The Bottle Yard Studios –
Impact of Screen Expenditure on Bristol

Report to Bristol City Council
by Olsberg•SPI

14th August 2020

CONTENTS

1. INTRODUCTION

1.1. About the Study

Strategy consultancy Olsberg•SPI ("**SPI**") has been retained by Bristol City Council ("**BCC**") to prepare a business plan for The Bottle Yard Studios ("**TBYS**") which explores the position of the business within Bristol and the UK studio market, and options for its future including the feasibility of expanding to a new site at Hawkfield Road.

This document (the "**Study**") contains additional economic analysis undertaken in relation to this business plan and provides further insight into the impact of film and television ("**Screen**") production undertaken at TBYS and in Bristol.

There are two elements to the analysis:

1. Calculation of full-time equivalent ("**FTE**") job creation from expenditure in Bristol facilitated by TBYS and the Bristol Film Office between 2015-16 and 2019-20. FTE job creation is also presented in relation to several future scenarios, using modelling developed for the TBYS business plan.
2. Analysis of vendor impacts in Bristol. This provides insight into the effects that expenditure by Screen productions facilitated by TBYS or the Bristol Film Office ("**BFO**") has on individuals and vendors in Bristol and further afield. It also examines the geographical impact of spend by Screen productions.

1. ANALYSIS OF JOB CREATION

1.1. Overview

To demonstrate the impact of Screen expenditure to Bristol and the wider south west region, detailed analysis was undertaken into the job creation effects of production expenditure.

This is based on direct inward expenditure in Bristol for the past five years, provided by the BFO. These data show the amount of production spend facilitated by the BFO and TBYS, with the TBYS proportion included where available.

The BFO calculates these data using average spend totals provided by Creative England, and actual total spend may be higher.

Table 1: Direct Expenditure from Screen Productions Facilitated by BFO and TBYS, 2015-16 to 2019-20

	TBYS Component (£)	Total (£)
2015-16	--	**16,674,000**
2016-17	13,776,750	**18,385,350**
2017-18	11,573,500	**15,248,000**
2018-19	12,800,000	**16,000,000**
2019-20	12,948,000	**17,057,500**

Source: BFO

1.2. Direct Job Creation

Using the spend data outlined in Table 1, analysis was undertaken into job creation using an FTE model. FTEs are a method of measuring employment in industries with non-standard or freelance employment patterns, such as Screen production. Each FTE job is equivalent to the average annual work undertaken by an individual employed on a full-time basis.

Analysis of the direct employment from Screen productions facilitated by the BFO shows that, on average, 117 FTE jobs have been created annually for the past five years from this direct spend.

Table 2: Estimated Direct FTE Employment, 2015-16 to 2019-20

	2015-16	2016-17	2017-18	2018-19	2019-20
Total	114.0	132.4	108.5	112.5	118.5
TBYS	N/A	99.2	82.4	90.0	90.0

Note: TBYS estimates a subset of total

1.3. Indirect and Induced FTE Employment

In addition to direct job creation, expenditure on Screen production also creates additional employment impacts through indirect and induced spending. Indirect impact is employment arising due to business purchases which the Bristol Screen production sector makes from other sectors in the course of production such as transport, hospitality, and equipment manufacturers.

There are also induced employment impacts, arising due to spending by people who are employed by the Screen production sector (including freelancers) as a result of earnings received from the sector. These impacts are outlined in Tables 3 and 4.

Table 3: Estimated Indirect FTE Employment, 2015-16 to 2019-20

	2015-16	2016-17	2017-18	2018-19	2019-20
Total	74.4	86.4	70.8	73.4	77.4
TBYS	N/A	64.8	53.8	58.8	58.7

Note: TBYS estimates are subset of the total

Table 4: Estimated Induced FTE Employment, 2015-16 to 2019-20

	2015-16	2016-17	2017-18	2018-19	2019-20
Total	47.0	54.6	44.7	46.4	48.9
TBYS	n/a	40.9	33.9	37.1	37.1

Note: TBYS estimates are subset of the total

1.4. Total FTE Employment

Summing direct, indirect and induced employment shows that expenditure in Bristol facilitated by the BFO and TBYS created nearly 250 FTE jobs in 2019-20, with an average of 242 FTE jobs created annually over the past five years.

Table 5: Estimated Total FTE Employment, 2015-16 to 2019-20

	2015-16	2016-17	2017-18	2018-19	2019-20
Total	235.3	273.4	224.1	232.3	244.7
TBYS	n/a	204.9	170.1	185.9	185.8

Note: TBYS estimates are subset of the total

1.5. Estimated Future Job Creation Impacts

The TBYS business plan undertaken by SPI models the potential future operation of TBYS in different scenarios specific to the loss of existing space and the potential addition of new space at Hawkfield Road. While the business plan contains models for seven potential compositions of TBYS, for the purposes of this Study four of these scenarios have been modelled as they are considered generally representative of the range of future scenarios.[1] These are outlined in the following table.

Table 6: Selected TBYS Stage Composition Options

Composition Option	No. of Studios, Current Site	No. of Studios, Hawkfield Road	Total No. of Studios
Option 1	4 of 8 studios permanently unavailable from January 2022	None	4
Option 2	4 of 8 studios permanently unavailable from January 2022	3 converted studios	7
Option 3	Current site not included	3 converted studios and 2 newbuild studios	5
Option 4	4 of 8 studios temporarily unavailable from January 2022 – back online January 2025	3 converted studios	11

In the business plan, the projected TBYS income for each option above has been modelled to 2024-25 and 2019-30. In order to understand the

[1] The options outlined in Table 6 represent options 1, 2 and 7 in the business plan. Option 7 has been renamed Option 3 in this document

job creation elements of the models above, the impact of each model in the business plan to 2024-25 and 2029-30 were applied to the total expenditure of projects facilitated by the BFO.

Table 7: Direct Expenditure from Screen Productions Facilitated by The Bristol Film Office and TBYS, 2015-16 to 2019-20

	2024-25 (£)	2029-30 (£)
Option 1	10,459,421	12,725,484
Option 2	20,491,556	24,931,111
Option 3	18,041,636	21,950,409
Option 4	22,865,417	36,483,768

These expenditure estimates were then used to calculate job creation potential, as outlined in Table 8.

Table 8: Estimated Employment Impacts of Projected TBYS Options

	2024-25	2029-30
Direct employment (FTEs)		
Option 1	64.2	69.1
Option 2	125.8	135.3
Option 3	110.8	119.1
Option 4	140.4	198.0
Indirect employment (FTEs)		
Option 1	41.9	45.1
Option 2	82.1	88.3
Option 3	72.3	77.8
Option 4	91.7	129.3
Induced employment (FTEs)		
Option 1	26.5	28.5
Option 2	51.9	55.8
Option 3	45.7	49.1
Option 4	57.9	81.6
Total employment (FTEs)		
Option 1	132.6	142.6
Option 2	259.9	279.4
Option 3	228.8	246.0
Option 4	290.0	408.9

2. VENDOR IMPACTS

2.1. Overview

One of the benefits of Screen production is the impact of expenditure across a wide range of business sectors in an economy – including those that have been particularly harmed during the COVID-19 pandemic, such as travel and hospitality, as well as freelance workers.

A recent SPI study analysed five productions of varying types and sizes and found that, on average, 67% of production costs were spent in the overall economy outside of the Screen production sector. Of the total, 33% was spent specifically in the Screen production sector.[2]

Furthermore, Screen production can deliver substantial and powerful amounts of expenditure in a short space of time, with significant impacts on employment and the wider economy. Screen productions can be compared to major, specialist, high-tech manufacturing operations that quickly enter production, expend large amounts of capital and employ hundreds, before shrinking to a handful of key operatives as the bulk of those previously employed move on to new projects.

To provide insight into these impacts in Bristol, this section provides two case studies of high-end television drama series facilitated by TBYS. One was entirely filmed in Bristol and surrounding regions, and another used TBYS for its interior scenes whilst undertaking location shooting elsewhere.[3] In both cases, the production budgets have been analysed and the resulting impact on a variety of sectors of the economy is modelled. The location of spend within the UK has also been assessed, with a focus on the impact on the City of Bristol.

The data analysis in both case studies is based on cost reports provided to SPI by the Client, detailing the value of each expense, the date, the buyer (i.e. what department to which each expense is attributable), and the creditor, including their location.

Postcode data were then used to determine the location of the vendors supplying each production, including those in South Bristol. For the sake of clarity, this geographic impact analysis is based on where each vendor company was based and may not therefore necessarily reflect the precise geographic location of labour expenditure.

2.2. Case Study 1: High-End Drama Filmed Entirely in Bristol and Surrounding Regions

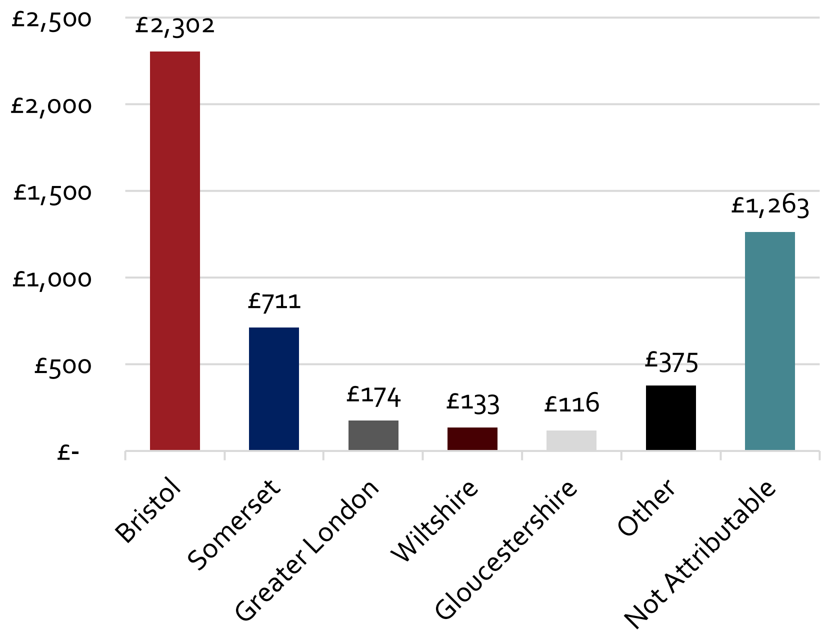
2.2.1. Impact on Bristol Vendors

This production had a total budget of roughly £5.1 million. Of that, £2.3 million (45%) was directly spent on businesses and persons based in Bristol. Somerset was the region to receive the second largest share of direct expenditure (£711,000, or 14%) which reflects the project's extensive use of locations in the county. Around 25% of the production budget (£1.3 million) could not be allocated to any location in the UK due to incomplete data.

[2] *Global Screen Production – The Impact of Film and Television Production on Economic Recovery from COVID-19.* Olsberg•SPI, 2020. https://www.o-spi.co.uk/wp-content/uploads/2020/06/Global-Screen-Production-and-COVID-19-Economic-Recovery-Final-2020-06-25.pdf

[3] The project names are not included for commercial confidentiality

Figure 1: Production Expenditure by Creditor Location – Case Study 1 (£000s)



Bristol accounted for 89% of total accommodation expenses, 63% of all consumable expenses, and 82% of equipment hire and purchase expenses, for a total of £457,000 spent in Bristol across those three categories. Furthermore, despite the series being set in large part in Somerset, Bristol attracted the largest share of the location budget (39%, around £131,000).

Figure 2: Production Expenditure in Bristol by Category – Case Study 1 (£000s)

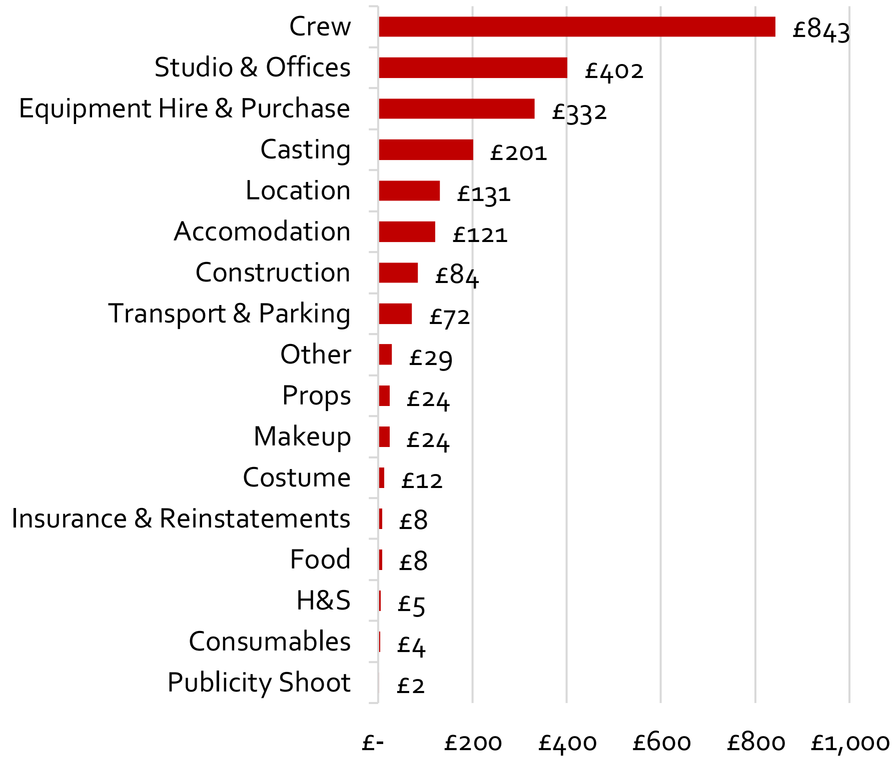
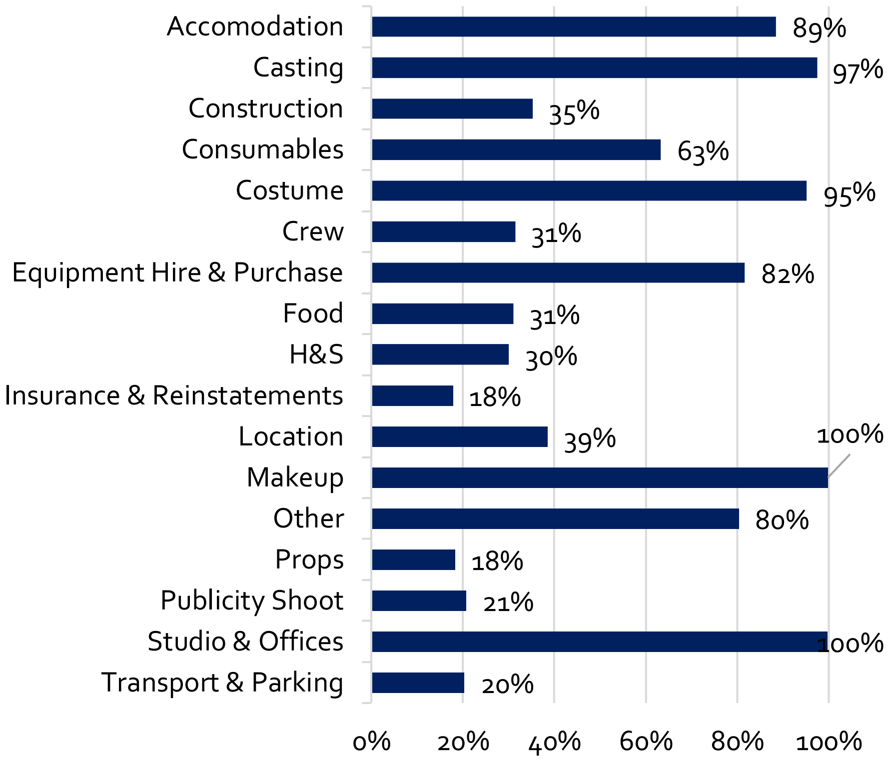


Figure 3: Production Expenditure by Category, % of Expenditure Attributable to Bristol – Case Study 1



2.2.2. Impact on South Bristol

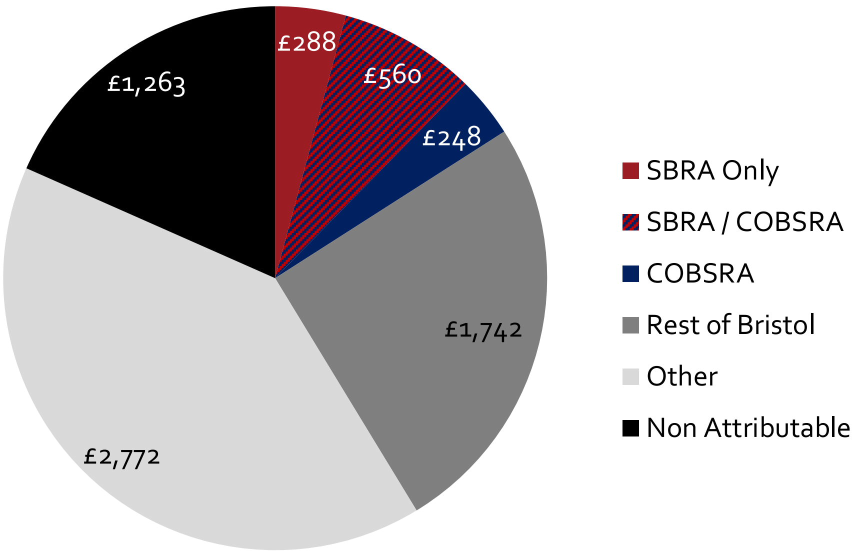
Further analysis was undertaken to ascertain impact on South Bristol, where TBYS is located. According to BCC, the 10 most deprived neighbourhoods in Bristol are all in the South Bristol areas of Hartcliffe, Whitchurch Park and Knowle West.[4]

Specifically, the direct economic impact of Screen production on the South Bristol Regeneration Area (SBRA) and the City of Bristol South of the River Avon (COBSRA) was assessed. The SBRA makes up for 22% of the City of Bristol by population.

The production analysed for this case study had a sizeable impact on South Bristol. As previously outlined, at least £2.3 million was spent in the City of Bristol; of this, around half (48%, or £1.1 million) was directly attributable to businesses or persons based in any of the 11 wards of the City of Bristol South of the River Avon, or in the SBRA. In total, £848,000 was spent in the SBRA and £808,000 was spent in the COBSRA (of which £560,000 is attributable to the postcodes that overlap between the two geographical delimitations).

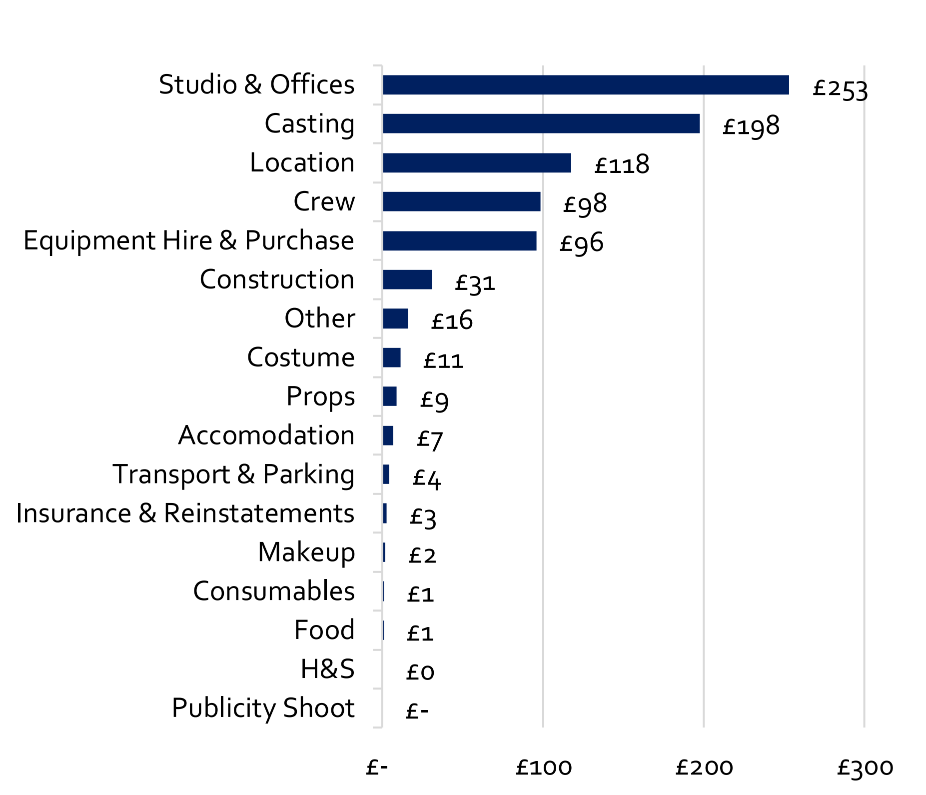
[4] *Deprivation in Bristol in 2019*. BCC, October 2019

Figure 4: Production Expenditure by Creditor Location – Case Study 1 (£000s)



Overall, the SBRA attracted 17% (£848,000) of total production expenditure for the project considered for this case study, with a further 5% (£248,000) being spent in areas comprised of the 11 wards of the COBSRA.

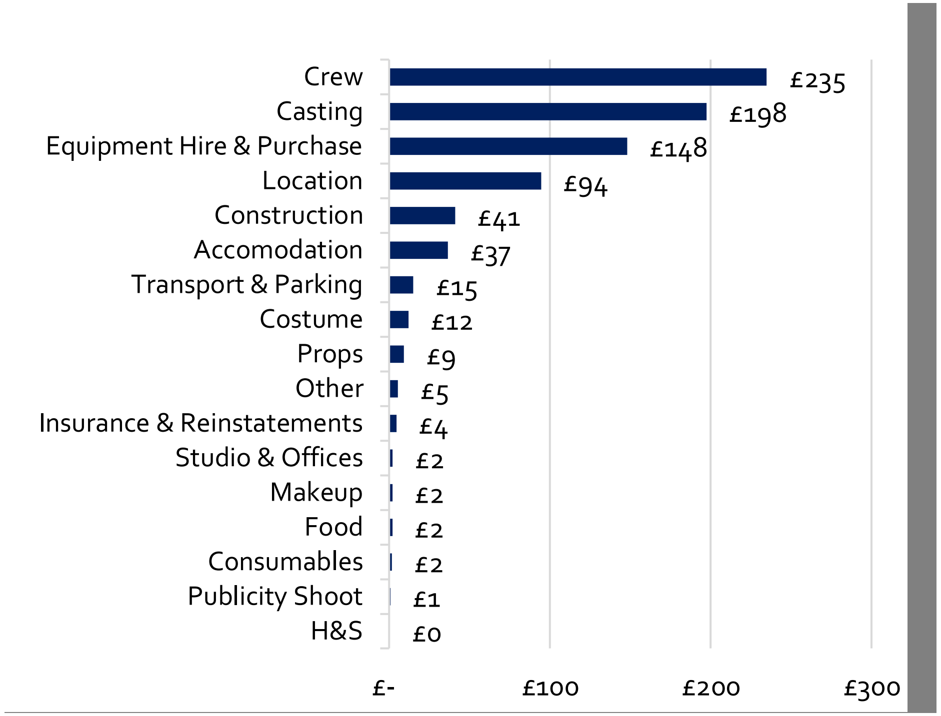
Figure 5: SBRA Production Expenditure by Category – Case Study 1 (£000s)



Studio and Offices was the largest category of production expenditure in the SBRA, and these made up 63% of total expenditure in this category. The SBRA accounted for 90% of total Bristol location expenditure and 35% overall, and 98% of casting expenditure in the city (96% overall), for a total £316,000 spent in the area across the two categories. Notably, however, the SBRA made up for 14% of total crew expenditure in Bristol, and just 4% overall, despite crew representing the largest single category of spend in Bristol and overall.

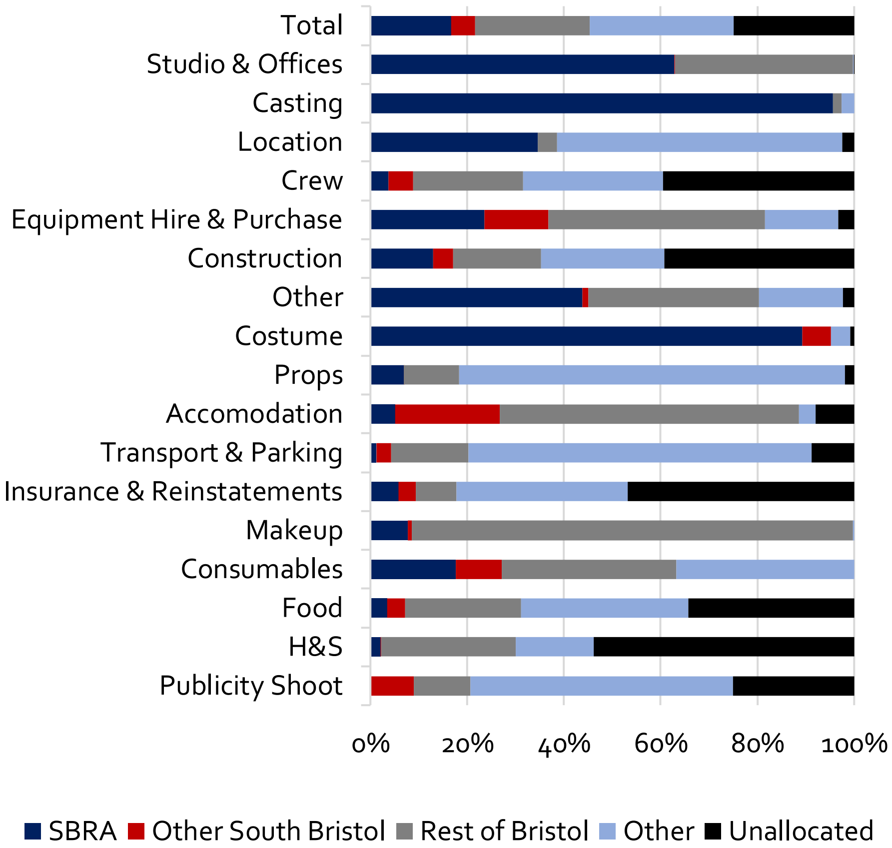
Meanwhile, the COBSRA attracted 16% (£808,000) of total production expenditure for the project considered for this case study.

Figure 6: COBSRA Production Expenditure by Category – Case Study 1 (£000s)



Crew was the largest category of production expenditure in the COBSRA, despite it making up just about 9% of total expenditure in this category. The COBSRA accounted for 98% of casting expenditure in the city and 96% overall, as well as accounting for 45% of Equipment Hire & Purchase expenditure in the City of Bristol (37% overall), and 72% of total Bristol location expenditure (28% overall), for a total £440,000 spent in the area across the two categories.

Figure 7: Percentage of Total Production Expenditure Attributable to the SBRA, South Bristol, and other Areas by Category – Case Study 1[5]

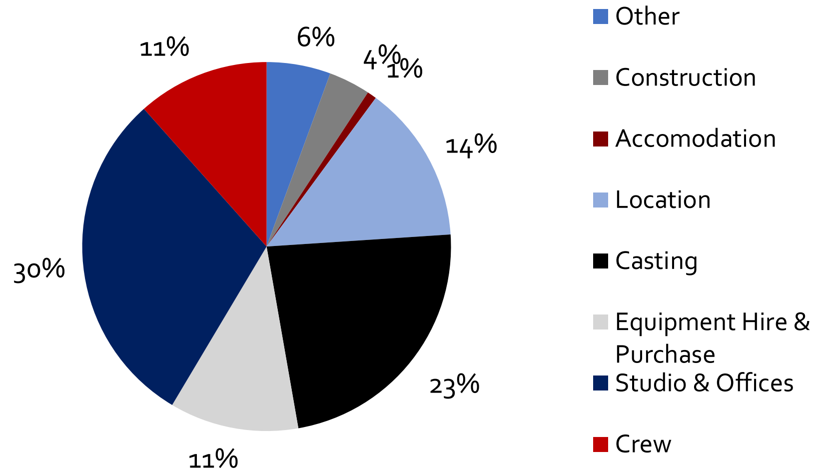


2.2.3. Range of Spend

Production expenditure in Bristol benefits a wide range of economic sectors in Bristol, including accommodation, construction and transport. Of the £1.1 million spent in Bristol from the case study production, 37% went to crew; this compares to 53% of the overall budget being devoted to crew.

While the production considered in this case study supported these sectors in the SBRA too, they made a smaller proportion of the overall production expenditure attributable to the area.

Figure 8: Production Expenditure in SBRA by Category – Case Study 1 (%)



5 In Figure 7, "Other South Bristol" refers to expenditure attributable to postcodes in the COBSRA that *do not* overlap with the SBRA

Figure 9: Production Expenditure in the COBSRA by Category – Case Study 1 (%)

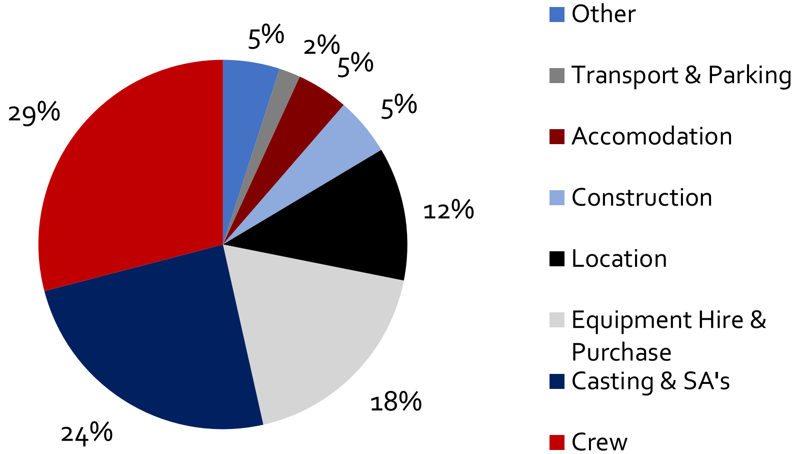


Figure 10: Production Expenditure in Bristol Overall (including SBRA) by Category – Case Study 1 (%)

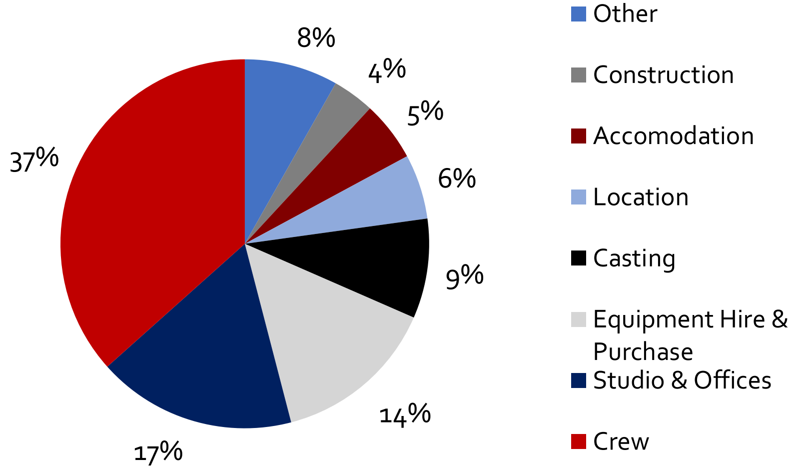
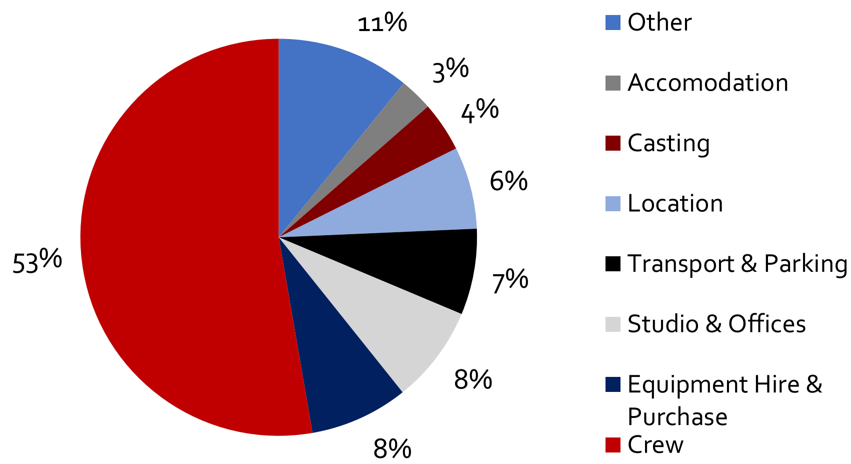


Figure 11: Total Production Expenditure (including outside of Bristol) by Category – Case Study 1 (%)



2.2.4. *Wider Geographical Impact*

The impacts of a production based at TBYS are not necessarily confined to the City of Bristol, and projects facilitated by TBYS impact on the south west region – and the wider UK.

While based at TBYS, this case study production made significant impacts on Somerset, with Wiltshire, Gloucestershire and Hampshire also seeing sizeable direct expenditure related to this project.

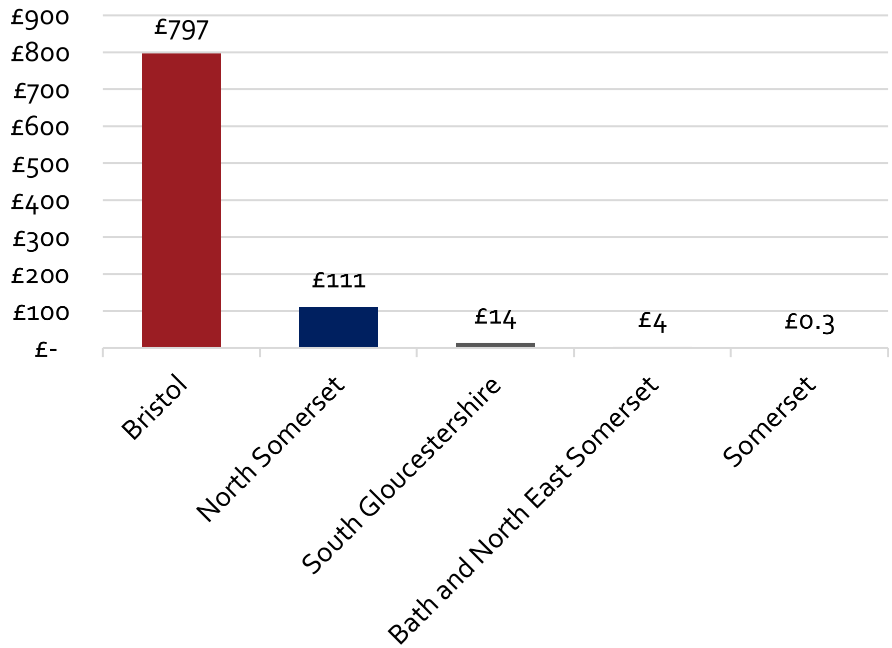
Figure 12: Production Spend by UK Location of Creditor – Case Study 1

2.3. Case Study 2: High-End Drama based at TBYS for Interior Scenes

2.3.1. Impact on Bristol Vendors

This was a high-budget series which shot mostly in location outside the UK, but which used TBYS for interior scenes. While we do not have information on the overall budget, the total budget for scenes shot at TBYS was £930,000. Of that, £797,000 (86%) was directly spent on businesses and persons based in Bristol, followed by North Somerset (£111,000, or 12%). This is largely explained by the fact that all location shooting was done outside the UK.

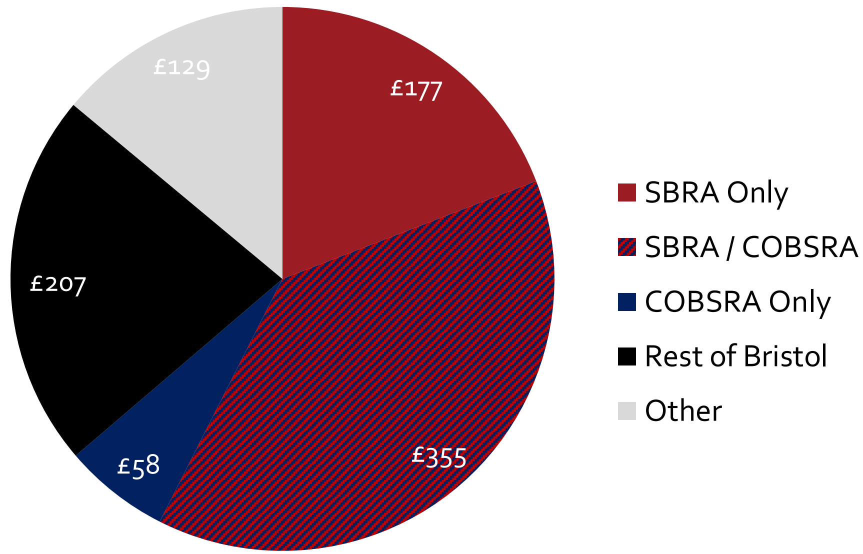
Figure 13: Production Expenditure by Creditor Location – Case Study 2 (£000s)



2.3.2. Impact on South Bristol

The production considered in this second case study was for the majority concentrated in South Bristol, due to the nature of the production process (i.e. TBYS used as the main basis of all interior scenes). Of the £797,000 spent in the City of Bristol during principal photography, around three quarters (74%, or £590,000) was directly attributable to business or persons based in any of the 11 wards of the COBSRA, or in the SBRA.

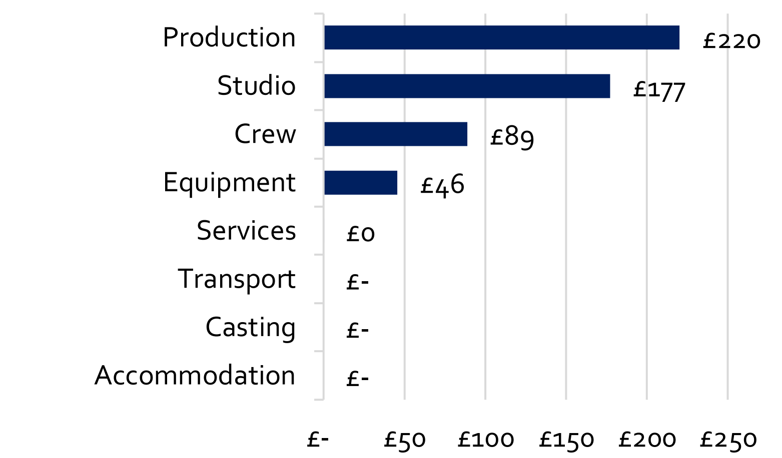
Figure 14: Production Expenditure by Creditor Location – Case Study 2 (£000s)



Overall, the SBRA attracted 57% (£532,000) of total production expenditure for the show considered in this case study, with a further

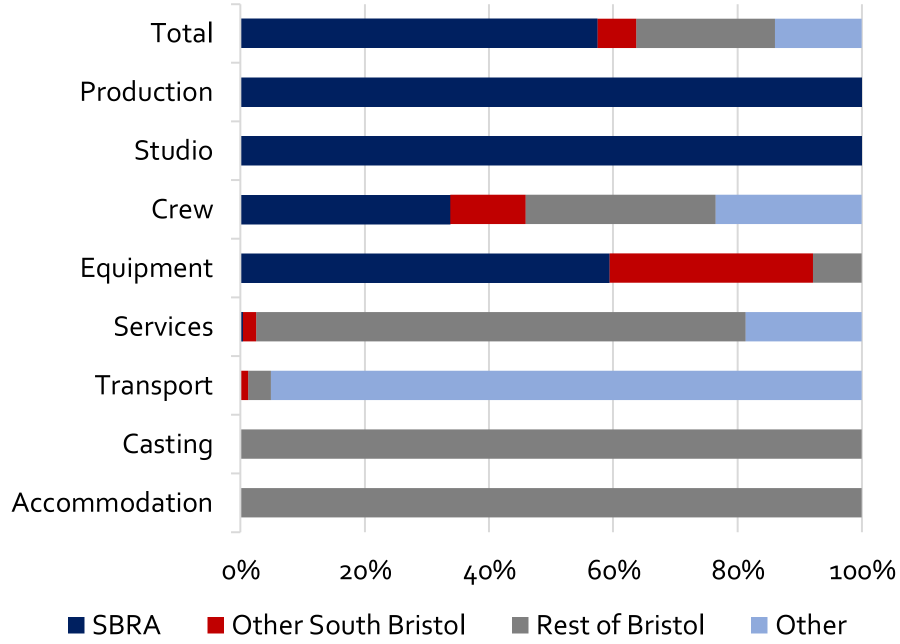
6% (£58,000) being spent in areas comprised by the 11 wards of the COBSRA which are not part of the SBRA.

Figure 15: SBRA Production Expenditure by Category – Case Study 2 (£000s)



The production considered in this case study spent all of its Studio and Production budget in the SBRA (i.e. at The Bottle Yard Studios). The Regeneration Area also benefited from spending on crew (34% of the total expenditure in that category), and equipment (59%). However, no accommodation, transport or casting expenditure materialised in the area, with very little going to the rest of South Bristol.

Figure 16: Percentage of Total Production Expenditure Attributable to the SBRA, South Bristol, and other Areas by Category – Case Study 2[6]

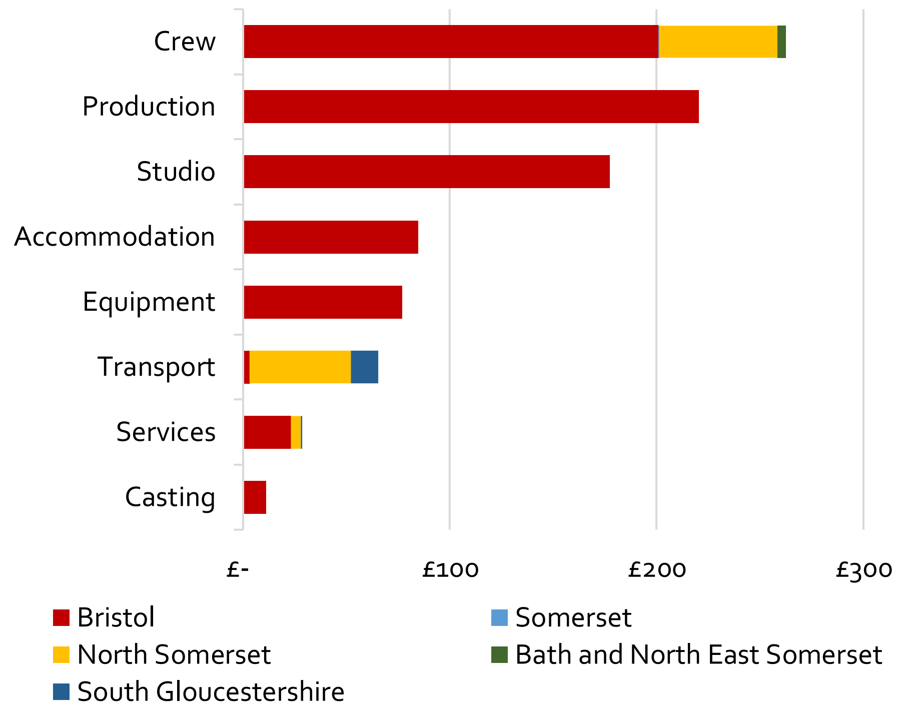


2.3.3. Range of Spend

Crew accounted for the largest share of production expenditure (£262,000 or 28%), the vast majority of which (76%) went to businesses or persons based in Bristol.

[6] In Figure 16, "Other South Bristol" refers to expenditure attributable to postcodes in the COBSRA that *do not* overlap with the SBRA

Figure 17: Production Expenditure in Bristol by Category – Case Study 2 (£000s)



Because of the large proportion of the overall budget spent in Bristol, there was not a lot of difference in the overall breakdown of the budget by cost category and the breakdown of expenditure that went to Bristol. Categories that do not directly pertain to film production, such as accommodation, transport, and services, made up 20% of the overall budget, and 25% of the expenditure realised in Bristol, but none of the spend realised in the SBRA.

Figure 18: Production Expenditure in SBRA by Category – Case Study 2 (%)

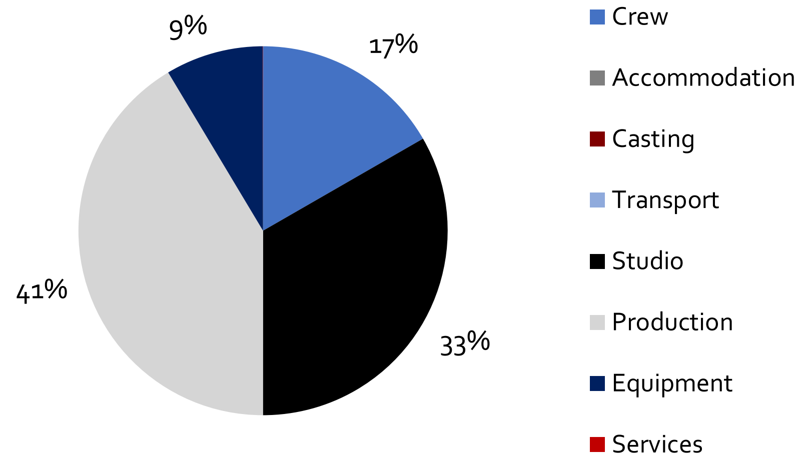


Figure 19: Production Expenditure in the COBSRA by Category – Case Study 2 (%)

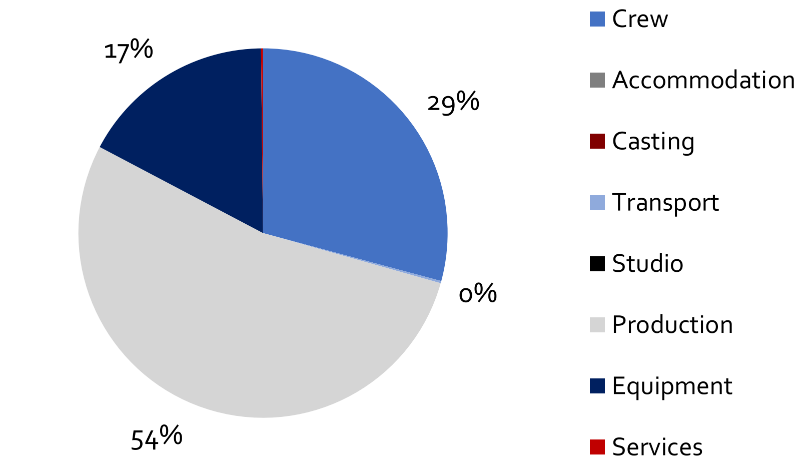


Figure 20: Production Expenditure in Bristol Overall (including SBRA) by Category – Case Study 2 (%)

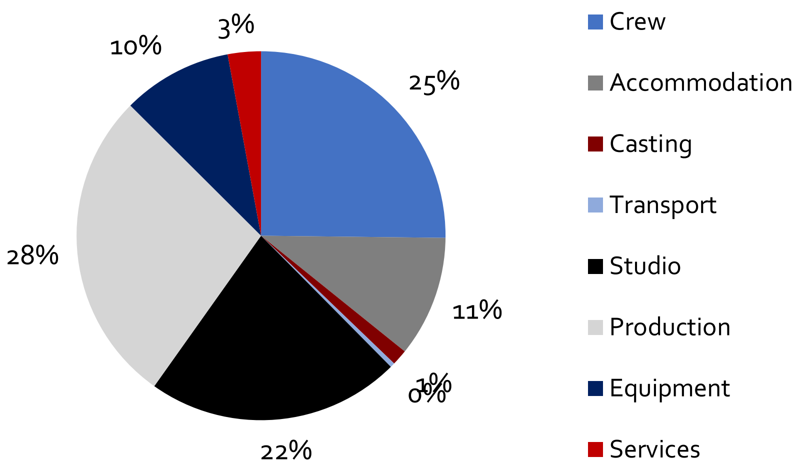
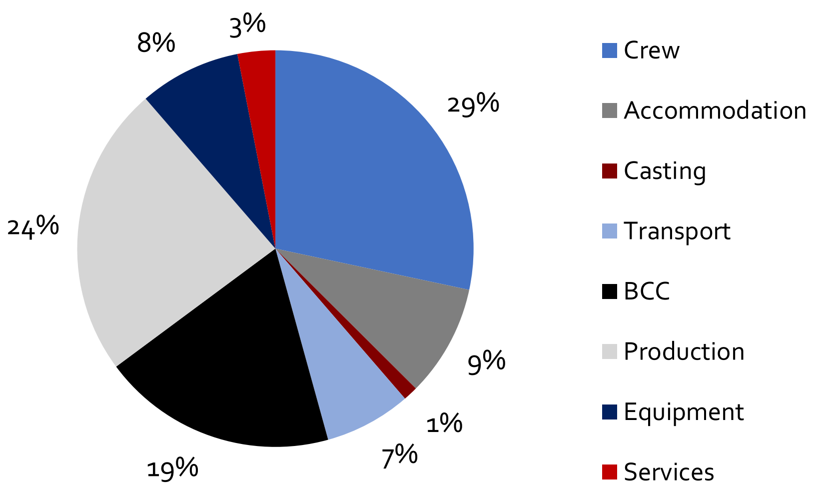


Figure 21: Total Production Expenditure by Category (including outside of Bristol) – Case Study 2: (%)



2.4. Appendix One: Methodology for Estimating FTE Employment

This Study presents estimates of the extent of employment supported by Screen production expenditure by projects facilitated by the Bristol Film Office and TBYS. The estimates were derived from spend data supplied by Bristol the Film Office for the years 2015-16 through 2019-20 inclusive.

These Screen production expenditure data for Bristol and TBYS were converted into headcount employment figures using data from the Annual Business Survey (ABS) on total purchases of goods, materials and services and employment for the industry classification 5911 (motion picture, video and television programme activities) from 2015 to 2018 inclusive. The headcount employment figures were then adjusted to produce FTE employment estimates using data from the UK Labour Force Survey for 2019 on the number of respondents employed full-time and part-time in sector 5911.

This process gives an estimate of **direct** FTE employment – employment supported by the Screen production sector's own activities. In addition to this, the analysis uses employment multiplier estimates from *Screen Business*, a 2018 study undertaken for the British Film Institute by Olsberg•SPI with Nordicity to produce results for the wider employment impact.

The wider employment impact consists of two categories:

- **Indirect:** employment arising due to business purchases which the Bristol Screen production sector makes from other sectors in the course of production (e.g. transport, hospitality, equipment manufacturers)
- **Induced:** output and employment arising due to spending by people who are employed by the film production sector in the Bristol Screen sector (including freelancers) as a result of earnings received from the sector.

Total employment supported by the Bristol film sector is the sum of direct, indirect and induced employment.

The forecast estimates for production expenditure in 2024-25 and 2029-30 under three different scenarios are used to produce direct, indirect and induced employment estimates of employment in these two future years under the assumption that employment costs per FTE person employed will continue to evolve as they did over the period 2010-2018 in the ABS data.