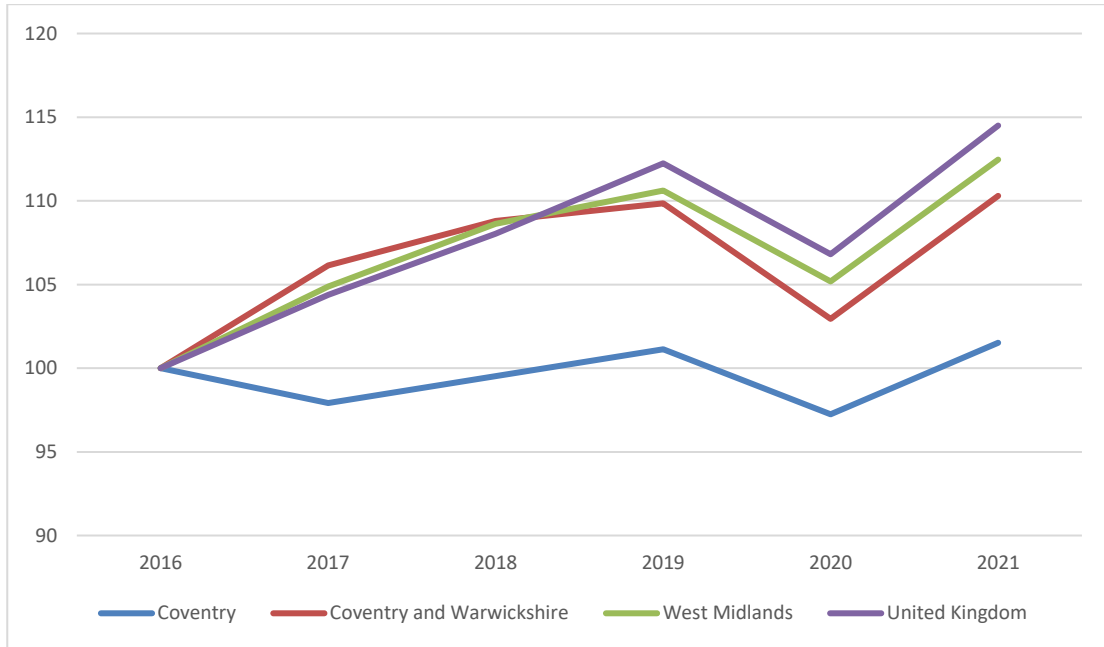
### 2. Gross Value Added (GVA)

#### *(i) Overall GVA*

Gross Value Added (GVA) is the measure of the value of goods and services produced in an area, industry, or sector of an economy. In 2021, GVA in Coventry was £10.1 billion compared to £9.9 billion in 2016. This represented a 1.5% increase in GVA between 2016 and 2021 for Coventry and 10.3% across CWLEP, which compares with the UK figure of 14.5% over the same period. Between 2016 and 2020, output growth in Coventry had been consistently below the wider sub-region, regional and national levels due to a fall in GVA for Coventry between 2016 and 2017.

The level of GVA within all comparator areas fell in 2020 due to the COVID-19 pandemic, however Coventry experienced a smaller decline of 3.8%, compared to 6.3% in Coventry and Warwickshire and 4.8% for the UK. The recovery between 2020 and 2021 in Coventry was slower with GVA growth of 4.4% which was lower than the LEP (7.1%) and national (7.2%) increases. This suggests that whilst the city's economy was less impacted by the pandemic in 2020, it was slower to recover from the impact of restrictions in 2021, despite hosting City of Culture.

**Figure A1: Indexed change in GVA, 2016-2021 (2016 = 100)**



Source: ONS GVA

**Table A1** provides the GVA figures for Coventry, the wider CWLEP and regional and national comparators for the last five years. It is evident that GVA in Coventry peaked pre-pandemic at £10.1 billion in 2019, while there was continued growth across the wider sub-region. As shown in **Figure A1** earlier, growth across the wider sub-region, the West Midlands, and the UK was more consistent than in Coventry over the period 2016-2019. The table also includes the GVA growth rate between 2020 and 2021, highlighting the difference in the economic recovery for the comparator areas and challenges this presented to Coventry.

Table A1: GVA (£m)							
	2016	2017	2018	2019	2020	2021	Change 2020-2021
<b>Coventry</b>	9,944	9,736	9,897	10,056	9,670	10,095	<b>+4.4%</b>
<b>Coventry and Warwickshire</b>	26,915	28,566	29,284	29,567	27,708	29,687	<b>+7.1%</b>
<b>West Midlands</b>	129,868	136,203	141,061	143,658	136,605	146,056	<b>+6.9%</b>
<b>UK</b>	1,782,115	1,860,286	1,925,435	2,000,157	1,903,575	2,040,499	<b>+7.2%</b>

Source: ONS GVA data

**(ii) Creative and cultural industries GVA**

The creative and cultural industries in Coventry were worth an estimated £433m<sup>73</sup> in 2021 which represented 4.3% of the city’s total economic output. The proportions were higher for Coventry and Warwickshire and the West Midlands (6.5% and 6.2%), while the national figure was 8.9% of total GVA. Between 2016 and 2019, GVA in the creative and cultural industries of Coventry was experiencing a period of stagnation and then decline with a fall of 4.7%, whilst GVA for the sector increased by 12.4% and 10.6% for the LEP area and UK respectively. The proportion of GVA from the creative and cultural industries in Coventry decreased from 4.9% in 2016 to 4.7% in 2019.

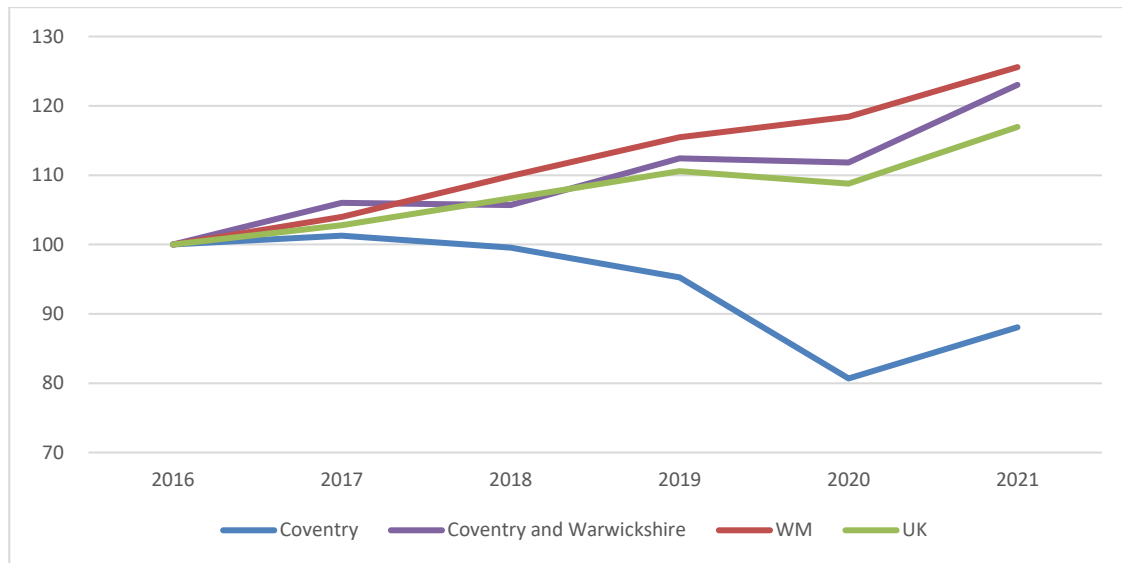
<b>Table A2: GVA for creative and cultural industries (£m)</b>							
	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>Change 2020 to 2021</b>
<b>Coventry</b>	492	498	490	469	397	433	<b>+9.1%</b>
<b>% of total GVA</b>	4.9%	5.1%	4.9%	4.7%	4.1%	4.3%	-
<b>Coventry and Warwickshire</b>	1,580	1,675	1,670	1,776	1,767	1,944	<b>+10.0%</b>
<b>% of total GVA</b>	5.9%	5.9%	5.7%	6.0%	6.4%	6.5%	-
<b>West Midlands</b>	7,191	7,476	7,901	8,304	8,516	9,030	<b>+6.0%</b>
<b>% of total GVA</b>	5.5%	5.5%	5.6%	5.8%	6.2%	6.2%	-
<b>UK</b>	155,612	159,970	165,985	172,056	169,303	182,002	<b>+7.5%</b>
<b>% of total GVA</b>	8.7%	8.6%	8.6%	8.6%	8.9%	8.9%	-

Source: ONS GVA; BRES; AMION Estimates

Between 2019 and 2020, GVA in Coventry associated with the creative and cultural industries was estimated to have fallen by 15.3% - reflecting the limits on activities imposed by the pandemic. The decline in GVA in Coventry was greater than within Coventry and Warwickshire (0.5%) and the United Kingdom (1.6%). Following this large decline to a lower base in 2020, Coventry’s creative and cultural industries experienced growth of 9.1% between 2020 and 2021, exceeding GVA growth for the sector in the West Midlands (6.0%) and UK (7.5%). The rate of growth across this period was highest in Coventry and Warwickshire (10.0%), reflecting the area’s sectoral strengths (particularly digital) and strong pandemic recovery.

<sup>73</sup> The definition used for ‘Cultural and Creative Industries’ uses the DCMS sub-sectors of Cultural; Creative and Digital. A breakdown of the SIC codes for each can be found in Appendix A. As a detailed breakdown of GVA by industry is not available at the Local Authority level, estimates have been constructed based on the proportion of jobs in the various sub-sectors.

**Figure A2: Change in Creative and Cultural Industries GVA, 2016-2021 (2016 = 100)**



Source: ONS GVA; BRES; AMION Estimates

It should be noted that the data underpinning **Figure A2** should be treated with some caution, as Coventry and Coventry and Warwickshire GVA figures are estimated constructed from the ONS and BRES data available, which will be subject to rounding errors.

#### **GVA – Summary**

Between 2016 and 2020, the overall growth in GVA in Coventry is comfortably below the comparator areas of Coventry and Warwickshire, West Midlands, and the UK.

This trend continued during the year of 2021, where Coventry hosted the UK CoC 2021 but experienced GVA growth of 4.4% across the economy compared to 6.9% in the West Midlands and 7.2% in the UK.

Between 2016 and 2020, the GVA in the creative and cultural sector in Coventry fell significantly by 19%. All comparator areas experienced growth in this period.

However, during the year of 2021, the creative and cultural sector in Coventry grew by 9.1% (albeit from a low base), which was above the regional (6.0%) and national (7.5%) averages.

### **3. Business base**

#### ***(iii) Overall businesses***

There were 10,295 businesses in Coventry in 2022, of which the majority were micro businesses employing less than 10 employees (89.5%) in line with the sub-region and national profile; 10.0% were small to medium-sized enterprises (SMEs) employing less than 250 employees, compared with 10.1% for the UK; and 0.5% employed more than 250 compared with 0.4% nationally. This suggests that the city has a strong business base and has created the conditions for business growth, particularly for large employers.



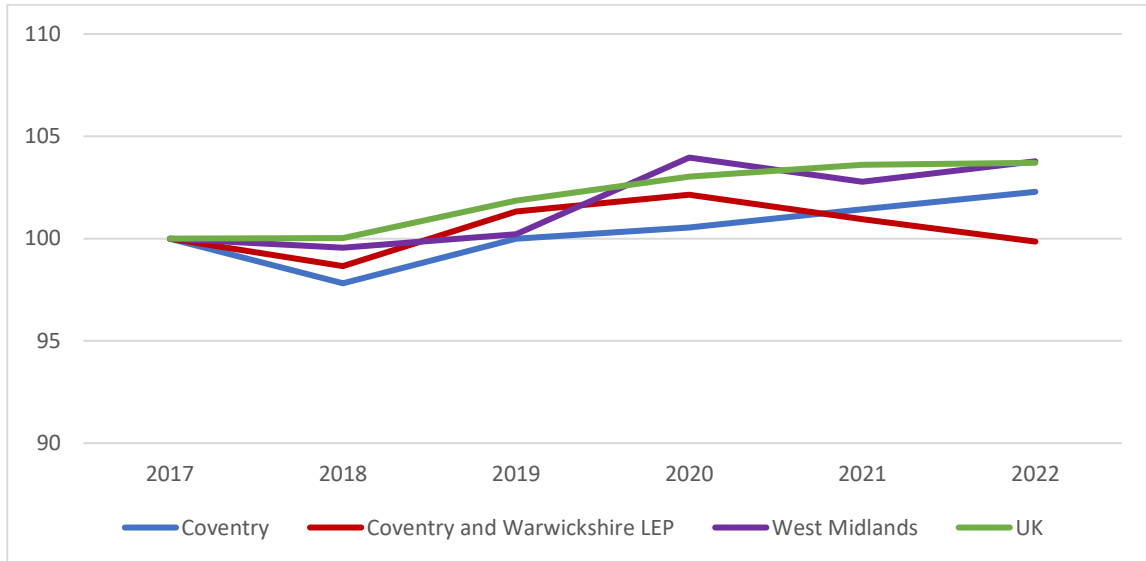
The total number of businesses in Coventry has increased by 2.3% since 2017, growing at a faster rate than the LEP area (where the number of businesses declined by 0.1%), but at a lower rate than both the region and the UK, where the number of businesses increased by 3.8% and 3.7% respectively.

<b>Table A3: Total Number of Businesses in Coventry, CWLEP, West Midlands and GB 2017-2022</b>			
	<b>2017</b>	<b>2022</b>	<b>Change 2017-2022</b>
<b>Coventry</b>	10,065	10,295	<b>+2.3% (+230 businesses)</b>
<b>Coventry and Warwickshire</b>	37,550	37,495	<b>-0.1% (-55 businesses)</b>
<b>West Midlands</b>	213,455	221,510	<b>+3.8% (+8,055 businesses)</b>
<b>United Kingdom</b>	2,668,810	2,767,700	<b>+3.7% (+98,890 businesses)</b>

Source: ONS UK Business Counts

Despite the negative impact of the pandemic on GVA growth (see Section 1.2), the number of businesses increased between 2019 and 2020 for all comparator areas, with the number increasing by 0.5% in Coventry. Furthermore, the number of businesses in Coventry increased between 2020 and 2021 in Coventry by 0.9%, whilst the total decreased by 1.2% in Coventry and Warwickshire and 1.1% in the West Midlands and increased by only 0.6% nationally. The steady growth in the number of businesses in Coventry and the city’s resilience to the impact of the pandemic is demonstrated in **Figure A3** below.

**Figure A3: Indexed change in total number of businesses, 2017-2022 (2017=100)**



Source: ONS UK Business Counts - enterprises by industry and employment size band

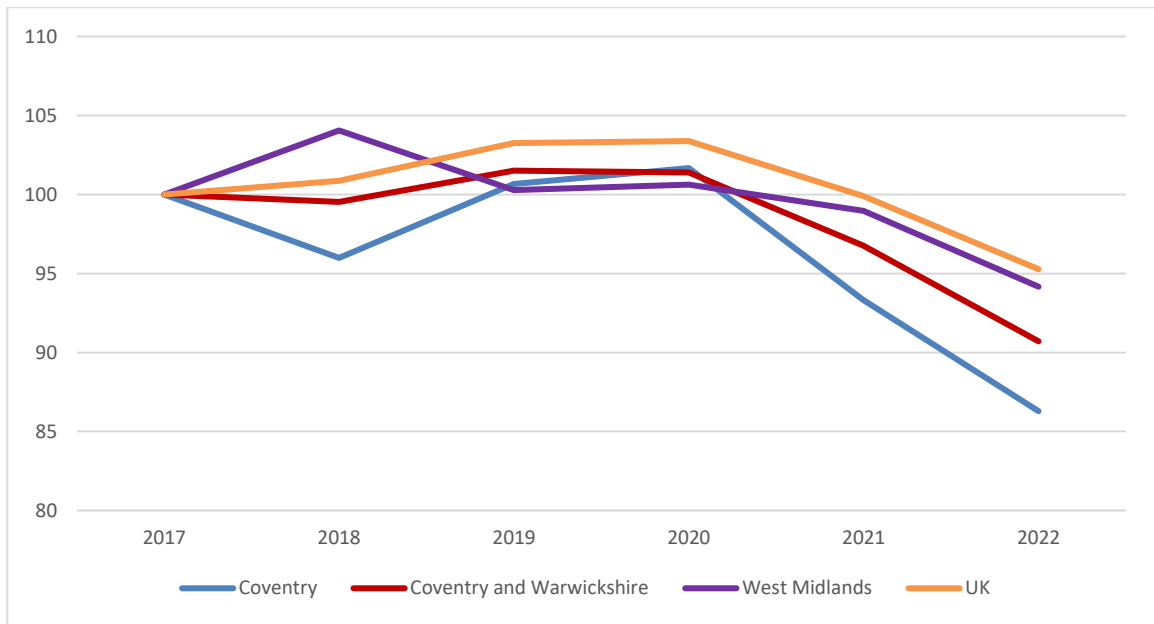
**(iv) Businesses in the creative and cultural Industries**

Of the total number of businesses in Coventry, 1,290 businesses (12.5%) are within the creative and cultural industries and for the wider sub-region the proportion of cultural and creative

businesses is 10.4%. The proportion of total businesses in the sector in Coventry is higher than the regional comparator of 8.2% and the national figure of 11.7%.

Overall, there has been a decline in the number of businesses in the creative and cultural industries since 2017 within Coventry. Between 2017 and 2022, the number of businesses in the sector has decreased by 13.7%, compared with declines of 9.3% in Coventry and Warwickshire LEP, 5.8% in the West Midlands and 4.7% for the United Kingdom. Between 2019 and 2020, Coventry outperformed the West Midlands and UK for growth in the number of businesses in the sector (1.0%), although the estimated number of businesses in the sector in Coventry is estimated to have declined at a faster rate than the comparator areas into 2021 and 2022.

**Figure A4: Change in number of businesses in the creative and cultural industries sector, 2017-2022 (2017=100)**



Source: ONS UK Business Counts - enterprises by industry and employment size band

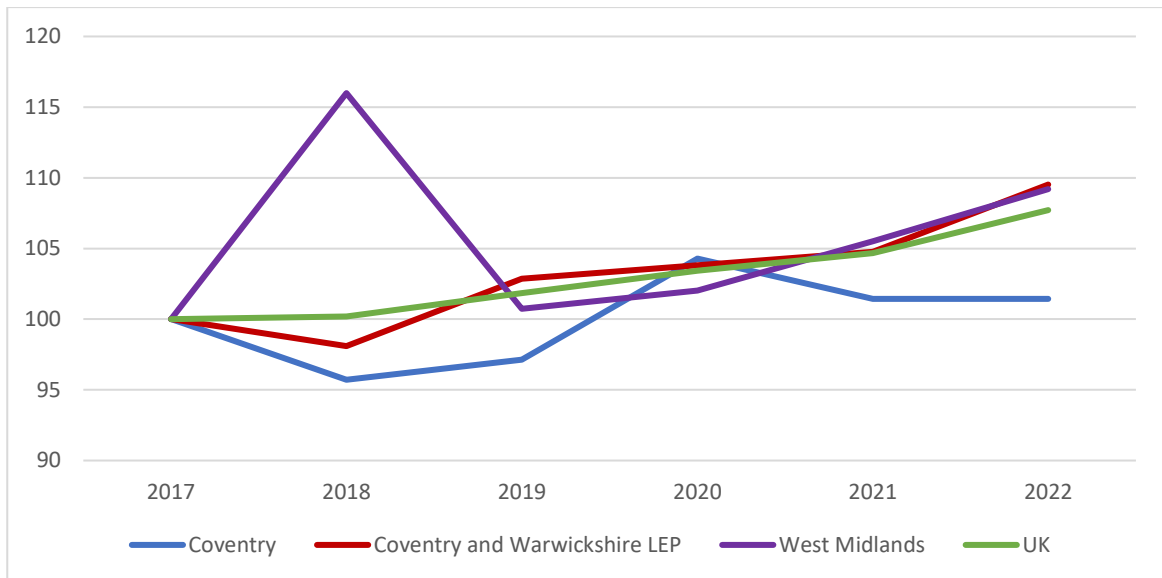
In addition to consideration of the number of businesses in the Creative and Cultural industries, the number of businesses within specific sub-sectors (based on DCMS definitions) can be assessed. Considering the DCMS sectors in turn, analysis of businesses in Coventry within the cultural and creative industries demonstrates that the largest number of businesses are within the ‘creative industries’, with 1,020 businesses representing 9.9% of all businesses in the city in 2022. A total of 860 (8.4% of businesses) are within the digital sector and a further 355 (3.4% of businesses) relate to the cultural sector. Analysis of the trends over time show that the creative and digital sub-sectors in Coventry experienced the largest decline following the pandemic (see Table A4), whilst there was some growth in the number of businesses in the cultural sector. **Figure A5** shows this increase in the cultural sector in Coventry.

While there are differences in the definition of the sectors, based on the SIC codes for both the digital and creative industries, there is also considerable overlap as shown in Appendix A.

Table A4: Businesses in the creative and cultural industries			
	2017	2022	Change (2017 to 2022)
Coventry sub-sectors:			
<i>Digital</i>	1,035	860	-16.9% (-175 businesses)
<i>Creative Industries</i>	1,170	1,020	-17.4% (-215 businesses)
<i>Cultural sector</i>	350	355	+1.4% (+5 businesses)
<b>Coventry (all creative and cultural industries)</b>	<b>1,495</b>	<b>1,290</b>	<b>-13.7% (-205 businesses)</b>
<b>Coventry and Warwickshire (all creative and cultural industries)</b>	<b>4,305</b>	<b>3,905</b>	<b>-9.3% (-400 businesses)</b>
<b>West Midlands (all creative and cultural industries)</b>	<b>19,365</b>	<b>18,235</b>	<b>-5.8% (-1,130 businesses)</b>
<b>United Kingdom (all creative and cultural industries)</b>	<b>338,965</b>	<b>322,945</b>	<b>-4.7% (-16,020 businesses)</b>

Source: ONS UK Business Counts - enterprises by industry and employment size band

**Figure A5: Change in number of businesses in the cultural sector, 2017-2022 (2017=100)**



Source: ONS UK Business Counts - enterprises by industry and employment size band

Figure A6 highlights the distribution of Cultural, Creative and Digital businesses across the wider sub region, with concentrations in Coventry City Centre and Warwick and Leamington Spa. There are also relatively high numbers of businesses in Stratford, and Nuneaton and Bedworth in contrast to parts of North Warwickshire and Coventry (outside the City Centre).

**Figure A6: Cultural, Creative and Digital Businesses across Coventry & Warwickshire (2022)**

**Business Base – Summary**

The total number of businesses in Coventry has increased by 2.3% since 2017, growing at a faster rate than the LEP area (where the number of businesses declined by 0.1%), but at a lower rate than both the region (3.8%) and the UK (3.7%).

Between 2017 and 2022, the number of businesses in the cultural and creative sector has decreased by 13.7%, compared with declines of 9.3% in Coventry and Warwickshire LEP, 5.8% in the West Midlands and 4.7% for the United Kingdom. This decline was not halted during 2021 when Coventry hosted the UK CoC 2021.

The main focusses for cultural, creative, and digital businesses in Coventry and Warwickshire is in the Coventry city centre, Warwick, and Leamington Spa.

**4. Employment**

**(i) Overall employment**

In 2021, there were 165,000 jobs within Coventry, an increase of 1.9% since 2017. The increase in employment has slightly exceeded growth at the LEP and regional level but was slightly below the national growth rate of 2.5%.

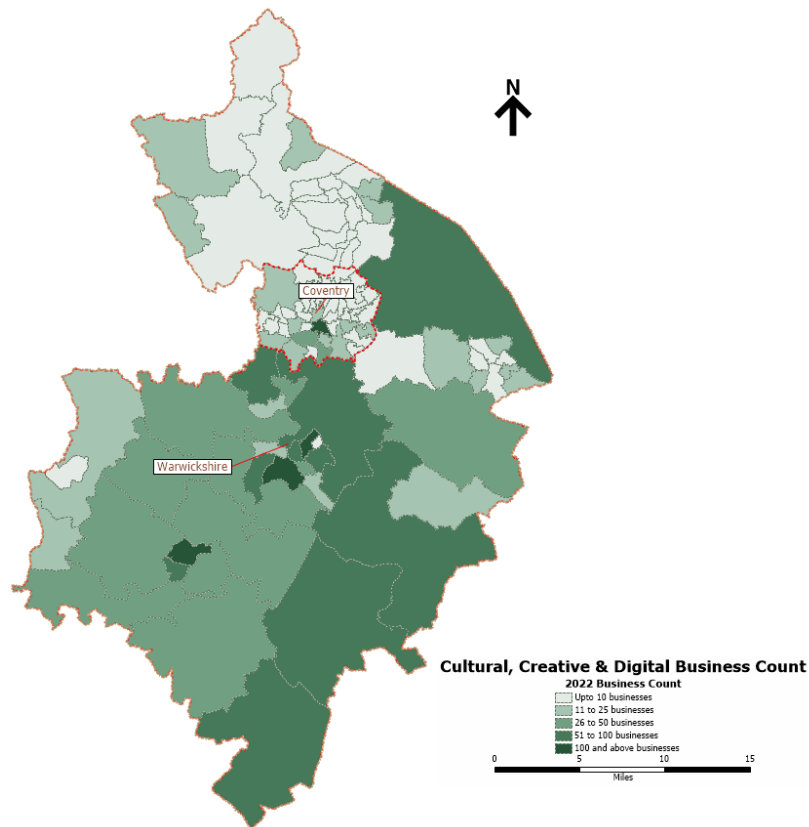
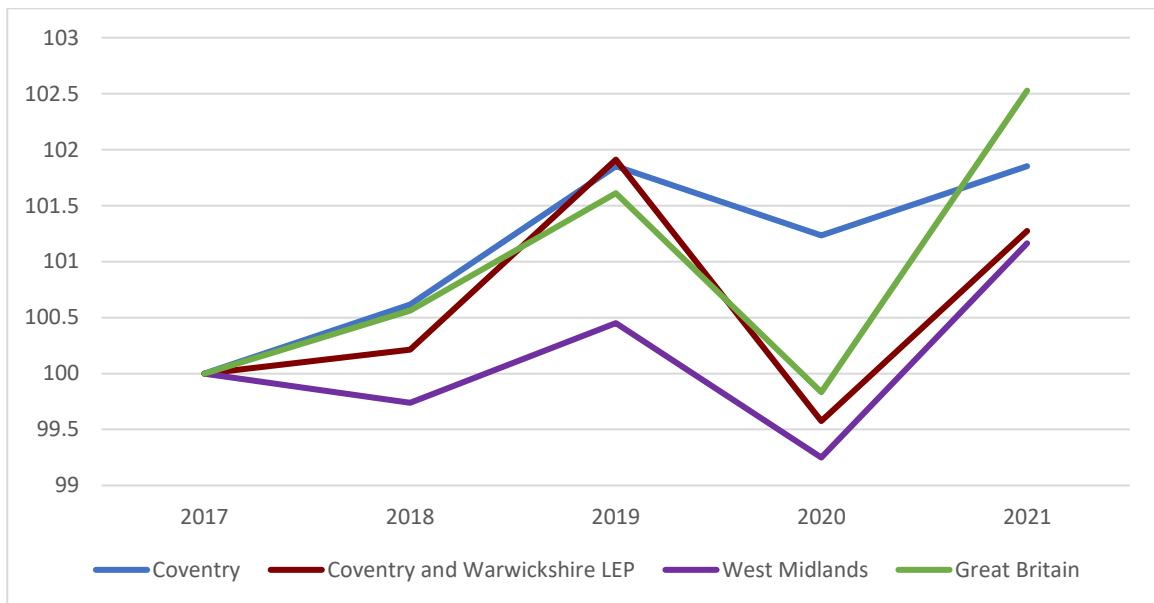


Table A5: Employment						
	2017	2018	2019	2020	2021	Change 2017 to 2021
Coventry	162,000	163,000	165,000	164,000	165,000	1.9%
Coventry and Warwickshire	471,000	472,000	480,000	469,000	477,000	1.3%
West Midlands	2,665,000	2,658,000	2,677,000	2,645,000	2,696,000	1.2%
Great Britain	30,587,000	30,759,000	31,080,000	30,536,000	31,360,000	2.5%

Source: ONS BRES

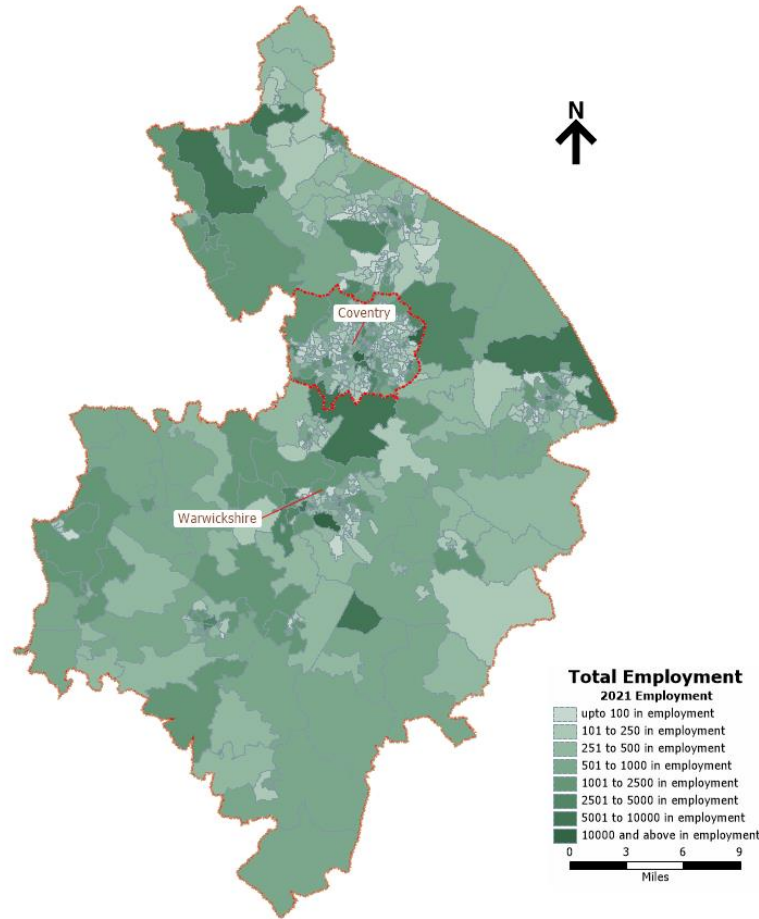
Figure A7: Indexed change in employment, 2017-2021 (2017=100)



Source: ONS, BRES

The overall distribution of all jobs irrespective of sector across the CWLEP area is shown in Figure A8 below. There are larger numbers of jobs within Coventry City Centre; South of the City (airport); Warwick Town Centre; and in North Warwickshire and Rugby close to the M42 and M1 motorways respectively.

**Figure A8: Distribution of jobs across the CWLEP area (2021)**



***(ii) Employment in the Creative and Cultural Industries***

In 2021, employment in the creative and cultural industries totalled 7,250 in Coventry, representing 4.4% of all jobs. Over the period 2017-2021, the number of jobs in the sector has increased by 1.8% in sharp contrast to the LEP area and region which experienced growth rates of 23.3% and 20.8% over the same period. Growth in Coventry also lagged behind the national increase of 4.5%.

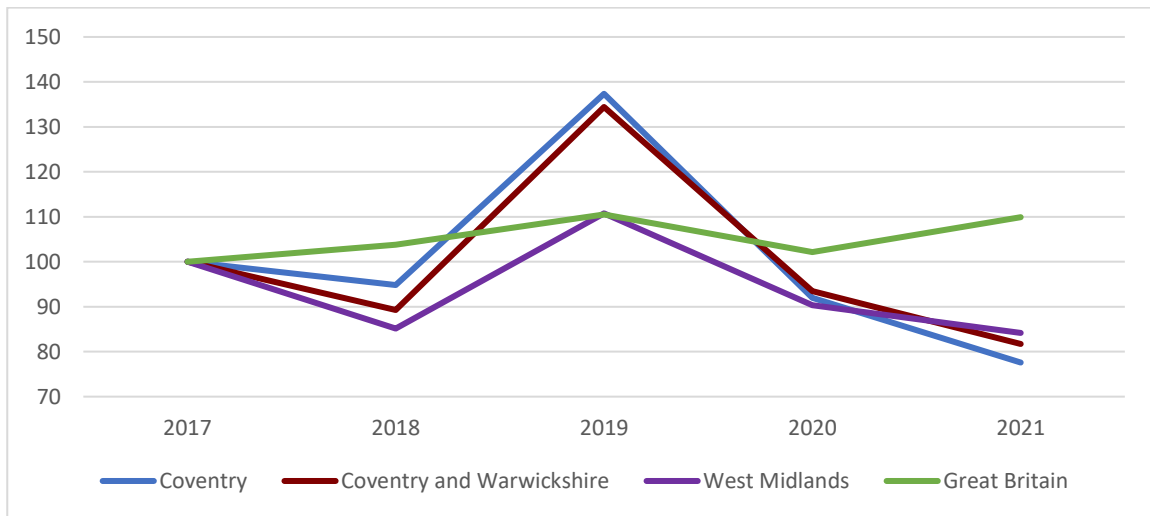
Since 2017, the overall number of jobs in the creative and cultural industries in Coventry has increased by 125, largely attributed to an increase in jobs within the creative industries. However, there has been a decrease in the number of jobs within the cultural sector, which has fallen by 195 people as shown in Table A6 and Figure A9 below.

<b>Table A6: Employment in the Cultural and Creative Industries</b>			
	<b>2017</b>	<b>2021</b>	<b>Change</b>
<i>Digital</i>	5,995	6,405	<b>+6.8% (+410)</b>
<i>Creative Industries</i>	4,230	4,610	<b>+9.0% (+380)</b>
<i>Cultural sector</i>	870	675	<b>-22.4% (-195)</b>
<b>Coventry (All cultural and creative)</b>	7,125	7,250	<b>+1.8% (+125)</b>
<b>Coventry and Warwickshire (All cultural and creative)</b>	25,035	30,850	<b>+23.2% (+5,815)</b>
<b>West Midlands (All cultural and creative)</b>	111,160	134,335	<b>+20.8% (+23,175)</b>
<b>Great Britain (All cultural and creative)</b>	1,949,375	2,037,575	<b>+4.5% (+88,200)</b>

Source: ONS BRES

Whilst the number of people employed in the creative and cultural industries in Coventry has increased over the period 2017 to 2021, the number of businesses in the sector has reduced, suggesting that there has been an increase in employment at larger businesses. At the sub-sector level, the number of cultural businesses has increased whilst employment in the sector has decreased – demonstrating the impact of the pandemic on the performance of cultural venues. In contrast, employment within the digital and creative sub-sectors has increased whilst the number of businesses in the sector has decreased.

**Figure A9: Change in employment within the cultural sector, 2017-2021 (2017=100)**

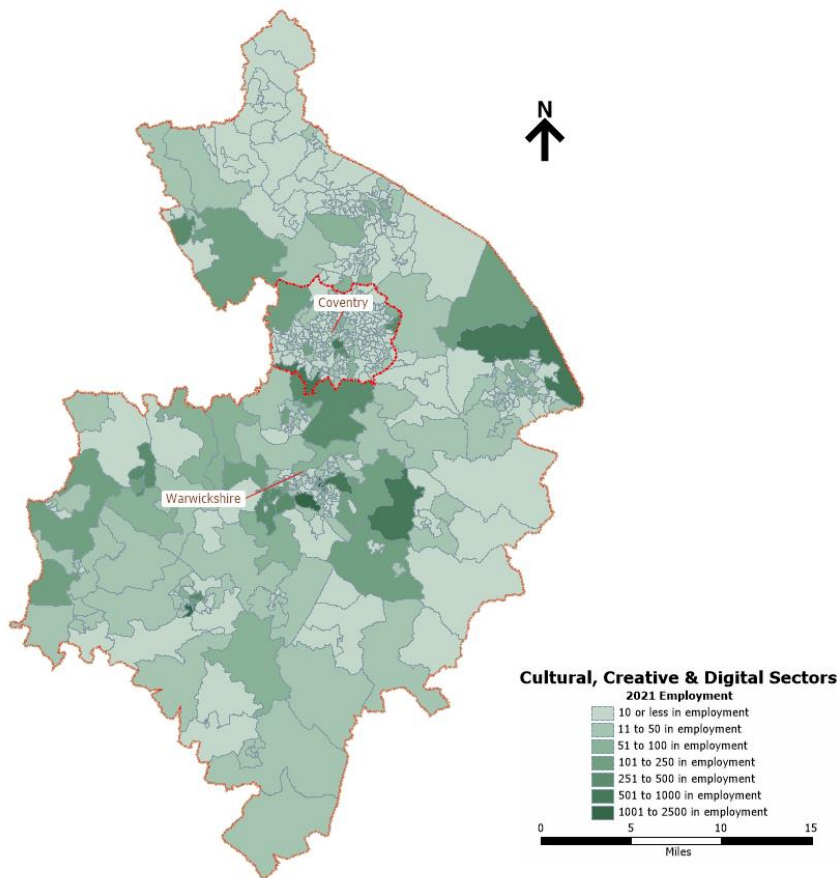


Source: ONS BRES

Within the DCMS subsector ‘music, performing and visual arts’, there were 230 people employed in Coventry in 2021, comprising 3.2% of all employment in the creative and cultural industries. This proportion of employment remains lower than the national average, where employment in music, performing and visual arts comprised 5.9% of all creative and cultural industry employment, however Coventry appeared to be closing the gap with the national average pre-pandemic.

The clustering of creative and cultural jobs in Leamington Spa (within Warwick District Council) is shown in Figure A10 below. This also shows other smaller concentrations of cultural, creative and digital jobs in Stratford Upon Avon, Coventry City Centre and South of the City, Rugby and in North Warwickshire.

**Figure A10: Location of Cultural, Creative and Digital jobs in Coventry and Warwickshire (2021)**



### **Employment – Summary**

Coventry experienced employment growth of 1.9% between 2017 and 2022, which slightly exceeded growth at the LEP and regional level but was just below the national rate of 2.5%.

Over the period 2017-2021, the number of jobs in the cultural, creative, and digital sector has increased by 1.8% - significantly below the LEP area (23.3%) and region (20.8%). Growth in Coventry also lagged the national increase of 4.5%.

Employment in the cultural sub-sector declined by 22.4% in this period within Coventry – all of which has been since 2019 due to the COVID-19 pandemic. The LEP and regional employment for this sub-sector mirrored this situation due to the closure of venues.



## 5. Inward investment

Over recent years, the levels of inward investment into the West Midlands region have fluctuated, with a noticeable decline in the number of projects in 2016/17, the same year that Brexit was announced, followed by an increase in the level of projects during 2017/18. At the LEP level, the number of projects attracted has followed a similar pattern, however Coventry and Warwickshire have secured a greater proportion of the jobs coming into the region compared to the number of projects, and in 2018/19 the CWLEP attracted nearly 50% of all jobs coming into the West Midlands through Foreign Direct Investment (FDI) projects.

Following the pandemic, the level of FDI projects and inward investment has increased within both Coventry and Warwickshire and the West Midlands region. In particular, the number of FDI projects in Coventry and Warwickshire has increased to 56 in 2022/23 and the number of new jobs created has more than doubled since 2019/20, clearly evidencing that the size of FDI projects in the area have increased. This growth can be attributed to interventions such as the WMCA's Business and Tourism Programme.

<b>Table A7: Inward Investment in Coventry and Warwickshire<sup>74</sup></b>						
	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2021/22</b>	<b>2022/23</b>	<b>Total</b>
Coventry & Warwickshire FDI Projects	53	43	41	45	56	238
Coventry & Warwickshire New Jobs	3,621	2,563	1,522	1,534	3,195	12,435
Coventry & Warwickshire Safeguarded Jobs	6	402	860	*	166	1,434
<b>C&amp;W Total Jobs</b>	<b>3,627</b>	<b>2,965</b>	<b>2,382</b>	<b>1,534</b>	<b>3,361</b>	<b>13,869</b>
West Midlands FDI Projects	171	155	157	143	181	807
<b>West Midlands Total Jobs</b>	<b>9,739</b>	<b>6,049</b>	<b>6,614</b>	<b>6,614</b>	<b>8,652</b>	<b>36,925</b>
Coventry & Warwickshire % of West Midlands projects	31.0%	27.7%	26.1%	31.5%	30.9%	29.5%
Coventry & Warwickshire % of West Midlands jobs	37.2%	49.0%	36.0%	23.2%	38.8%	37.6%

Source: DIT

<sup>74</sup> Detailed local level data has not been provided by DIT for fields marked with an asterisk (\*) or for the year 2020/21 due to the pandemic

**Inward Investment – Summary**

Inward investment in Coventry, Coventry and Warwickshire, and West Midlands has varied in recent years due to external factors such as Brexit and COVID-19. There does not appear to be any specific impact in Coventry 2021/22 as a result of the UK CoC 2021.

**6. Tourism**

**(i) Businesses**

In 2022, there were 1,470 businesses associated with the ‘tourism industries’<sup>75</sup> in Coventry, equivalent to 14.3% of all businesses. This represents an increase of 15.7% or an additional 200 businesses since 2017, outpacing the growth achieved within the LEP area and the national average, but below the West Midlands growth rate. In addition, the proportion of businesses within the tourism industry is higher in Coventry (14.3%) compared with 10.7% for the LEP, 10.9% for the West Midlands, and 11.6% for the UK.

**Table A8: Tourism Businesses**

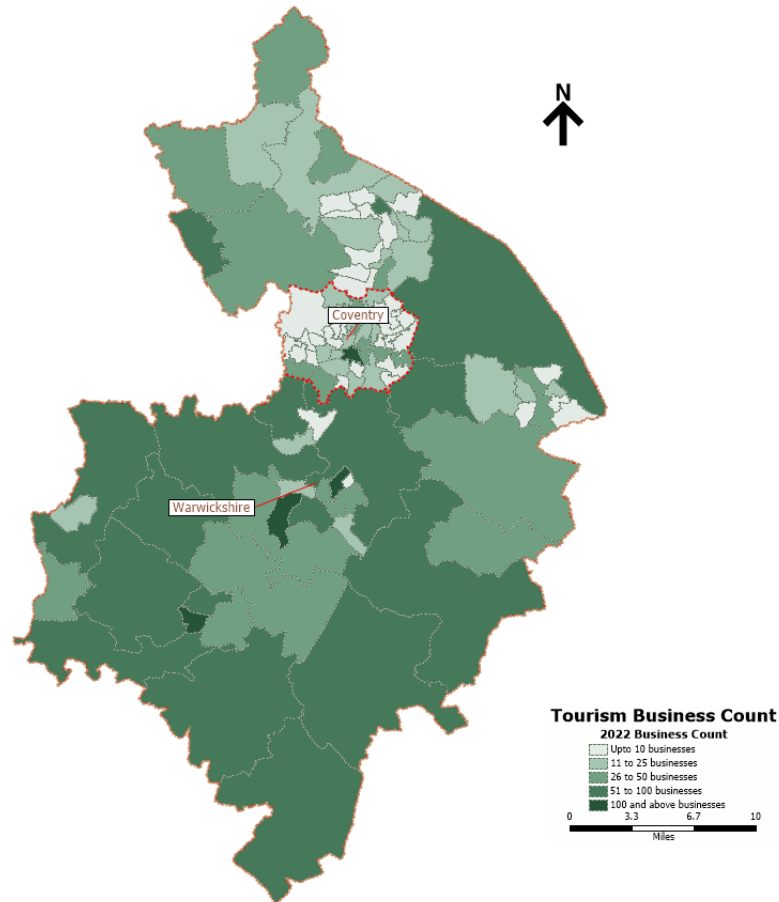
	<b>2017</b>	<b>2022</b>	<b>Change 2017 to 2022</b>
<b>Coventry</b>	1,270	1,470	<b>+15.7% (200)</b>
<b>Coventry and Warwickshire</b>	3,530	4,020	<b>+13.9% (490)</b>
<b>West Midlands</b>	20,415	24,155	<b>+18.3% (3,740)</b>
<b>United Kingdom</b>	284,095	321,386	<b>+13.1% (37,290)</b>

Source: NOMIS, UK Business Counts

The distribution of businesses across the CWLEP area is shown in Figure A11 which highlight three areas in particular with over 100 businesses. These can be found in Coventry City Centre; Stratford upon Avon and Royal Leamington Spa.

<sup>75</sup> The DCMS definition of ‘Tourism Industries’ is based on the United Nations World Tourism Organisation (UNWTO) definition, Appendix A.

**Figure A11: Location of Tourism Businesses within Coventry and Warwickshire (2022)**



**(ii) Employment**

Alongside growth in the number of businesses, employment in the tourism related industries has also increased in Coventry and in the wider sub-region. In Coventry, the total number of tourism jobs stood at 16,010 in 2021, 9.7% of all employment which increases to 10.3% for Coventry and Warwickshire. The increase in employment of 2,625 (19.6%) since 2017 in Coventry, exceeds tourism employment growth of 0.7% in Great Britain. However, the proportion of total employment associated with tourism in Coventry and the wider LEP area is still marginally below the national figure of 11.2%. The data shows the negative impact of the pandemic on tourism employment in 2020, and also shows the recovery in tourism employment across the comparator areas into 2021, with the number of people employed in Coventry exceeding pre-pandemic levels in 2021.

**Table A9: Tourism Employment 2017-2021**

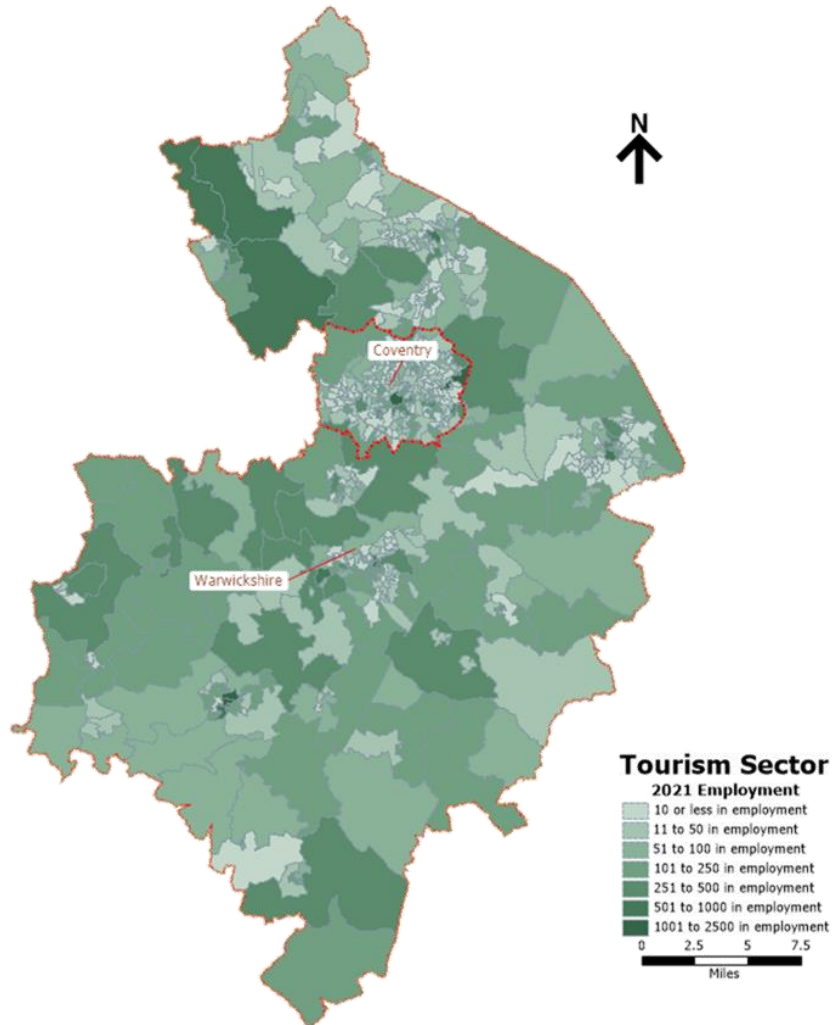
	2017	2018	2019	2020	2021	Change 2017 to 2021
<b>Coventry</b>	13,385	13,105	14,660	13,270	16,010	<b>+19.6% (2,625)</b>
<b>Coventry and Warwickshire</b>	48,375	44,075	53,590	42,825	49,330	<b>+2.0% (955)</b>
<b>West Midlands</b>	272,335	241,845	295,745	248,800	270,090	<b>-0.8% (-2,245)</b>
<b>Great Britain</b>	3,492,500	3,567,950	3,671,000	3,400,850	3,517,500	<b>+0.7% (25,000)</b>

Source: ONS BRES

The distribution of jobs in the Tourism Industries, presented at a lower spatial level<sup>76</sup>, show more areas with higher concentrations of employment (1,000-2,500 jobs). These can again be found in Coventry City Centre; Stratford Upon Avon; Warwick/Leamington; to the East of Coventry Airport; Rugby; North Warwickshire and Nuneaton.

<sup>76</sup> BRES data is available at LSOA level, while UK Business Counts are presented for MSOAs

**Figure A12: Distribution of Tourism Jobs in Coventry and Warwickshire (2021)**



**(iii) Day and overnight visitors**

The data presented has been drawn from the STEAM model<sup>77</sup> (a tourism economic impact model produced by Global Tourism Solutions (GTS)). As the STEAM data is commissioned independently by local or regional partners, comparator data is not readily available, unlike Visit Britain data and the IPS.

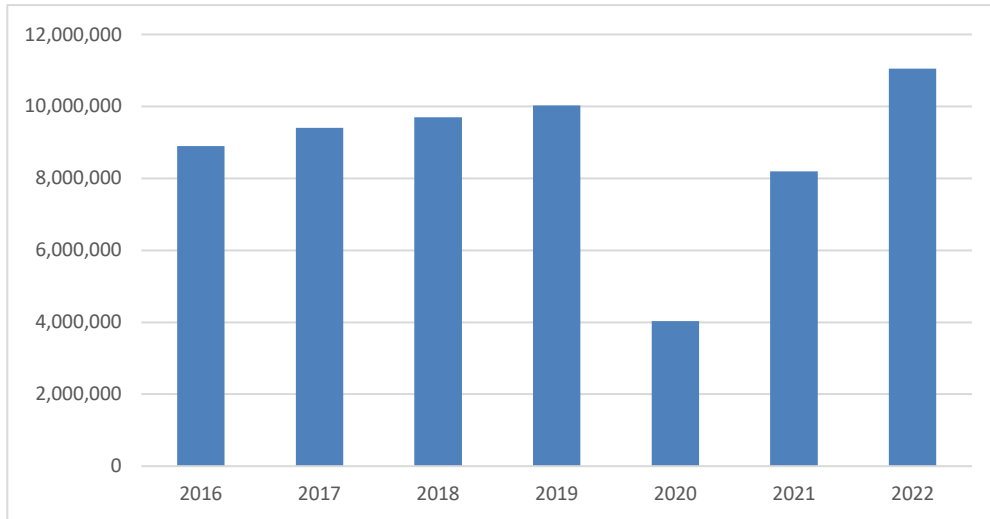
The bottom-up data from the STEAM model quantifies the local economic impact of both day and overnight visitors. To estimate day visits, the model utilises data from tourism information centres, attractions and events, whilst overnight visits are determined by the number of available bedrooms and known occupancy levels, as well as an estimate of those staying with friends and relatives.

<sup>77</sup> The Trust commissioned the STEAM data from GTS

The findings from the STEAM model suggest that visitor numbers increased from 2016 to 2019, before falling in 2020 due to the impact of the pandemic. Since 2020, visitor numbers have shown signs of recovering and have increased into 2021 and 2022 which saw the highest total number of visitors to Coventry for the period 2016 to 2022. The total number of visitors to Coventry in 2019 was over 10m, representing an increase of 12.6% since 2016 as demonstrated in Figure A13. The number of visitors then reduced by 60% between 2019 and 2020, before increasing to 8m visitors in 2021, lower than the number of visitors in 2016.

The annual change in visitor numbers show an increase of 5.7% in 2017, 3.1% growth in 2018 and 3.3% growth in 2019, which may be due in part to the mass expansion of the two universities and attraction of families and friends. The number of visitors then decreased by 59.8% from 2019 into 2020, before increasing by 103.5% between 2020 and 2021 from 4m to over 8m visitors. Between 2020 and 2022, visitor numbers increased by 174% to reach over 11m in 2022 – clearly demonstrating the recovery of footfall following the pandemic.

**Figure A13: Total number of visitors to Coventry – STEAM model**



Source: STEAM report for Coventry 2016-22; GTS

Note: figures include day visitors and staying visitors

Analysis of the total number of visitors highlights that before 2020, the city was experiencing growth in both day visitors and (the more valuable) staying visitors to Coventry as demonstrated in Figure A14. There were 1.2m staying visitors in Coventry in 2019, an increase of 9.9% since 2016, whilst there were 8.8m day visitors, an increase of 13.0% over the same period.

Between 2019 and 2020, the number of day visitors fell by 59.1%, whilst the number of staying visitors fell by a larger rate of 65.1%. Between 2020 and 2022, the number of day visitors and staying visitors experienced a recovery to exceed 2019 levels, with the number of day visitors increasing by 169.7% to 9.7m. The number of staying visitors experienced a larger recovery between 2020 and 2022, increasing by 212.2% to 1.3m.

**Figure A14 Total number of visitors to Coventry – 2016-2022**

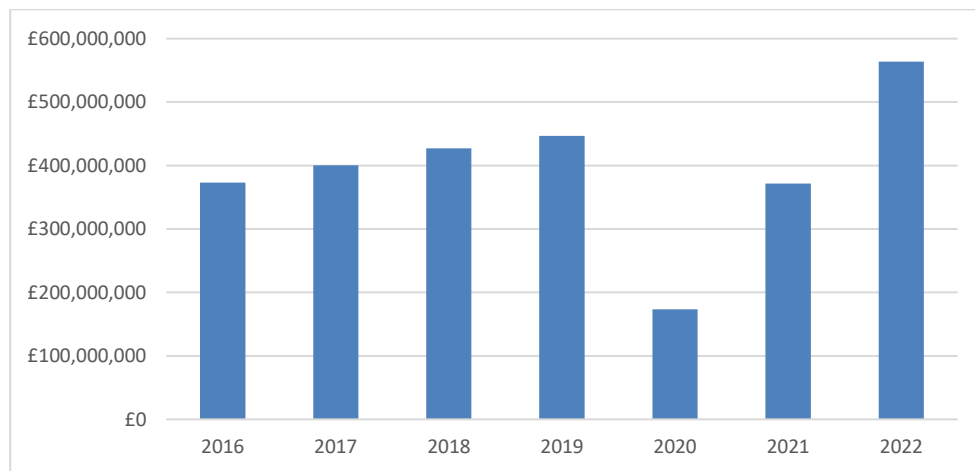


Source: STEAM report for Coventry 2016-22; GTS

The pre-pandemic increase in the total number of visitors to Coventry resulted in increased visitor expenditure as demonstrated in Figure A15. There was an 19.7% rise in visitor expenditure between 2016 and 2019 according to the STEAM model, up from £373.3m in 2016 to £446.7m in 2019, which demonstrates that the rise in direct expenditure was marginally greater than the increase in visitor number.

The decline in visitor numbers as a result of Covid-19 resulted in direct expenditure in Coventry falling from £446.7m to £173.4m from 2019-2020. However, expenditure is estimated to have recovered from the impact of the pandemic reaching £371.6m in 2021 (just below the 2016 value) and exceeding the previous peak in 2022 at £563.6m.

**Figure A15: Direct visitor expenditure – STEAM model**



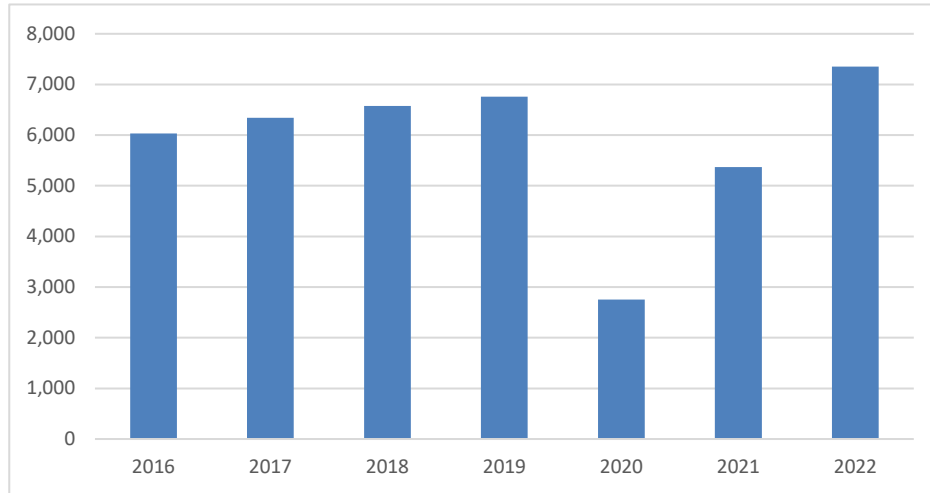
Source: STEAM report for Coventry 2016-2022; GTS

Note: direct visitor expenditure only but includes VAT

Based on averages for the industries within Coventry, the increase in expenditure over the period 2016-19 facilitated an additional 729 Full Time Equivalent (FTE) jobs created

in Coventry’s visitor economy. The number decreased sharply between 2019 and 2020, however has since recovered in 2022 to exceed the 2019 level at 7,354 FTEs, as shown by Figure A16 below.

**Figure A16: Visitor economy employment – STEAM model**



Source: STEAM report for Coventry 2016-2022; GTS

**(iv) Hotels**

In 2022, there were 44 hotels (serviced accommodation) in Coventry, representing an increase of 10 since 2016 (29.4%). This increase is associated with a rise in the serviced accommodation offering less than 10 rooms (with three more units since 2016), as well as an increase in accommodation with 11-50 rooms (an increase of 5 since 2016). The number of hotels with over 50 rooms also increased over the period 2016 to 2022 (with 2 more units), however, these larger hotels still comprised the greatest number of all serviced accommodation in 2022 (20 out of 44 establishments). For a comparator city such as Derby, its 2020-2025 Destination Management Plan indicates that in 2018 there were 39 serviced accommodation units, comprising 24 hotels, 3 boutique hotels, 4 serviced apartments and 8 B&Bs/Guesthouses.

Coventry’s serviced accommodation units provided a total bed capacity of 6,097 in 2022, with hotels with over 50 rooms accounting for 87.8% of this total capacity. Table A10 shows how overall capacity has increased by 22.2% since 2016.

<b>Table A10: Businesses associated with tourism</b>						
	<b>2016</b>		<b>2022</b>		<b>Change</b>	
	<b>Units</b>	<b>Beds</b>	<b>Units</b>	<b>Beds</b>	<b>Units</b>	<b>Beds</b>
Over 50 rooms	18	4,372	20	5,353	<b>11.1% (2)</b>	<b>+22.4% (981)</b>
11-50 rooms	8	525	13	607	<b>+62.5% (5)</b>	<b>+15.6% (82)</b>
Less than 10 rooms	8	91	11	137	<b>+37.5% (3)</b>	<b>+50.5% (46)</b>
<b>Serviced accommodation</b>	<b>34</b>	<b>4,988</b>	<b>44</b>	<b>6,097</b>	<b>+29.4% (10)</b>	<b>+22.2% (1,109)</b>

Source: STEAM report for Coventry 2016-22, Global Tourism Solutions



In 2019, the total number of visitors to Coventry who stayed in serviced paid accommodation was 408,432, representing a decrease of 21.1% from 517,969 in 2016.

**Tourism – Summary**

The increase in employment of 2,625 (19.6%) since 2017 in Coventry, exceeds tourism employment growth of C&W (2.0%), West Midlands (-0.8%), and Great Britain (0.7%).

Based on findings from the STEAM model, the visitor to Coventry in 2021 (8.2m visitors) had not recovered to pre-pandemic levels of 10.0m visitors in 2019. However, the industry appears to have made a full recovery with over 11m visitors in 2022.

The employment and expenditure in the visitor economy matches trend of overall visitors to Coventry, with steady growth between 2016 to 2019, before a sharp decline in 2020 due to Covid-19, and a quick recovery ever since to its peak year of 2022.

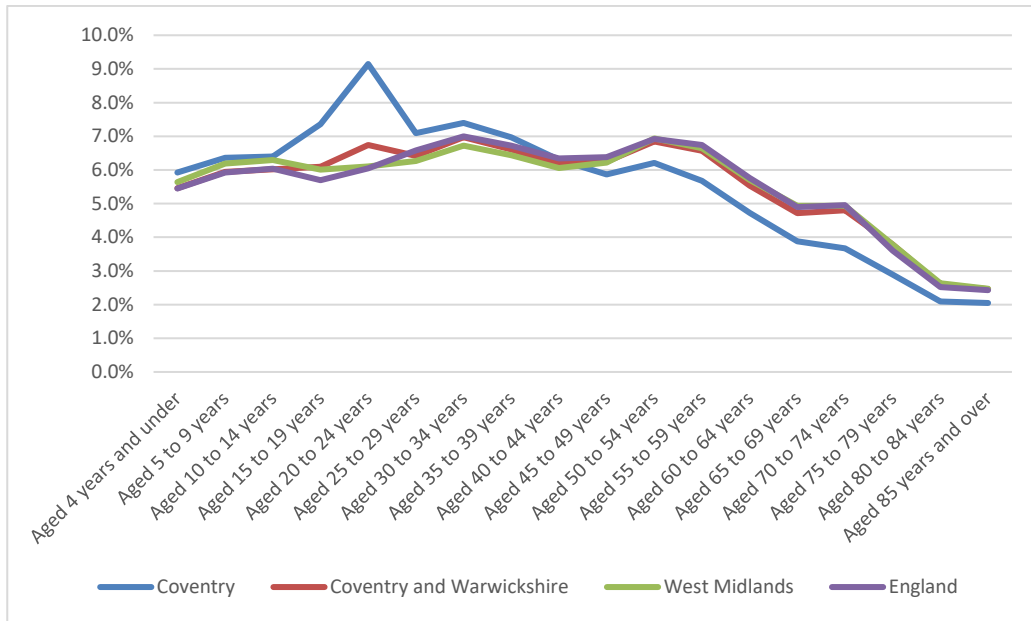
The capacity of Coventry’s accommodation sector has grown over this period since 2016 to meet the additional demand – with a 29% increase in units and 22% increase in beds.

**7. Inclusive growth**

**(i) Population and Diversity**

Coventry has an estimated population of 345,321 (Census 2021), of which approximately 19.8% are aged 0 to 15, 65.6% are of working age (16 to 64), and 14.6% are aged 65 or over. The city’s population is generally younger than comparator areas such as the West Midlands and England, with a larger working age population and more children. Figure A17 presents this difference and shows the city’s large population aged 20 to 24 years – largely driven by students living in the city. It also demonstrates that whilst the city has a larger young population, the wider area (Coventry and Warwickshire), has a population age distribution more similar to national trends.

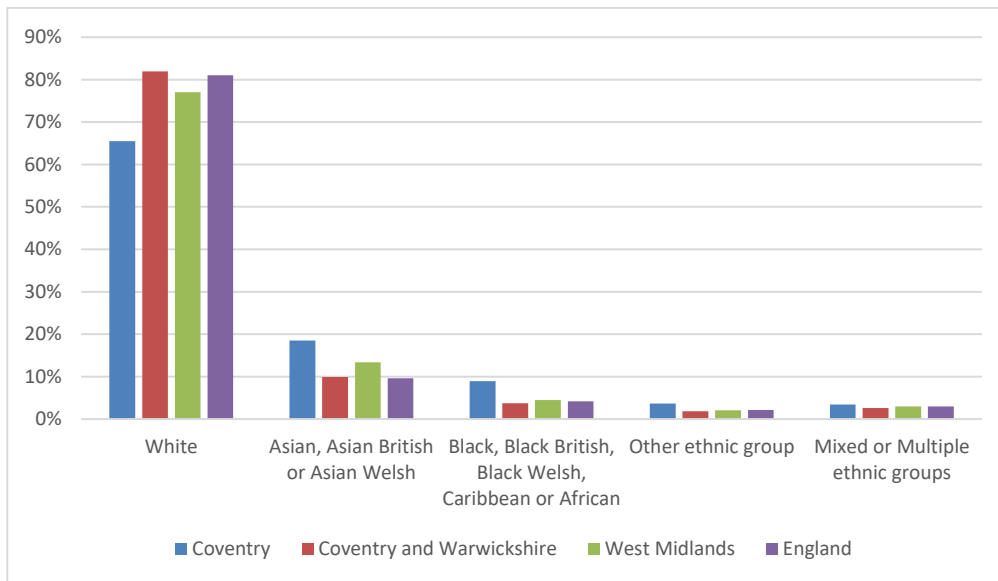
**Figure A17: Population by Age Band (2021)**



Source: Census 2021

Figure A18 shows the population by ethnic group in Coventry compared to regional and national profiles for 2021 (Census 2021).

**Figure A18: Population by ethnicity (2021)**



Source: ONS Census 2021

Table A11 shows how labour market participation rates for ethnic minority groups (as defined in the APS) has changed over the past five years. In terms of employment, while rates are consistently lower for ethnic minority groups compared to the population as a whole,

employment rates have been increasing over the last five years, particularly for Coventry and the wider sub-region. In Coventry employment rates have increased to 66.4% compared with 63.9% in 2017/18 and, in the sub-region, rates have increased from 67.4% to 70.4%. At a national level, the increase has moved from 65.1% to 68.8%.

There has been a corresponding fall in economic inactivity rates except in Coventry where it has increased but at a slower rate than the local population. There has also been a decrease in unemployment rates among ethnic minority groups at the local, sub-regional and national level, which are still higher but decreasing at a faster rate than the rest of the population.

**Table A11: Economic activity rates 2017 -2022 (%)**

	Oct 2017 – Sept 2018	Oct 2018 – Sept 2019	Oct 2019 – Sept 2020	Oct 2020 – Sept 2021	Oct 2021 – Sept 2022	Absolute change 2017-22
<b>Employment rate – aged 16-64</b>						
Coventry	72.0	71.6	71.8	70.0	70.5	-1.5
Coventry – ethnic minority	63.9	63.6	66.7	60.7	66.4	+2.5
CWLEP	77.7	76.3	76.9	75.6	76.6	-1.1
CWLEP – ethnic minority	67.4	66.9	68.8	66.8	70.4	+3.0
West Midlands	73.4	73.8	73.5	73.6	73.6	+0.2
West Midlands – ethnic minority	61.1	61.7	63.1	64.5	65.1	+4.0
UK	75.0	75.6	75.4	74.5	75.4	+0.4
UK – ethnic minority	65.1	66.2	67.4	66.9	68.8	+3.7
<b>Unemployment rate – 16+</b>						
Coventry	5.0	5.2	6.6	5.5	5.8	+0.8
Coventry – ethnic minority	9.9	8.9	8.4	10.6	6.6	-3.3
CWLEP	2.8	3.7	3.9	4.2	3.9	+1.1
CWLEP – ethnic minority	7.0	7.0	6.5	8.5	5.5	-1.5
West Midlands	4.5	4.5	5.2	5.1	4.9	+0.4
West Midlands – ethnic minority	8.8	8.3	8.8	9.8	8.8	+0.0
UK	4.2	3.9	4.2	4.7	3.6	-0.6
UK – ethnic minority	7.3	6.6	7.0	8.8	6.6	-0.7
<b>Economically inactive – 16-24</b>						
Coventry	24.2	24.4	23.0	26.1	25.2	+1.0
Coventry – ethnic minority	29.0	30.1	27.2	32.0	29.1	+0.1
CWLEP	20.0	20.8	19.9	21.1	20.2	+0.2
CWLEP – ethnic minority	27.5	28.0	26.4	26.9	25.6	-1.9
West Midlands	23.1	22.6	22.3	22.4	22.5	-0.6
West Midlands – ethnic minority	32.9	32.7	30.7	28.4	28.5	-4.4
UK	21.7	21.3	21.2	21.7	21.8	+0.1
UK – ethnic minority	29.8	29.1	27.4	26.6	26.3	-3.5

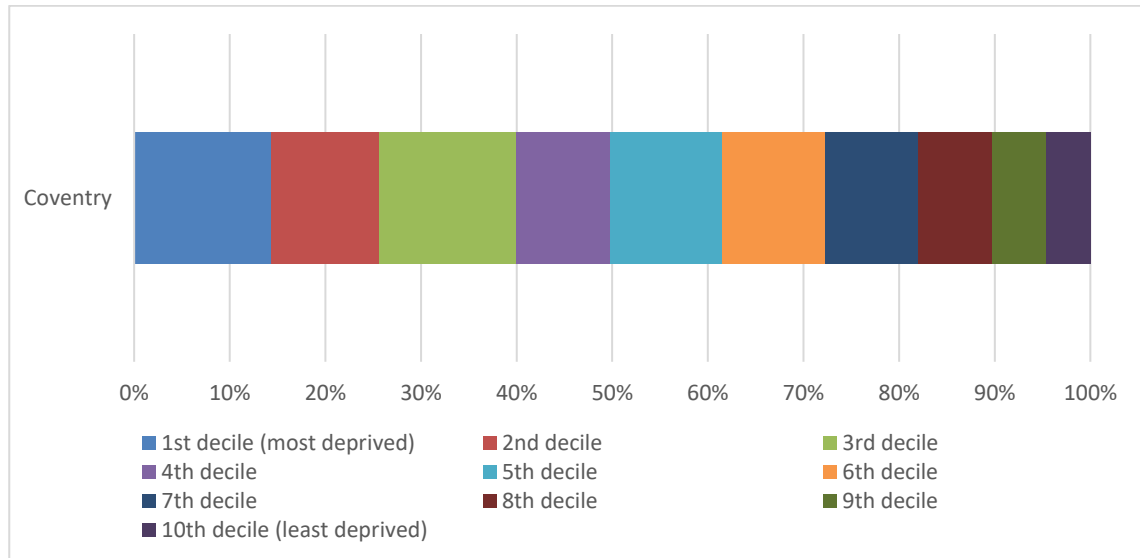
Source: NOMIS, APS (Oct-Sept)

**(ii) Deprivation**

The population in Coventry suffers from relatively high levels of deprivation. Around 39% of its population is located within the top 30% most deprived Lower Super Output Areas (LSOAs) in the country, including 14% in the top 10% most deprived parts of the country.

The split of the LSOAs in Coventry by Index of Multiple Deprivation (IMD) deciles is shown in Figure A19.

**Figure A19: Coventry LSOAs by IMD Decile (2019)**



Source: English indices of deprivation 2019, DLUHC

**(iii) Economic activity**

In the year leading up to September 2022, the economic activity rate in Coventry was 74.8%, - which despite an increase in activity on the previous year (73.9% in 2020/2021) remains lower than the wider LEP area (79.8%). The rate in Coventry is marginally behind the regional figure of 77.5% and also lower than the national rate of 78.2%.

Over the same period (October 2021 to September 2022), the employment rate, which is a subset of the economic activity figures was also lower (70.5%, compared with 76.6% for the wider sub-region, 73.6% for West Midlands and 75.4% for the UK).

**(iv) Occupations**

The area has a lower proportion of the workforce employed as managers, directors and senior officials within Coventry (5.3%, some 2% lower than the comparator areas) and a higher proportion of residents employed in lower skilled occupations, for example, 17.4% employed in elementary occupations compared with the national rate of 9.5%.

A more detailed analysis of the occupational data demonstrates the very low proportion of all residents in employment (both within Coventry and outside), who are employed within ‘cultural’ and ‘tourism’ related occupations. While the figures are similarly low for the region and national comparators, they are currently lower in both Coventry and the wider sub-region.

**Table A12: Residents employed in cultural and tourism occupations**

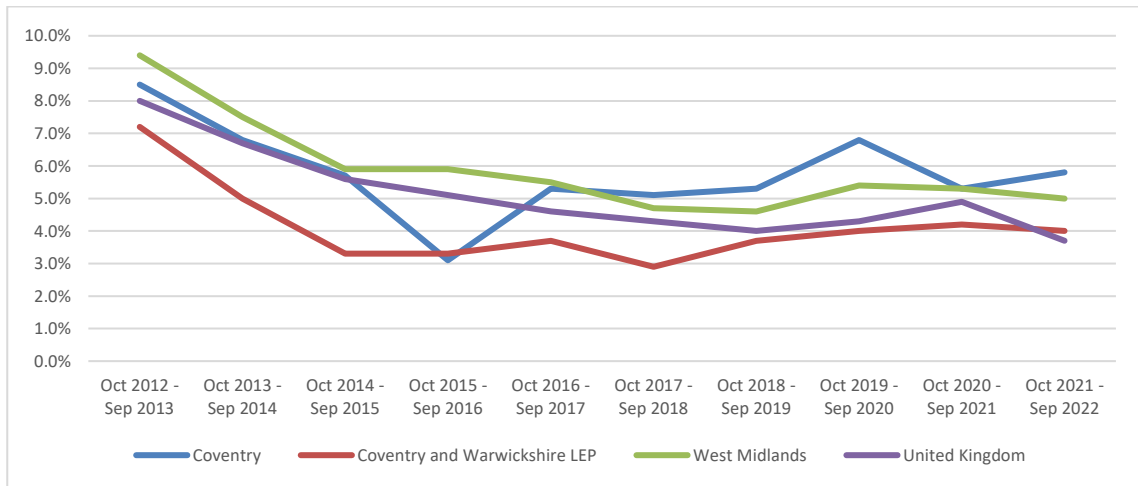
	Culture, Media and Sports Occupations		Leisure, Travel and Related Personal Service Occupations		% as a total of all residents employed	
	2019	2020	2019	2020	2019	2020
Coventry	2900	2100	1300	1900	2.2%	2.0%
Coventry and Warwickshire	7000	6200	8600	8900	3.2%	3.2%
West Midlands	40900	45800	48200	48600	3.2%	3.5%
UK	791,500	812200	649,000	610,000	4.5%	4.4%

Source: NOMIS, APS

**(v) Unemployment**

Between October 2021 and September 2022, Coventry had an unemployment rate (aged 16 - 64) of 5.8%, higher than the sub-region (4.0%) and both the West Midlands and national comparators (5.0% and 3.7% respectively). Over the period October 2012 - September 2022, the unemployment rate in Coventry has fluctuated; initially decreasing from 8.5% to a low point of 3.1% between October 2015 and September 2016, before rising again to reach 6.8% between October 2019 and September 2020. Excluding 2015-2016, the rate of unemployment in Coventry has exceeded the rates experienced in CWLEP and the United Kingdom and has exceeded the West Midlands rate in recent years.

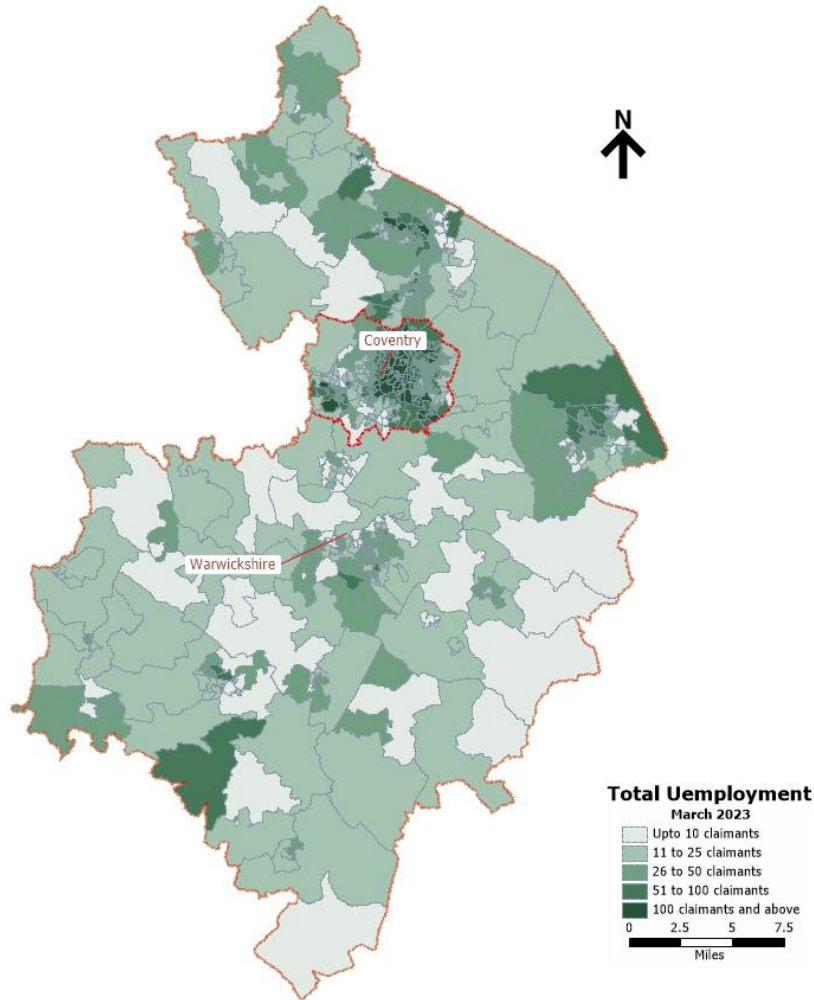
**Figure A20: Unemployment rate, October 2012 – September 2022**



Source: ONS APS

The number of claimants across the LEP area have been mapped by LSOA as shown in Figure A21 below. This shows that the pockets with the highest unemployment fall within the St Michael's ward in Coventry City Centre, with high unemployment also existing in other parts of the local authority, in Nuneaton and some LSOAs in Rugby.

**Figure A21: Unemployment across the CWLEP area (March 2023)**

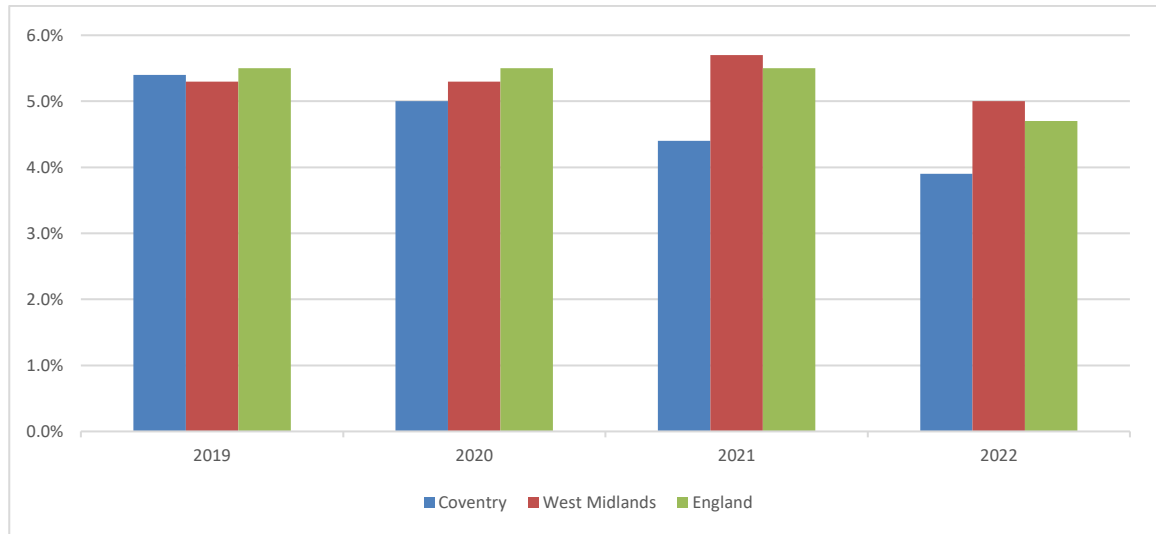


**(vi) Education and skills**

**(a) NEETs**

There are currently 306 young people (aged 16-17 years old) classed as NEET within Coventry, which represents 3.9% of all young people in this age group, lower than both the regional and national averages as shown in Figure A22. Furthermore, the proportion of NEET young people in Coventry has declined in recent years falling from 5.4% in 2019.

**Figure A22: Proportion of 16 – 17-year-olds NEETs, 2016-2019**



Source: Department for Education, Participation in education, training and NEET age 16 to 17 by local authority, 2022

**(b) Graduate retention**

The following table, drawn from HESA, provides data related to graduate retention across a number of the LEP areas within the West Midlands Region. As shown, Coventry and Warwickshire has a higher proportion of graduates who leave the area to study and do not return for employment compared with the national average.

LEP Area	Stay for study and employment	Leave for study, return employment	Leave for study, do not return	Stay for study, leave for employment
Black Country	19.8%	27.0%	43.9%	9.2%
<b>Coventry and Warwickshire</b>	<b>17.9%</b>	<b>32.9%</b>	<b>43.5%</b>	<b>5.7%</b>
Derby, Derbyshire, Nottingham & Nottinghamshire	28.4%	29.4%	35.4%	6.8%
Greater Birmingham and Solihull	24.3%	34.1%	33.6%	8.1%
Greater Lincolnshire	22.3%	26.9%	46.0%	4.9%
Leicester and Leicestershire	27.2%	30.4%	35.3%	7.1%
Stoke-On-Trent and Staffordshire	20.0%	28.8%	45.5%	5.7%
The Marches	4.1%	39.6%	55.2%	1.2%
Worcestershire	15.7%	26.3%	52.8%	5.3%
<b>National average</b>	<b>29.3%</b>	<b>30.4%</b>	<b>34.3%</b>	<b>6.0%</b>

Source: Black Country Intelligence Unit; HESA (2018)

**(c) Employment and training opportunities - apprenticeships and training**

Table A14 shows the total number of apprenticeship starts in Coventry since 2018/19 in comparison with the 2021/22 figures. The number of starts has generally declined since 2015/16, which has potentially been the result of the introduction of the new, more complex Apprenticeship Levy in April 2017. However, the decrease of apprenticeship starts in Coventry has been greater than the fall nationally.

<b>Table A14: Apprenticeship starts</b>					
	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>	<b>Change (2018-2021)</b>
<b>Coventry</b>	2,610	2,250	2,010	2,170	<b>-16.9%</b>
<b>West Midlands</b>	45,670	36,920	36,130	38,860	<b>-14.9%</b>
<b>England</b>	393,380	322,530	321,440	349,190	<b>-11.2%</b>

Source: Department for Education, 2023

Apprenticeship achievements have similarly been declining at the lower levels (intermediate and advanced) while the number of higher-level apprenticeships has increased, albeit from a much smaller base. This reflects the high priority given to the provision of degree-level apprenticeships by both Universities. While data for sectors is more limited, information available for the LEP area shows declining number of apprenticeship achievements in related sectors in recent years.

<b>Table A15: Apprenticeship achievements by level and sector</b>					
	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>	<b>Change (2018-2022)</b>
<b>Level (Coventry)</b>					
Intermediate Apprenticeship	610	460	350	270	<b>-55.7%</b>
Advanced Apprenticeship	570	420	510	400	<b>-29.8%</b>
Higher Apprenticeship	90	110	220	210	<b>+133.3%</b>
Totals	1,270	990	1,080	870	<b>-31.5%</b>
<b>Sector (Coventry and Warwickshire LEP)</b>					
Arts, Media and Publishing	20	10	10	10	<b>-50.0%</b>
Leisure, Travel and Tourism	140	70	90	30	<b>-78.6%</b>
Retail and Commercial Enterprise	280	230	290	240	<b>-14.3%</b>

Source: Department for Education, 2023



### **Inclusive Growth – Summary**

Around 65.5% of Coventry's population is White based on the Census 2021 survey, compared to 77.0% and 81.0% across the West Midlands and England respectively. The local population is thus more diverse than the county, region, and country.

The population in Coventry suffers from relatively high levels of deprivation. Around 39% of its population is located within the top 30% most deprived Lower Super Output Areas (LSOAs) in the country, including 14% in the top 10% most deprived parts of the country.

Between October 2021 and September 2022, Coventry had an unemployment rate (aged 16 - 64) of 5.8%, higher than the C&W sub-region (4.0%) and both the West Midlands and national comparators (5.0% and 3.7% respectively).

There are currently 306 young people (aged 16-17 years old) classed as NEET within Coventry, which represents 3.9% of this age group, lower than both the regional and national averages. The proportion of NEET young people in Coventry has declined, falling from 5.4% in 2019.

The number of apprenticeship starts has generally declined by 16.9% since 2015/16, which is greater than the fall regionally (14.9%) and nationally (11.2%).

# Appendix B

## Sector definitions

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## Appendix B – Sector definitions

<b>SIC07 Code</b>	<b>Description</b>	<b>Creative Industries</b>	<b>Digital Sector</b>	<b>Cultural Sector</b>	<b>Tourism</b>
1820	Reproduction of recorded media			*	
2611	Manufacture of electronic components		*		
2612	Manufacture of loaded electronic boards		*		
2620	Manufacture of computers and peripheral equipment		*		
2630	Manufacture of communication equipment		*		
2640	Manufacture of consumer electronics		*		
2680	Manufacture of magnetic and optical media		*		
3212	Manufacture of jewellery and related articles	*		*	
3220	Manufacture of musical instruments			*	
4651	Wholesale of computers, computer peripheral equipment and software		*		
4652	Wholesale of electronic and telecommunications equipment and parts		*		
4763	Retail sale of music and video recordings in specialised stores			*	
4910	Passenger rail transport, interurban				*
4932	Taxi operation				*
4939	Other passenger land transport n.e.c.				*
5010	Sea and costal passenger water transport				*
5030	Inland passenger water transport				*
5110	Passenger air transport				*
5510	Hotels and similar accommodation				*
5520	Holiday and other short-stay accommodation				*
5530	Camping grounds, recreational vehicle parks and trailer parks				*
5590	Other accommodation				*
5610	Restaurants and mobile food service activities				*
5621	Event catering activities				*
5629	Other food service activities				*
5630	Beverage serving activities				*
5811	Book publishing	*	*		
5812	Publishing of directories and mailing lists	*	*		
5813	Publishing of newspapers	*	*		
5814	Publishing of journals and periodicals	*	*		
5819	Other publishing activities	*	*		
5821	Publishing of computer games	*	*		
5829	Other software publishing	*	*		

<b>Table B1: DCMS Sector Definitions</b>					
<b>SIC07 Code</b>	<b>Description</b>	<b>Creative Industries</b>	<b>Digital Sector</b>	<b>Cultural Sector</b>	<b>Tourism</b>
5911	Motion picture, video and television programme production activities	*	*	*	
5912	Motion picture, video and television programme post-production activities	*	*	*	
5913	Motion picture, video and television programme distribution activities	*	*	*	
5914	Motion picture projection activities	*	*	*	
5920	Sound recording and music publishing activities	*	*	*	
6010	Radio broadcasting	*	*	*	
6020	Television programming and broadcasting activities	*	*	*	
6110	Wired telecommunications activities		*		
6120	Wireless telecommunications activities		*		
6130	Satellite telecommunications activities		*		
6190	Other telecommunications activities		*		
6201	Computer programming activities	*	*		
6202	Computer consultancy activities	*	*		
6203	Computer facilities management activities		*		
6209	Other information technology and computer service activities		*		
6311	Data processing, hosting and related activities		*		
6312	Web portals		*		
6391	News agency activities		*		
6399	Other information service activities n.e.c.		*		
6820	Renting and operating of own or leased real estate				*
7021	Public relations and communication activities	*			
7111	Architectural activities	*			
7311	Advertising agencies	*			
7312	Media representation	*			
7410	Specialised design activities	*			
7420	Photographic activities	*		*	
7430	Translation and interpretation activities	*			
7711	Renting and leasing of cars and light motor vehicles				*
7721	Renting and leasing of recreational and sports goods				*
7734	Renting and leasing of water transport equipment				*
7735	Renting and leasing of air transport equipment				*
7911	Travel agency and tour operator activities				*
7912	Travel agency and tour operator activities				*

<b>Table B1: DCMS Sector Definitions</b>					
<b>SIC07 Code</b>	<b>Description</b>	<b>Creative Industries</b>	<b>Digital Sector</b>	<b>Cultural Sector</b>	<b>Tourism</b>
7990	Other reservation service and related activities				*
8230	Organisation of conventions and trade shows				*
8552	Cultural education	*		*	
9001	Performing arts	*		*	*
9002	Support activities to performing arts	*		*	*
9003	Artistic creation	*		*	*
9004	Operation of arts facilities	*		*	*
9101	Library and archive activities	*		*	
9102	Museum activities	*		*	*
9103	Operation of historical sites and buildings and similar visitor attractions			*	*
9104	Botanical and zoological gardens and nature reserve activities				*
9200	Gambling and betting activities				*
9311	Operation of sports facilities				*
9319	Other sports activities				*
9321	Activities of amusement parks and theme parks				*
9329	Other amusement and recreation activities				*
9511	Repair of computers and peripheral equipment		*		
9512	Repair of communication equipment		*		

<b>Table B2: DCMS Subsector – Music, performing and visual arts</b>	
<b>SIC07 Code</b>	<b>Description</b>
5920	Sound recording and music publishing activities
8552	Cultural education
9001	Performing arts
9002	Support activities to performing arts
9003	Artistic creation
9004	Operation of arts facilities

# Appendix C

## Revealed preference analysis

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## Appendix C – Revealed preference analysis

### 1 Introduction

Substantial effort has been directed at the challenge of valuing non-market goods and services. Established techniques including variants of revealed preference (RP) and stated preference (SP) approaches have all been employed, in different scenarios, to aid the process of valuation.

UK CoC 2021 had a broad range of objectives and provided a wide range of ticketed and unticketed events, many of which were free. Consequently, since there is no clear market price for costs and benefits to society of the Programme they need to be estimated as shadow prices. A range of techniques are available to assess non-market values including revealed preference, stated preference (willingness to pay (WTP) or willingness to accept (WTA)) and wellbeing. Stated preference and wellbeing use questionnaires to derive values. This type of evidence was not available in relation to UK CoC 2021. Revealed preference techniques involve inferring the implicit price placed on a good by consumers by examining their behaviour in the market.

Revealed preference approaches are often useful in ex-post contexts where there is some evidence of choices already made by individuals. Since RP Methods deal with actual behaviour in contrast to approaches that address hypothetical scenarios, they can generate robust estimates of willingness to pay (WTP).

The Travel Cost Method (TCM) is a well-established technique originally developed to estimate recreational use values of non-market goods, traditionally outdoor natural areas. The basis of the TCM lies in recognition that while a recreational experience may be ‘unpriced’, many of the inputs used to generate the experience may well have a market price. As such, travel costs can serve as a proxy for the value of accessing the venue delivering the experience. It can also incorporate transport external costs to reflect the adverse environmental and other effects of travel. In the case of UK CoC 2021 data is available about the place of residence of the attendees.

The TCM is the lowest possible value compared with alternative wellbeing or stated preference approaches as it does not measure the utility of the event itself but only the indirect cost of consumption. However, it is based on actual attendee behaviour and also includes allowance for external travel costs.

As with all valuation techniques, the TCM comes with some caveats. In the first instance, TCMs focus on use-value rather than non-use/option values. These benefits have been estimated separately using benefit transfer techniques. A further issue is that trips may be multi-purposed, which could skew the TCM value, although attendees had travelled to the venue to attend a UK CoC 2021 event.

This Appendix details the application of a TCM approach to events taking place during the UK CoC 2021. The approach uses:

- distributed event tickets as the basis of count data modelling across MSOAs in England and Wales;

- evaluates travel costs using inputs from the DfT WebTag databank alongside DfT TEMPro profiles of travel mode;
- controls for socio-economic features of areas through construction of supervised principal components of area data; and
- applies spatial filters to offset spatial dependence and spatially related omitted variable bias.

## 2 Coventry UK CoC 2021 Ticketing Profile

The ticket dataset supplied by UK CoC 2021 contained a total of 188,109 records, with 97% sourced from within the UK, covering the period May 2021 to early October 2022. This is very close to the 187,861 total cited in the recent Indigo report for the UK CoC 2021 Ticket Factory Hub<sup>78</sup>. Adding ticketed attendances distributed through other channels, the latter suggests a total of 395,090 in-person ticketed attendances at UK CoC 2021 with a further 97,726 non-ticket attendances. We have no basis on which to assess spatial origins of these additions, but the numbers provide a useful basis for grossing-up outcomes.

With close to 57% of ‘Hub’ tickets allocated to residential postcodes within Coventry, 18% to other codes within Warwickshire and 10% to the wider West Midlands, some 85% of tickets related to residents in the West Midlands. Other dimensions of the dataset show that:

- events at four venues – Herbert Art Gallery/Museum (25.7%), Coventry Cathedral Ruins (15.8%), War Memorial Park (10.7%) and The Reel Store (8.0%) – accounted for 60% of all tickets distributed. With 112 venues listed, the top 30 accounted for 95% of all tickets;
- in terms of individual ticketed events, the four highest - Turner Prize (13.5%), Coventry Glides (13.4%), Our Wilder Family (10.6%) and Daniel Lismore (10.3%) accounted for just under 50% of all tickets;
- Saturday and Sunday events accounted for 57% of all tickets with Friday adding a further 16% and there existed substantial price variability - 61% of tickets were zero-priced.

A more detailed analysis of postcodes shows the presence of large allocations to some individual postcodes. For example, 947 tickets (the highest) are allocated to CV1 5QP which is the postcode for the Herbert Gallery/Museum. Other high numbers can be traced to the postcodes of colleges/universities which may suggest gifting/comping activities, but this cannot be confirmed.

## 3 Modelling framework

Since the mid-1980s, TCM approaches have fundamentally changed to reflect the discrete, integer and non-negative nature of flow data. Count data structures now frequently dominate quantitative analysis with specific attention paid to distributional assumptions within econometric specifications and many of these models are set within the Generalised linear Model (GLM) framework that emerged in the 1970s and 1980s (Nelder and Wedderburn 1972<sup>79</sup>, McCullagh and Nelson, 1989<sup>80</sup>).

<sup>78</sup> Indigo Ltd (2023) Estimated Audience Engagement for Coventry 2021

<sup>79</sup> Nelder JA, Wedderburn RWM (1972). ‘Generalized Linear Models.’ Journal of the Royal Statistical Society A, 135, 370–384.

<sup>80</sup> McCullagh P, Nelder JA (1989). Generalized Linear Models. 2nd edition. Chapman & Hall, London.



GLMs outline the dependence of a scalar variable  $y_i$  ( $i = 1, \dots, n$ ) on a vector of regressors  $x_i$ . The conditional distribution of  $y_i|x_i$  is a linear exponential family with probability density function (pdf):

$$f(y; \lambda, \phi) = \exp [ (y\lambda - b(\lambda))/\phi + c(y, \phi) ]$$

where  $\lambda$  is the canonical parameter that depends on regressors via a linear predictor and  $\phi$  is a dispersion parameter that is often known<sup>81</sup>.

The functions  $b(\cdot)$  and  $c(\cdot)$  are known and determine which member of the distribution family is used. The dependence of the conditional mean  $E[y_i|x_i] = \mu_i$  on the regressors  $x_i$  is specified via:

$$g(\mu_i) = x_i^T \beta$$

where  $g(\cdot)$  is a known link function and  $\beta$  is a vector of regression coefficients which are estimated by maximum likelihood (ML) using iterative weighted least squares (IWLS).

In the first instance, the GLM approach provided a coherent structure within which to accommodate the Poisson distribution in modelling count data. With pdf:

$$f(y; \mu) = \exp(-\mu) \mu^y / y!$$

and canonical link:

$$g(\mu) = \log(\mu)$$

there exists a log-linear relationship between mean and linear predictor. The variance in the Poisson model is identical to the mean, thus dispersion is fixed at  $\phi = 1$ .

While the Poisson distribution is relatively straightforward to model in a GLM framework the requirement that dataset variance and mean equate (equi-dispersion) is frequently not met. Many datasets are over dispersed with variances substantially greater than means, lowering standard errors of estimates and undermining robustness.

Early attempts to address this issue involved either using the same estimating functions for the mean but using more robust sandwich covariance matrix estimators for inference or using mean and variance functions from the Poisson GLM but leaving the dispersion parameter  $\phi$  unrestricted, to be estimated from data. Both these (sandwich adjusted and quasi-poisson) approaches generate the same coefficient estimates but inference is adjusted for over-dispersion.

In the light of such difficulties, analysts started to test negative binomial (NB) distributions which emerge as a gamma mixture of Poisson distributions:

$$f(y; \mu, \theta) = [\Gamma(y + \theta) / \Gamma(\theta) y!] [\mu^y \theta^\theta / (\mu + \theta)^{y+\theta}]$$

with mean  $\mu$  and shape parameter  $\theta$ ;  $\Gamma(\cdot)$  is the gamma function. While the negative binomial model is not a special case of the general GLM, a maximum likelihood fit can be computed through an iterative process.

The NB model, on the other hand, still faced the difficulty of dealing with substantial numbers of zeroes in many applications and research turned to approaches capable of dealing with both issues. One early model type in this arena was the hurdle model, originally proposed by Mullahy

<sup>81</sup> Zeileis, A., Kleiber, C., & Jackman, S. (2008). 'Regression Models for Count Data in R'. *Journal of Statistical Software*, 27(8), 1–25.

(1986)<sup>82</sup>. The hurdle model combines a count data model  $f_{\text{count}}(y; x, \beta)$  (left-truncated at  $y = 1$ ) and a zero hurdle model  $f_{\text{zero}}(y; z, \gamma)$  (right-censored at  $y = 1$ ) with model parameters  $\beta, \gamma, \theta$  estimated by maximum likelihood:

$$f_{\text{hurdle}}(y; x, z, \beta, \gamma) = f_{\text{zero}}(0; z, \gamma) \text{ if } y = 0,$$

$$f_{\text{hurdle}}(y; x, z, \beta, \gamma) = (1 - f_{\text{zero}}(0; z, \gamma)) \cdot f_{\text{count}}(y; x, \beta) / (1 - f_{\text{count}}(0; x, \beta)) \text{ if } y > 0$$

Hurdle models are essentially two-component models in which a truncated count component (such as Poisson or negative binomial) is employed for positive counts alongside a hurdle component (such as binomial) to reflect the profile of zeroes.

Following on from hurdle approaches, research moved to what have become known as zero-inflated models, two-component mixture models combining a point mass at zero with a count distribution, providing two potential sources of zeros. The zero-inflated density is a mixture of a point mass at zero  $I_{\{0\}}(y)$  and a count distribution  $f_{\text{count}}(y; x, \beta)$ . The probability of observing a zero count is inflated with probability  $\pi = f_{\text{zero}}(0; z, \gamma)$ :

$$f_{\text{zeroinfl}}(y; x, z, \beta, \gamma) = f_{\text{zero}}(0; z, \gamma)I_{\{0\}}(y) + (1 - f_{\text{zero}}(0; z, \gamma))f_{\text{count}}(y; x, \beta)$$

where  $I(\cdot)$  is the indicator function and the unobserved probability  $\pi$  of belonging to the point mass component is modelled by a binomial GLM  $\pi = g^{-1}(z > \gamma)$ . The corresponding regression equation for the mean is

$$\mu_i = \pi_i 0 + (1 - \pi_i) \exp(x_i^T \beta)$$

using the canonical log link. The full set of parameters of  $\beta, \gamma$ , and  $\theta$  (if a negative binomial count model is used) can be estimated by maximum likelihood.

GLMs retain a prominent position in univariate modelling. However, they do not explicitly model other distribution moments that may be of interest. In contrast GAMLSS models (generalised additive models for location, scale and shape) operate by relaxing the exponential family assumption in GLMs and replace it with a very general distribution family. Here, the systematic part of the model is expanded to allow the mean (or location) as well as all the parameters of the conditional distribution to be modelled as parametric and/or additive nonparametric (smooth) functions of explanatory variables. Estimation is based on backfitting-type Gauss-Newton algorithms with AIC-based selection of relevant predictors. We

The UK CoC 2021 TCM developed below investigates each of these options and assesses estimates of consumer surplus that emerge. In the absence of evidence to the contrary, and with no basis on which to further discriminate, we interpret each distributed ticket as an attendance/flow to a UK CoC 2021 venue.

Modelling is constrained to attendees/flows originating in England and Wales due to incompatibility with area controls in Scotland (334/0.18%) and Northern Ireland (164/0.09%). Overseas visitors (423/0.22%) are also excluded from analysis along with records containing an invalid postcode (5,196/2.76%).

<sup>82</sup> Mullahy J (1986). "Specification and Testing of Some Modified Count Data Models." *Journal of Econometrics*, 33, 341–365.

## 4 Spatial framework

While the Ticket Factory dataset provides individual-level records of attendance which are geo-referenced to postcode, we have no information as to the characteristics of the individuals themselves. For purposes of analysis, and for conformity with the lowest spatial configuration available in the DfT TEMPro software, we aggregate individual records into MSOA areas. This gives us a sample base of some 7,201 areas across England and Wales and allows us to model ‘characteristics’ through MSOA level profiles.

In terms of count patterns, 3,870 (54%) of the MSOA base have zero attendees/flows with 1680 (23%) having a count/flow between 1 and 5. A further 643 (9%) have a count between 5 and 10 and 404 (6%) with a count between 10 and 20. A total of 323 (5%) have a count between 20 and 50 with 281 (4%) containing a count greater than 50. This highly skewed and zero-inflated count profile provides the dependent variable for our analysis with a series of regressors reflecting socio-economic characteristics of residents in MSOAs that may serve to promote/hinder visits to UK CoC 2021 venues.

A range of socio-economic indicators are now available at MSOA level. Recent release of Census 2021 datasets allows us to directly model age, qualification, occupation and ethnicity profiles by MSOA area<sup>83</sup>. We also use Census employment data to construct cultural/creative employment indicators to reflect potential attendance ‘driver’ effects related to career interests. Beyond the Census we use exploratory ONS data for net annual household income after housing costs at MSOA level. While the latter relates to 2018 it is a useful guide to spatial income variation and we supplement the measure by including the MSOA income deprivation score from the IMD. Finally, we also construct a COVID-19 indicator, namely the proportion of COVID-19 deaths as a proportion of all MSOA deaths in the 12 months prior to the start of UK CoC 2021. This is included to reflect potential constraint effects on flows.

Early scrutiny of the regressor dataset confirmed expectations of extensive collinearity with particularly high correlations evident between measures of income, qualifications and occupation. Since the primary focus of the TCM analysis is the relationship between count patterns and travel cost rather than other indicators, we use dimensionality reduction to offset collinearity, undertaking a supervised principal component analysis (SPCA) of socio-economic indicators and including components – rather than the original indicators - in modelling. This approach allows full variability of the socio-economic indicators to be reflected in analysis.

Transforming a dataset (of given dimensionality) into a new reduced dimension dataset that is orthogonal and retains as much of the initial data geometry as is feasible is a common undertaking in many disciplines. In practice, both linear and non-linear approaches are available within broader convex and non-convex frameworks.

Principal Component Analysis (PCA) is the most common of the more prevalent convex frameworks that typically require eigen-decomposition of full or sparse (spectral) matrices. Reduction is achieved by embedding datasets into a linear subspace of lower dimensionality with the projection maintaining as much data variance as possible. The leading eigenvectors outline a

<sup>83</sup> We operate using 2011 MSOA boundaries to ensure compatibility with non-census datasets.

series of uncorrelated linear combinations of the variables and typically contain most of the variance in the dataset.

In this instance, we apply an iterative supervised PCA approach to ensure that components are constructed in reference to the pattern of flows rather than simply reflect the socio-economic dataset alone<sup>84</sup>.

The final spatial element in modelling is the introduction of spatial filters to address issues of spatial dependence. It is common for observations to be correlated in terms of time, subgroup clusters or spatial distribution. One means of encompassing spatial dependencies is to specify autoregressive models, but another modus operandi is that of eigenvector spatial filtering (ESF). The latter uses a set of synthetic proxy variates, based on some ‘articulation’ (typically a spatial weights matrix) that ties observations together as control variables in a model specification. These controls identify and isolate stochastic dependencies among the observations allowing modelling to proceed ‘as if’ these observations are independent.

The ESF approach uses a mathematical decomposition of the transformed spatial weight matrix **C**:

$$(I - \mathbf{1}\mathbf{1}^T/n) \mathbf{C} (I - \mathbf{1}\mathbf{1}^T/n)$$

where **1** is an n-by-1 vector of ones, and T denotes the matrix transpose operator.

The decomposition generates n eigenvectors and eigenvalues. In descending order, the n eigenvalues can be denoted as  $\boldsymbol{\lambda} = (\lambda_1, \lambda_2, \lambda_3, \dots, \lambda_n)$  - that is, the eigenvalues range between the largest eigenvalue that is positive,  $\lambda_1$ , and the smallest eigenvalue that is negative,  $\lambda_n$ . The corresponding n eigenvectors can be denoted as  $\mathbf{E}=(\mathbf{E}_1, \mathbf{E}_2, \mathbf{E}_3, \dots, \mathbf{E}_n)$ , where each eigenvector,  $\mathbf{E}_j$ , is an n-by-1 vector. In matrix notation, the decomposition can be expressed as

$$\mathbf{MCM} = \mathbf{E} \boldsymbol{\Lambda} \mathbf{E}^T$$

where  $\mathbf{M} = (I - \mathbf{1}\mathbf{1}^T/n)$ , the projection matrix that centres a variable and  $\boldsymbol{\Lambda}$  is an n-by-n diagonal matrix whose diagonal elements are the set of n eigenvalues  $(\lambda_1, \lambda_2, \lambda_3, \dots, \lambda_n)$ . The eigenfunctions have some important properties:

- eigenvectors are orthogonal and uncorrelated as the symmetry of matrix C ensures orthogonality and the projection matrix M ensures eigenvectors with zero means. That is,  $\mathbf{E}\mathbf{E}^T = I$  and  $\mathbf{E}\mathbf{T}\mathbf{1} = 0$ , and the correlation between any pair of eigenvectors (e.g.  $\mathbf{E}_i$  and  $\mathbf{E}_j$ ) is zero when  $i \neq j$ ;
- the eigenvectors themselves portray distinct map patterns. Each eigenvector portrays a different map pattern exhibiting a specified level of spatial correlation when it is mapped onto the areal units associated with the corresponding spatial weight matrix C; and
- given a spatial weight matrix, the feasible range of MC values is determined by the largest and smallest eigenvalues; that is, by  $\lambda_1$  and  $\lambda_n$ .

<sup>84</sup> Piironen, J., & Vehtari, A. (2018). Iterative Supervised Principal Components. In A. Storkey, & F. Perez-Cruz (Eds.), International Conference on Artificial Intelligence and Statistics, 9-11 April 2018, Playa Blanca, Lanzarote, Canary Islands (Proceedings of Machine Learning Research; Vol. 84). <http://proceedings.mlr.press/v84/piironen18a.html>

Based upon these properties, the first eigenvector,  $E_1$ , is the set of real numbers that has the largest **MC** value achievable by any set of real numbers for the spatial arrangement defined by the spatial weight matrix **C**; the second eigenvector,  $E_2$ , is the set of real numbers that has the largest achievable **MC** value by any set that is uncorrelated with  $E_1$ ; the third eigenvector,  $E_3$ , is the set of real numbers that has the largest achievable **MC** value by any set that is uncorrelated with both  $E_1$  and  $E_2$  and so on through  $E_n$ . As such, these eigenvectors furnish distinct map pattern descriptions of latent correlation in spatial variables because they are both orthogonal and uncorrelated.

In practice, ESF accounts for spatial correlation with a linear combination of the eigenvectors. As the combination accounts for spatial correlation, the ESF regression specification does not suffer from such correlation in its residuals. In other words, addition of the eigenvectors in the regression equation does not change the expected conditional mean of  $Y$  because the mean of each eigenvector is zero.

One complexity of ESFs is that they are not particularly suitable for larger samples. Parameter estimation is computationally demanding and classical ESF requires stepwise eigenvector selection which can be very slow for larger samples. Murakami and Griffith (2019) provide a basis for accelerating large ESF and RE-ESF frameworks with Monte Carlo evidence suggesting that approximation errors for selection of 200 or more eigenvectors are relatively modest<sup>85</sup>. We implement these routines in our analysis.

## 5 Travel costs

The relationship between travel costs and attendee patterns is the primary feature of interest in TCM analysis. For the purposes of this exercise, we compute straight line distances between origin MSOAs and UK CoC 2021 venues and approximate travelled distance by applying a 1.2 uplift factor.

Generalised travel cost (GTC) matrices are constructed by taking into account the travel time (approximate travelled distance, multiplied by average speed, multiplied by value of travel time), and financial travel costs (vehicle operating costs or fares) for individual travel modes.

Modal splits are derived from DfT TEMPro software for average day trips, with a “home-based recreation/social” journey purpose, adjusted to provide a binary modal split selection based on trip length. For trips under 5km, the mode split for walking and cycling has been doubled, and for trips over 5km, the mode split for walking and cycling is zero. The following table sets out the modal split profile.

Travel time has been valued with “non-working – other” market price values for 2021 from the DfT TAG Databook, rebased from 2010 to 2023 prices using the GDP deflator. To offset the disbenefit of additional traffic, the marginal external costs of the “car driver” trips has been calculated using the DfT TAG marginal external cost values (national weighted average) for 2021.

<sup>85</sup> Murakami, D. and Griffith, D.A. (2019) Eigenvector spatial filtering for large data sets: fixed and random effects approaches. *Geographical Analysis*, 51 (1), 23-49.

<b>Coventry UK CoC 2021 GTC Assumptions</b>						
<b>Modal Profile</b>						
Trip Length	Walk	Cycle	Car Driver	Car Passenger	Bus/Coach	Rail
<5km	36%	2%	28%	27%	5%	1%
>5km	0%	0%	46%	45%	8%	2%

- Walking: average speed of 5kph, giving an average GTC per km of £1.37. No financial costs;
- Cycling: average speed of 15kph, giving an average GTC per km of £0.46. No financial costs;
- Car (driver):
  - average speed of 48kph;
  - fuel consumption calculated (taken from the Department for Transport (DfT) TAG Databook Table A 1.3.11, which relates to TAG Unit A1-3 User and Provider Impacts) using the function  $L = a/v + b + c.v + d.v^2$  where L = consumption, expressed in litres per kilometre (kwh per km for electric vehicles); v = average speed in kilometres per hour; and a, b, c, d are parameters defined for each vehicle category (petrol, diesel and electric), given in the TAG Databook;
  - fuel consumption multiplied by fuel costs, inclusive of resource costs, duty and VAT to calculate fuel cost per km for petrol, diesel and electric vehicles, with values given in TAG databook;
  - weighted average vehicle fuel cost per km calculated using vehicle fleet proportions for 2021 given in TAG Databook;
  - non fuel vehicle operating costs per km calculated for each vehicle category using non work values given in the TAG databook, with a weighted average calculated based on 2021 vehicle fleet mix;
  - average GTC combining travel time, fuel and non-fuel vehicle operating costs is £0.27 per km.
- Car (passenger): average speed of 48kph, giving an average GTC per km of £0.14. No financial costs;
- Bus or coach: average speed of 30kph, with an average fare per km of £0.12. Average GTC per km of £0.35;
- Rail: average speed of 47kph with an average fare per km of £0.16. Average GTC per km of £0.31.

This includes congestion, greenhouse gas emissions, air quality, noise, infrastructure wear, accidents and indirect taxation, which are calculated on a per vehicle km basis. The Marginal External Costs (MECs) have been subtracted from the weighted GTCs to produce a net weighted GTCs for use in TCM modelling.

Although detailed, there are some caveats in relation to this process. Modal GTCs are calculated by main mode only – access/egress to/from that mode (first mile and last mile), as well as interchange, has not been computed. Likewise, Average speeds and fares have been applied in computation of GTCs which may not accurately represent very short/long journey distances and parking charges have not been estimated. As such, the GTCs used may prove to be conservative.

## 6 TCM outcomes and consumer surplus estimates

The TCM profiles that emerge from the analysis outlined above are reported in tables over the following pages. Each table contains nine sets of outcomes reflecting differing count data models and there are six tables to reflect six different postcode ticket filters.

Scrutiny of the tables shows that log-likelihoods increase directly with ticket filters, reflecting greater variability in count patterns as higher filters are applied. The most immediate observation in all tables, on the other hand, is the importance of appropriate distributional assumptions.

Standard Poisson and Poisson variant models (Poisson, SPoisson, QPoisson, ZIP) have log-likelihoods that are multiples of those for other distributions and it is evident that Poisson structures struggle to accommodate the count profiles as well as alternatives. Hurdle, Negative Binomial (NB), Zero-inflated Negative Binomial (ZNB) and GAMLSS models have log-likelihoods that are much smaller and are moderately close to each other.

The GAMLSS models are tested using a zero-inflated Sichel distribution. The Sichel distribution is a three-parameter compound Poisson distribution which is often used for highly skewed frequency distributions of attendees. In the case of ZSichel variants, distribution parameters are modelled as constants only. Zsichel1 variants model the parameters as functions of a small number of components. In practice, the ZSichel1 model has the lowest log-likelihood in each table, marginally better than the Hurdle model in each instance.

The travel cost parameter is highly significant in all models, regardless of structure and distributional assumptions. Coefficient values, however, vary significantly between the Poisson (-0.31 to -0.35) and other variants (-0.064 to -0.072) across tables. This is of some importance since the four to five times difference implies substantial variation in consumer surplus estimates. The differences primarily reflect issues noted earlier regarding inability of standard models to address overdispersion/zero-inflation. As such, coefficient variation of this scale between models is a common feature of comparable TCM studies most of which typically demonstrate the greater robustness of the extended models that are employed to generate consumer surplus estimates here.

Estimates of consumer surplus can be generated directly from model results. Focussing primarily on the ZSichel1 GAMLSS models, as the best performing, use-value consumer surplus per individual visit is placed between £13.89 and £15.63. This range is broadly mid-table in terms of the Simetrica DCMS databank values for TCM studies and places the surplus at between 3.5 and 4 times the average admission ticket value for UK CoC 2021.

Applying these values to the ticket base used in modelling presents a total consumer surplus estimate of between £2.53m and £2.85m or between £5.49m and £6.18m if grossed up to the Indigo Ltd estimates of 395,090 ticketed visits. It would be appropriate to make a small reduction in this estimate for 'no shows'. Furthermore, since some 47% of attendees were for small (less than 1,000 attendance)/hyperlocal events, the distances travelled for these are likely to be less and thus the consumer surplus per individual visit lower. However, a number of these events were included in the ticket data. Furthermore, consumer surplus would also be derived from those attending non-ticketed events (estimated to be 97,726). On balance, the total consumer surplus estimated based on the 395,090 ticketed visits is considered to be reasonable.

TCM Model Outcomes: 10 Ticket Postcode Filter									
Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Model Type	Poisson	SPoisson	QPoisson	NB	Hurdle	ZIP	ZINB	GAMLSS (Zisichel)	GAMLSS (Zisichel1)
Intercept	7.772*** (0.009)	7.772*** (0.165)	7.772*** (0.165)	4.419*** (0.055)	4.484*** (0.071)	7.634*** (0.009)	4.419*** (0.055)	4.303*** (0.108)***	4.242*** (0.175)
Travel Cost	-0.311*** (0.001)	-0.311*** (0.011)	-0.311*** (0.011)	-0.085*** (0.002)	-0.095*** (0.002)	-0.279*** (0.001)	-0.085*** (0.002)	-0.069*** (0.004)	-0.064*** (0.006)
Area Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spatial Filter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-107,635	-107,635	-107,635	-15,601	-15,422	-93,445	-15,601	-15,577	-15,399
Sample	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01, SPoisson; Sandwich Estimator; QPoisson: Quasi-Poisson

TCM Model Outcomes: 20 Ticket Postcode Filter									
Model	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Model Type	Poisson	SPoisson	QPoisson	NB	Hurdle	ZIP	ZINB	GAMLSS (Zisichel)	GAMLSS (Zisichel1)
Intercept	7.970*** (0.009)	7.970*** (0.172)	7.970*** (0.172)	4.504*** (0.055)	4.517*** (0.075)	7.854*** (0.009)	4.504*** (0.055)	4.441*** (0.104)***	4.567*** (0.129)
Travel Cost	-0.322*** (0.001)	-0.322*** (0.012)	-0.322*** (0.012)	-0.086*** (0.002)	-0.096*** (0.002)	-0.293*** (0.001)	-0.086*** (0.002)	-0.072*** (0.004)	-0.071*** (0.004)
Area Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spatial Filter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-121,259	-121,259	-121,259	-15,829	-15,649	-107,034	-15,829	-15,781	-15,629
Sample	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01, SPoisson; Sandwich Estimator; QPoisson: Quasi-Poisson



TCM Model Outcomes: 30 Ticket Postcode Filter									
Model	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
Model Type	Poisson	SPoisson	QPoisson	NB	Hurdle	ZIP	ZINB	GAMLSS (Zisichel)	GAMLSS (Zisichel1)
Intercept	8.047*** (0.009)	8.047*** (0.179)	8.047*** (0.179)	4.532*** (0.055)	4.537*** (0.076)	7.938*** (0.009)	4.532*** (0.055)	4.471*** (0.104)***	4.579*** (0.129)
Travel Cost	-0.328*** (0.001)	-0.328*** (0.012)	-0.328*** (0.012)	-0.087*** (0.002)	-0.096*** (0.002)	-0.300*** (0.001)	-0.086*** (0.002)	-0.072*** (0.004)	-0.071*** (0.004)
Area Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spatial Filter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	124,915	-124,915	124,915	15,872	-15,690	-110,749	-15,872	-15,819	-15,671
Sample	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01, SPoisson; Sandwich Estimator; QPoisson: Quasi-Poisson

TCM Model Outcomes: 50 Ticket Postcode Filter									
Model	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
Model Type	Poisson	SPoisson	QPoisson	NB	Hurdle	ZIP	ZINB	GAMLSS (Zisichel)	GAMLSS (Zisichel1)
Intercept	8.075*** (0.009)	8.075*** (0.191)	8.075*** (0.191)	4.550*** (0.055)	4.549*** (0.077)	7.967*** (0.009)	4.549*** (0.055)	4.500*** (0.105)***	4.605*** (0.131)
Travel Cost	-0.331*** (0.001)	-0.331*** (0.014)	-0.331*** (0.014)	-0.087** (0.002)	-0.097*** (0.002)	-0.303*** (0.001)	-0.087*** (0.002)	-0.073*** (0.004)	-0.072*** (0.004)
Area Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spatial Filter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-128,652	-128,652	-128,652	-15,905	-15,722	-114,269	-15,906	-15,851	-15,704
Sample	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01, SPoisson; Sandwich Estimator; QPoisson: Quasi-Poisson

<b>TCM Model Outcomes: 100 Ticket Postcode Filter</b>									
Model	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)
Model Type	Poisson	SPoisson	QPoisson	NB	Hurdle	ZIP	ZINB	GAMLSS (Zisichel)	GAMLSS (Zisichel1)
Intercept	8.107*** (0.009)	8.107*** (0.197)	8.107*** (0.197)	4.556*** (0.055)	4.549*** (0.077)	7.997*** (0.008)	4.556*** (0.055)	4.523*** (0.106)***	4.601*** (0.127)
Travel Cost	-0.337*** (0.001)	-0.337*** (0.014)	-0.337*** (0.015)	-0.088*** (0.002)	-0.097*** (0.002)	-0.309*** (0.001)	-0.088*** (0.002)	-0.074*** (0.004)	-0.072*** (0.004)
Area Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spatial Filter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-131,428	-131,428	-131,428	-15,937	-15,751	-116,398	-15,937	-15,878	-15,735
Sample	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01, SPoisson; Sandwich Estimator; QPoisson: Quasi-Poisson

<b>TCM Model Outcomes: Unrestricted Ticket Postcode Filter</b>									
Model	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)
Model Type	Poisson	SPoisson	QPoisson	NB	Hurdle	ZIP	ZINB	GAMLSS (Zisichel)	GAMLSS (Zisichel1)
Intercept	8.311*** (0.008)	8.311*** (0.201)	8.311*** (0.201)	4.258*** (0.053)	4.624*** (0.078)	8.196*** (0.008)	4.664*** (0.054)	4.590*** (0.105)***	4.662*** (0.123)
Travel Cost	-0.353*** (0.001)	-0.353*** (0.016)	-0.353*** (0.016)	-0.091*** (0.002)	-0.099*** (0.002)	-0.324*** (0.001)	-0.091*** (0.002)	-0.075*** (0.004)	-0.072 (0.004)
Area Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spatial Filter	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log Likelihood	-142,070	-142,070	-142,070	-16,693	-16,199	-125,983	-16,398	-16,334	-16,177
Sample	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201	7,201

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01, SPoisson; Sandwich Estimator; QPoisson: Quasi-Poisson

# Appendix D

## Distributional analysis

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## Appendix D – Distributional Analysis Method

The proposal will have positive distributional effects, by encouraging investment within Coventry and the West Midlands, and helping to re-balance the economy away from London and the South East. It reflects the critical importance of the Programme in supporting the ‘levelling-up’ agenda through attracting investment and promoting a transition to a higher value economy within former industrial cities such as Coventry.

The approach used to calculate these effects is that set out in the HM Treasury Green Book, based on equivalised disposable household income and welfare weights (the estimate of the marginal utility of income). The Green Book distributional weighting framework is constructed using data from the DWP Households Below Average Income (HBAI) dataset. This dataset takes information from the Family Resource Survey (FRS) and constructs an income distribution profile for the UK, on the basis of (weekly) net equivalised income before housing costs (BHC) and after housing costs (AHC).

Ranked in terms of income, distribution quintiles and median incomes within each of the quintiles are defined. The ratio of the third quintile median (effectively the overall distribution median) to each quintile median is constructed and raised to a power to generate the distributional weights.

As the FRS is sample-based, robustness of income estimates declines directly with spatial scale. Hence HBAI regional distributions are reported on the basis of sample averages over three- year periods and no sub-regional HBAI profiles are reported. The absence of robust local income distribution profiles means that the UK methodology cannot be used to generate sub-national weighting distributions.

There is, however, some sub-national income data. Small area income estimates (MSOA) are provided by ONS. These are ‘modelled’ in the sense that they use a range of data sources to generate income estimates. The data are available for weekly gross, net and net-equivalised (BHC and AHC) income and are effectively mean values but do not provide sufficient distributional information to allow definition of area quintiles.

Our approach has been to use the MSOA income data for 2015/16 available at the time of analysis, allied to MSOA population estimates, to construct population weighted average incomes by LAD. The ratio of England to LAD incomes is raised to a power of 1.3 - the estimate of elasticity of marginal utility of income in the Green Book - to produce BHC and AHC distributional weights.

In the case of Coventry, the distributional weights are:

- Before Housing Costs – 1.3
- After Housing Costs – 1.3

Using this approach, a distributional weight of 1.3 has been applied to the benefits. The inclusion of this analysis is critical and noteworthy, given the context of the City of Culture and its award to Coventry to deliver a step-change in the ability of deprived communities to access events which they have not previously had the opportunity to attend.

The ability of deprived residents to access the events is demonstrated by the split of attendees by IMD decile as shown in **Section 3**. Where benefits relate to user benefits, this distributional

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effect has been applied to the proportion of visitors within the top 30% most deprived IMD deciles (23.3% as shown in **Table 4.5**). This relates to the following:

- Physical attendees (ticketed and unticketed) cultural value;
- Virtual attendees' cultural value;
- Education wellbeing;
- Personal and social development;
- Volunteering; and
- R&D.

Where benefits relate to non-user or employment benefits, this distributional effect has been applied to the proportion of Coventry residents within the top 30% most deprived IMD deciles (40.0% as shown in **Table 4.5**). This proportion relates to the following:

- Non-use cultural value;
- Labour market wage impact; and
- Employment wellbeing.

# Appendix E

## Benefit Values

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## Appendix E – Benefit Values

The below table presents the values and beneficiaries as calculated within the value for money assessment, including the source of the data. Additionality has been applied to the calculations, as set out in Section 6 of the main report.

Our methodology has included a robust review of academic research to identify the most appropriate benefit values for use within the UK CoC 2021 assessment. This review assessed the compatibility of the study, examining the location, asset type, valuation, method, year, and study quality rating (from DCMS Culture and Heritage Capital Evidence Bank or inclusion within other governmental guidance).

Table E1: Benefits within the value for money assessment						
Benefit	Study	Method	Departmental guidance	Value in Study (price year)	Value in 2023 prices	Number of UK CoC 2021 beneficiaries
Cultural: Revealed Preference use value (ticketed)	AMION'S UK CoC 2021 research	See Appendix C – Travel cost method on UK CoC 2021	DCMS	£15.50 (2023)	£15.50	395,090
Cultural: Stated Preference use value (unticketed)	Morethanoutputs (2017), An Evaluation of Social Return using Willingness to Pay	Stated Preference: Contingent Valuation method on Bradford Literature Festival	DCMS	£8.70 (2020 from DCMS Evidence Bank)	£9.01	135,467
Cultural: Wellbeing use value (virtual attendees)	BFI (2021), Britain on Film Impact Study; and Creative Industries Policy & Evidence Centre (2021) Arts Council England: Digital Offer Research Report.	Contingent valuation Willingness to Pay (WTP) surveys on digital content	DCMS	£2.54 to £3.21 (2021)	£3.42	926,647
Cultural: Wellbeing indirect/non-use value (residents)	Morethanoutputs (2017), An Evaluation of Social Return using Willingness to Pay	Stated Preference: Contingent Valuation method on Bradford Literature Festival	DCMS	£4.98 (2020 from DCMS Evidence Bank)	£5.16	942,473
Volunteering wellbeing benefit	What Works Centre for Wellbeing (2020), Volunteering and Wellbeing Rapid Evidence Assessment	Subjective wellbeing valuation approach	Green Book Wellbeing	£911 (2020)	£983	1,515

Labour market / wage impact	Ecorys, BOP Consulting, Ipsos MORI (2022), Evaluation of the Culture Recovery Fund	Economic output via the wages earned by previously unemployed or underemployed	DCMS	£31,375	£32,484	163
Employment wellbeing	Sarah Fleche and George Ward (2018), The Origins of Happiness: Online Materials	Monetising the effect of improving life satisfaction	Green Book Wellbeing	£5,980 (2018)	£6,637	163
School wellbeing and resilience	Lordan and MacGuire (2019), Healthy Minds evaluation report	Monetising the effect of improving life satisfaction	Green Book Wellbeing	£2,366 (2019)	£2,710	1,234 <sup>86</sup>
Personal, social, and civic development	Bates et all (2020), National Citizen Service 2018 Evaluation	Monetising the effect of improving life satisfaction	Green Book Wellbeing	£5,200 (2018)	£6,082	708 <sup>87</sup>
Research and development	Frontier Economics on behalf of BIS (2014), Rates of return to investment in science and innovation	Social value arising from rates of return to R&D income	BEIS	30% returns p.a., 15% depreciation with 3.5% discounting and real prices	30% returns p.a., 15% depreciation with 3.5% discounting and real prices	£1.6m
Distributional	Green Book Guidance	See Appendix D – marginal utility of income	Green Book	1.3	1.3	23.3% for user 40% for non-user

<sup>86</sup> We have included that 1/12 of the participations in workshops such that the yearly value can be applied, assuming their attendance is worth one month worth of personal development

<sup>87</sup> We have included 1/52 of the learners at school and house-based activities such that the yearly value from Green Book Wellbeing guidance can be applied, assuming their lessons were worth one month of a school wellbeing programme