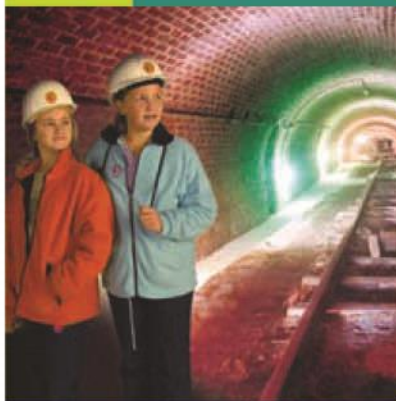


An Economic Impact Study of the North East Museums Sector

Final Report



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Executive Summary

The museums sector in the North East provides a range of socio-economic impacts. This study uses information gathered from these organisations to model the employment (measured in Full Time equivalent positions) and Gross Value Added (GVA) impacts resulting from the sector's activities and associated impact on the visitor economy.

As specified by government guidance, this analysis covers the gross and net direct, indirect (those arising from the supply chain) and induced (employee spend) impacts arising from the sector looking at both operational activities and the catalytic impacts relating to the visitor economy.

The analysis found that in the North East Region, a Gross total of 1,218 jobs were created in the economy with an associated GVA impact of £45.4m. Taking into account additionality factors (such as Displacement and Deadweight) the net impacts to the regional economy is equal to 789 FTE and £29.4m GVA.

Assessing these regional impacts against the level of money given as 'Grants, Trusts, Foundations etc' shows a return of £4.12 for every £1 invested (or a net return of 2.67 when additionality is considered) with a spend of £9,048 per Gross FTE job (or £13,961 per Net FTE job).

In addition to the impacts above, the sector plays an important role promoting learning and community engagement. For example, 268,031 people participated in learning activities at museums and 2,276 people volunteered 191,585 hours of time in support of organisations. The equivalent to 98.2 FTE positions.

1 Introduction and Methodology

Introduction

1.1 ERS was commissioned by Tyne & Wear Archives & Museums (TWAM) to undertake analyses capturing the economic impact of museums sector in the North East.

1.2 This Economic Impact Analysis is commissioned as part of the Museum Development Programme (MDP) funded by Arts Council England (ACE) and managed by TWAM in the North East 'to drive development and deliver sustainability, resilience and innovation in England's regional museums'.

1.3 Economic Impact Assessments offer tremendous opportunity for institutions to shape the narrative regarding their futures by demonstrating their considerable (and often underestimated) value to a wide-range of stakeholders. In this case, this analysis allows for the sector to understand their economic impact on the wider North East region in terms of Full Time Equivalent employment (FTE) and Gross Value Added (GVA) impact associated with the sector in two areas:

- Organisational impacts
- Visitor Economy impacts

1.4 Simply stated, GVA is a measure of the contribution to GDP made by an individual producer, industry or sector, industry or sector.

1.5 FTE is a unit to measure employment used to standardise the different employment contracts offered by organisations. Specifically, FTE converts employment into full time positions. This allows for comparison between organisations. For the purposes of this analysis the following definitions have been used:

- Full time employment = 35+ per week
- Part time employment = Under 35 hours per week
- FTE positions = Equal to 1 full time or 3 part time positions.

Methodology

1.6 The methodology used to measure the economic impact is based on a scoping study previously conducted by the study team. Broadly speaking, this study found that:

- Organisations were keen to be involved in capturing the sector's economic impact;
- Organisations were in possession of data relevant to an economic impact assessment;
- An online survey was an effective form of engaging with participants.

1.7 Using these findings the study team designed and disseminated an electronic survey to be completed by sector organisations. Topics covered by the survey include:

- Income generation
- Procurement expenditure
- Staff levels and associated costs
- Visitor information

1.8 In order to maximise the response rate to this survey, the study team used email and telephone reminders to prompt non-responding organisations. Using visitor information provided by TWAM, we estimate responses to account for 81% of the regional sector.

1.9 Note that in order to allow for data to be effectively used in the model all responses were reviewed for completeness and consistency of interpretation. While the e-survey was designed to minimise response irregularity, there are examples where incomplete or inconsistent data was subject to interpretation from the study team. In order to encourage robust results a conservative approach was taken when interpreting this data.

Missing Responses

1.10 As stated above, sector visitor information provided by TWAM shows that 81% of the sector responded to the online survey. In order to compensate for missing organisation responses and therefore produce analysis accounting for the whole regional sector, results were 'scaled up' using visitor numbers. Simply stated, this process involved using survey responses to calculate economic impacts on a per visitor basis. These impacts were then multiplied by total visitor numbers to give a sector total.

Incomplete Data

1.11 Generally speaking blank responses were assumed to be equal to zero. However, all data was individually judged on its own merit and in some cases, blank responses were given the average score of other responses. This depended on the nature of the missing data, the data collected elsewhere in the response and the organisation being assessed. For example, if a total figure was given for an indicator but with no breakdown by area, other responses would be used to estimate where the spend was likely to occur.

2 Regional Socio-Economic Impacts

2.1 As stated above, the economic impacts of the sector arise from organisation activities and the wider impact of the sector on the visitor economy. These impacts comprise:

- Direct employment and GVA created;
- Indirect employment and GVA arising from the supply chain of museum organisations;
- Induced employment and GVA effects arising from the employees spending directly and indirectly supported by the sector;

2.2 Note that the figures presented are those which have been 'scaled up' to include the whole industry. This process is based on visitor numbers and is outlined in more detail in the previous section.

Direct Impacts

2.3 Regional museums employed 734.9 FTE staff in the region during 2012-2013. These positions had an accompanying GVA impact of £25.3m.

Area	Employment (FTE)	GVA (£)
County Durham (excl. Darlington)	246.4	8,491,802
Northumberland	157.0	5,411,888
Tees Valley (inc. Darlington)	102.7	3,540,016
Tyne and Wear	228.9	7,888,604
North East Total	734.9	25,332,310

Indirect Impacts

2.4 In total, the sector's supply chain was equal to £26.7m (£24.1m of which was spent regionally). This spend supported 155.7 jobs within the region with an accompanying GVA impact of £8.7m.

Area	Employment (FTE)	GVA (£ millions)
County Durham (excl. Darlington)	21.0	1,175,526
Northumberland	31.8	1,719,328
Tees Valley (inc. Darlington)	14.0	732,898
Tyne and Wear	88.8	5,118,694
North East Total	155.7	8,746,446

2.5 In addition 17.3 FTE jobs construction jobs were supported in the region by the one-off capital expenditure of £13.7million.

Area	Employment (FTE)	GVA (£ millions)
County Durham (excl. Darlington)	12.0	735,905
Northumberland	2.7	167,373
Tees Valley (inc. Darlington)	0.8	46,652
Tyne and Wear	1.7	105,120
North East Total	17.3	1,055,050

Induced Impacts

- 2.6 Spending by employees directly and indirectly supported by the sector saw an estimated 126.8 jobs supported in the wider regional economy with an accompanying GVA impact of £5.4m.

Area	Employment (FTE)	GVA (£ millions)
County Durham (excl. Darlington)	35.0	1,501,887
Northumberland	26.0	1,116,781
Tees Valley (inc. Darlington)	16.3	702,083
Tyne and Wear	49.5	2,126,287
North East Total	126.8	5,447,038

Visitor Economy

- 2.7 Visitors to the museum sector, including those who attended various conferences and events, undoubtedly increased the value of the organisations to their local economies through their additional spending in the local area and other parts of the North East region. This includes purchasing food and drinks outside museum venues, shopping, staying overnight for those who specifically had to seek accommodation when intending to visit the museums venues, transport costs, and entertainment.
- 2.8 In total, 4.9m people visited regional museums during 2012-2013, with a further 32,558 attending corporate events, 7,909 attending one-day events and 812 attending multi-day conferences and events.
- 2.9 To estimate their impact on the regional economy only visitors from outside the North East region were taken into account. This study had to assume that certain number of conference and events attendees had to stay overnight, in particular, those who attended multi-day events. As for the rest of visitors it was assumed that 25% of those from outside the region would purposefully dedicate their day visits to museum venues. These assumptions therefore enable an estimate to be calculated relating to additional expenditure in the regional economy attributed to visitors.
- 2.10 This expenditure supported 200.7 FTE jobs in the region generating £5.8million of GVA.

Area	Employment (FTE)	GVA (£ millions)
North East Total	200.7	5,840,218

- 2.11 In order to calculate the impact of the visitor economy on local area, all visitors from outside the sub-region were considered. As the local visitor economy analysis considers more visitors (i.e. those from elsewhere in the region, as well those from further afield) the total local impacts will exceed the regional impacts (which only consider visitors from outside the region).

Area	Employment (FTE)	GVA (£ millions)
County Durham (excl. Darlington)	59.1	1,718,211
Northumberland	61.3	1,782,732
Tees Valley (inc. Darlington)	55.1	1,602,907
Tyne and Wear	125.9	3,662,308

Additionality of impacts

- 2.12 In order to comply with best practice and government guidance, the ‘gross’ impacts outlined above must be converted into ‘net impacts’ using additionality factors.
- 2.13 The additionality factors of relevance to this study are:

- **Leakage:** The proportion of impacts that benefit those outside the target area. For this study the target area is define as the North East regional economy. As the analysis above, discards those impacts falling outside the region no further action needs to be taken to account for leakage.
- **Displacement:** The proportion of impacts accounted for by reduced outputs elsewhere in the target area. The displacement rate is assumed at 20%, which is at the lower end of a range of possibilities according to the EP Additionality Guide. Museums are publicly supported organisations, predominantly charities, and as such, are not commercial entities. Therefore, it is unlikely that these organisations take a significant proportion of market share, labour, or capital from private sector businesses
- **Deadweight:** The proportion of impacts that would be produced even in the absence of organisations. Again, the nature of the sector means it unlikely that many of the impacts could be delivered by other organisations. Therefore, the deadweight rate is also assumed to be low based on EP guidance, at 19%.

- 2.14 The tables below present the gross economic impacts of the sector alongside the corresponding net impacts.

Organisation Impacts

Area	Gross (FTE)	Net (FTE)
County Durham (excl. Darlington)	302.4	195.9
Northumberland	214.8	139.2
Tees Valley (inc. Darlington)	133.1	86.2
Tyne and Wear	367.2	237.9
North East Total	1,017.4	659.3

Area	Gross (GVA £)	Net (GVA £)
County Durham (excl. Darlington)	11,169,215	7,237,651
Northumberland	8,247,997	5,344,702
Tees Valley (inc. Darlington)	4,974,997	3,223,798
Tyne and Wear	15,133,585	9,806,563
North East Total	39,525,794	25,612,715

Visitor Economy Impacts – Regional

Area	Gross (FTE)	Net (FTE)
North East	200.7	130.2

Area	Gross (GVA £)	Net (GVA £)
North East	5,840,218	3,787,367

Visitor Economy Impacts – Local

Area	Gross (FTE)	Net (FTE)
County Durham (excl. Darlington)	59.1	38.3
Northumberland	61.3	39.7
Tees Valley (inc. Darlington)	55.1	35.7
Tyne and Wear	125.9	81.6

Area	Gross (GVA £)	Net (GVA £)
County Durham (excl. Darlington)	1,718,211	1,114,256
Northumberland	1,782,732	1,156,097
Tees Valley (inc. Darlington)	1,602,907	1,039,482
Tyne and Wear	3,662,308	2,374,998

Return on Investment

2.15 Organisations in the sector received a total of £11.02m in ‘Grants, Trusts, Foundations etc’ (investment). The tables below compares the rate of return generated through this spend looking at the GVA created per £1 invested and the level of investment spend associated with each FTE job. The table measures these impacts in terms of Gross and Net impacts.

2.16 As can be seen £1 of investment yields £4.12 in total Gross GVA. A return of 312%. However, when additionality factors are considered £1 of investment yields £2.67. Approximately, £9,000 of investment was associated with each FTE position, a figure rising to just under £14,000 when considering additionality factors.

Total Gross Impacts	Return on £1 of Grants, etc	Grants etc amount per FTE job created (£)
County Durham (excl. Darlington)	5.35	6,760
Northumberland	2.65	13,996
Tees Valley (inc. Darlington)	5.19	6,837
Tyne and Wear	4.51	8,643
North East Region	4.12	9,048

Total Net Impacts	Return on £1 of Grants, etc	Grants etc amount per FTE job created (£)
County Durham (excl. Darlington)	3.47	10,431
Northumberland	1.71	21,597
Tees Valley (inc. Darlington)	3.37	10,548
Tyne and Wear	2.92	13,336
North East Region	2.67	13,961

- 2.17 It should be noted that ‘grants, trusts, foundations etc’ is not limited to public sector money.
- 2.18 It should also be noted, that due to the different circumstances facing each organisation, caution should be exercised when comparing the return on investment between different areas and organisations. For example, a higher rate of return generated by one area / organisation does not necessarily mean money has been better invested relative to elsewhere.

Wider Impacts

- 2.19 In addition to the impacts outlined above, cultural organisations play an important role in promoting education and lifelong learning, providing opportunities for volunteering and increasing quality of life for residents.
- 2.20 It is estimated that 268,031 children and adults from the region undertook learning opportunities at regional museums. As can be seen in the table below this learning took place throughout the region.

Area	Numbers
County Durham (excl. Darlington)	69,757
Northumberland	41,300
Tees Valley (inc. Darlington)	6,277
Tyne and Wear	149,168
North East Total	268,031

- 2.21 In addition, organisations were assisted by 2,276 volunteers from the region who contributed 191,585 hours of support. This is equivalent to 98.2 FTE (assuming a full time position to be 37.5 hours a week).

Area	Hours	Equivalent FTE
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County Durham (excl. Darlington)	65,161	33.4
Northumberland	51,167	26.2
Tees Valley (inc. Darlington)	47,436	24.3
Tyne and Wear	27,821	14.3
North East Total	191,585	98.2

Comparing Impacts with other Organisations

2.22 Comparing North East museums economic impacts with those arising from organisations elsewhere is a difficult task given that each analysis may vary by methodology, the number and type of organisations assessed, the geographies covered and the economic context in which the analysis was conducted. Notwithstanding these difficulties, comparing results is a useful way of adding context to figures and with this in mind the following research is highlighted:

- Research¹ commissioned by the Association of Independent Museums measured the 700 independent museums members to have a total net economic impact of at least £610m in 2010 (though this could be as high as £930m) with at least 5,800 FTE direct, indirect and induced jobs supported by the sector.
- Research² for the National Museums Scotland, estimated that in 2012/13, the 8 sites would have an impact of £58.1m net GVA and 2,611 FTE jobs in the Scottish economy with £39.9million GVA and 1,772 FTE jobs in the Edinburgh economy. The research estimates that National Museums Scotland will contribute nearly £3 to the Scottish economy for every £1 invested by the Scottish government.
- Research³ for the National Museums Liverpool (a group with 7 venues), estimates an economic impact in 2012/13 of £97.2m to the Liverpool City region economy – potentially supporting 1,660 FTE jobs.

¹ <http://www.aim-museums.co.uk/downloads/23c296c0-dd71-11e1-bdfc-001999b209eb.pdf>

² <http://www.nms.ac.uk/about-us/about-us/news-features/museum-to-boost-economy.aspx>

³ <http://www.liverpoolmuseums.org.uk/about/corporate/reports/nml-social-and-economic-impact-report.pdf>

Summary of Quantified Impacts:

2.23 The total gross economic contribution of the North East Museum sector to the regional economy was estimated at £45.4 million of GVA during 2012-13, supporting 1,218 FTE jobs. Converting these figures from Gross to Net shows a GVA impact of £29.4m with 789 FTE jobs supported. This figure is made up of the following impacts:

Organisation Impacts

- Museums in the region directly created 734.9 FTE jobs within the North East with a GVA impact of £25.3m.
- Procurement spend arising from the activities of the sector indirectly created 155.7 FTE positions in the region with a GVA impact of £8.7m
- The increase in employee spend arising from the direct and indirect employment Induced associated with the sector created an induced impact of 126.8 FTE jobs region with a GVA impact of £5.4m

Visitor Economy Impacts

- By attracting £7.6m visitor spend to the region, the sector directly created 126.2 jobs in the visitor economy sector, with an associated GVA impact of £3.7m.
- The indirect and induced impacts associated with the visitor spend created an additional 74.5 jobs and £2.2m GVA.

Investment Return

- For every £1 of 'Grant, Trusts, Foundations etc' £4.12 was returned in Gross GVA Impacts, with £2.67 returned in Net Impacts.
- 1 FTE position was created for every £9,048 of 'Grant, Trusts, Foundations etc' rising to £13,961 when considering net impacts.

Additional Impacts

- In addition to the GVA and employment impacts mentioned above, the sector received 191,585 hours of volunteer support from regional residents. The equivalent to 98.2 FTE
- Over a quarter of a million North East residents (268,031) participated in learning activities.

2.24 The table below summarises the gross and net economic impacts of the sector at regional, combined sub-regional, and individual sub-regional areas.

Economic Impacts	North East Region		County Durham		Northumberland		Tees Valley		Tyne and Wear	
	FTE jobs	GVA, £	FTE jobs	GVA, £	FTE jobs	GVA, £	FTE jobs	GVA, £	FTE jobs	GVA, £
Organisation Impacts										
Direct	734.9	25,332,310	246.4	8,491,802	157.0	5,411,888	102.7	3,540,016	228.9	7,888,604
Indirect	155.7	8,746,446	21.0	1,175,526	31.8	1,719,328	14.0	732,898	88.8	5,118,694
Induced	126.8	5,447,038	35.0	1,501,887	26.0	1,116,781	16.3	702,083	49.5	2,126,287
Total gross	1,017.4	39,525,794	302.4	11,169,215	214.8	8,247,997	133.1	4,974,997	367.2	15,133,585
Total net	659.3	25,612,715	195.9	7,237,651	139.2	5,344,702	86.2	3,223,798	237.9	9,806,563
Visitor Economy Impacts										
Gross	200.7	5,840,218	59.1	1,718,211	61.3	1,782,732	55.1	1,602,907	125.9	3,662,308
Net	130	3,787,367	38.3	1,114,256	39.7	1,156,097	35.7	1,039,482	81.6	2,374,998
TOTAL GROSS IMPACTS	1,218.1	45,366,012	361.5	12,887,426	276.1	10,030,729	188.2	6,577,904	493.1	18,795,893
TOTAL NET IMPACTS	789.4	29,400,082	234.2	8,351,907	178.9	6,500,799	121.9	4,263,280	319.5	12,181,561

Return on 'Grants, Trusts, Foundations etc'	North East Region		County Durham		Northumberland		Tees Valley		Tyne and Wear	
	Amount per Job	GVA per £1	Amount per Job	GVA per £1	Amount per Job	GVA per £1	Amount per Job	GVA per £1	Amount per Job	GVA per £1
Total Gross Impact	£9,048	£4.12	£6,760	£5.35	£13,996	£2.65	£6,837	£5.19	£8,643	£4.51
Total Net Impact	£13,961	£2.67	£10,431	£3.47	£21,597	£1.71	£10,548.10	£3.37	£13,336	£2.92

Additional Impacts	North East Region	County Durham	Northumberland	Tees Valley	Tyne and Wear
Learning participation	268,031	72,122	43,765	5,177	148,472
Volunteering - Equivalent FTE jobs	98.2	32.9	26.8	24.2	14.8

Appendix One: Breakdown of Response rate

Organisations returning a survey:

- Aycliffe and District Bus Preservation Society
- Bailiffgate Museum
- Beamish
- Bede's World
- The Bowes Museum
- Bowes Railway
- Cleveland Ironstone Mining Museum
- Durham Light Infantry and Durham Art Gallery
- Durham Museum and Heritage Centre
- Durham University Museums (inc. Palace Green Library, Oriental Museum, Old Fulling Mill)
- Head of Steam
- Heugh Battery Museum
- Killhope Museum
- Kirkleatham Museum
- Lady Waterford Hall
- Locomotion
- Middlesbrough Museums Service (inc. Captain Cook Birthplace Museum and Dorman Museum)
- mima (Middlesbrough Institute of Modern Art)
- Museum of Hartlepool and Hartlepool Art Gallery
- North East Land, Sea and Air Museum
- Preston Hall Museum
- Seven Stories (Figures for this organisation were taken from a previous NGCV⁴ study conducted by the study team)
- TWAM - Tyne & Wear Archives & Museums (12 venues inc. those in Sunderland - Arbeia Roman Fort, Discovery Museum, Great North Museum: Hancock, Hatton Gallery, Laing Art Gallery, Monkwearmouth Station Museum, Segedunum Roman Fort, Baths & Museum, Shipleigh Art Gallery, South Shields Museum & Art Gallery, Stephenson Railway Museum, Sunderland Museums and Winter Garden, Washington 'F' Pit)
- Vindolanda
- Weardale Museum

⁴ NGCV or NewcastleGateshead Cultural Venues is a non-constituted partnership of 10 leading cultural organisations responsible for operating 22 venues across Tyne and Wear

- Woodhorn Charitable Trust (inc. Woodhorn Museum and Northumberland Archives, Berwick Record Office, Berwick Museum & Art Gallery, Hexham Old Gaol & Moothall, Morpeth Chantry Bagpipe Museum)

Appendix Two: Copy of Survey

North East Museums: Economic Impact Assessment Data Scoping:

Economic Impact Assessments are important tools in demonstrating the value of organisations.

The more data that can be provided by an organisation, the more robust the tool will be.

Guidance on completing tables:

- All data provided will be aggregated with other regional museums. Unless specifically requested, we will not publish individual organisation figures.
- All figures should be for an annual period (with the exception of employment figures which should be a 'snapshot' of the current situation).
- **We are aware that your organisation may be unable to provide complete data for all indicators. In this instance please offer an estimation of what you believe to be the true figure for your organisation's activities.**
- **We ask that estimates only be offered if they are robust – i.e. based on either professional experience/knowledge and/or incomplete data that provides an indication of total amounts.**
- **When offering an estimation, please denote these figures with an asterisk.**

<p>Organisation Information: Name of Organization:</p> <p>Name and email of contact:</p> <p>Please briefly describe the facilities and services provided by your organization:</p>

Supply Chain Expenditure:

- It is important to ensure there is no double counting relating to contracts for artists/technicians and contracts with casual/freelance staff.
- We are looking to differentiate between one-off capital expenditure, (e.g. new builds, refurbishments or upgrades) and typical operational costs which will include all other expenditure outside of wages and contracts with artists etc.

Supply Chain Expenditure						
Indicators	Values					
Expenditure of Goods and Services	County Durham (excluding Darlington)	Northumberland	Tees Valley (including Darlington)	Tyne & Wear	Elsewhere	Total
Value of contracts with artists / technicians (£)						
Value of contracts with casual/freelance staff (£)						
Value of expenditure related to collections (i.e. acquisitions and collections care) (£)						
Other operational expenditure (£)						
'One off' capital expenditure (£)						

Activities:

- Please state if you have any further information regarding visitor impact - e.g. how important their visit to your organisation was within their wider trip to the area and/or spend on goods and services (meals, accommodation, travel etc.) outside of your venue which can be attributed to their visit.

Indicators	Values					
Origin	County Durham (excluding Darlington)	Northumberland	Tees Valley (including Darlington)	Tyne & Wear	Elsewhere	Total
Number of visitors, participants, attendees						
Number of volunteers – front of house						
Number of volunteering hours - front of house						
Number of volunteers – back of house						
Number of volunteering hours - back of house						
Number of those undertaking learning or training activities						
Number of corporate events/hires						
Number of corporate events/hires attendees						
Number of one day conferences						
Number of one day conference attendees						
Number of multi-day conferences						
Number of multi-day conference days						
Number of multi-day conference attendees						

Sources of Income:

- Cultural earned income: Includes any income related to the cultural offer - for example tickets sales, museum shop
- Non-cultural earned income: Includes any income not directly related to culture. For example, hosting conference events, rent from third party organisations
- Grants, Trusts, Foundations etc: Includes any funding received.

Economic Impacts						
Indicators	Values					
Sources of Income	County Durham (excluding Darlington)	Northumberland	Tees Valley (including Darlington)	Tyne & Wear	Elsewhere	Total
Cultural earned income (£)						
Non-cultural earned income (£)						
Grants, Trusts, Foundations etc. (£)						
Other (£)						
Total (£)						