



Colston Hall economic impact assessment

3 May 2017



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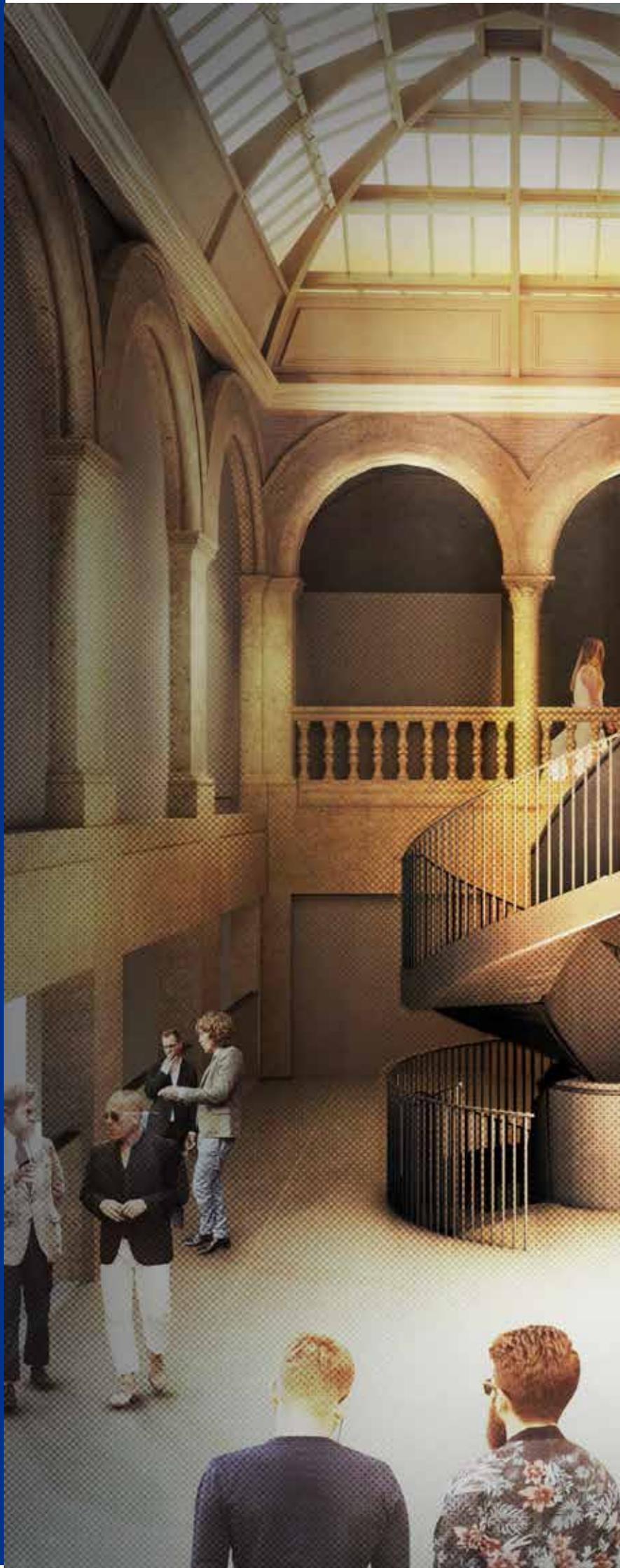
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An overview: Colston Hall's economic contribution to the UK

Annual impact FY 2015/16:



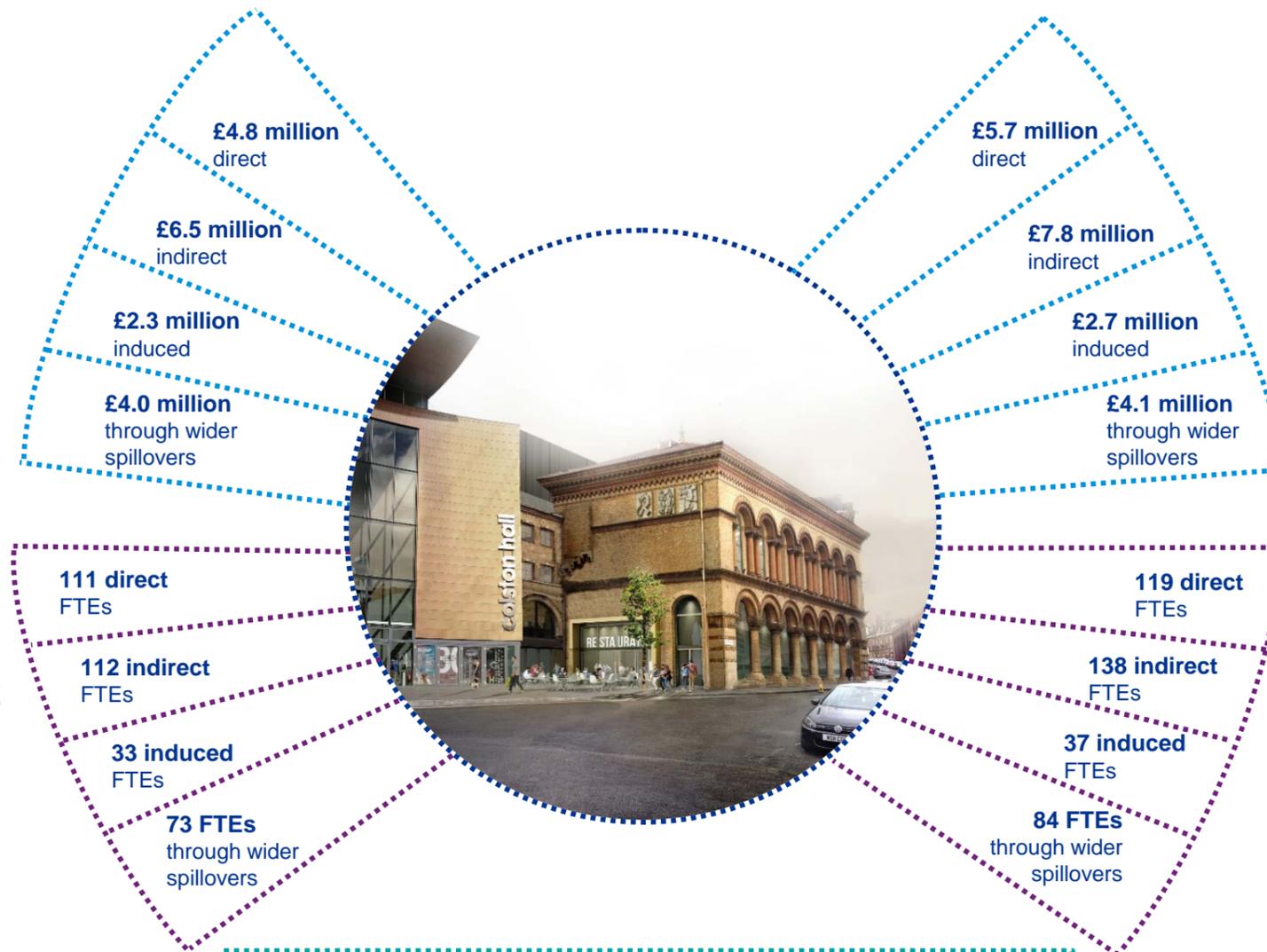
£17.4 million

of which **£11.8 million** was generated in **Bristol**



329 FTEs

of whom **257 FTEs** were in **Bristol**



Average annual impact (present value terms) FY2020/21 to FY2039/40:



£20.6 million

of which **£12.7 million** could be generated in **Bristol**



378 FTEs

of whom **273 FTEs** could be generated in **Bristol**

Over the 20 year period from FY2020/21 to FY 2039/40 Colston Hall could generate an estimated:

£412.5 million of GVA

of which **£253.7 million** could be generated in **Bristol**

NOTES:

- GVA (gross value added) is a measure of the contribution to the economy of an individual producer, industry or sector, net of intermediate consumption (for example goods and services that are used in the production process). It is a measure of the economic value of goods and services produced.
- The wider spillovers include the economic impact generated as a result of Colston Hall's attendees', artists' and crew members' spending in the wider economy associated with their attendance at an event at Colston Hall.
- The economic impacts are assessed in net terms, taking account of the estimated displacement of economic activity in the UK economy (i.e. the level of expenditure of those who attended an event at Colston hall that was over and above what would otherwise have been spend on any alternative activity in the UK.)
- FTE is the annual full time equivalent measure of employment. It captures the number of employees that work full-time for a full year.
- The totals above may not sum due to rounding.

1 Executive Summary

Bristol's largest concert hall¹, Colston Hall, has been providing music and entertainment for 150 years. It has hosted major names in rock, pop, jazz, folk, world and classical music, stand-up comedy as well as local choirs, orchestras and schools.

Since taking over the management of Colston Hall in 2011, Bristol Music Trust has aimed to develop a diverse musical programme, and to secure the commercial success of the building. It has been tasked by Bristol City Council with supporting music across Bristol and the South West, through musical education, commissioning new works, supporting local musicians, and promoting music across all communities to support artists in the local area.

Colston Hall has a long established role in the city, attracting numerous attendees, artists and wider visitors –approximately 380,000 in total in FY 2015/16. However, in order to ensure the sustainability of the Hall and preserve it for future generations, it is recognised in Bristol Music Trust's Annual Report² that major investment in redevelopment of the Hall is required. Although many potential options to ensure the long term sustainability of Colston Hall have been considered, the preferred option is a major transformation programme to upgrade the historic grade 2 listed building, to make it into one of the most comprehensive and attractive music facilities in the country.

This transformation requires significant financial investment. And whilst a large proportion of this has already been raised, further support is needed. Therefore, in order to support this campaign, Bristol Music Trust commissioned KPMG to conduct an analysis to assess the current economic contribution that Colston Hall makes to the local Bristol, South West and wider UK economy and to assess what level this contribution may reach after completion of the proposed transformation of Colston Hall.

Our analysis assesses the economic impact generated by Colston Hall in terms of Gross Value Added (GVA) – a measure of the economic value of goods and services generated as a result of Colston Hall's activities – and employment (in full-time equivalent (FTE) terms), over two timeframes:

- The last full financial year: April 2015 to March 2016 (Financial Year (FY) 2015/16); and
- The 20 year period after completion of the planned Phase 2 redevelopment of Colston Hall: April 2020 to March 2040 (FY 2020/21 to FY 2039/40).

The scope of our study does not include an assessment of the wider social impacts that Colston Hall has, for example through the music education programme provided via Bristol Plays Music and the learning events hosted at Colston Hall's Education Suites. These wider social impacts will add to the overall contribution that Colston Hall makes to the economy.



¹ Colston Hall, About us. Accessed at <http://www.colstonhall.org/about-us/>

² Bristol Music Trust, Trustees Annual Report for the year ended 31 March 2016.

1.1 The economic impact of Colston Hall in FY 2015/16

In FY 2015/16, over 450 events were hosted at Colston Hall, including 60 free performances and events in the Foyer, 6 major festivals, including Bristol's first Americana Festival, and an outdoor concert for an audience of 5,000 at Bristol's Harbourside with Goldie and the Heritage Orchestra. The ticketed events at the Hall and the festivals were attended by over 246,000 attendees, with a further 8,000 people attending the free events in the Foyer.

Bristol Music Trust undertakes a wide range of activities at Colston Hall, contributing to economic activity through the running of Colston Hall and the events and activities staged there. In addition, economic activity is generated by Colston Hall via the events staged by external promoters who lease the Hall, and via the operations of the café bar in Colston Hall, leased to Bath Ales.

This activity directly generates economic activity (measured in terms of either direct GVA or direct employment) as well as creating further economic impacts through the wider supply chain to Colston Hall (indirect impacts) and the spending of the wages earned by individuals for direct and indirect employment linked to Colston Hall (induced impacts). Including all these routes to impact, we estimate that in FY 2015/16, Colston Hall generated a total of £13.4 million of GVA for the UK economy, including indirect and induced effects.

However, these impacts form only part of the overall economic contribution generated by Colston Hall's activities. In addition, wider economic impacts are generated as a result of Colston Hall's attendees', artists' and crew members' spending in the wider economy when attending events at the Hall. This is an important part of the contribution to the economy resulting from Colston Hall's activities.

Based on attendee spending data collected via a KPMG survey, we estimate that the net GVA generated in FY 2015/16 through attendees', artists' and crew members' spending in the wider economy, taking account of the estimated displacement of economic activity in

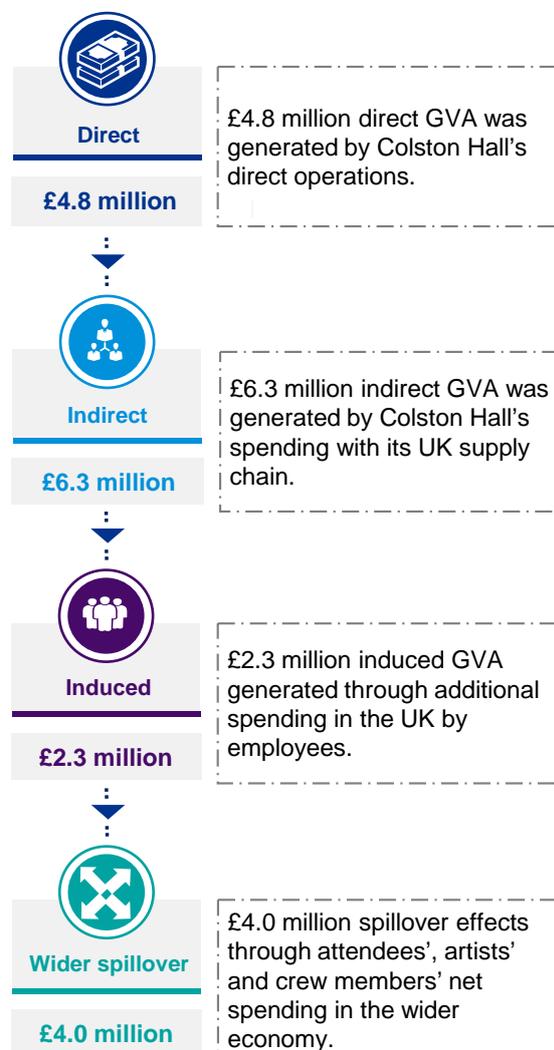
the UK³, was £4.0 million including indirect and induced effects.

Including all these routes to impact, we estimate that in FY 2015/16, the GVA contribution of Colston Hall was:

£17.4 million

for the UK economy, including indirect, induced and wider spillover effects.

Of this total GVA impact in FY 2015/16:



³ Displacement accounts for the alternative spending by assessing the level of expenditure of those who attended an event at Colston Hall that was over and above what

would otherwise have been spent on any alternative activity in the UK.

A large proportion of this GVA impact (68%) was generated in Bristol itself – £11.8 million of the total GVA impact of Colston Hall in FY 2015/16. A further £0.4 million of the total GVA impact was generated in the wider South West, and the remaining £5.3 million was generated across the rest of the UK.

In addition, through its activities, and the net additional spending of Colston Hall's attendees', artists' and crew members' in the economy, we estimate that in FY 2015/16 Colston Hall's total net annual employment impact was:

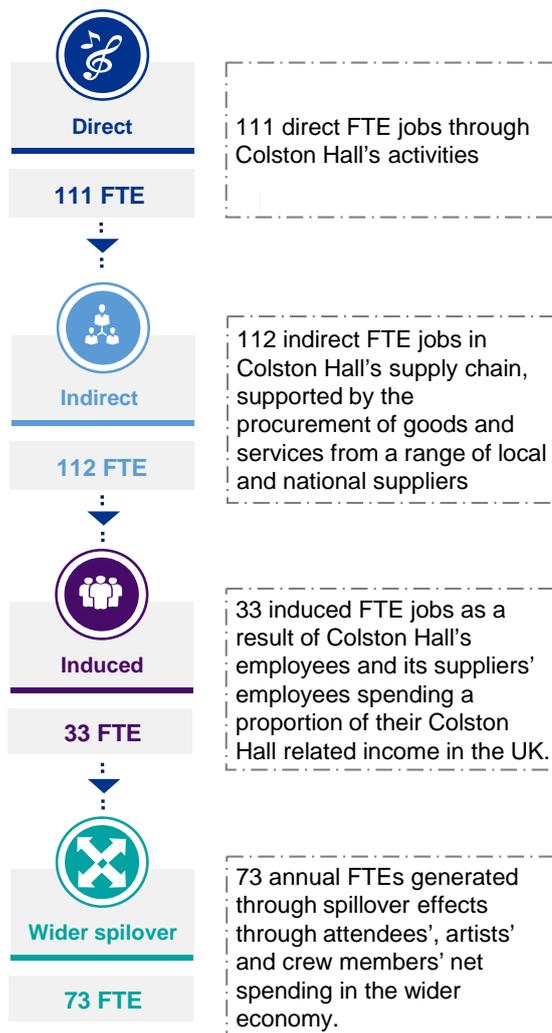
329 FTEs

for the UK economy.

A large proportion of these jobs (79%) were generated in Bristol itself- 257 FTEs of the total employment impact of Colston Hall in FY 2015/16.



Of this total annual FTE employment in FY 2015/16:



1.2 The economic impact of Colston Hall in FY 2020/21 to FY 2039/40

Bristol Music Trust reports that the planned transformation of Colston Hall is one of the most significant projects of its kind in the UK, and the biggest ever arts redevelopment in Bristol⁴.

The transformation plan encompasses a series of substantial works within the Colston Hall old building including the main hall, the smaller hall The Lantern, and the building infrastructure and frontage, which will require the entire Hall to be closed from summer 2018 to early 2020. The Trust's ambition for this Phase 2 redevelopment

of Colston Hall is to both transform the Victorian building into an international-standard Centre for Music Entertainment, Education and Enterprise, and to enable it to become the UK Capital for Young People's Music⁵.

According to Bristol Music Trust's business plan for the 20 year period following the proposed re-opening of Colston Hall, from FY 2020/21 onwards it is anticipated that the Hall will stage an increased number of events in the

⁴ Bristol Music Trust, Trustees Annual Report for the year ended 31 March 2016

⁵ Bristol Music Trust, Trustees Annual Report for the year ended 31 March 2016



redeveloped performance spaces and with this, and increased capacities of each area, expected attendee numbers will rise. The financial projections included in the business plan also indicate that the financial performance of Colston Hall will improve.

As part of our study, we were asked to assess how the regeneration of Colston Hall, and achievement of the financial position detailed in Bristol Music Trust's business plan for Colston Hall for FY 2020/21 to FY 2039/40, will impact on the economic contribution made by the Hall.

On the basis of the figures detailed in the business plan, our analysis suggests that the direct, indirect and induced economic contribution generated by Colston Hall through the operating of the Hall, the café bar and the staging of events by both Bristol Music Trust and external promoters could reach £324.6 million over the full FY 2020/21 to FY 2039/40 period (an annual average of £16.2 million).

And the employment supporting this economic activity could reach 294 annual FTEs.

⁶ This net GVA figure takes account of any potential displaced economic activity arising from attending Colston Hall.

The wider GVA generated as a result of attendees', artists' and crew members' potential spending in the wider economy when visiting Colston Hall also adds to this impact. Based on estimated increases in the number of attendees, as well as artists and crew members involved in the staging of more events at Colston Hall after its redevelopment, we estimate that this wider net GVA⁶ could reach £87.9 million over the full FY 2020/21 to FY 2039/40 period (an annual average of £4.4 million), with 84 FTE annual employees also supported from FY 2020/21.

Combined, this takes Colston Hall's potential **total annual average present value GVA contribution from FY 2020/21 to FY 2039/40 to:**

£20.6 million

for the UK economy, with £12.7 million of this generated in Bristol itself.

Under the proposed plans, over the full 20 years, the present value GVA contribution of Colston Hall could be:

£412.5 million

for the UK economy⁷.

Of this total:

- £253.7 million potentially generated in the Bristol economy;
- £9.6 million potentially generated in the wider South West economy; and
- £149.2 million potentially generated in the wider UK economy.

And as a result of Colston Hall's activities, the total average annual employment that potentially could be sustained each year from FY 2020/21 to FY 2039/40 could be:

378 FTEs

Our analysis suggests that the annual average economic contribution that could be achieved by Colston Hall from FY 2020/21 is:

- **£3.2 million** higher than in FY 2015/16 in terms of total annual GVA impact across the UK, with a £0.9 million higher GVA contribution generated in Bristol.
- **49 annual FTEs** higher across the UK than FY 2015/16, with an additional 16 annual FTEs in Bristol.

This demonstrates that not only will the proposed redevelopment of Colston Hall help to secure the Hall for future generations and to enhance the cultural offer of the Bristol, but based on Bristol Music Trust's financial projections, it could also substantially increase the economic contribution that the Hall makes.



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⁷ The 20 year total is £0.5 million higher than twenty times the annual impact due to rounding.

2 About the study

2.1 Colston Hall and its history

Colston Hall (the Hall) is Bristol's largest concert⁸ hall and one of the only venues able to hold large scale music events in Bristol and the South West⁹. People have been attending music events at the Hall since 1867, and over the last 150 years the Hall has hosted a wide and eclectic range of events including classical music concerts, jazz concerts, rock and pop concerts, and comedy events. Some of the world's biggest music stars have performed at Colston Hall, including The Beatles, David Bowie, Elton John, Motorhead and Bob Dylan.

In addition to its event programme, Bristol Music Trust, which runs Colston Hall, conducts a comprehensive range of music education in Bristol through Bristol Plays Music. It has worked in partnership with schools, cultural and community organisations, as well as teachers, parents and young people, to deliver performance opportunities and teaching and learning experiences. Colston Hall plays an important role in this by providing one of the

key learning and performing spaces. With its Education Suite and studios, the Hall offers a wide range of facilities for rehearsing, writing, recording and exploring a range of musical styles and genres.

Colston Hall has a long established role in Bristol and has undergone a number of ownership changes since it first opened as a music venue in 1867. Colston Hall was initially built, owned and operated by the Colston Hall Company, but for a £65,000 fee, ownership passed over to Bristol City Council in 1919. The Hall continued to be managed by the Council until 2011, when Bristol Music Trust was established as an independent body to operate Colston Hall.

The transferral of management of Colston Hall to Bristol Music Trust was seen by the Council as "a great opportunity to improve the development of music provision to the public in



⁸ Colston Hall, About us. Accessed at <http://www.colstonhall.org/about-us/>

⁹ Colston Hall Customer Charter. Accessed at <http://www.colstonHall.org/about-us/customer-charter/>

Bristol and the South-West of England”¹⁰. The new governance structure was also established to enable the Hall to attract funding from grant-making trusts and foundations and to improve its cost effectiveness with a more commercial approach to operating the Hall.¹¹

Bristol Music Trust’s stated purpose is to “promote music and the arts and to advance education and appreciation of music and the arts, for the benefit of the people of Bristol and the South West of England”¹². Through its operation of Colston Hall, Bristol Music Trust aims to develop a diverse musical programme, and to secure the commercial success of the building. Bristol Music Trust wants the Bristol music scene to stand out with its “own unique culture and internationally renowned reputation”.¹³

Although Bristol Music Trust continues to provide a wide range of music and education programmes at Colston Hall, it is in need of investment. Indeed, Bristol Music Trust’s latest annual report refers to independent advice that suggested that “the dilapidated fabric of Colston Hall is already far from being commercially competitive in the national concert marketplace and is unlikely to be sustainable much beyond 2017”¹⁴.

A programme of development of the Hall has already been embarked upon with Phase 1 of

the work involving the construction of a new foyer alongside the Colston Hall building. This work was conducted between 2007 and 2009 and now complete, it provides a large open foyer space with bars, a café, a restaurant and a roof terrace as well as conference and education facilities. This foyer space can accommodate up to 350 people, and hosts free performances on Friday and Saturday nights.

Despite the completion of Phase 1 of the redevelopment, to ensure the sustainability of the Hall significant further work is seen as a key priority for Bristol Music Trust¹⁵. It reports that Colston Hall is the only major concert hall in the UK not to have been redeveloped in recent times¹⁶.

In 2014, the fundraising campaign for Phase 2 of the Colston Hall redevelopment, “Thank you for the Music”, was launched. This fundraising campaign aims to secure the future of Colston Hall and transform it into an iconic, international standard venue. Although many potential options to ensure the long term sustainability of Colston Hall have been considered, the preferred option is to upgrade the historic grade 2 listed building, to make it into one of the most comprehensive and attractive music facilities in the country¹⁷. Further details of the transformation programme are set out in Section 4.

2.2 Overview of KPMG study

Bristol Music Trust commissioned KPMG to conduct an analysis to assess the economic contribution that Colston Hall makes to the local Bristol, South West and wider UK economy. The scope of our study does not include an assessment of the wider social impacts that Colston Hall has, for example through the music education programme provided via Bristol Plays Music and the learning events hosted at Colston Hall’s Education Suites.

Our economic impact analysis assesses the contribution of Colston Hall over two timeframes:

- The last full financial year: April 2015 to March 2016 (Financial Year (FY) 2015/16); and
- The 20 year period after completion of the planned Phase 2 redevelopment of Colston Hall: April 2020 to March 2040 (FY 2020/21 to FY 2039/40).

Our analysis for both timeframes assesses the economic impact generated by Colston Hall in terms of Gross Value Added (GVA) and employment.

¹⁰ Bristol Music Trust, Trustees Annual report for the year ended 31 March 2012.

¹¹ Bristol Music Trust, Trustees Annual Report and financial statements for the year ended 31 March 2013

¹² Bristol Music Trust, Trustees Annual Report for the year ended 31 March 2016.

¹³ Bristol Music Trust, Trustees Annual Report for the year ended 31 March 2016.

¹⁴ Bristol Music Trust, Trustees Annual Report for the year ended 31 March 2016.

¹⁵ Bristol Music Trust, Trustees Annual Report for the year ended 31 March 2016

¹⁶ Colston Hall, Thank You for the Music. Accessed at <http://www.colstonhall.org/transformation/>

¹⁷ Bristol Music Trust, Trustees Annual Report for the year ended 31 March 2016

GVA is a measure of the contribution to the economy of an individual producer, industry or sector, net of intermediate consumption (for example goods and services that are used in the production process). It is a measure of the economic value of goods and services produced.

Gross Domestic Product (GDP) measures output of the economy as a whole. It is a key indicator of the state of the economy and of economic growth. If one were to sum the GVA across all producers and sectors of the economy, and add tax revenues less any subsidies that the Government pays out, this would equate to the nation's GDP. The GVA of any business, together with its net fiscal contribution, therefore measures its contribution to the nation's GDP.

The employment contribution relates to the overall employment generated as a result of an individual producer's, industry's or sectors economic activity, including the impacts through supply chains and wider spill over impacts. Employment is measured in annual full-time equivalent (FTE) terms (i.e. to capture the number of employees that work full-time for a full year).

Our economic impact analysis captures the GVA and employment generated by the Hall itself through its running, through the events staged by Colston Hall itself and by promoters via letting events, and through the facilities at the Hall e.g. the café bar.

In addition, the wider economic impacts arising as a result of Colston Hall's attendees', artists' and crew members' spending in the wider economy are captured in the analysis as they form an important part of the contribution to the economy resulting from Colston Hall's activities.

Our analysis of Colston Hall is based on the following data and information sources:

- Financial and HR data for the last financial year related to Colston Hall's activities provided by Bristol Music Trust;
- Financial and HR projections from the 20 year Business Plan developed by Bristol Music Trust for the Heritage Lottery Fund for the period FY 2020/21 to FY 2039/40;
- Wider data and information provided by Bristol Music Trust about its activities at Colston Hall, including copies of its recent Annual Reports and transformation plans;
- A survey of all individuals that had purchased tickets to attend an event at Colston Hall in FY 2015/16, for whom email contact details were available;
- GVA and employment multipliers sourced from the Office for National Statistics (ONS)¹⁸ and the Scottish Government¹⁹; and
- ONS data on industry national output, employment by SIC code and average weekly hours worked.

Further details of the sources of information and our approach to quantifying the GVA and employment impacts of Colston Hall and its associated activity are detailed in the appendices to this report.



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¹⁸ ONS multipliers sourced from <https://www.ons.gov.uk/economy/nationalaccounts/supplyanddemand/datasets/ukinputoutputanalyticaltables>

¹⁹ Scottish Government GVA and employment multipliers sourced from <http://www.gov.scot/Topics/Statistics/Browse/Economy/Input-Output/Multipliers>

3 Economic Impact of Colston Hall in FY 2015/16

3.1 Colston Hall in FY 2015/16

In FY 2015/16, over 450 events were hosted at Colston Hall, including 60 free performances and events in the Foyer, 6 major festivals, including Bristol's first Americana Festival, and an outdoor concert for an audience of 5,000 at Bristol's Harbourside with Goldie and the Heritage Orchestra. The programme of events, 23 more than in the previous financial year, covered a wide range of genres, including rock and pop concerts, as well as comedy and light entertainment events and community and education events.

The ticketed events at the Hall and the festivals were attended by over 246,000 attendees, with a further 8,000 people attending the free events in the Foyer. This was an increase of 6,000 attendees at ticketed events compared to FY 2014/15, demonstrating the growing number of attendees of events at Colston Hall.

Colston Hall also continued to play an important role in supporting the music education programme of Bristol Plays Music, which entered its 4th academic year.

Figure 1 Colston Hall in 2015/16



Source: Bristol Music Trust data

3.2 Contributing to Bristol's and the UK's economic activity: Colston Hall's contribution to Gross Value Added (GVA) in FY 2015/16

In FY 2015/16, the Colston Hall generated an estimated **£17.4 million of GVA** for the UK economy. Of this, **£11.8 million of GVA** was generated within the Bristol area²⁰.

A key measure of economic activity is the contribution to the UK economy in terms of GVA.

There are three main forms of GVA generated by activities at Colston Hall – direct; indirect; and

induced. In addition, our analysis captures the wider GVA impact of Colston Hall's attendees', artists', supporting crew members' and managements' spending in the local area associated with their visit to the Hall.



3.2.1 The direct GVA generated by Colston Hall

Through its own activities and operations, Colston Hall directly generates GVA.

The direct GVA of an organisation is primarily comprised of its operating profits and employee costs²¹.

When Bristol Music Trust was established in 2011, an additional commercial subsidiary was established, BMT Enterprises Ltd. This is

wholly owned by Bristol Music Trust, and was established to manage the commercial activity of Colston Hall on behalf of the Trust. There is a cost sharing agreement between the two, to ensure that BMT Enterprises Ltd pays the Trust for the use of Colston Hall. All profits generated by BMT Enterprises Ltd are gift-aided to Bristol Music Trust.

²⁰ The Bristol area is defined as the city, unitary authority area and county.

²¹ ONS, Measuring the economic impact of an intervention or investment, Paper Two: Existing sources and Methods, 2010

Our estimate of the direct GVA generated by Colston Hall in FY 2015/16 is based on internal financial data sourced from Bristol Music Trust. It captures the direct GVA generated through the operations and events Colston Hall runs itself or co-produces, the direct GVA arising from promoters who staged events at Colston Hall (through letting areas within the Hall) and the direct GVA generated through the café bar run by Bath Ales (though a letting arrangement with BMT Enterprises Ltd).

Through these three channels we estimate that the **total direct GVA of Colston Hall in FY 2015/16 was:**

£4.8 million

Given the location of Colston Hall, this was direct GVA generated in Bristol itself.

This **£4.8 million²²** of direct GVA is comprised of an estimated:

- **£2.9 million** generated through the operations and events Colston Hall ran itself or co-produced. This includes the direct economic impacts arising from the

141 events it staged itself in FY 2015/16; the 77 co-produced events staged in FY 2015/16; its operation and management of the Hall; its revenues generated through leasing the Hall; revenues from its memberships and subscriptions; and income from its sponsorships and donors.

- **£1.6 million** generated by promoters who staged events at Colston Hall. This direct GVA is associated with the net revenues that promoters generated by letting the Hall from Bristol Music Trust and their associated employee costs. This is direct GVA²³ linked with the operation of the Hall and the staging of the additional 166 events promoters ran there in FY 2015/16.
- **£0.4 million** generated through Bath Ales' operation of the café bar at Colston Hall. It is let on a fixed fee basis to Bath Ales and whilst the direct GVA generated via this fee forms part of the £2.9 million of direct GVA generated by Colston Hall itself, the GVA linked to the operation of the café bar itself is not captured within this. The estimated £0.4 million of direct GVA generated through Bath Ales' operation of the café bar adds to the direct GVA of Colston Hall as a whole.

3.2.2 The indirect GVA generated by Colston Hall

Indirect GVA is generated as a result of spending with suppliers in the wider economy to support the operations of Colston Hall. This is a key part of the broader economic impacts that the Hall generates.

For the wider operation of Colston Hall, and in order to stage the programme of events in FY 2015/16, both Bristol Music Trust, any promoters leasing the Hall and Bath Ales operating the café bar, spent with a range of suppliers.

This spending with UK Tier 1²⁴ suppliers generates indirect economic activity in order to produce and supply the required goods and services for Colston Hall. This indirect economic activity is generated within the Tier 1 suppliers,

as well as throughout these suppliers' supply chains, with a trickledown effect created through their wider supply chains.

To operate Colston Hall and stage and co-produce its own events at the Hall, Bristol Music Trust spent approximately £5.4 million with its Tier 1 suppliers in FY 2015/16.

Based on our analysis of detailed supplier spending information for FY 2015/16 covering Bristol Music Trust's top 100 suppliers²⁵ (accounting for 81% of total supplier spending by value) it is apparent that the vast majority of indirect GVA generated through supplier

and not any additional revenues that the promoters may get.

²⁴ Tier 1 suppliers are those which supply directly to Bristol Music Trust and promoters staging events at Colston Hall, with no intermediary company.

²⁵ We looked at the top 100 suppliers by the value spent with the suppliers in FY 2015/16.

spending is retained within the UK. And a sizeable proportion is also retained within Bristol.

We estimate that of Bristol Music Trust's FY 2015/16 supplier spending by value, linked to the operation and staging of events at Colston Hall:

99.7%

was with UK suppliers.

Of this spending in FY 2015/16²⁶:

- **£1.8 million** was spent with suppliers based in Bristol, representing 33% of its total supplier spend;
- a further **£0.3 million** was spent with suppliers across the rest of the South West region²⁷, accounting for a further 5% of supplier spending; and
- The remaining of **£3.4 million** was spent with suppliers across the wider UK.

By spending with almost entirely UK based suppliers, the level of leakage of indirect economic impacts was low, ensuring the GVA was retained within the UK economy rather than benefitting other countries.

Equally, the relatively high level of spending with Bristol based suppliers supported the local

Bristol economy. Although 33% of total value of supplier spending is with companies based in Bristol, in terms of the number, over half of Colston Hall's suppliers in FY 2015/16 were based in Bristol.

Indirect GVA is generated through this supplier spending as well as through the supplier spending of promoters leasing the Hall and Bath Ales operating the café bar. All of this indirect GVA can be attributed to the operations of, and events and activities taking place at, Colston Hall.

Combining these indirect economic impacts, it is estimated that the gross indirect GVA generated by Colston Hall in the UK economy in FY 2015/16 was:

£6.3 million

Of this, it is estimated²⁸ that:

- **£1.9 million** was generated in the local Bristol area;
- **£0.3 million** was generated outside Bristol but within the wider South West; and
- The remaining **£4.1 million** was generated across the rest of the UK.

3.2.3 The induced GVA generated by Colston Hall

Induced GVA arises as a result of the additional economic activity generated as a result of employees spending a proportion of their earnings in the economy.

Through the activities of Colston Hall, induced economic impacts are generated through the spending of the wages earned (linked to

employment at Colston Hall specifically) of Bristol Music Trusts' direct employees at Colston Hall, the direct employees²⁹ of the external promoters who stage events at the Hall and the direct employees of Bath Ales at Colston Hall. Additionally, induced GVA is

²⁶ The breakdown of the value of supplier spending by location does not total £5.4 million due to rounding.

²⁷ The South West includes the counties of Gloucestershire, Wiltshire, Somerset, Dorset, Devon, Cornwall, and the Isles of Scilly.

²⁸ Our estimates of the geographic breakdown of indirect GVA impacts are based on the detailed supplier information provide by Bristol Music Trust and estimates of economic leakage set out in the BIS Occasional Paper No.1 Research to improve the assessment of additionally. Accessed at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/191512/Research_to_improve_the_assessment_of_additionality.pdf

²⁹ These are not all the employees that are employed by the external promoters, but only the estimated direct employment associated with the staging of events at Colston Hall.



RONNIE SPECTOR (BOTH ROSS SILCOCKS)

generated through the spending of the indirect employees in the supply chain to Colston Hall.

In order to estimate the induced economic impact generated by Colston Hall, we use the estimates of the indirect GVA outlined above and apply economic multipliers, which capture the additional induced economic impact generated through employees' spending in the economy³⁰.

3.2.4 The wider GVA impact of Colston Hall through attendees' spending

Through its own operations, activities and the events staged, Colston Hall generates direct, indirect and induced economic activity, as detailed above. This is only part of the economic impact generated as a result of Colston Hall's activities though. Further economic activity, and hence GVA, is generated through those individuals attending events at Colston Hall spending in the local economy as part of their visit to Colston Hall.

As the South West's biggest concert hall³², Colston Hall attracts numerous visitors to Bristol each year. In FY 2015/16, approximately:

247,000

individuals attended ticketed events at the Hall.

As part of their visit, many may have spent outside of the Hall in the local area, for

³⁰ Full details of the methodology used to estimate these impacts are set out in Appendix 1.

³¹ Our estimates of the geographic breakdown of induced GVA impacts are estimates of economic leakage set out in the BIS Occasional Paper No.1 Research to improve the assessment of additionally. Accessed at:

Including all routes through which induced economic impacts are generated, it is estimated that the induced economic impact generated by Colston Hall for the UK economy in FY 2015/16 was:

£2.3 million

Of this, we estimate³¹ that:

- **£1.0 million** was generated in the Bristol economy;
- **£0.1 million** was generated in the wider South West; and
- The remaining **£1.2 million** was generated across the rest of the UK.

example on food and beverages, retail, other leisure activities and potentially overnight accommodation. These individuals are also likely to have incurred transport costs to attend the Colston Hall event. All of this spending generates additional economic activity.

Analysis of Bristol Music Trusts' available data on those individuals who purchased tickets for events staged at Colston Hall in FY 2015/16 indicates that the Hall drew audiences from a wide area across the South West of England. 91% of all individuals that purchased tickets to attend an event at Colston Hall in FY 2015/16 were from the South West, demonstrating its significant local reach. Of these attendees, 68% were from Bristol and a further 23% were from outside Bristol but within the wider South West region.

The Hall also attracted over 22,000 attendees from across the wider UK (9% of all individuals who purchased tickets). Although one of the main objectives of Colston Hall is to benefit the

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/191512/Research_to_improve_the_assessment_of_additionality.pdf

³² Colston Hall, Transformation of Main Hall and Historic Foyer Public Consultation, February 2017.

local community, this suggests that its events have broader appeal across geographies.

The Hall also attracted a diverse range of individuals in terms of age, demonstrating the wide attraction of the events staged³³:

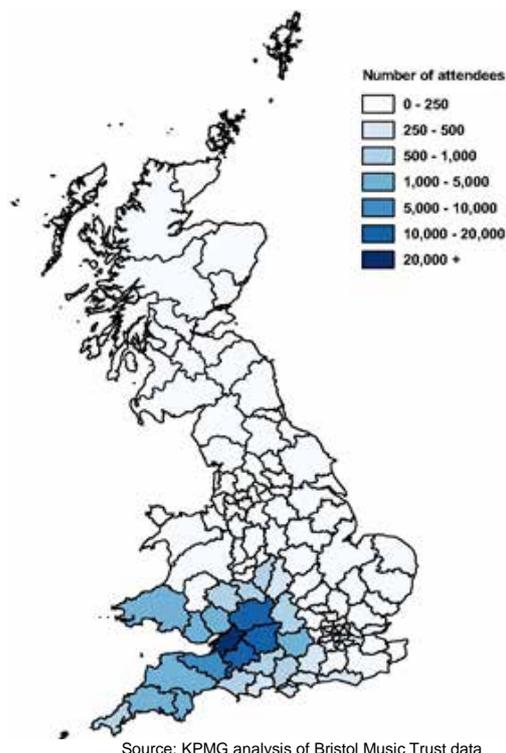
- Approximately a quarter (23%) of attendees that booked tickets were aged between 45 and 54 years;
- 22% of attendees that booked tickets were aged 35 to 44 years;
- 20% of attendees that booked tickets were aged 55 to 64 years;
- 16% of attendees that booked tickets were aged 25 to 34 years;
- 15% of attendees that booked tickets were aged over 65 years; and
- 4% of attendees that booked tickets were aged 16 to 24 years.

And the split of attendees across genders was relatively even with only marginally more attendees who purchased tickets being female (52% of the total).



³³ These breakdowns may not fully reflect audiences as these figures have been provided based on those who booked tickets to attend events at Colston Hall in FY 2015/16.

Figure 2 Location of visitors attending ticketed events at Colston Hall FY 2015/16



Source: KPMG analysis of Bristol Music Trust data

In order to capture the wider economic impacts arising from the spending of these attendees in the local area when visiting Colston Hall we conducted an attendee survey.

The survey was sent to all those individuals who had purchased tickets to attend an event at Colston Hall in FY 2015/16, for whom email contact details were available. This was a total of 34,323 people.

From those that the survey was sent to, we received responses from 2,664 individuals. Given that many of these individuals purchased multiple tickets in order to attend Colston Hall with another individual or a group, the responses to our survey captured information on 6,325 individuals who attended an event at Colston Hall in FY 2015/16 (3% of all those who attended Colston Hall in FY 2015/16). Based on the statistical significance of the sample³⁴, we consider that it provides a sufficiently large sample to allow us to scale up

³⁴ This sample provides a confidence interval of 1.22% at a 95% confidence interval. Calculated using <http://www.surveysystem.com/sscalc.htm>

the impacts³⁵ collected from the survey data to the total number of people that attended an

3.2.4.1 The economic impacts from attendee spending

Whilst attending events at Colston Hall, attendees generated economic impacts through a number of channels, including:

- Spending at Colston Hall on food, beverages and retail (e.g. programmes and merchandise);
- Spending in the local Bristol area on food, beverages retail and local attractions, such as Bristol Museum and Art Gallery,
- Spending on accommodation for those spectators who stayed overnight; and
- Spending on travel to and from Bristol, as well as, daily travel to and from Colston Hall.

Spending in each of these areas was captured through our attendee survey.

Those attending events at Colston Hall also spent money on tickets for the events they attended. The economic impact of the spending on these tickets is included in the analysis of the economic impact of Colston Hall, as set out in section 3.2.2 above.

Our survey of Colston Hall attendees in FY 2015/16, indicated that 86% of respondents spent money in Colston Hall whilst attending the event. Among these respondents, the average spend was £14.98 per person. This included spend on food and beverages and retail (e.g. programmes and merchandise). As some attendees did not spend any money in Colston Hall, the average spend across all ticketed spectator survey respondents was £13.11.

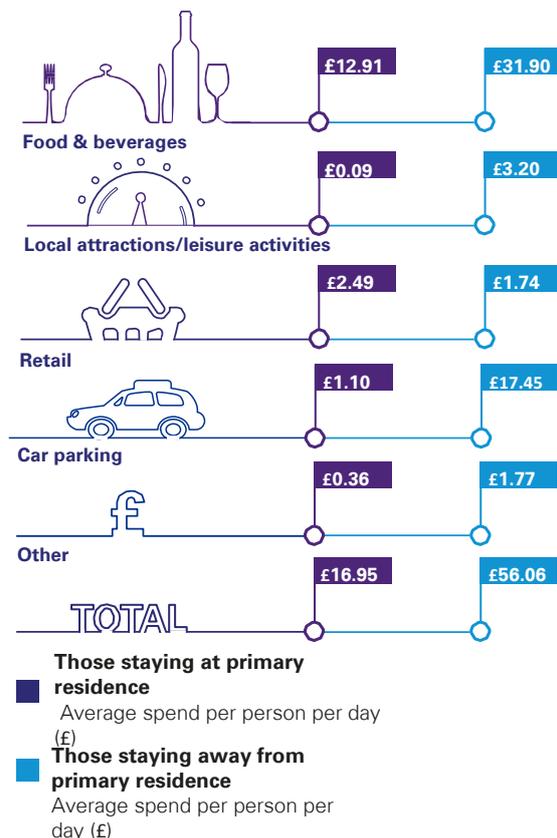
In addition to attendees spending in Colston Hall whilst attending an event, our survey results show that the vast majority of these individuals (87%) also spent in the wider Bristol area as a result of visiting Colston Hall.

For these individuals, the average spend was £24.30. When including the 13% of attendees who did not spend, the average per person was £21.05. This includes spend on food and

event at Colston Hall and to draw conclusions about the economic impacts generated.

beverages, local attractions or leisure activities, car parking and retail.

Figure 3 Daily spend of attendees in Bristol



Source: KPMG analysis of attendee survey results

A relatively small percentage of the visitors that were surveyed (8%) spent on accommodation to stay away from their primary residence in order to attend the event at Colston Hall.

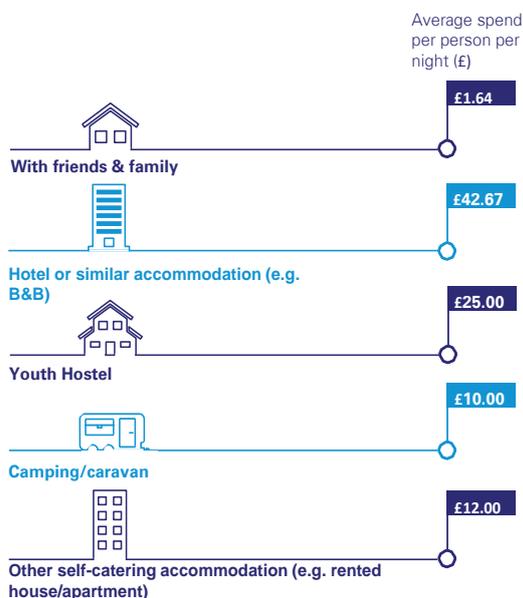
Those who did stay away from their primary residence to attend an event at Colston Hall spent on average 1.49 nights away. And the vast majority of these (92%) stayed in Bristol. A further 7% stayed in the South West and the remaining 1% stayed elsewhere in the UK.

On average, survey respondents that paid for overnight accommodation spent £26.00 per person per night. However, this varied

³⁵ This scaling up of survey responses to the overall population of attendees at Colston Hall was based on data provided by Bristol Music Trust on all attendees.

depending on the type of accommodation stayed in. For some visitors spending was higher, with a maximum average spend of £42.67 per person per night for those staying in Bristol in a hotel or similar accommodation.

Figure 4 Average spend per person per night on accommodation



Source: KPMG analysis of attendee survey results

The majority of visitors that stayed overnight whilst attending an event at Colston Hall stayed in hotels or similar accommodation (59%). The next most common accommodation type was staying with friends or family, accounting for 38% of survey respondents that stayed away from their primary residence.

Using the estimates of expenditure based on results of our survey of individuals who booked tickets for events at Colston Hall in FY 2015/16, and scaling these up based on the profile of all attendees in this year, we have estimated the total expenditure in the wider economy linked to attendance at Colston Hall.

Combining all elements of expenditure identified above, namely:

- Spending outside of Colston Hall whilst attending the event;
- Spending on travel to and from Colston Hall from either primary residence or overnight accommodation; and
- Accommodation spend for those attendees that stayed overnight.

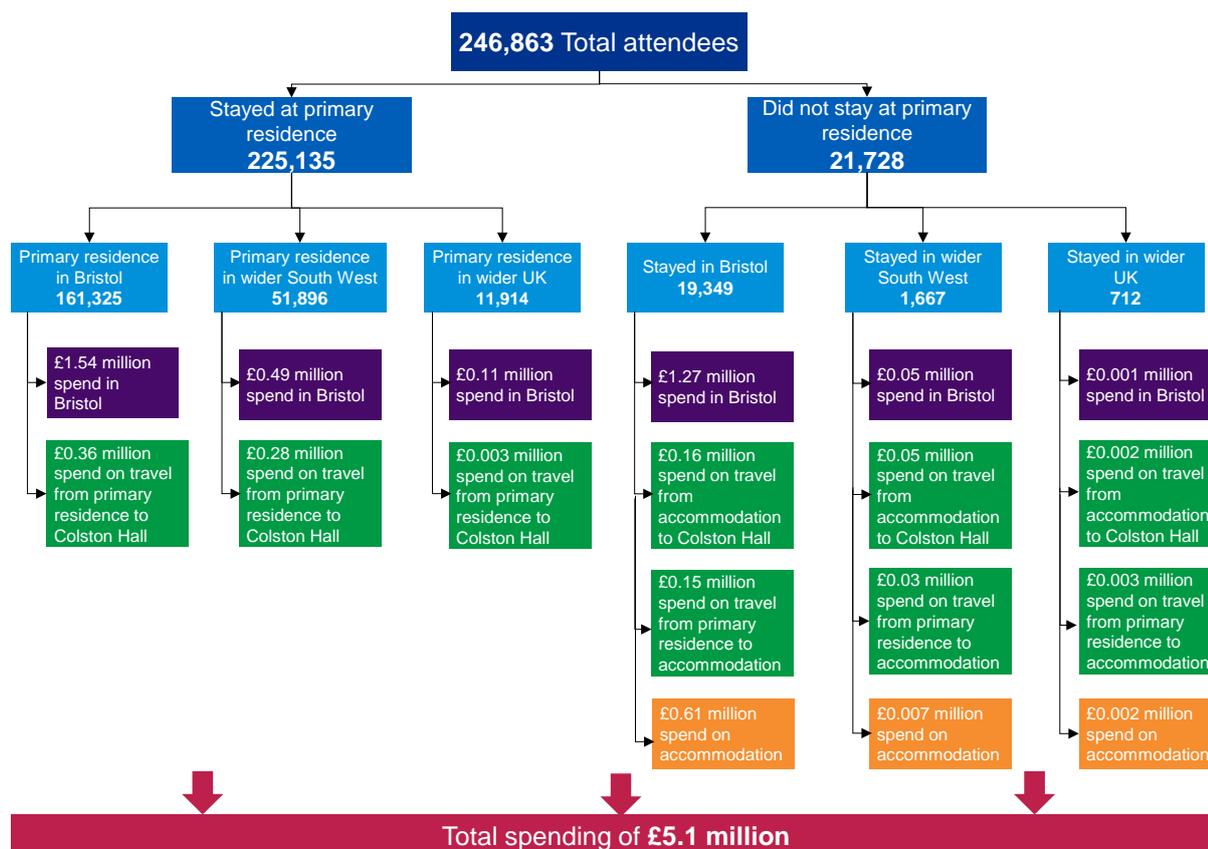
We estimate that as a result of attending events at Colston Hall in FY 2015/16, individuals spent a total of:

£5.1 million

in the wider economy.

Figure 5 shows the breakdown of this attendee spending split by those who stayed at their primary residence whilst attending a Colston Hall event and those that stayed elsewhere.



Figure 5 Attendee spending³⁶

Note: These figures may not sum precisely due to rounding.
Source: KPMG analysis of attendee survey results

All attendees at Colston Hall who spent in Bristol as part of their visit, contributed to Bristol's economic activity. In addition, it can be assumed that all the travel and accommodation spend of those visitors who attended an event at Colston Hall whose primary residence is in Bristol, and the accommodation costs of all those that stayed overnight in Bristol to attend an event, would have been incurred in the local Bristol economy with local businesses. This accounts for approximately £4.6 million of the total attendee expenditure (91% of total attendee spending).

Wider expenditure also was incurred by some attendees in the wider South West region, outside Bristol. This was the expenditure on travel costs associated with those individuals who travelled from a primary residence in the South West to attend an event at Colston Hall, as well as the spending of those individuals who stayed away from their primary residence, in accommodation in the South West region, to

attend a Colston Hall event. This accounts for approximately £0.4 million of the total attendee expenditure (8% of total attendee spending).

And finally, an element of spending in the wider UK economy (£0.1 million) was incurred by Colston Hall attendees that spent on travel to Bristol from their primary residence located outside of the South West region and for those staying away in the wider UK.

This spending does not include the cost of the tickets that attendees incurred, as this is captured in the direct impacts generated by Colston Hall.

The estimated £5.1 million of expenditure of individuals incurred as a result of attending events at Colston Hall in FY 2015/16, translates in to increased economic activity and hence GVA.

³⁶ This total spending may be an underestimation, as this does not capture the impact generated by the 22,500 conference attendees who attended events at Colston Hall

in FY 2015/16. Bristol Music Trust has informed us that these events are often multi-dates, and therefore they would expect those attending to spend on accommodation, as well as on food and beverages and retail spending.

Based on the ratio of output to GVA for the relevant sectors that this attendee spending occurred in, we estimate that the gross GVA generated from this spending in FY2015/16 totalled:

£4.4 million

Of this³⁷:

- **£2.2 million** of direct GVA was generated from the attendee expenditure in FY 2015/16;
- **£1.4 million** of indirect GVA was generated from the attendee expenditure in FY 2015/16; and
- **£0.7 million** of induced GVA was generated from the attendee expenditure in FY 2015/16.

3.2.4.2 The net economic contribution of attendee spending

Our analysis captures information on the actual spending of individuals who attended an event at Colston Hall in FY 2015/16. However, some of this spending, and the resultant economic activity, may have occurred at the expense of spending on an alternative activity which would have been undertaken instead. In order to understand the additional economic impact for Bristol and the UK, it is important to account for the alternative spending by assessing the level of expenditure of those who attended an event at Colston Hall that was over and above what would otherwise have been spent on any alternative activity. This alternative spending is known as displacement.

We obtained an estimate of this displacement by asking survey respondents about the amount, if any, they would have spent on an alternative activity had they not attended the event at Colston Hall.

Of the respondents to our survey, 16% reported that they, and those they answered on behalf of, would have undertaken an alternative leisure activity had they not attended the event at Colston Hall. Of these, the majority (57%) reported that the alternative activity would have taken place in Bristol, whilst the remaining 43% reported that it would have been elsewhere in the UK.

This suggests that most of the displaced economic activity was in Bristol and that some of

the economic activity generated by Colston Hall was at the expense of other economic activity that would have been generated in the area.

Based on data received through our survey of attendees, we estimate that a total of approximately £0.7 million would have been spent by these visitors undertaking alternative activities had they not attended the event at Colston Hall. This represents 14% of total spectator spend. Of this, £0.4 million would have been spent by attendees undertaking alternative activities in Bristol.

When converting this displaced spend into GVA, it is estimated that a total of £0.3 million of GVA was displaced in Bristol as a result of attendees spending when at Colston Hall and a further £0.3 million of GVA was displaced from across the rest of the UK.

Deducting this displaced GVA from the gross GVA generated by Colston Hall's attendees' spending, as estimated in section 3.2.4.1 [we estimate that net attendee spending generated net GVA in FY2015/16 of approximately:](#)

£3.8 million

³⁷ The breakdown of total GVA generated by attendee spending does not total £4.4 million due to rounding.

3.2.5 The economic impact generated by artists' and crew members' spending

In addition to the economic impacts generated by those individuals purchasing tickets to attend events at Colston Hall, through the staging of events Colston Hall attracts many more individuals including the artists (musicians, comedians etc.) and the crews, support staff and management they may bring. If each of these individuals also spends in the local Bristol economy, for example on food and beverages, and in some cases accommodation, this, along with the travel costs incurred to reach the event being staged, adds to the economic activity arising as a result of Colston Hall's operations.

Based on information supplied by Colston Hall, a total of:

10,029

artists performed at the Hall in FY 2015/16.

Nearly half of these artists were individuals from Bristol schools taking part in events at Colston Hall. This included the Stages Gala 2015 which had 400 school children performing in the Main Hall, and the Bristol

Schools Music Society Concerts where over 200 school pupils performed at Colston Hall.

There were also over 1,700 crew, support staff and managers who also travelled to Colston Hall to attend events staged by their artists.

Based on an assessment of where each of these individuals may have travelled from, and drawing on the results from the attendee survey of spending patterns for different profiles of attendees, we estimated the potential spending of these individuals linked to their visit to Colston Hall.

We estimated that the artists and crew spent approximately £0.3 million in the wider economy as a result of their visit to Colston Hall. This converts to **additional GVA of approximately:**

£0.2 million

for the UK economy in FY 2015/16.



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3.3 Generating employment: Colston Hall’s contribution to employment in Bristol and the wider UK in FY 2015/16

Colston Hall had a total employment impact of 329 FTEs in FY 2015/16.

This included 86 FTEs directly employed by Colston Hall, 25 FTEs through external promoters who staged events at Colston Hall and the operation of Colston Hall’s café bar by Bath Ales. There were also 73 direct FTEs supported through the attendees’, artists and crew members’ spending.

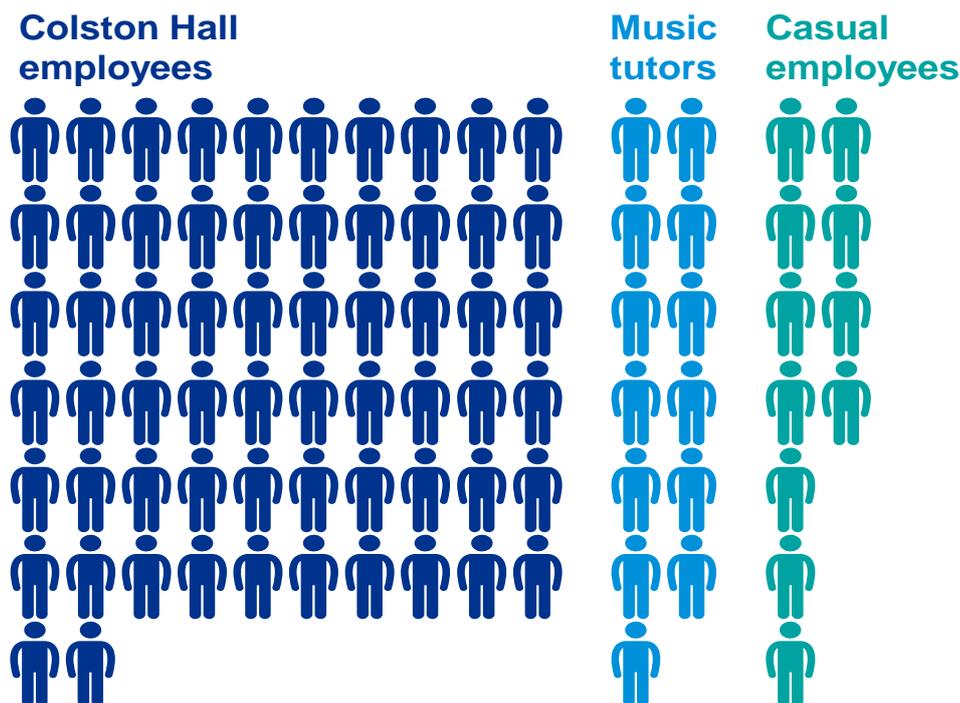
In addition, Colston Hall’s activities generated a further 112 indirect FTEs and 33 induced FTEs.

3.3.1 The direct employment generated by Colston Hall

As well as contributing to the economy through its GVA impact, Colston Hall generates additional economic impacts in the local and national economy through employing staff.

As of year-end FY 2015/16, Colston Hall directly employed a total of 86 people in full-time equivalent (FTE) terms. This consisted of 62 Colston Hall employees, 13 music tutors and 11 casual employees (including bar staff for events).

Figure 6 Colston Hall FTE employees at year-end FY 2015/16



Source: KPMG analysis of Bristol Music Trust data

The number of employees in headcount terms for the FY 2015/16 period is significantly higher, with 207 total employees.

This difference between the number of employees in FTE and headcount terms is mainly driven by many of the music tutors and casual employees working part time.

There were 83 casual employees in headcount terms as at end FY 2015/16. This high headcount number of part time casual employees employed at Colston Hall is to be expected given that these staff tend to work only when there are events on at the Hall, for example working behind the bars or as stewards. This employment at the Hall is not required when events are not taking place.

The 71 music tutors in headcount terms employed by Colston Hall undertake the work of Bristol Plays Music. The music tutors run events such as the educational workshops which are free for young people to attend, as well working across 118 schools in Bristol to provide whole class tuition and instrumental tuition to over 4,600 children each week³⁸.

Further direct employment is generated by Colston Hall through the employment of individuals by Bath Ales to run the café bar at Colston Hall and the employment of the promoters linked to their staging of events at Colston Hall under letting arrangements.

3.3.2 The indirect employment generated by Colston Hall

Wider indirect employment is also generated by Colston Hall as a result of its operation, activities and staging of events. This indirect employment arises as a result of spending with suppliers.

As explained in section 3.2.1, spending with Tier 1 suppliers, and as a result throughout these suppliers' supply chains, is incurred by Bristol Music Trust in operating and staging own and co-production events at Colston Hall. Equally supplier spending is incurred by the promoters letting Colston Hall to stage their events and is incurred by Bath Ales to operate the café bar at Colston Hall.

The additional economic activity this spending generates throughout the chain of suppliers to Colston Hall also results in increased employment in the economy.

Including these additional employees, means that in FY 2015/16, Colston Hall's total direct employment was:

111 FTEs

In addition to the paid employment directly generated by Colston Hall, in FY 2015/16 a further 11 individuals volunteered at Colston Hall, providing assistance in Colston Hall's marketing department, as well as to Bristol Plays Music.

Based on the estimates of supplier spending, the direct GVA generated by Colston Hall and using employment economic multipliers³⁹, we estimate that Colston Hall had indirect employment in FY 2015/16 of:

112 FTEs

This comprises:

- **43 FTEs** in Bristol;
- **5 FTEs** in the wider South West; and
- **64 FTEs** in the wider UK economy.

³⁸ Bristol Music Trust, Trustees Annual Report for the year ended 31 March 2016

³⁹ Details of our approach to estimating these employment impacts are included in Appendix 1.

3.3.3 The induced employment generated by Colston Hall

Induced employment impacts are also generated through Colston Hall's direct and indirect employees' spending a proportion of their wages earned through their direct or indirect work for Colston Hall.

Based on Colston Hall's payroll cost data, estimates of the direct GVA generated by Colston Hall, and applying employment economic multipliers, we estimate that the total

induced employment impact generated by Colston Hall in FY 2015/16 was:

33 FTEs

3.3.4 The wider employment impact of Colston Hall through attendees' spending

In the same way in which the wider expenditure of Colston Hall's attendees, its visiting artists and their support crew and managers generates additional economic activity in terms of GVA, it also creates additional employment.

Based on the gross additional GVA generated by attendees', artists', support crew and managers' spending in the wider economy due to their visit to Colston Hall, we estimate⁴⁰ that this expenditure also created an additional 100 annual FTEs in FY 2015/16.

However, as explained in section 3.2.4.2, a proportion of the additional economic activity, and hence employment, generated by the attendees' spending in the wider economy due to their visit to Colston Hall, displaced

alternative economic activity that would have taken place. Therefore, the employment associated with this displaced economic activity cannot be considered additional.

Taking in to account the displaced economic activity, we estimate that the net employment generated by the attendees', artists', support crew and managers' spending in the wider economy due to their visit to Colston Hall in FY 2015/16, was:

73 FTEs

⁴⁰ The employment impact is estimated from the GVA using data from the ONS on the UK average GVA per FTE

for the relevant industries for each spending category. Further details are provided in Appendix 1.

4 Estimated future economic impact of Colston Hall (FY 2020/21 to FY 2039/40)

An estimated annual average of £20.6 million of GVA could be generated, and 378 FTEs sustained, by Colston Hall each year between FY 2020/21 to FY 2039/40 if the proposed business plan is implemented.

This equates to a total of approximately £412.5⁴¹ million of GVA for the UK economy generated by Colston Hall, over the full 20 year period from FY 2020/21 to FY 2039/40.

4.1 The planned regeneration of Colston Hall

According to Bristol Music Trust, the transformation of Colston Hall will be one of the most significant projects of its kind in the UK, and the biggest ever arts redevelopment in Bristol⁴².

The transformation plan encompasses a series of substantial works within the Colston Hall old building including the main hall, the smaller hall The Lantern, and the building infrastructure and frontage, which will require the entire Hall to be closed from summer 2018 to early 2020. The Trust's ambition for this Phase 2 redevelopment of Colston Hall is to both transform the Victorian building into an international-standard Centre for Music Entertainments, Education and Enterprise, and to enable it to become the UK Capital for Young People's Music⁴³.

The Trust has stated that the "current old building is in clear need of significant investment to enable us to fulfil the musical and educational objectives of Bristol Music Trust. It is in such poor condition that it may in fact be coming to the end of its maintainable life". Apart from the new Foyer that was completed in 2009, the rest of the building has not been refurbished for 60 years, making it the only major concert hall in the UK not to have been developed in recent times⁴⁴.

The redevelopment of the Main Auditorium will involve major improvements to the current state of this hall. The planned redevelopment includes the introduction of new seating to improve the comfort, accessibility and flexibility of the seating arrangements and the development of a new balcony to improve the acoustics of the hall. A new stage will also be installed to allow greater accessibility and flexibility of the performance space to make it more adaptable between rock/pop concerts and orchestral concerts.



The Lantern and Historic Foyer will also be improved and restored as part of the redevelopment works. Inside The Lantern itself, the historic plasterwork will be restored and reinstated, as well as work undertaken to install

⁴¹ The 20 year total is £0.5 million higher than twenty times the annual impact due to rounding.

⁴² Bristol Music Trust, Trustees Annual Report for the year ended 31 March 2016.

⁴³ Bristol Music Trust, Trustees Annual Report for the year ended 31 March 2016.

⁴⁴ <http://www.colstonhall.org/news/transformation/latest-artist-impressions-revealed-future-colston-hall-public-consultation-starts/>

windows in the original openings, and fit retractable seating and staging. The significant changes planned for the Historic Foyer, include restoration of the Victorian Roof light, creation of a new bar area to serve The Lantern, the installation of a spiral staircase from the lower foyer to The Lantern level, and the installation of a lift between the two floors to improve accessibility for attendees.

The currently unused cellars under Colston Hall will also be transformed into a new performance space and facilities for music education as part of the redevelopment plans. The new education spaces will provide the first National Centre for Advanced Training for young musicians with Special Education Needs and Disabilities (SEND).

At present, the west of England is a cultural area of excellence and has a vibrant international cultural scene⁴⁵. And it is intended that the

redevelopment of Colston Hall will enhance the cultural offer of Bristol, by transforming it into a “resilient fit for purpose music venue for the 21st Century”⁴⁶.

However, to complete this transformation and achieve the ambitions for Colston Hall, extensive financial investment is required. The total cost of the Phase 2 redevelopment of Colston Hall is £48.8 million. This financial investment is being sought by Bristol Music Trust via a number of different routes. In September 2014, Bristol Music Trust launched the Thank You for the Music appeal, to raise awareness and financial investment for the Phase 2 project. As of November 2016, the total amount pledged to the appeal is just over £30 million, including financial investment provided by the Government, Bristol City Council, Arts Council England, private donations and most recently the Heritage Lottery Fund.



⁴⁵

<https://democracy.bathnes.gov.uk/documents/s29882/Appx%201%20SEP%20Main%20Document.pdf>

⁴⁶

<https://democracy.bristol.gov.uk/mgConvert2PDF.aspx?ID=5581>

4.2 The planned operations of Colston Hall after completion of the transformation plan

Bristol Music Trust has developed a detailed business plan, setting out its current incomes and expenditures, as well as the future expected incomes and expenditures of the Hall once the redevelopment has taken place. The business plan sets out this detailed financial information for the Hall for the 20 year period from FY 2020/21 to FY 2039/40.

The business plan developed by Bristol Music Trust is based on various assumptions about the future operation of Colston Hall, including assumptions on the type and number of events that will be staged in the redeveloped performance spaces, the capacities and expected attendee numbers and the expected financial performance of the Hall based on forecast cost and revenue figures.

In terms of the capacity of Colston Hall, the planned transformation is expected to lead to an increase in capacity in each of the performance spaces. New seating in the Main Auditorium will increase the total capacity to up to 2,174. The installation of retractable seating and staging in The Lantern will raise seated capacity by 61 and standing capacity by 150. And the transformation of the currently used cellars to provide The Vaults performance space will create capacity for up to 250 attendees.

In addition, the redevelopment of the Hall is anticipated by Bristol Music Trust to allow an increase in the number of events held in each of

the halls compared to the current levels. It is anticipated that from FY 2020/21 there will be:

- **32 additional events** held in the Main Auditorium per annum, including graduation ceremonies which are currently not possible to host due to accessibility limitations;
- **69 additional events** per annum held in The Lantern, including additional conferences, events and weddings held in hall; and
- **140 additional events** per annum held in The Vaults, including club nights, education rehearsals and workshops.



Not only will the increase in capacity and increase in the number of events staged at Colston Hall lead to an increase in attendees, but the revenues associated with each attendee are also forecast to increase given a planned 5% increase in ticket prices.

4.3 The estimated future contribution to Bristol's and the UK's economic activity: Colston Hall's contribution to GVA from FY 2020/21 to FY 2039/40

4.3.1 The estimated future direct GVA that could be generated by Colston Hall

As explained in Section 3.2.1 the direct GVA of Colston Hall is linked primarily to the operating profits it generates and its employee costs. Based on the 20 year business plan developed by Bristol Music Trust for Colston Hall, it is anticipated that the financial performance of Colston Hall will improve with consequent impacts on its GVA contribution.

It is forecast that the revenues of Colston Hall will be approximately 32% higher from FY 2020/21 compared to FY 2015/16, at an average of £11.2 million per annum. Bristol Music Trust deems this to be a conservative estimate given that it considers that the transformed Colston Hall may be able to stage a greater number, and higher calibre, of events than those assumed in

the business plan, with consequent revenue implications.

Costs are also expected to be higher compared to FY 2015/16 due to increasing spend with suppliers and additional employees costs associated with the planned hiring of 2 additional FTE employees once the Hall reopens in FY 2020/21. However, the increase in costs of Colston Hall is forecast to be lower than the increase in revenues. Bristol Music Trust has forecast that its total costs will increase to £8.5 million in FY 2020/21.

This forecast profile of costs and revenues for Colston Hall from FY 2020/21 is expected by Bristol Music Trust to deliver increased operating profits of the Hall – an annual average of £0.85 million over the period FY 2020/21 to FY 2039/40.

As in FY 2015/16, from FY 2020/21 onwards the direct GVA contribution of Colston Hall will be generated through three channels: the direct GVA generated through the operations and events Colston Hall runs itself or co-produces; the direct GVA arising from promoters staging events at Colston Hall (through letting areas within the Hall); and the direct GVA generated through the café bar run by Bath Ales.

On the basis of the financials set out in Bristol Music Trust's business plan for FY 2020/21 to FY 2039/40 we estimate that the **total present value direct GVA contribution to Bristol of the Hall over this 20 year period⁴⁷** could be:

£113.8 million

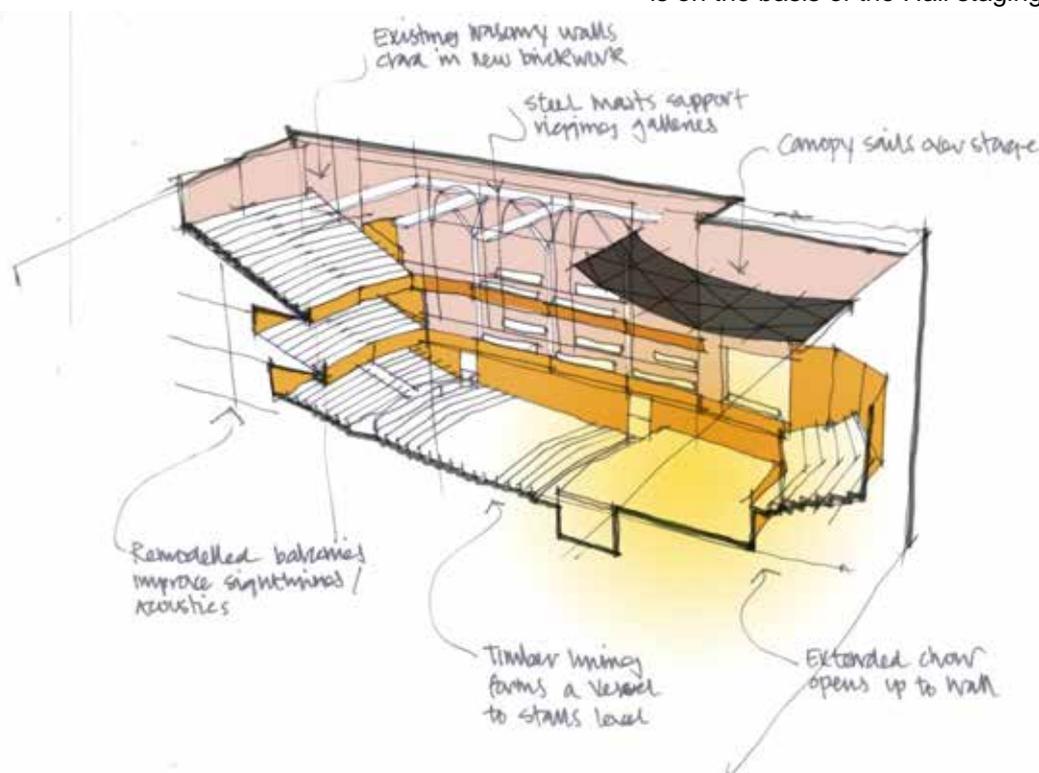
On an average annual basis, this is equivalent to:

£5.7 million

of direct GVA per annum generated in Bristol by Colston Hall – 16% higher than the direct GVA generated by Colston Hall in FY 2015/16.

Of this average annual direct GVA, we estimate that:

- **£3.4 million** of direct GVA could be generated through the operations and events Colston Hall will run itself or co-produce. This is on the basis of the Hall staging 284 of



⁴⁷ The £5.7 million average annual figure over 20 years does not sum to this total due to rounding.

these events annually from FY 2020/21 onwards.

- **£1.8 million** of direct GVA could be generated by promoters that will staging events at Colston Hall under a letting arrangement. It is forecast that 173 of these events will be staged annually from FY 2020/21 onwards.
- **£0.5 million** of direct GVA could be generated through Bath Ales' operation of the café bar at Colston Hall. This is based on estimates provided by Bristol Music Trust of a 40% increase in revenues of the café bar from FY 2020/21 onwards compared to FY 2015/16.

These direct GVA impacts are expressed in FY 2015/16 prices. However, in order to reflect the time value of these impacts, reflecting that money available now is worth more now than it is in the future, we have also estimated the impacts in Net Present Value (NPV) terms.

Applying a social discount rate of 3.5%⁴⁸ for future impacts, and discounting back to FY 2015/16, we estimate that the total direct NPV GVA that could be generated by Colston Hall between FY 2020/21 and FY 2039/40 is £73.0 million (an average of £3.6 million per annum).

4.3.2 The estimated future indirect GVA that could be generated by Colston Hall

With expanded operations at Colston Hall after its transformation, Bristol Music Trust forecasts that its supplier spending will increase. Its business plan for FY 2020/21 to FY 2039/40, forecast that, compared to supplier spending in FY 2015/16:

- Total spending with suppliers associated with the Colston Hall's bar will increase by 30% from FY 2020/21;
- Total spending with suppliers associated with conferencing events at Colston Hall will increase by 70% from FY 2020/21;
- Total spending with suppliers associated with marketing at Colston Hall will increase by 19% from FY 2020/21;
- Total spending with suppliers associated with operations at Colston Hall will increase by 20% from FY 2020/21; and
- Total spending with suppliers associated with programming at Colston Hall will increase by 30% from FY 2020/21.

These increases in spending are expected by Bristol Music Trust to remain constant, not accounting for inflation, over the period from the FY 2020/21 to FY 2039/40 period at £8.3 million per annum.

For the purposes of our analysis it is also assumed that the profile of suppliers, both in terms of their industry sector and geographic location, will remain the same as in FY 2015/16.



In addition to the increases in Bristol Music's Trust supplier spending for Colston Hall, given that the number of events that will be staged by promoters letting Colston Hall is anticipated to increase, and that the revenues associated with the café bar run by Bath Ales at the Hall are forecast to rise, the associated spending with suppliers to support these activities is also likely to increase.

We estimate that the **total present value indirect GVA generated as a result of supplier spending for Colston Hall over the 20 year period from FY 2020/21 to FY 2039/40⁴⁹ could be approximately:**

£156.9 million

⁴⁸ This was sourced from HM Treasury's Green Book.

⁴⁹ The £7.8 million average annual figure over 20 years does not sum to this total due to rounding.

On an annual average basis this is equivalent to:

£7.8 million

of indirect GVA per annum.

In NPV terms, the total indirect GVA that could be generated by Colston Hall from FY 2020/21 to FY 2039/40 is £100.5 million (an average of £5.0 million per annum).

Of this total NPV indirect GVA impact, it is estimated that:

4.3.3 The estimated future induced GVA that could be generated by Colston Hall

As set out in section 3.2.3 there are two routes through which induced economic activities are generated by Colston Hall. One of which is through Colston Hall's direct employees spending a proportion of their wages in the wider economy, and the other is through the supply chain, where supply chain employees also spend money in the wider economy.

The number of employees at Colston Hall will increase from FY 2020/21, from the current 86 FTE employees to 88 FTE employees. This, combined with the increase in supplier spending as set out in section 4.2.2 above, will increase the induced GVA generated through the supply chain.

We estimate that the total present value induced GVA generated through Colston Hall employees, the employees of its supply chain, as well as the direct and indirect employees of external promoters and Bath Ales over the 20 year period from FY 2020/21 to FY 2039/40⁵⁰ could be approximately:

£53.9 million

- **£19.9 million** of indirect GVA (an average of £1.0 million per annum) could be generated for the **local Bristol economy**;
- **£2.9 million** of indirect GVA (an average of £0.1 million per annum) could be generated for the **wider South West economy** (excluding Bristol); and
- **£77.7 million** of indirect GVA (an average of £3.9 million per annum) could be generated for the **wider UK economy** (excluding Bristol and the wider South West).

On an annual average basis this is equivalent to:

£2.7 million

of indirect GVA per annum.

In NPV terms the total induced GVA generated for the 20 year period from FY 2020/21 and FY 2039/40 is £34.5 million (an annual average of £7.8 million).

Of this total induced NPV GVA, £13.0 million was generated in Bristol, £3.3 million in the wider South West and £18.19 million across the rest of the UK.

⁵⁰ The £2.7 million average annual figure over 20 years does not sum to this total due to rounding.

4.3.4 The estimated wider GVA impact of Colston Hall through attendees' spending

As explained in section 3.3.4, an important aspect of the economic impact that Colston Hall generates is the additional economic activity that arises as a result of its attendees' spending in the wider economy when visiting Colston Hall.

Using a survey of attendees at Colston Hall in FY 2015/16, we estimated this attendee spending for FY 2015/16 and the associated gross GVA impact and the net GVA impact, accounting for displaced economic activity.

Although forecasts are available from Bristol Music Trust of the anticipated annual attendee numbers at Colston Hall from FY 2020/21 for the following 20 years, no further information is available about these attendees or their spending patterns. Therefore, for the purposes of our analysis, we assume that the profile of future attendees (including in terms of the location of their primary residence) and their spending patterns will remain unchanged from those observed in FY 2015/16.

Using the forecast attendee figures for Colston Hall from FY 2020/21, and the data collected from the FY 2015/16 attendee survey, it is estimated that the average annual expenditure of individuals that are expected to attend events at Colston Hall between FY 2020/21 and FY 2039/40 could be £6.3 million.

This £6.3 million of attendees' spending per annum generates additional economic activity in Bristol, the South West region and the wider UK. We estimate that this gross additional GVA could total £97.7 million over the 20 year period of FY 2020/21 to FY 2039/40 (an average GVA impact of £4.9 million per annum).

After accounting for the likely economic activity that could be displaced by attendees' spending whilst attending events at Colston Hall, we estimate that the **total present value net GVA**

4.3.5 The estimated future wider GVA impact of Colston Hall that could be generated through artists' and their crews' spending

In a similar way to which the anticipated increase in attendees to Colston Hall from FY 2020/21 onwards could generate additional spending and



impact generated by attendees' spending could be:

£82.6 million

over the 20 year period FY 2020/21 to FY 2039/40⁵¹.

This is equivalent to an annual average GVA impact of:

£4.1 million

In NPV terms, the total net GVA impact generated by attendees' spending could be £52.9 million over the 20 year period FY 2020/21 to FY 2039/40 (an annual average GVA impact in NPV terms of £2.6 million).

⁵¹ The £4.1 million average annual figure over 20 years does not sum to this total due to rounding.

that the increased number of artists, support crew and management are also likely to spend a greater total amount when visiting the Hall.

According to Bristol Music Trust's business plan for FY 2020/21 to FY 2039/40, the number of events staged at Colston Hall per year will be 38% higher over this period compared to FY 2015/16. For the purposes of our analysis we assume that the number of artists and their support crew and management will increase in line with this.

Assuming the same spending profile of these individuals to that observed in FY 2015/16, we estimate that these individuals visiting Colston Hall from FY 2020/21 onwards may spend a total of £5.3 million, which equates to an average of £0.3 million per year.

This estimated spending could lead to an additional **present value gross GVA contribution of Colston Hall generated by artists' and their crews' spending could be:**

£3.4 million

over the 20 year period FY 2020/21 to FY 2039/40.

This is equivalent to **an annual average GVA impact of:**

£0.2 million

In NPV terms, the total net GVA impact generated by artists' and their crews' spending could be £3.4 million over the 20 year period FY2020/21 to FY2039/40 (an annual average GVA impact in NPV terms of £0.2 million).



4.4 Generating employment: Colston Hall's estimated future contribution to employment in Bristol and the wider UK for FY 2020/21 to FY 2039/40

Based on information provided by Bristol Music Trust, we estimate that the average annual employment sustained by Colston Hall for each year from FY 2020/21 to FY 2039/40 could be 378 FTE employees.

4.4.1 The future direct employment that could be generated by Colston Hall

Once the Hall re-opens following its redevelopment, both the number of shows and the number of people that are attending the shows are expected to increase.

At present, Bristol Music Trusts expects to directly employ an additional 2 FTEs compared to FY 2015/16 taking direct employment from 86 FTEs to 88 FTEs.

In addition, direct employment at Colston Hall will continue to be generated through Bath Ales' operation of the café bar and through promoters' staging of events at the Hall.

Including these additional direct employees, we estimate, based on the plans of Bristol Music Trust, the total direct employment of Colston Hall from FY 2020/21 could be:

119 FTEs

This is 8 more FTEs than employed in FY 2015/16.

4.4.2 The indirect employment generated by Colston Hall

The indirect employment of Colston Hall is associated with the economic activity that it generates as a result of supplier spending. As the annual amount spent with suppliers to Colston Hall is expected to increase in the FY 2020/21 to FY 2039/40 period compared to FY 2015/16, this will generate greater levels of economic activity through the supply chain and hence create increased employment.

We estimate that the annual indirect employment of Colston Hall from FY 2020/21 onwards could be:

138 FTEs

This is 26 more FTEs than employed in FY 2015/16.

4.4.3 The induced employment generated by Colston Hall

And the induced employment generated by Colston Hall following its redevelopment can also be expected to increase compared to the latest financial year, given the increased economic activity and direct and indirect employment the Hall is anticipated to contribute to the UK.

Our analysis suggests that the annual induced employment of Colston Hall from FY 2020/21 onwards could be:

37 FTEs

This is 4 more FTEs than employed in FY 2015/16.

4.4.4 The wider employment impact of Colston Hall through attendees', artists' and crew members' spending

The forecast expenditure of Colston Hall's attendees, its visiting artists and their support crew and managers in the wider economy not only generates additional economic activity in terms of GVA, but also creates additional employment.

Based on the gross annual additional GVA that we estimate could be generated by attendees', artists', support crew and managers' spending in the wider economy when visiting Colston Hall from FY 2020/21 onwards we estimate⁵² that this expenditure could also create an additional 117 annual FTEs.

In net terms, taking account of the estimated level of displaced spending of these individuals, and hence displaced economic activity, we estimate that the attendees', artists', support crew' and managers' spending in the wider economy due to their visits to Colston Hall could generate annual additional employment from FY 2020/21 onwards of:

84 FTEs

⁵² The employment impact is estimated from the GVA using data from the ONS on the UK average GVA per FTE

for the relevant industries for each spending category. Further details are provided in Appendix 1.

5 Concluding remarks

Our analysis suggests that Colston Hall already makes an important economic contribution to the Bristol and wider South West region and UK economy.

Through the running of, and staging of events and activities at Colston Hall, and through attracting attendees and artists, their support crews and management to the Hall who spend in the wider economy, we estimate that in FY 2015/16 Colston Hall generated total economic contributions in the region of:

- £11.8 million of GVA and employment of 257 FTEs in Bristol;
- £0.4 million of GVA and employment of 1 FTEs in the wider South West region; and
- £5.2 million of GVA and employment of 71 FTEs in the remainder of the UK.

And the proposed redevelopment of Colston Hall presents a real opportunity not only to secure the future of the Hall for future generations and to enhance the cultural offer of the Bristol, but to increase the economic contribution that the Hall makes.

Based on Bristol Music Trust's financial projections for Colston Hall for the FY 2020/21 to FY 2039/40 period, our analysis suggests that Colston Hall could generate, in present value terms:

- an annual average GVA impact of £12.7 million and annual employment of 274 FTEs in Bristol;

- an annual average GVA impact of £0.5 million and annual employment of 0 FTEs in the wider South West region; and
- an annual average GVA impact of £7.5 million and annual employment of 105 FTEs in the remainder of the UK.

If these levels of economic activity are achieved through Colston Hall's transformation, it would represent an **annual increase in GVA contribution of:**

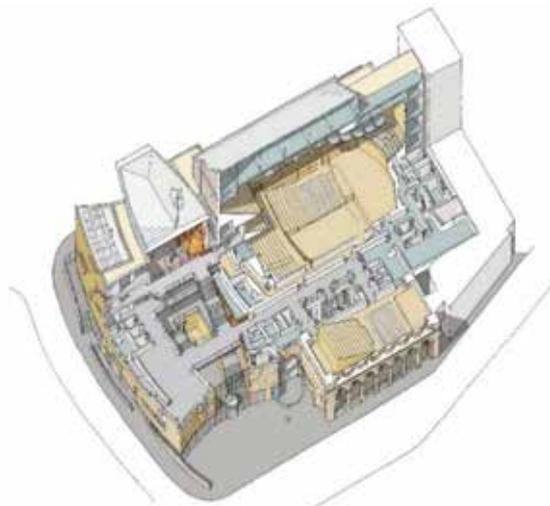
19%

And an increase in FTEs employed of:

16%

compared to the contributions made by Colston Hall in the last full financial year.

This is a sizeable increase in the economic contribution of Colston Hall.



Appendix 1 Our methodological approach

A.1 Approach to estimating the economic impact of Colston Hall in FY 2015/16

A.1.1 Methodology for estimating Colston Hall's contribution to Gross Value Added in FY 2015/16

Gross value added (GVA) measures the contribution to the economy of an individual producer, industry, sector or activity, net of intermediate consumption (for example goods and services that are used in the production process). It is a measure of the economic value of goods and services produced.⁵³

The figures we present in the report capture:

- direct GVA;
- indirect GVA; and
- induced GVA.

A.1.1.1 Direct GVA generated by Colston Hall

We assessed the direct GVA of Colston Hall using the following formula:

$$(1) \text{ Total Colston Hall direct GVA} \\ = \text{Bristol Music Trust's direct GVA} + \text{External promoters' direct GVA} \\ + \text{Bath Ales' direct GVA}$$

Where:

$$(2) \text{ Bristol music Trust's direct GVA} = \text{Total revenue} - (\text{Total costs} - \text{payroll costs})$$

$$(3) \text{ External promoters' direct GVA} = (\text{Revenue from ticket sales} \times \\ \text{Average GVA as a proportion of output for SIC code 90}^{54})$$

The data on revenues from ticket sales for the external promoters' events were provided by Bristol Music Trust.

$$(4) \text{ Bath Ales' direct GVA} = (\text{Revenue from Colston Hall cafe} \times \\ \text{Average GVA as a proportion of output for SIC code 56}^{55})$$

Given the location of Colston Hall, all direct GVA was categorised as being generated in Bristol.

A.1.1.2 Indirect GVA generated by Colston Hall

The assessment of indirect GVA was based on analysis of Bristol Music Trust's supplier spending for Colston Hall.

We were provided with a detailed list of its suppliers and the amount spent with each supplier for FY 2015/16. A number of steps were taken to prepare these data for analysis:

- We identified the Standard Industrial Classification (SIC) codes for the top 100 suppliers by value (accounting for 81% of total supplier spending by value). Only the top 100 suppliers (of approximately 620) were analysed due to insufficient detail being available for many of the smaller suppliers.

⁵³ GVA is a key component of gross domestic product (GDP) which is a measure of the value of production and is a key indicator of the state of the economy. GVA is used in the estimation of GDP, by aggregating GVA across all industries and sectors in the economy and adjusting for taxes and subsidies at the whole economy level.

⁵⁴ SIC code 90 refers to the creative, arts and entertainment activities sector.

⁵⁵ SIC code 56 refers to the food and beverage service activities.

- We scaled up the spending with the top 100 suppliers to cover the remaining 19% of spending, assuming that the profile of spending with the top 100 suppliers, in terms of their geographic location and SIC code, was representative of all suppliers.
- We aggregated spending with suppliers in the same SIC codes in order to conduct our analysis.

We assessed the indirect GVA of Colston Hall using the following formula:

$$(5) \text{ Total Colston Hall indirect GVA} \\ = \text{Bristol Music Trust's indirect GVA} + \text{External promoters' indirect GVA} \\ + \text{Bath Ales' indirect GVA}$$

Where:

$$(6) \text{ Bristol Music Trust's indirect GVA} = \text{Tier 1 supplier GVA} + \text{Wider supply chain GVA}$$

And:

$$(7) \text{ Tier 1 supplier GVA} = \sum_{i=1}^n \text{Spending}_i \times \text{Average GVA as a proportion of output}_i$$

Note: Where i is the individual sector and n is the number of sectors

$$(8) \text{ Wider supply chain GVA} = \sum_{i=1}^n \text{Tier 1 supplier GVA}_i \times (\text{Type I GVA multiplier}_i - 1)$$

Note: Where i is the individual sector and n is the number of sectors

The sector-specific Type I GVA multipliers used were sourced from the Office for National Statistics (ONS). Details are provided in appendix Appendix 2.

$$(9) \text{ External promoters' indirect GVA} = (\text{External promoters' direct GVA} \times \text{SIC code 90 Type I GVA multiplier})$$

$$(10) \text{ Bath Ales' indirect GVA} = (\text{Bath Ales' direct GVA} \times \text{SIC code 56 Type I GVA multiplier})$$

The location (Bristol, wider South West region, or wider UK) in which the indirect GVA impacts were generated, was estimated in the following ways:

- We were provided with the postcode for each of Colston Hall's FY 2015/16 suppliers. The location of Bristol Music's Tier 1 suppliers' spend was assigned based on the location of each supplier.
- The location of where the wider supply chain GVA was generated was assessed based on levels of leakage⁵⁶ set out in the BIS Occasional Paper No. 1⁵⁷. The average leakage for individual enterprise support at a sub-regional level of 16.1% was used to estimate Bristol impacts and the regional leakage level of 12.9% was applied to the indirect effects in the supply chain.
- All indirect GVA generated through external promoter events at Colston Hall was assumed to be outside the Bristol and South West regions. Given that no information was available on the location of the suppliers and as the promoters stage events across the UK, we considered it appropriate to adopt the conservative assumption that their suppliers would be located across the UK and not necessarily in the Bristol or South West area.
- Bath Ales' indirect GVA was assessed based on levels of leakage set out in the BIS Occasional Paper No. 1, adopting the same levels of leakage as outlined above.

⁵⁶ Leakage refers to the amount of benefits realised outside the target area, i.e. the GVA generated outside the Bristol and the South West areas.

⁵⁷ BIS, 2009, Research to improve the assessment of additionality, BIS, Occasional Paper No.1 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/191512/Research_to_improve_the_assessment_of_additionality.pdf

A.1.1.3 Induced GVA generated by Colston Hall

We assessed the indirect GVA of Colston Hall using the following formula:

$$(11) \text{ Total Colston Hall induced GVA} \\ = \text{Bristol Music Trust's induced GVA} + \text{External promoters' induced GVA} \\ + \text{Bath Ales' induced GVA}$$

Where:

$$(12) \text{ Bristol Music Trust's induced GVA} = \sum_{i=1}^n \left[\left(\text{Tier 1 supplier GVA}_i \times \text{Type II GVA multiplier}_i^{58} \right) - \left(\text{Tier 1 supplier GVA}_i \times \text{Type I GVA multiplier}_i \right) \right] \\ + \left[\left(\text{Bristol Music Trust's payroll costs} \times \text{Type II GVA multiplier}_i \right) - \left(\text{Bristol Music Trust's payroll costs} \times \text{Type I GVA multiplier}_i \right) \right]$$

Note: Where i is the individual sector and n is the number of sectors

The sector specific Type I and Type II GVA multipliers were sourced from the Scottish Government⁵⁹, as the ONS does not produce Type II multipliers. Details are provided in appendix 2.

$$(13) \text{ External promoters' induced GVA} = \\ \left(\text{External promoters' direct GVA} \times \text{SIC code 90 Type II GVA multiplier} \right) - \\ \left(\text{External promoters' direct GVA} \times \text{SIC code 90 Type I GVA multiplier} \right)$$

$$(14) \text{ Bath Ales' induced GVA} = \left(\text{Bath Ales' direct GVA} \times \text{SIC code 56 Type II GVA multiplier} \right) - \\ \left(\text{Bath Ales' direct GVA} \times \text{SIC code 56 Type I GVA multiplier} \right)$$

The location (Bristol, wider South West region, or wider UK) in which the induced impacts were generated, was estimated in the following ways:

- As the induced GVA is generated through the additional spending of Colston Hall's direct and indirect employees we did not have detailed information on where this spending took place. Therefore, this was estimated using levels of leakage⁶⁰ set out in the BIS Occasional Paper No. 1⁶¹. The average leakage for individual enterprise support at a sub-regional level of 16.1% was used to estimate Bristol impacts and the regional leakage level of 12.9% was applied.
- The induced GVA generated through external promoter events at Colston Hall was assumed to have fallen outside the Bristol and South West regions given that these promoters are based across the UK.
- Bath Ales' induced GVA was assessed based on levels of leakage set out in the BIS Occasional Paper No. 1, adopting the same levels of leakage as outlined above.

A.1.2 Methodology for estimating Colston Hall's contribution to employment in Bristol and the wider UK in FY 2015/16

The figures we present in the report capture:

⁵⁸ Type II multipliers represent the ratio of direct plus indirect plus induced impacts to the direct impact. Therefore, by stripping out the indirect effect from Type I multipliers, we obtain a ratio of the direct plus induced impacts to the direct impact. By applying this to the direct impact, we are able to estimate the induced impact. We use this approach to estimate the induced impact generated through spending by employees in Tier 1 suppliers and in their supply chains (treating activity in Tier 1 suppliers as the direct impact in this instance). This, however, excludes the induced impact generated through spending by a company's own direct employees. We, therefore, estimate this by applying the induced multiplier to payroll costs as a proxy for the impact generated through this route.

⁵⁹ Scottish Government, Scottish Supply Use and Analytical Input-Output Tables, 1998-2012, Type I Leontief Table, Multipliers and Effects, all years, published July 2015. Scottish Government, Scottish Supply Use and Analytical Input-Output Tables, 1998-2012, Type 2 Leontief Table, Multipliers and Effects, all years, published July 2015.

⁶⁰ Leakage refers to the amount of benefits realised outside the target area, i.e. the GVA generated outside the Bristol and the South West areas.

⁶¹ BIS, 2009, Research to improve the assessment of additionality, BIS, Occasional Paper No.1 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/191512/Research_to_improve_the_assessment_of_additionality.pdf

- direct employment;
- indirect employment; and
- induced employment.

A.1.2.1 Direct employment generated by Colston Hall

We assessed the direct employment of Colston Hall using the following formula:

$$(15) \text{ Total Colston Hall direct employment} \\ = \text{Bristol Music Trust's direct employment} + \text{External promoters' direct employment} \\ + \text{Bath Ales' direct employment}$$

Where:

$$(16) \text{ External promoters' direct employment} \\ = \frac{\text{External promoters' direct GVA}}{\text{average GVA per FTE employee for SIC code 90}}$$

$$(17) \text{ Bath Ales' direct employment} = \frac{\text{Bath Ales' direct GVA}}{\text{average GVA per FTE employee for SIC code 56}}$$

Bristol Music Trust's direct employment at Colston Hall was assessed based on HR data it provided on its full-time equivalent (FTE) employees.

The average GVA per FTE was estimated based on ONS data on the GVA for the relevant sectors, SIC code 56 and 90, and our estimation of the number of FTEs in the sector. This was derived using total employment full-time and part-time figures (in headcount terms) available in the ONS Business Register and Employment survey 2014 and ONS figures on the average number of hours worked by those in part-time employment in the UK.

Given the location of Colston Hall, all direct employment was categorised as being generated in Bristol. We considered this an appropriate assumption to make given that the employment associated with Bristol Music Trust's operation of Colston Hall, the employment associated with staging its events, and the operation of the café bar all take place at Colston Hall itself (i.e. in Bristol). It is possible that some of the employment associated with external promoters' staging of events may be located elsewhere (e.g. central operations associated with the promoters' activities may take place at the promoters' headquarters). However, we understand from Bristol Music Trust that when staging events external promoters' employ stage crew and other individuals to work at the event at Colston Hall. Therefore, to simplify our analysis we considered it reasonable assume all employment in Bristol given that the vast majority of all the employment takes place at Colston Hall, itself.

A.1.2.2 Indirect employment generated by Colston Hall

We assessed the indirect employment of Colston Hall using the following formula:

$$(18) \text{ Total Colston Hall indirect employment} \\ = \text{Bristol Music Trust's indirect employment} \\ + \text{External promoters' indirect employment} + \text{Bath Ales' indirect employment}$$

Where:

$$(19) \text{ Bristol Music Trust's indirect employment} \\ = \text{Tier 1 supplier employment} + \text{Wider supply chain employment}$$

And:

$$(20) \text{ Tier 1 supplier employment} = \sum_{i=1}^n \frac{\text{Tier 1 supplier GVA}_i}{\text{Average GVA per employee}_i}$$

Note: Where i is the individual sector and n is the number of sectors

(21) Wider supply chain employment

$$= \sum_{i=1}^n \text{Tier 1 supplier employment}_i \times (\text{Type I employment multiplier}_i - 1)$$

Note: Where i is the individual sector and n is the number of sectors

(22) External promoters' indirect employment = (External promoters' direct employment × SIC code 90 Type I employment multiplier)

(23) Bath Ales' indirect employment = (Bath Ales' direct employment × SIC code 56 Type I employment multiplier)

The sector specific Type I employment multipliers used were sourced from the Office for National Statistics (ONS). Details are provided in appendix 2.

The location (Bristol, wider South West region, or wider UK) in which the indirect employment impacts were generated, was estimated using the same approach as for the indirect GVA (see section A.1.1.2).

A.1.2.3 Induced employment generated by Colston Hall

We estimated the induced employment of Colston Hall using the following formula:

(24) Total Colston Hall induced employment

$$= \text{Bristol Music Trust's induced employment} + \text{External promoters' induced employment} + \text{Bath Ales' induced employment}$$

Where:

(25) Bristol Music Trust's induced employment =

$$\sum_{i=1}^n \left[\left(\text{Tier 1 supplier employment}_i \times \text{Type II employment multiplier}_i^{62} \right) - \left(\text{Tier 1 supplier employment}_i \times \text{Type I employment multiplier}_i \right) \right] + \left[\left(\text{Bristol Music Trust's direct employment} \times \text{Type II employment multiplier}_i \right) - \left(\text{Bristol Music Trust's direct employment} \times \text{Type I employment multiplier}_i \right) \right]$$

Note: Where i is the individual sector and n is the number of sectors

(26) External promoters' induced employment =

$$\left(\text{External promoters' direct employment} \times \text{SIC code 90 Type II employment multiplier} \right) - \left(\text{External promoters' direct employment} \times \text{SIC code 90 Type I employment multiplier} \right)$$

(27) Bath Ales' induced employment =

$$\left(\text{Bath Ales' direct employment} \times \text{SIC code 56 Type II employment multiplier} \right) - \left(\text{Bath Ales' direct employment} \times \text{SIC code 56 Type I employment multiplier} \right)$$

The sector specific Type I and Type II employment multipliers were sourced from the Scottish Government⁶³, as the ONS does not produce Type II multipliers.

⁶² As previously stated, with equation (12) the Type II multipliers exclude the induced impact generated through spending by a company's own direct employees, and the resulting employment. We, therefore, estimate this by applying the induced multiplier to direct employment as a proxy for the impact generated through this route.

⁶³ Scottish Government, Scottish Supply Use and Analytical Input-Output Tables, 1998-2012, Type I Leontief Table, Multipliers and Effects, all years, published July 2015. Scottish Government, Scottish Supply Use and Analytical Input-Output Tables, 1998-2012, Type 2 Leontief Table, Multipliers and Effects, all years, published July 2015.

The location (Bristol, wider South West region, or wider UK) in which the induced employment impacts were generated, was estimated using the same approach as for the induced GVA (see section A.1.1.3).

A.1.3 Methodology for estimating the gross economic impact generated by attendees, artists' and crew members' spending

To capture the wider economic contribution of Colston Hall, we drew on the eventIMPACTS⁶⁴ methodology and assessed the impacts generated as a result of:

- additional spending by attendees of Colston Hall linked to their visit, including accommodation, travel and wider spending in the Bristol economy on other items such as food and beverage; and
- spending by artists performing at Colston Hall and their support crew and management, including accommodation, travel and wider spending in Bristol.

The levels of spending were estimated based on data provided by Bristol Music Trust on the number and profile of attendees, artists and their support crew and management at Colston Hall in FY 2015/16 and estimates of per person spending drawn from a KPMG survey of attendees.

A.1.3.1 Colston Hall attendee survey

We conducted an online survey of attendees who purchased tickets for events staged at Colston Hall in FY 2015/16.

The survey was sent to all those who purchased tickets for whom Bristol Music Trust had email contact details (34,343 individuals). The survey was open from 30th January 2017 to 21st February 2017 and achieved a total of 2,664 responses. Given that respondents were able to provide answers on behalf of other individuals they had attended Colston Hall with, the survey responses provided information on 6,325 attendees. This represented approximately 2.6% of all attendees in FY 2015/16. Based on the statistical significance of this sample⁶⁵, we consider it is sufficiently large to allow us to draw robust conclusions regarding the overall population of attendees.⁶⁶

The survey was designed to provide information on the profile and spending of all attendees. Individuals were asked to provide information about:

- Demographics e.g. age, gender, location of primary residence.
- Attendance statistics e.g. how many events they attended and with how many people.
- Where they stayed to attend the event at Colston Hall i.e. at their primary residence or elsewhere (including the location).
- How much they spent in Bristol whilst attending the event at Colston Hall on: food and beverage; retail; leisure activities; car parking; and other goods/ services.
- What type of accommodation they stayed in and how much they spent per person per night, where applicable.
- How much they spent on their return travel to their accommodation, where applicable.
- How much they spent on their return travel to Colston Hall, either from their primary residence or from their accommodation.
- If they would have undertaken an alternative activity if they had not attended the event at Colston Hall, and if so where this would have taken place and how much would they have spent.

A.1.3.2 Methodology for estimating the gross wider GVA impact of Colston Hall generated through attendees' spending

Bristol Music Trust provided us with information on the location of 82,653 attendees' primary residence and provided data indicating that there were a total of 246,863 attendees for FY 2015/16. We used the information on the 82,653 attendees as a proxy to estimate where all 246,863 attendees resided. For example, from Bristol

⁶⁴ A collaboration between UK Sport, Visit Britain, EventScotland, the London Development Agency, the North West Development Agency, Yorkshire Forward and Glasgow City marketing Bureau

⁶⁵ This sample provides a confidence interval of 1.22% at a 95% confidence interval. Estimated using <http://www.surveysystem.com/sscalc.htm>

⁶⁶ The survey was voluntary, and therefore may be subject to some bias amongst respondents. However we have no evidence of the direction or significance of any bias cannot make any adjustments for this.

Music Trust data it was clear that 67.6% of attendees were from Bristol, this was then scaled for the full attendee number to yield 166,923 attendees from Bristol. The same process was repeated for all geographies to estimate the number of attendees residing in each geography. This is represented as 'attendees from n' in the formulae below.

Our spending analysis was then conducted based on the location of the attendees' primary residence (either Bristol, wider South West region or wider UK) given differences observed in the spending patterns across these groups of attendees and to ensure that the location of impacts could be estimated.

Spend on accommodation

Only those individuals who indicated that they stayed away from their primary residence for the primary reason of attending an event at Colston Hall, or had an extended their stay away from their primary residence to attend an event, were asked about accommodation spending.

The first step in our analysis was to determine the total number of individuals this related to, where their primary residence was, and where they had stayed when visiting Colston Hall (Bristol, wider South West region, wider UK or at their primary residence):

$$(28) \text{ Total number of attendees}_y = \sum_{n=1}^N \text{Attendees from } n \times \text{proportion who stayed in } y \times \text{Proportion whose primary reason was to attend Colston Hall}$$

Note: Where n represents the location of primary residence, where there are N geographies and y represents the group of attendee i.e. those who stayed in Bristol, those who stayed elsewhere in the South West, those who stayed elsewhere in the UK and those who stayed at their primary residence.

The total spend on accommodation was then estimated for the attendees that did not stay at their primary residence. This was based on the survey data, split by the location of where they stayed, of the average spend per person per night and the average number of nights spent away from their primary residence to attend an event at Colston Hall:

$$(29) \text{ Total spend on accommodation}_y = \sum_{y=1}^3 \text{Total number of attendees}_y \times \text{average number of nights spent}_y \times \text{average spend per person per night}_y$$

Note: Where y represents the area they stayed i.e. Bristol, the South West or elsewhere in the UK, hence there are 3 types.

This was then converted to direct GVA using the following formula:

$$(30) \text{ Direct GVA of accommodation spend}_y = \text{Total spend on accommodation}_y \times \text{average GVA as a proportion of output for SIC code 55}^{67}$$

In order to capture the wider indirect and induced effects generated by this accommodation spend, the same approach was taken as set out in sections A.1.1.2 and A.1.1.3 above, i.e. the indirect GVA and induced GVA were estimated using the following formulae:

$$(31) \text{ Indirect GVA of accommodation spend}_y = \text{Direct GVA of accommodation spend}_y \times (\text{SIC code 55 Type I GVA multiplier} - 1)$$

And:

$$(32) \text{ Induced GVA of accommodation spend}_y = (\text{Direct GVA of accommodation spend}_y \times \text{SIC code 55 Type II GVA multiplier}) - (\text{Direct GVA of accommodation spend}_y \times \text{SIC code 55 Type I GVA multiplier})$$

The location (Bristol, wider South West region, or wider UK) in which this spending was incurred, and the associated GVA, was determined based on the location of the accommodation, i.e. the different categories of y.

⁶⁷ SIC code 55 refers to the accommodation sector.

Daily spending in Bristol whilst attending Colston Hall (excluding accommodation and travel)

Survey respondents were asked to estimate the per-person daily spend within Bristol in the following categories:

- food and beverage;
- local attractions e.g. museums;
- car parking;
- retail; and
- other.

This spending was analysed by these categories of spending and for the different groups of attendees based on where they stayed whilst attending the event at Colston Hall:

$$(33) \text{ Spend in Bristol excluding travel and accommodation}_{m,y}$$

$$= \text{Total number of attendees}_y$$

$$\times \text{Proportion who spent}_{m,y} \times \text{Average amount spent}_{m,y}$$

Note: Where m is the category of spend, i.e. food and beverage, leisure activities, retail, car parking and other and y represents the group of attendee i.e. those who stayed in Bristol, those who stayed elsewhere in the South West, those who stayed elsewhere in the UK and those who stayed at their primary residence.

$$(34) \text{ Total spend in Bristol excluding travel and accommodation}_y$$

$$= \sum_{m1}^5 \text{Spend in Bristol excluding travel and accommodation}_{m,y}$$

Note: Where m is the category of spend, i.e. food and beverage, leisure activities, retail, car parking and other and y represents the group of attendee i.e. those who stayed in Bristol, those who stayed elsewhere in the South West, those who stayed elsewhere in the UK and those who stayed at their primary residence.

Each category of spend, m, was assigned a relevant SIC code based on the activity, e.g. spend on food and beverages was assigned to SIC code 56, which corresponds to food and beverage service activities. This spend was then converted to direct GVA using the results from equation (33) and the following formula:

$$(35) \text{ Direct GVA from spend in Bristol excluding travel and accommodation}_y$$

$$= \text{Spend in Bristol excluding travel and accommodation}_{m,y}$$

$$\times \text{Average GVA as a proportion of output}_i$$

Note: Where m is the category of spend, e.g. food and beverage and i is the individual sector

In order to capture the wider indirect and induced effects generated by this spend, the same approach as set out in equations (31) and (32) using the relevant SIC codes for the types of spending incurred.

We assumed that all of the spending (and hence associated economic impact) was generated in Bristol given that survey respondents had been specifically asked to provide details about levels of spending in Bristol only.

Spend on travel to Colston Hall

Survey respondents who did not stay at their primary residence when attending an event at Colston Hall were asked to estimate the per person cost of their return travel from their accommodation to Colston Hall, based on the transport mode used:

- public transport;
- car hire;
- petrol/fuel;
- taxi; and
- other.

This spending was analysed by these categories of travel related spending and for the different groups of attendees based on where they stayed whilst attending the event at Colston Hall:

$$(36) \text{ Spend on travel to Colston Hall for those staying away}_{w,y}$$

$$= \text{Total number of attendees}_y$$

$$\times \text{Proportion who spent}_{w,y} \times \text{Average amount spent}_{w,y}$$

Note: Where w is the category of travel, i.e. public transport; car hire; petrol/fuel; taxi; and other and y represents the group of attendee i.e. those who stayed in Bristol, those who stayed elsewhere in the South West, and those who stayed elsewhere in the UK, hence there are 3 types.

$$(37) \text{ Total spend on travel to Colston Hall for those staying away}_y = \sum_{w=1}^5 \text{ Spend on travel to Colston Hall}_{w,y}$$

Note: Where w is the category of travel, i.e. public transport; car hire; petrol/fuel; taxi; and other and y represents the group of attendee i.e. those who stayed in Bristol, those who stayed elsewhere in the South West, and those who stayed elsewhere in the UK, hence there are 3 types.

Each category of transport spend, w, was assigned a relevant SIC code based on the activity, e.g. spend on public transport was assigned to SIC code 49, which corresponds to rail transport and other land transport activities. This spend was then converted to direct GVA using the results from equation (36) and the following formula:

$$(38) \text{ Direct GVA from spend on travel to Colston Hall for those staying away}_y = \text{ Spend on travel to Colston Hall for those staying away}_{w,y} \times \text{ Average GVA as a proportion of output}_i$$

Note: Where w is the category of spend, e.g. public transport and i is the individual sector

In order to capture the wider indirect and induced effects generated by this spend, the same approach as set out in equations (31) and (32) using the relevant SIC codes for the categories of transport spending incurred.

The location (Bristol, wider South West region, or wider UK) in which this travel spending was incurred was assumed to be based on the location of the accommodation.

Survey respondents who stayed at their primary residence when attending an event at Colston Hall were asked to estimate the per person cost of their return travel from their primary residence to Colston Hall, based on the transport mode used.

This spending was analysed by the categories of travel related spending (dependent on transport mode) and for the different groups of attendees based on the location (Bristol, wider South West region, wider UK) of their primary residence:

$$(39) \text{ Spend on travel to Colston Hall for those staying at primary residence}_{w,n} = \text{ Attendees from } n \times \text{ Proportion who spend}_{w,n} \times \text{ Average spend}_{w,n}$$

Note: Where w is the category of travel, i.e. public transport; car hire; petrol/fuel; taxi; and n represents the location of primary residence

$$(40) \text{ Total spend on travel to Colston Hall for those staying at primary residence} = \sum_{n=1}^N \text{ Spend on travel to Colston Hall for those staying at primary residence}_n$$

Note: Where w is the category of travel, i.e. public transport; car hire; petrol/fuel; taxi; and n represents the location of primary residence, where there are N geographies

As before, each different category of transport spending was assigned to the relevant SIC code and converted into direct GVA using the following formula:

$$(41) \text{ Direct GVA from spend on travel to Colston Hall for those staying at primary residence}_n = \text{ Spend on travel to Colston Hall for those staying at primary residence}_{w,n} \times \text{ average GVA as a proportion of output}_i$$

Note: Where w is the category of spend, e.g. public transport, n represents the location of primary residence and i is the individual sector

In order to capture the wider indirect and induced effects generated by this spend, the same approach as set out in equations (31) and (32) using the relevant SIC codes for the categories of transport spending incurred.

The location (Bristol, wider South West region, or wider UK) in which this travel spending was incurred was assumed to be based on the location of the primary residence.

Spend on travel to accommodation

Survey respondents who did not stay at their primary residence when attending an event at Colston Hall were also asked to estimate the per person cost of their return travel from their primary residence to the accommodation used when attending an event at Colston Hall, based on the transport mode used.

This spending was analysed by the categories of travel related spending (dependent on transport mode) and for the different groups of attendees staying away based on the location (Bristol, wider South West and elsewhere in the UK) using the following formula:

$$(42) \text{ Spend on travel to accommodation}_{w,y} = \text{Total number of attendees}_{n,y} \times \text{Proportion who spend}_{w,y} \times \text{Average spend}_{w,y}$$

Note: Where w is the category of travel, i.e. public transport; car hire; petrol/fuel; taxi, n represents the location of primary residence and y represents the group of attendee i.e. those who stayed in Bristol, those who stayed elsewhere in the South West, and those who stayed elsewhere in the UK, hence there are 3 types.

$$(43) \text{ Total spend on travel to accommodation}_{n,y} = \sum_{w=1}^5 \text{ Spend on travel to accommodation}_{w,y}$$

Note: Where w is the category of travel, i.e. public transport; car hire; petrol/fuel; taxi, n represents the location of primary residence and y represents the group of attendee i.e. those who stayed in Bristol, those who stayed elsewhere in the South West, and those who stayed elsewhere in the UK, hence there are 3 types.

As before, each different category of transport spending was assigned to the relevant SIC code and converted into direct GVA using the following formula:

$$(44) \text{ Direct GVA from spend on travel to accommodation}_{n,y} = \text{Spend on travel to accommodation}_{w,y} \times \text{Average GVA as a proportion of output}_i$$

Note: Where w is the category of spend, e.g. public transport, n represents the location of primary residence and i is the individual sector

In order to capture the wider indirect and induced effects generated by this spend, the same approach as set out in equations (31) and (32) using the relevant SIC codes.

The location (Bristol, wider South West region, or wider UK) in which this travel spending was incurred was assumed to be based on the location of the primary residence.

A.1.4 Methodology for estimating the gross total economic impact generated by artists' and crew members' spending

Bristol Music Trust provided data on the events staged at Colston Hall in FY 2015/16, and the number of artists, support crew and managers involved with each.

These data were split by the number of artists, support crew and managers and by the genre of the event (classified by Bristol Music Trust as educational⁶⁸ and non-educational events). We then conducted research to ascertain the primary location (Bristol, wider South West, or wider UK) of each artist and assumed this to be the same for the corresponding support crew and managers.

As we did not conduct a survey of artists' and crew members' spending, we used the results from the attendee survey as a proxy for their spending.

Non-educational artists and crew

For artists whose home location was not Bristol or the wider South West and who performed at Colston Hall at events on successive days, we assumed that they incurred accommodation costs. We assumed the same proportion of individuals staying in Bristol and the wider South West as was observed in the attendee survey for those from outside Bristol (of the attendees who stayed away from their primary residence and were not from Bristol or the wider South West, 91% stayed in Bristol and the remaining 9% elsewhere in the South West). The level of accommodation spend was estimated using the levels of spending for the corresponding attendees, i.e. those that stayed in Bristol and those that stayed elsewhere in the South West, based on the attendee survey. Travel costs to and from their accommodation to Colston Hall, from their primary residence to their accommodation and the average daily spend in Bristol was estimated based on the corresponding group of attendees.

For all artists performing at Colston Hall only on a single day, it was assumed that their spending levels (on accommodation, travel and daily spending in Bristol) was the same as that of attendees with the same primary location as these artists (i.e. Bristol, wider South West or wider UK).

It was assumed that the spending of their support crew and management would also be the same as this group of artists.

⁶⁸ Educational events were categorised as those at which individuals from education institutions performed (e.g. school choirs).

These estimated spending levels were then converted into direct GVA using the same approach as for attendees, as detailed in equations (30), (35), (38), (41) and (44).

The wider indirect and induced impacts were estimated using the same approach as set out in equations (31) and (32), using the relevant SIC codes for the categories of spending incurred.

Educational artists and crew

For the individuals from education institutions performing at Colston Hall (e.g. school choirs), based on information provided by Bristol Music Trust, we assumed that they would travel together using private transport and would not leave the Hall to spend in the wider Bristol area whilst performing.

Therefore, the only spending captured in our analysis related to petrol/fuel costs. This was estimated using data from the attendee survey on per person spending on petrol/fuel based on individuals' primary location (Bristol, wider South West, and wider UK). The location of the education institution was used to determine the appropriate category of attendee spending to use.

This estimated spending was then converted into direct GVA using the same approach as for attendees, as detailed in equation (41).

The wider indirect and induced impacts were estimated using the same approach as set out in equations (31) and (32), using the relevant SIC code for the petrol/ fuel spending incurred.

A.1.5 The gross wider employment impact of Colston Hall through attendees', artists' and crew members' spending

Our estimation of the employment impacts associated with attendees', artists', support crew and managers' spending when performing at/attending Colston Hall draws on the estimated GVA associated with this spending, as set out in section A.1.3 above. Each element of spending was converted into direct employment using the relevant SIC code, as described in section A.1.3.2 and the following formula:

$$(45) \text{ Direct employment}_z = \frac{\text{Direct GVA}_z}{\text{Average GVA per FTE employee}_i}$$

Note: Where z is the type of spend, e.g. direct GVA from spend in Bristol excluding travel and accommodation and i is the individual sector

In order to capture the wider indirect and induced employment effects generated by this spend, the following formulae were used:

$$(46) \text{ Indirect employment}_z = \text{Direct employment}_z \times (\text{Type I employment multiplier}_i - 1)$$

Note: Where z is the employment type from the relevant spend, e.g. direct GVA from spend in Bristol excluding travel and accommodation and i is the individual sector

And:

$$(47) \text{ Induced employment}_z = \frac{(\text{Direct employment}_z \times \text{Type II employment multiplier}_i) - (\text{Direct employment}_z \times \text{Type I employment multiplier}_i)}{1}$$

Note: Where z is the employment type from the relevant spend, e.g. direct GVA from spend in Bristol excluding travel and accommodation and i is the individual sector

A.1.6 Assessing the net economic contribution of attendee spending

The analysis set out above estimated the gross spending of attendees, artists, support crew and management, and the associated gross GVA. However, some of this spending, and the resultant economic activity, may have occurred at the expense of spending on an alternative activity which would have been undertaken instead. This alternative spending that was displaced is factored in to our analysis to give the net (additional) spending and economic activity.

We obtained an estimate of this displacement by asking survey respondents about the amount, if any, they would have spent on an alternative activity had they not attended the event at Colston Hall and where this would have taken place i.e. within Bristol, the wider South West or elsewhere in the UK.

We assumed that displaced spending only arose in relation to attendees spending and that all spending of artists, support crew and management was additional. If these artists had not performed at Colston Hall they may have performed elsewhere, however, similar levels of economic activity would likely have been incurred in the UK economy.

We estimated the displacement effect using the following formula:

$$(48) \text{ Displaced spending}_y = \text{Total attendees} \times \text{Proportion who would have spent on alternative activity} \times \text{Proportion who would have done activity in } y \times \text{Average spend on alternative activity}_y$$

Note: Where y represents, as before, Bristol, the wider South West and the UK

This displaced attendee spending was converted into displaced GVA using the following formula:

$$(49) \text{ Direct GVA of displaced spending}_y = \text{Displaced spending}_y \times \text{Average GVA as a proportion of output for SIC code 93}^{69}$$

Note: Where y represents, as before, Bristol, the wider South West and the UK

In order to capture the wider indirect and induced spending that was displaced, the following formulae were used:

$$(50) \text{ Indirect GVA of displaced spending}_y = \text{Direct GVA of displaced spending}_y \times (\text{SIC code 93 Type I GVA multiplier} - 1)$$

And:

$$(51) \text{ Induced GVA of displaced spending}_y = (\text{Direct GVA of displaced spending}_y \times \text{SIC code 93 Type II GVA multiplier}) - (\text{Direct GVA of displaced spending}_y \times \text{SIC code 93 Type I GVA multiplier})$$

The net GVA arising from attendees', artists', support crew and managers' spending when performing at/attending Colston Hall was derived by deducting the displaced GVA from the gross GVA associated with the spending.

In the same way that net GVA was estimated, the gross employment effect was scaled down to account for displaced employment due to the displaced spending.

The displaced attendee spending was converted to displaced employment using equations (45), (46) and (47).

A.2 Approach to estimating the economic impact of Colston Hall FY 2020/21 to FY 2039/40

Our estimation of the economic impacts of Colston Hall over the period FY 2020/21 to FY 2039/40 was based on the financial data and information contained within Bristol Music Trust's Phase 2 25 year business plan for Colston Hall.

This contained data and information on: forecast revenue; forecast payroll and non-payroll costs; the expected number of events; the change in their supplier spending by spend category; the expected number of events; and the expected number of employees. In addition, we were provided with estimates for the increased revenue expected for Bath Ales through the café bar at Colston Hall.

A.2.1 Methodology for estimating Colston Hall's contribution to GVA from FY 2020/21 to FY 2039/40

A.2.1.1 Direct GVA that could be generated from FY 2020/21 to FY 2039/40

The direct GVA was estimated using the same approach adopted to estimate the direct GVA of Colston Hall for FY 2015/16:

⁶⁹ SIC code 93 refers to the sports activities and amusement and recreation activities.

(52) Total Colston Hall direct GVA

$$= \sum_{x=\text{FY } 2020/21}^{\text{FY } 2039/40} \text{Bristol Music Trust's direct GVA in 2015/16 prices}_x \\ + \text{External promoters' direct GVA}_x + \text{Bath Ales' direct GVA}_x$$

Note: Where x is the year of impact

Where:

$$(53) \text{Bristol Music Trust's nominal direct GVA}_x \\ = \text{Total revenue}_x - (\text{Total costs}_x - \text{payroll costs}_x)$$

Note: Where x is the year of impact

The forecast revenues, costs and payroll costs were sourced from the 25 year business plan. However, these figures took in to account an annual inflation rate of 2%. Therefore, in order to estimate the impact in real terms, we stripped out inflation from these figures using the following formula:

$$(54) \text{Bristol Music Trust's direct GVA in 2015/16 prices}_x = \\ (\text{Bristol Music Trust's nominal direct GVA}_x \times \text{Deflator}_x)$$

Note: Where x is the year of impact

Where:

$$(55) \text{Deflator} = \frac{1}{1 + \text{inflation rate}_x}$$

Note: Where x is the year of impact

$$(56) \text{External promoters' direct GVA}_x = (\text{Revenue from ticket sales}_x \times \\ \text{Average GVA as a proportion of output for SIC code 90})$$

Note: Where x is the year of impact

Revenues from ticket sales for each year from FY 2020/21 to FY 2039/40 were estimated using FY 2015/16 Bristol Music Trust data on attendee numbers and external promoters' ticket revenues and the estimates of the number of events for FY 2020/21 onwards from the 25 year business plan. The following approach was applied:

- The average number of attendees per event, for FY 2015/16 was estimated for the external promoter lettings events.
- The average number of attendees per event was then scaled by the expected number of external promoters' lettings events, as estimated by Bristol Music Trust for FY 2020/21 onwards, to estimate the total number of attendees at external promoters' events for FY 2020/21 onwards.
- The ticket revenue for external promoter lettings events for FY 2015/16 was divided by the number of attendees for these events to estimate an average revenue per attendee.
- This average revenue was uplifted by 5%⁷⁰ and multiplied by the estimated total number of attendees as derived above, per annum, for the FY 2020/21 to FY 2039/40 period to determine estimated annual revenues from ticket sales for external promoters.

$$(57) \text{Bath Ales' direct GVA}_x = (\text{Revenue from Colston Hall cafe}_x \times \\ \text{Average GVA as a proportion of output for SIC code 56})$$

Note: Where x is the year of impact

Revenues from the café for FY 2020/21 onwards were estimated based on applying a 40% uplift to the annual revenues for FY 2015/16. This uplift was provided by Bristol Music Trust based on its estimations of how the increased attendees and footfall at Colston Hall following the redevelopment may impact on sales at the café.

The GVA estimates outlined above, express the impacts in FY 2015/16 prices to allow comparisons to be drawn across the two time periods.

⁷⁰ The Bristol Music Trust have assumed that ticket prices will increase by 5% due to better facilities.

However, to reflect that money available now is valued more highly by society than it is in the future, we also expressed the impacts in Net Present Value (NPV) terms. A social discount rate of 3.5%⁷¹ was applied to future impacts, with discounting applied back to FY 2015/16.

A.2.1.2 Indirect GVA that could be generated from FY 2020/21 to FY 2039/40

We assessed the indirect GVA of Colston Hall for FY 2020/21 to FY 2039/40 are estimated in a similar was as detailed by equations (5) to (10) that is using the following formulae:

(58) Total Colston Hall indirect GVA

$$= \sum_{x=FY\ 2020/21}^{FY\ 2039/40} \text{Bristol Music Trust's indirect GVA}_x + \text{External promoters' indirect GVA}_x + \text{Bath Ales' indirect GVA}_x$$

Note: Where x is the year of impact

Where:

(59) Bristol Music Trust's indirect GVA_x = Tier 1 supplier GVA_x + Wider supply chain GVA_x

Note: Where x is the year of impact

And:

(60) Tier 1 supplier GVA_x = $\sum_{i=1}^n \text{Spending}_{i,x} \times \text{average GVA as a proportion of output}_i$

Note: Where x is the year of impact, i is the individual sector and n is the number of sectors

The spending by sector was estimated assuming the same profile of suppliers as used in FY 2015/16, with the following uplifts applied to supplier spending (based on estimates detailed in Bristol Music Trust's 25 year business plan:

- 30% uplift to total spending with suppliers associated with the Colston Hall's bar from FY 2020/21;
- 70% uplift to total spending with suppliers associated with conferencing events at Colston Hall from FY 2020/21;
- 19% uplift to total spending with suppliers associated with marketing at Colston Hall from FY 2020/21;
- 20% uplift to total spending with suppliers associated with operations at Colston Hall from FY 2020/21; and
- 30% uplift to total spending with suppliers associated with programming at Colston Hall from FY 2020/21.

And:

(61) Wider supply chain GVA_x = $\sum_{i=1}^n \text{Tier 1 supplier GVA}_i \times (\text{Type I GVA multiplier}_i - 1)$

Note: Where x is the year of impact, i is the individual sector and n is the number of sectors

The external promoters' and Bath Ales' indirect GVA draws upon the respective direct GVA's estimated by equations (56) and (57) and using the following formulae:

(62) External promoters' indirect GVA_x = (External promoters' direct GVA_x × SIC code 90 Type I GVA multiplier)

Note: Where x is the year of impact

(63) Bath Ales' indirect GVA_x = (Bath Ales' direct GVA_x × SIC code 56 Type I GVA multiplier)

Note: Where x is the year of impact

⁷¹ This was sourced from HM Treasury's Green Book.

The indirect GVA estimates outlined above, express the impacts in FY 2015/16 prices to allow comparisons to be drawn across the two time periods. The indirect GVA impacts were also expressed in NPV terms using the approach outlined in section A.2.1.1 above.

A.2.1.3 Induced GVA that could be generated from FY 2020/21 to FY 2039/40

We estimated the induced GVA of Colston Hall for FY 2020/21 to FY 2039/40 in a similar way as detailed in equations (11) to (14), i.e. using the following formulae:

(64) Total Colston Hall induced GVA

$$= \sum_{x=FY2020/21}^{FY\ 2039/40} \text{Bristol Music Trust's induced GVA}_x \\ + \text{External promoters' induced GVA}_x + \text{Bath Ales' induced GVA}_x$$

Note: Where x is the year of impact

Where:

$$\text{(65) Bristol Music Trust's induced GVA}_x = \sum_{i=1}^n \left[\begin{aligned} &(\text{Tier 1 supplier GVA}_{i,x} \times \text{Type II GVA multiplier}_i) - \\ &(\text{Tier 1 supplier GVA}_{i,x} \times \text{Type I GVA multiplier}_i) \end{aligned} \right] \\ + \left[\begin{aligned} &(\text{Bristol Music Trust's payroll costs}_x \times \text{Type II GVA multiplier}_i) - \\ &(\text{Bristol Music Trust's payroll costs}_x \times \text{Type I GVA multiplier}_i) \end{aligned} \right]$$

Note: Where x is the year of impact, i is the individual sector and n is the number of sectors

The external promoters', and Bath Ales', induced GVA draws upon the respective direct GVA's estimated by equations (56) and (57) and using the following formulae:

$$\text{(66) External promoters' induced GVA}_x = \\ (\text{External promoters' direct GVA}_x \times \text{SIC code 90 Type II GVA multiplier}) - \\ (\text{External promoters' direct GVA}_x \times \text{SIC code 90 Type I GVA multiplier})$$

Note: Where x is the year of impact

$$\text{(67) Bath Ales' induced GVA}_x = (\text{Bath Ales' direct GVA}_x \times \text{SIC code 56 Type II GVA multiplier}) - \\ (\text{Bath Ales' direct GVA}_x \times \text{SIC code 56 Type I GVA multiplier})$$

Note: Where x is the year of impact

A.2.2 Methodology for Colston Hall's estimated future contribution to employment in Bristol and the wider UK for FY 2020/21 to FY 2039/40

A.2.2.1 Direct employment that could be generated by Colston Hall from FY 2020/21 onwards

To estimate the employment impacts for each year from FY 2020/21, the same methodology was used as that used to estimate the impact in FY 2015/16. That is the direct employment of Colston Hall was estimated using the following formulae:

$$\text{(68) Total Colston Hall direct employment} \\ = \text{Bristol Music Trust's direct employment} + \text{External promoters' direct employment} \\ + \text{Bath Ales' direct employment}$$

Bristol Music Trust's direct employment at Colston Hall was assessed based on data provided by Bristol Music Trust on the expected future employment in FTE terms.

We estimated the external promoters' and Bath Ales' direct employment using the direct GVA estimated in equations (56) and (57) and using the following formulae:

$$(69) \text{ External promoters' direct employment} = \frac{\text{External promoters' direct GVA}}{\text{Average GVA per FTE employee for SIC code 90}}$$

$$(70) \text{ Bath Ales' direct employment} = \frac{\text{Bath Ales' direct GVA}}{\text{Average GVA per FTE employee for SIC code 56}}$$

A.2.2.2 Indirect employment that could be generated by Colston Hall from FY 2020/21 onwards

The indirect employment that could be generated from FY 2020/21 onwards was estimated using the same approach as for FY 2015/16, as set out in equations (18) to (23), however we drew upon the Tier 1 supplier GVA as estimated in equation (60)

$$(71) \text{ Total Colston Hall indirect employment} \\ = \text{Bristol Music Trust's indirect employment} + \text{External promoters' indirect employment} \\ + \text{Bath Ales' indirect employment}$$

Where:

$$(72) \text{ Bristol Music Trust's indirect employment} \\ = \text{Tier 1 supplier employment} + \text{Wider supply chain employment}$$

And:

$$(73) \text{ Tier 1 supplier employment} = \sum_{i=1}^n \frac{\text{Tier 1 supplier GVA}_i}{\text{Average GVA per employee}_i}$$

Note: Where i is the individual sector and n is the number of sectors

$$(74) \text{ Wider supply chain employment} \\ = \sum_{i=1}^n \text{Tier 1 supplier employment}_i \times (\text{Type I employment multiplier}_i - 1)$$

Note: Where i is the individual sector and n is the number of sectors

We estimated the external promoters', and Bath Ales', direct employment using the direct employment estimated in equations (69) and (70) and using the following formulae:

$$(75) \text{ External promoters' indirect employment} = (\text{External promoters' direct employment} \times \text{SIC code 90 Type I employment multiplier})$$

$$(76) \text{ Bath Ales' indirect employment} = (\text{Bath Ales' direct employment} \times \text{SIC code 56 Type I employment multiplier})$$

A.2.2.3 Induced employment that could be generated by Colston Hall from FY 2020/21 onwards

We estimated the induced employment of Colston Hall using the following formula:

$$(77) \text{ Total Colston Hall induced employment} \\ = \text{Bristol Music Trust's induced employment} \\ + \text{External promoters' induced employment} + \text{Bath Ales' induced employment}$$

Where⁷²:

$$(78) \text{ Bristol Music Trust's induced employment} =$$

⁷² As previously stated, with equation (12) the Type II multipliers exclude the induced impact generated through spending by a company's own direct employees, and the resulting employment. We, therefore, estimate this by applying the induced multiplier to direct employment as a proxy for the impact generated through this route.

$$\sum_{i=1}^n \left[\left(\text{Tier 1 supplier employment}_i \times \text{Type II employment multiplier}_i \right) - \left(\text{Tier 1 supplier employment}_i \times \text{Type I employment multiplier}_i \right) \right]$$

Note: Where i is the individual sector and n is the number of sectors

$$(79) \text{ External promoters' induced employment} = \left(\text{External promoters' direct employment} \times \text{SIC code 90 Type II employment multiplier} \right) - \left(\text{External promoters' direct employment} \times \text{SIC code 90 Type I employment multiplier} \right)$$

$$(80) \text{ Bath Ales' induced employment} = \left(\text{Bath Ales' direct employment} \times \text{SIC code 56 Type II employment multiplier} \right) - \left(\text{Bath Ales' direct employment} \times \text{SIC code 56 Type I employment multiplier} \right)$$

A.2.3 Methodology for estimating the future wider GVA impact that could be generated through Colston Hall's attendees' spending for FY 2020/21 to FY 2039/40

A.2.3.1 Methodology for estimating gross total attendee spending that could be generated from FY 2020/21 to FY 2039/40

Using Bristol Music Trust's 25 year business plan for the forecast number of events and average attendees per event for FY 2015/16, we estimated the annual attendee numbers for Colston Hall events from FY 2020/21 for the following 20 years. These figures formed the base of our estimation of spending levels of attendees.

As no forecasts were available on the profile of future attendees (including in terms of the location of their primary residence), for the purpose of our analysis it was assumed that this would be the same as the attendees for FY 2015/16 and that the average levels of spending, by type of spending, would remain unchanged.

The gross and net spending by type (accommodation, travel, spending in Bristol) estimated for attendees in FY 2015/16 (see sections A.1.3 and A.1.6) was uplifted by the percentage increase in attendees in FY 2020/21 onwards compared to FY 2015/16.

This estimated attendee spending for FY 2020/21 to FY 2039/40 was converted to gross and net GVA for each year using the same approach as detailed in sections A.1.3 and A.1.6.

It was also converted to gross and net employment for each year using the same approach as detailed in sections A.1.4 and A.1.6.

A.2.3.2 Methodology for estimating total artist and crew spending that could be generated from FY 2020/21 to FY 2039/40

Bristol Music Trust's 25 year business plan contained estimates of the forecast annual events that will be staged at Colston Hall from FY 2020/21 to FY 2039/40. These figures formed the base of our estimation of spending levels of artists, support crew and managers over this period.

As no detail was available on the forecast number of artists, support crew and managers over the time period, for the purpose of our analysis it was assumed that they would fit the same profile as for FY 2015/16 (in terms of the proportion of artists performing multiple events at Colston Hall, artists' and their crews' home geographic location, and the proportion of events with education institutions participating) but the number, and associated level of spending, would be uplifted based on the increased number of events staged at Colston Hall annually from FY 2020/21 (38% more than FY 2015/16).

This estimated artists', support crew and managers' spending for FY 2020/21 to FY 2039/40 was converted to GVA for each year using the same approach as detailed in section A.1.3.

It was also converted to employment for each year using the same approach as detailed in section A.1.5.

Appendix 2 Data sources

Table A1: Data sources and notes

Data	Source	Notes
Bristol Music Trust's total revenue	BMT internal data	Data from FY 2015/16 accounts
Bristol Music Trust's total costs	BMT internal data	Data from FY 2015/16 accounts
Bristol Music Trust's total payroll costs	BMT internal data	Data from FY 2015/16 accounts
Bristol Music Trust's supplier spending	BMT internal data	Data from FY 2015/16 accounts
Bristol Music Trust's direct employment	BMT internal data	Data from FY 2015/16 accounts
External promoters revenue from ticket sales	BMT internal data	Data from FY 2015/16 accounts
Bath Ales revenue from Colston Hall café	BMT internal data	Data from FY 2015/16 accounts
Attendees at Colston Hall	BMT internal data	Data from FY 2015/16 accounts
Number of events at Colston Hall	BMT internal data	Data from FY 2015/16 accounts
Bristol Music Trust's forecast total revenues	BMT internal data	Data from 25 year business plan 2020/21 to 2039/40
Bristol Music Trust's forecast total costs	BMT internal data	Data from 25 year business plan 2020/21 to 2039/40
Bristol Music Trust's forecast total payroll costs	BMT internal data	Data from 25 year business plan 2020/21 to 2039/40
Bristol Music Trust's forecast supplier spending	BMT internal data	Data from 25 year business plan 2020/21 to 2039/40
Bristol Music Trust's forecast direct employment	BMT internal data	Data from 25 year business plan 2020/21 to 2039/40
Expected number events at Colston Hall	BMT internal data	Data from 25 year business plan 2020/21 to 2039/40
Type I and Type II output, income, employment and GVA multipliers	The Scottish Government	Data for 2013, published 2016
Type I output, income, employment and GVA multipliers	Office for National Statistics	Data for 2010, published 2014
Input-Output Analytical tables	Office for National Statistics	Data for 2014, published 2016
Industries' national output GVA	Office for National Statistics	Data for 2014, published 2016
UK level employment by SIC code	Office for National Statistics	Data for 2014, published 2016
Average weekly hours of work	Office for National Statistics	Data for 2015 and 2016, published 2016
Attendee spending in FY2015/ 16	KPMG attendee survey	Data for FY 2015/16

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