



Department
for Culture
Media & Sport

Creative Industries Economic Estimates

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Statistical Release

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The Creative Industries Economic Estimates are Official Statistics and have been produced to the standards set out in the Code of Practice for Official Statistics.

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Chapter 1: Introduction

These Creative Industries Economic Estimates are Official Statistics used to measure the direct economic contribution of the Creative Industries to the UK economy. An analysis of the contribution made by the Creative Industries to UK Employment, Gross Value Added (GVA) and Exports of Services has been provided in this release. The estimates have been produced using ONS National Statistics sources.

The Creative Industries were defined in the Government's [2001 Creative Industries Mapping Document](#) as “those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property”.

This release retains that definition, but uses a methodology introduced in 2014 for determining which occupation and industry codes are classified as “creative” (see Annex A and B). This methodology makes use of a robust finding from research that having high levels of “creative intensity” – that is, the proportion of the workforce in creative occupations – separates the Creative Industries from other industries¹. Therefore these estimates should not be compared with estimates published prior to 2014.

The methodology comprises three steps. First, a set of occupations are identified as creative². Second, creative intensity is calculated for all industries in the economy. Third, all industries with a creative intensity above a certain “threshold” are classified as Creative Industries.

Uncertainties in the data mean that it is particularly important to review industries with creative intensities around the threshold level, so the final classification has also drawn on feedback gathered from stakeholders through consultation.

The consultation process in 2013, from which the final classification was agreed, was supported by a cross-industry collaboration overseen by the Creative Industries Council, Creative Skillset, Creative and Cultural Skills, Nesta, DCMS and a range of industry bodies³.

¹ Bakhshi, H., Freeman, A., and Higgs, P. (2013) ‘A Dynamic Mapping of the UK’s Creative Industries’, Nesta: London

² Bakhshi et al (2013) propose criteria which can be used to assess which occupation codes should be considered creative for measurement purposes

³ Classifying and Measuring the Creative Industries, http://www.creativeskillset.org/research/activity/classifications/article_9067_1.asp
Classifying and Measuring the Creative Industries, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/203296/Classifying_and_Measuring_the_Creative_Industries_Consultation_Paper_April_2013-final.pdf

Data sources

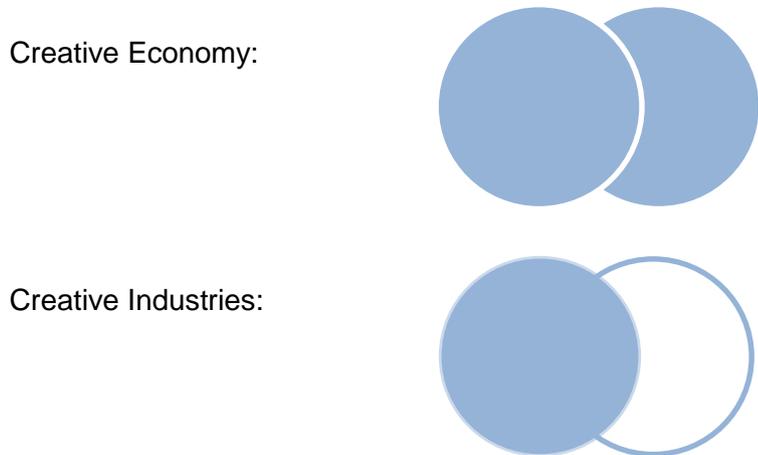
This release has been based on ONS data sources which use the latest occupational classification (SOC 2010) and the latest industrial classification (SIC 2007). Since the last release, DCMS has worked with ONS to develop longer time series which span periods that use earlier classifications, which has enabled estimates to be calculated back to 1997 (See Annex E).

1. Employment data analysed by DCMS are taken from the Annual Population Survey (APS). The latest occupational coding standard (SOC 2010) was introduced in the 2011 data.
2. GVA data analysed by DCMS are taken from the Annual Business Survey (ABS). The latest industrial classification (SIC 2007) was introduced in the 2008 data.
3. Exports of Services data analysed by DCMS are from the International Trade in Services (ITIS) survey. The latest industrial classification (SIC 2007) was introduced in the 2009 data.
4. Analysis has been carried out by the ONS Methodology Advisory Service to produce comparable data for Creative Employment, GVA, and Exports of Services to overcome changing industrial and occupational coding in the underlying data. This has, for the first time, allowed series to be constructed between 1997 and the most recent data available.

Terminology

Throughout the report symbols have been used to indicate whether the analysis refers to:

1. The Creative Economy, which includes the contribution of those who are in creative occupations outside the creative industries as well as all those employed in the Creative Industries.
2. The Creative Industries, a subset of the Creative Economy which includes only those working in the Creative Industries themselves (and who may either be in creative occupations or in other roles e.g. finance).



Statistics on Employment are provided on both bases as the data source (APS) allows this. GVA and Exports of Services are provided on a Creative Industries basis only as sources for these data are collected on an industry basis only.

Groups

To provide more detail, this release breaks down the creative sector is also broken down by: 1. by industries (SIC 2007); 2. by occupations (SOC 2010); and 3. by industry and occupations.

Advertising and marketing is used as an example:

1. Creative Industries groups (Annex A) consider related industries, insofar as this is permitted by the industrial classification.

Creative Industries Group	SIC 2007	Description
Advertising and marketing	70.21	Public relations and communication activities
	73.11	Advertising agencies
	73.12	Media representation

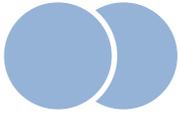
2. Creative Occupations groups (Annex B) consider related occupations, insofar as this is permitted by the occupational classification.

Creative Occupations Group	SOC 2010	Description
Advertising and marketing	1132	Marketing and sales directors
	1134	Advertising and public relations directors
	2472	Public relations professionals
	2473	Advertising accounts managers and creative directors
	3543	Marketing associate professionals

3. Creative Economy groups combine both of the above classifications under the same headings so that the contribution of a creative sector across the whole economy can be measured (i.e. across all elements of the “Creative Trident” described in Chapter 3).

	Creative Industries group	Creative Occupations group
	SIC 2007	SOC 2010
Creative Economy group:	70.21	1132
	73.11	1134
Advertising and marketing	73.12	2472
		2473
		3543

Chapter 2: Key Findings



Creative Economy Employment (1997 – 2013)

- 2.62m jobs were in the Creative Economy in 2013, 1 in 12 UK jobs.
- Employment within the Creative Economy grew by 66 thousand jobs (2.6%) between 2012 and 2013, a higher rate than for the UK Economy as a whole (1.6%).
- Between 1997 and 2013, employment in the Creative Economy has increased from 1.81m jobs to 2.62m jobs. This was equivalent to a rise of 2.3 per cent each year, around four times greater than the 0.6 per cent increase each year in the number of jobs in the UK Economy.



Creative Industries Employment (1997 – 2013)

- The Creative Industries accounted for 1.71m jobs in 2013, 5.6 per cent of total UK jobs; and a 1.4 per cent increase on 2012.
- Over the longer term, the number of jobs within the Creative Industries increased by 3.9 per cent each year between 1997 and 2013, compared to 0.6 per cent in the UK economy.



Gross Value Added (GVA) (1997 – 2013) - measured in current prices (i.e. not adjusted for inflation).

- GVA of the Creative Industries was £76.9bn in 2013 and accounted for 5.0 per cent of the UK Economy. For the third year running, the Creative Industries proportion of total UK GVA was higher than the year before, and at 5.0 per cent is now as high as has been recorded.
- GVA of the Creative Industries increased by 9.9 per cent between 2012 and 2013. This was higher than any individual Blue Book sector.
- Between 1997 and 2013, GVA of the Creative Industries increased by 5.8 per cent each year compared to 4.2 per cent in the UK economy.
- The GVA of the Creative Industries was 4.0 per cent of total UK GVA in 1997, but had increased to 5.0 per cent in 2013.



Exports of Services (1997 – 2012) - measured in current prices (i.e. not adjusted for inflation).

- The value of services exported by the Creative Industries was £17.3bn in 2012, 8.8 per cent of total UK service exports.
- Between 2011 and 2012 the value of service exports from the Creative Industries increased by 11.3 per cent. This compares with an increase of 2.8 per cent for total UK service exports.
- Between 2004 and 2012 the proportion of total UK service exports which were from the Creative Industries increased from 7.9 to 8.8 per cent. The value of services exported by the Creative Industries increased by an average of 8.5 per cent each year between 2004 and 2012, compared to 6.9 per cent for the UK economy.

Summary of headline estimates for the past 5 years

Table 1: Levels of Employment, GVA and Exports of services in the Creative Industries from 2009 to 2013

	2009	2010	2011	2012	2013
Employment	1,430,000	1,425,000	1,551,000	1,684,000	1,708,000
GVA (£m)	57,618	59,753	65,180	70,012	76,909
Exports of Services (£m)	13,303	14,719	15,503	17,258	-

Notes:

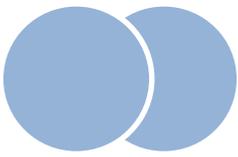
1. Source, ONS Annual Population Survey, Annual Business Survey, and International Trade in Services Survey
2. Employment data for 2009 and 2010 are taken from ONS Methodology Advisory Service estimates

Table 2: Year on year percentage change in Employment, GVA and Exports of services in the Creative Industries from 2010 to 2013

		Percentage change on previous year			
		2010	2011	2012	2013
Number of Jobs	Creative Industries	-0.3%	8.9%	8.6%	1.4%
	UK Economy	0.8%	3.8%	0.7%	1.6%
Gross Value Added	Creative Industries	3.7%	9.1%	7.4%	9.9%
	UK Economy	4.1%	2.9%	2.4%	3.3%
Exports of Services	Creative Industries	10.6%	5.3%	11.3%	-
	UK Economy	4.0%	6.8%	2.8%	-

Notes:

1. Source, ONS Annual Population Survey, Annual Business Survey, and International Trade in Services Survey
2. Percentage change in employment data between 2009 and 2011 use ONS Methodology Advisory Service estimates



Chapter 3: Employment (1997 – 2013)

Employment refers to the number of jobs in the Creative Industries and Creative Economy. Main jobs and second jobs are treated equally, as are full and part time jobs (each count as a single job in the figures). Employment, therefore, refers to the number of jobs rather than the number of people in work or the number of FTEs.

Following a project commissioned by DCMS and carried out by the Office for National Statistics (ONS) Methodology Advisory Service, a time series from 1997 onwards is now available. Data for 1997 to 2010 are constructed using different Standard Occupational Classification (SOC) and Industry (SIC) codes and data were converted to allow comparisons. Employment data were taken from the Annual Population Survey (APS) for 2006 to 2013, and the Labour Force Survey (LFS) for 1997 to 2005.

A more comprehensive analysis of employment in the Creative Economy by gender, region, ethnicity, and level of qualifications is presented in the [‘Creative Industries: Focus on Employment’](#) publication.

Employment in the Creative Economy

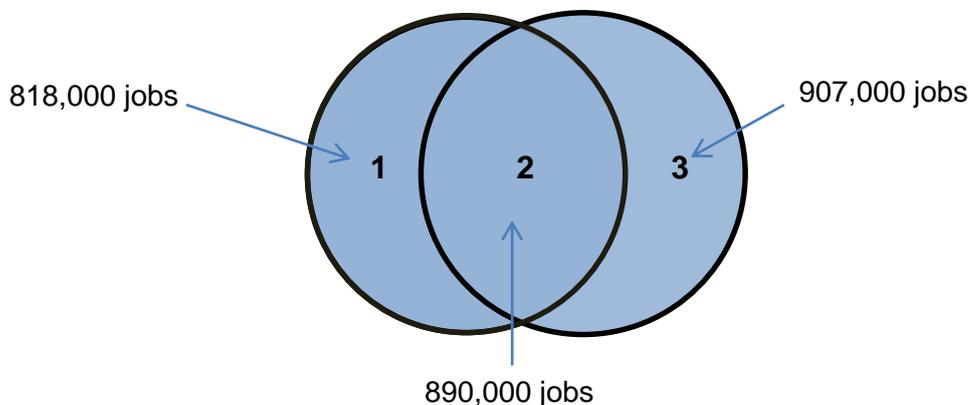
Employment in the Creative Economy is measured on the “Creative Trident”⁴ basis using data from the Annual Population Survey (APS). The Trident basis classifies jobs into:

1. Jobs in the Creative Industries not classified as creative
2. Creative Jobs in the Creative Industries
3. Creative Jobs outside the Creative Industries (“embedded” jobs)

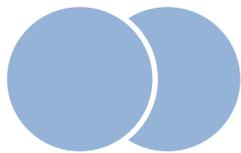
$$\text{Creative Economy} = 1+2+3$$

$$\text{Creative Industries} = 1+2$$

Figure 1: The Creative Economy, 2013



⁴ Higgs, Cunningham and Bakhshi (2008), “Beyond the Creative Industries: Mapping the Creative Economy in the UK”, Nesta, London



Key findings (2011 – 2013)

In 2013, there were 2.62m jobs in the Creative Economy. This means that the Creative Economy accounted for 1 in every 12 UK jobs.

1.71m jobs were in the Creative Industries themselves (a full list of Creative Industries can be found in Annex B), with the remaining 0.91m jobs in creative roles outside the Creative Industries.

These 0.91m creative jobs outside of the Creative Industries include, for example, someone working in an advertising role in a financial firm.

Employment within the Creative Economy grew by 66 thousand jobs (2.6%) between 2012 and 2013, a higher rate than for the UK Economy as a whole (1.6%).

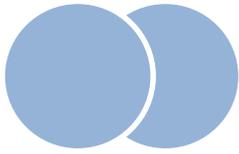
Table 3: Employment in the Creative Economy in 2013

Creative Economy Group	"Support" jobs in the Creative Industries	Creative Jobs in Creative Industries	Creative Jobs outside of the Creative Industries	Employment in the Creative Economy
Advertising and marketing	70,000	83,000	329,000	482,000
Architecture	29,000	65,000	42,000	136,000
Crafts	3,000	4,000	88,000	96,000
Design: product, graphic and fashion design	47,000	75,000	55,000	177,000
Film, TV, video, radio and photography	90,000	141,000	29,000	259,000
IT, software and computer services	340,000	236,000	249,000	825,000
Publishing	96,000	102,000	34,000	231,000
Museums, galleries and libraries	68,000	17,000	25,000	110,000
Music, performing and visual arts	76,000	167,000	57,000	300,000
Total Jobs	818,000	890,000	907,000	2,616,000
UK Economy Total	-	-	-	30,643,000
Percentage Share of UK Total				8.5%

Notes

1. Source, ONS Annual Population Survey 2013

2. Figures have been rounded to the nearest thousand, and therefore estimates may not sum across rows or columns to equal totals



Total employment in the Creative Economy (employment within the Creative Industries plus creative jobs in other industries) was 2.62m in 2013. This included 1.71m jobs in the Creative Industries as well as 0.91m creative jobs in other industries.

The increase in the number of jobs in the Creative Economy between 2012 and 2013 has been driven by an increase of 42 thousand creative jobs outside of the Creative Industries.

Estimates by Creative Economy Group

'IT, software and computer services' was the largest group, with creative employment of 825 thousand in 2013. Since 2011, there has been an increase of 117 thousand jobs (16.4%) in this group. Of the 825 thousand jobs in this group, 576 thousand were within the Creative Industries, with the remaining 249 thousand being in 'IT, software and computer services' occupations outside of the Creative Industries.

'Music, performing and visual arts' had the highest proportion of self-employed jobs. More than 7 in 10 jobs in this group were self-employed. In total (self-employed and employees), there were 300 thousand jobs in this group in 2013, of which 243 thousand were in the Creative Industries.

'Advertising and marketing' had the largest number of creative workers employed outside of the Creative Industries in 2013 (329,000). Two thirds (68.2%) of all creative jobs in 'Advertising and marketing' was outside of the Creative Industries.

'Design and designer fashion' was the group which had the largest percentage increase in employment in the Creative Economy between 2011 and 2013 (17.7% or 27,000 jobs). While there have been no significant decreases in employment between 2011 and 2013 for any Creative Economy group, there was a significant decrease in employment in the 'Publishing' group between 2012 and 2013 (9.4% or 24,000 jobs).

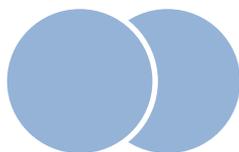


Table 4: Employment in the Creative Economy (2011 – 2013)

Changes in **bold indicate a statistically significant change between 2011 and 2013.⁵*

	Employment in the Creative Economy 2011	Employment in the Creative Economy 2012	Employment in the Creative Economy 2013	Difference (2011-2013)	Percentage Difference (2011-2013)
Advertising and marketing	468,000	465,000	482,000	15,000	3.2%
Architecture	121,000	120,000	136,000	15,000	12.3%
Crafts	104,000	102,000	96,000	-9,000	-8.5%
Design: product, graphic and fashion design	151,000	166,000	177,000	27,000	17.7%
Film, TV, video, radio and photography	232,000	266,000	259,000	27,000	11.8%
IT, software and computer services	709,000	791,000	825,000	117,000	16.4%
Publishing	236,000	255,000	231,000	-5,000	-2.1%
Museums, galleries and libraries	113,000	108,000	110,000	-3,000	-2.5%
Music, performing and visual arts	274,000	277,000	300,000	25,000	9.2%
Total Creative	2,407,000	2,550,000	2,616,000	209,000	8.7%
UK Total Employment	29,935,000	30,150,000	30,643,000	708,000	2.4%
Percentage Share of UK Total	8.0%	8.5%	8.5%	-	-

Notes

1. Source, ONS Annual Population Survey (2011, 2012 & 2013)
2. Figures have been rounded to the nearest thousand, and therefore estimates may not sum across rows or columns to equal totals

The increase in employment in the Creative Economy between 2011 and 2013 was driven by increases in the: 'IT, software and computer services'; 'Design and designer fashion'; and 'Film, TV, video, radio and photography' groups.

⁵ Statistical significance tests have been run at the 95% level. A significant change at the 95% level means that there is less than a 5% (1 in 20) chance that the difference observed within the sampled respondents is not also true for the population as a whole.

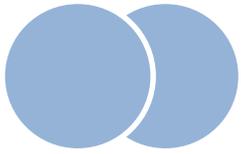
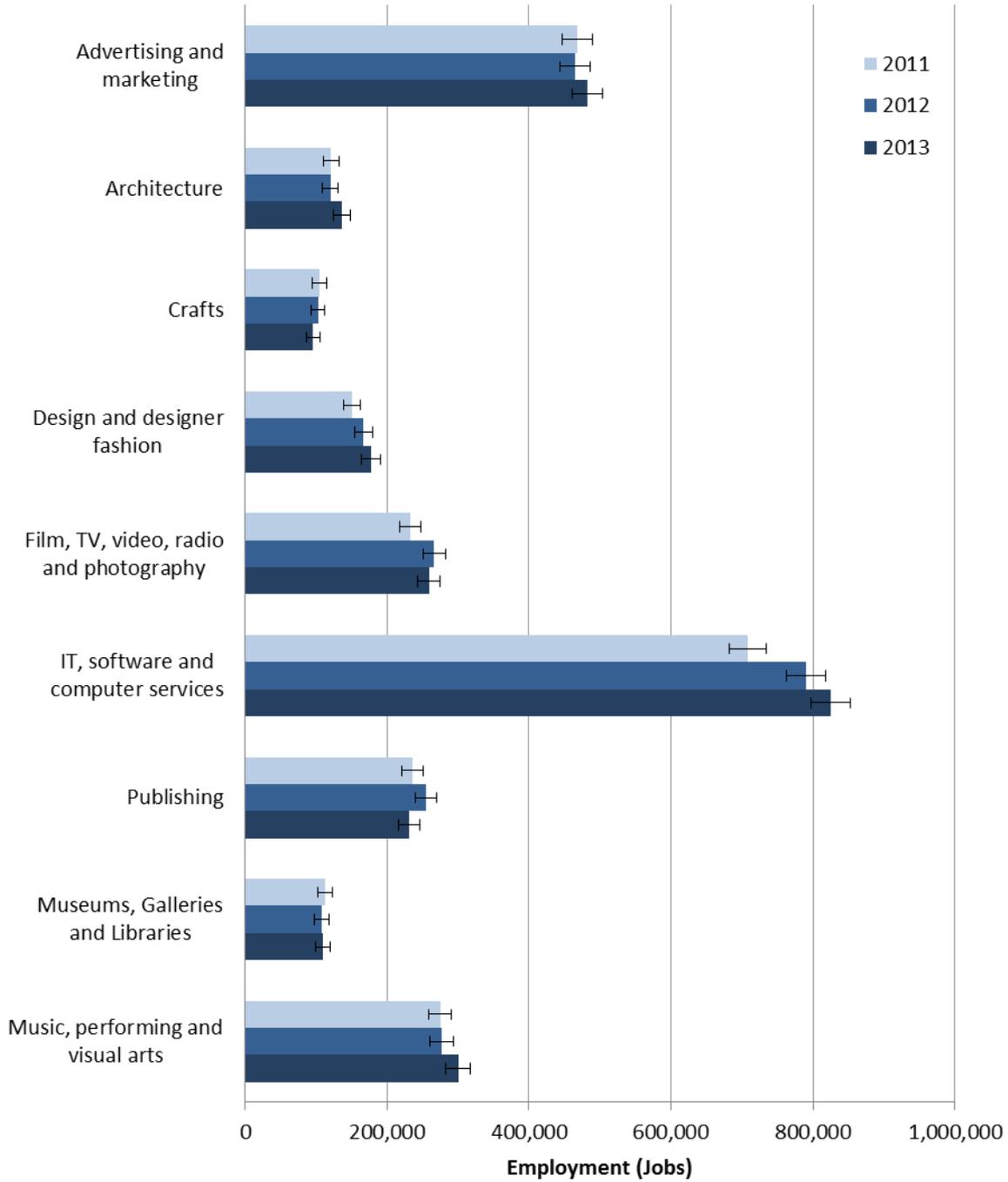
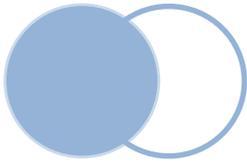


Figure 2: Employment in the Creative Economy (2011 – 2013)



Notes:

1. Source, ONS Annual Population Survey (2011, 2012 & 2013)
2. 95% Confidence intervals are shown by the error bars. Where confidence intervals overlap data cannot be reliably compared.



Employment in the Creative Industries

Employment within the Creative Industries (i.e. excluding people working in creative jobs outside the Creative Industries) was 1.71m in 2013 and accounted for 1 in 18 UK jobs. The number of jobs in the Creative Industries increased by 1.4 per cent between 2012 and 2013.

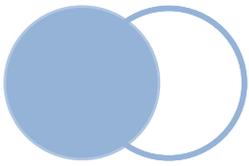
Table 5: Employment in the Creative Industries

Figures in **bold represent statistically significant changes*

Creative Industries Group	Creative Industries Employment 2011	Creative Industries Employment 2012	Creative Industries Employment 2013	Difference (2011-2013)	Percentage Difference (2011-2013)
Advertising and marketing	147,000	143,000	153,000	6,000	4.1%
Architecture	93,000	89,000	94,000	0,000	0.4%
Crafts	9,000	7,000	8,000	-1,000	-15.8%
Design: product, graphic and fashion design	100,000	116,000	122,000	22,000	22.0%
Film, TV, video, radio and photography	209,000	238,000	231,000	22,000	10.2%
IT, software and computer services	482,000	558,000	576,000	94,000	19.4%
Publishing	207,000	223,000	197,000	-10,000	-4.9%
Museums, galleries and libraries	90,000	85,000	85,000	-5,000	-5.9%
Music, performing and visual arts	212,000	224,000	243,000	31,000	14.4%
Creative Industries Total	1,551,000	1,684,000	1,708,000	157,000	10.1%
UK Total Employment	29,935,000	30,150,000	30,643,000	708,000	2.4%
Percentage Share of UK Total	5.2%	5.6%	5.6%	-	-

Notes:

1. Source, ONS Annual Population Survey (2011, 2012 & 2013)
2. Figures have been rounded to the nearest thousand, and therefore totals may not sum
3. Due to limitations in the industry coding, the employment for crafts on an industry basis does not fully cover the crafts sector.

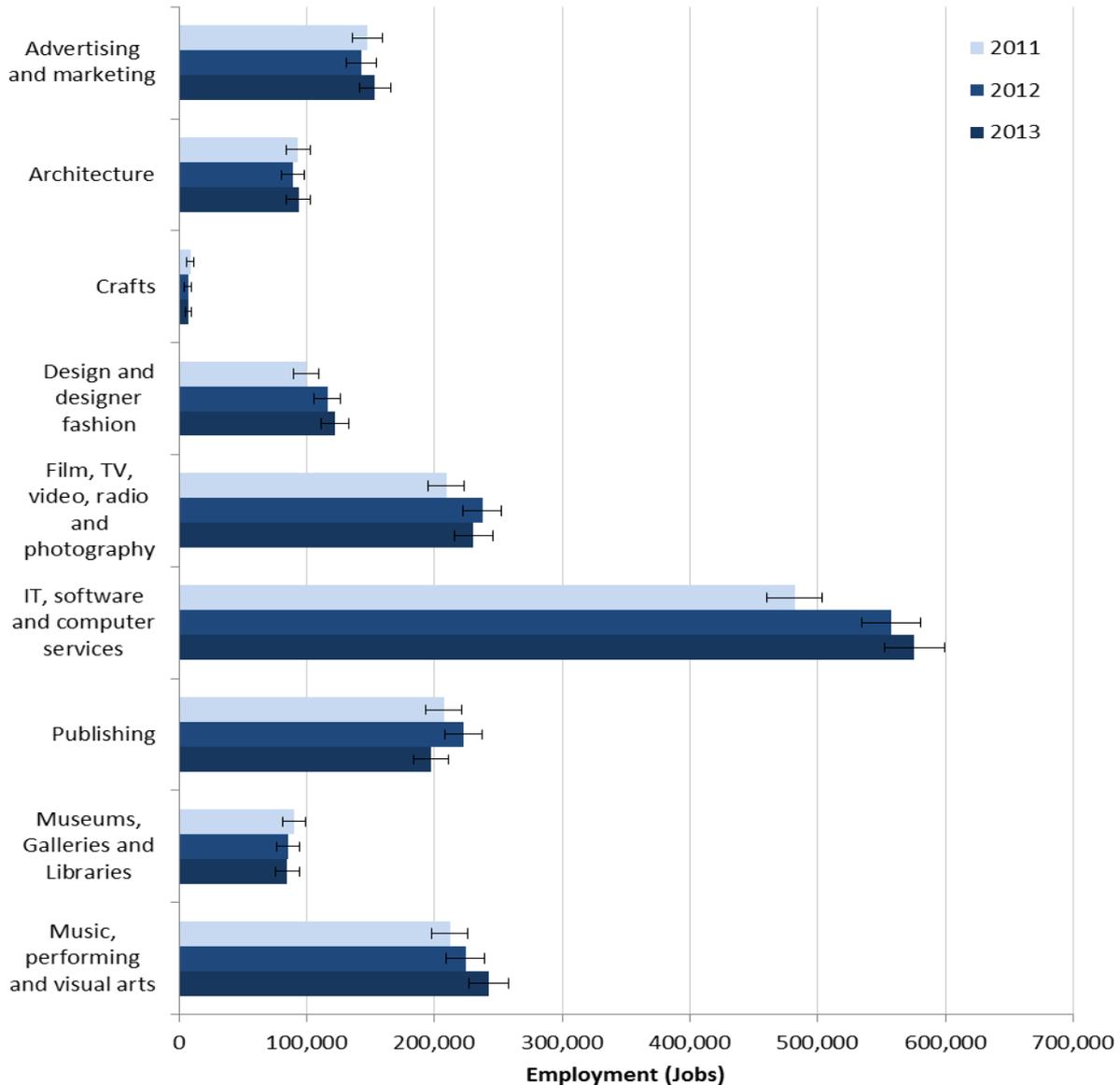


Estimates by Creative Industries Group

The Creative Industries group which had the largest percentage increase in employment between 2011 and 2013 was ‘Design: product, graphic and fashion design’, where the number of jobs increased by 22.0 per cent from 100 thousand to 122 thousand.

Between 2011 and 2013, there have also been significant increases in the number of jobs in the ‘IT, software and computer services’ (19.4% increase) and ‘Music, performing and visual arts’ (14.4% increase) groups.

Figure 3: Employment in the Creative Industries (2011 – 2013)



Notes:

1. Source, ONS Annual Population Survey (2011, 2012 & 2013)
2. 95% Confidence intervals are shown by the error bars, where confidence intervals overlap data cannot be reliably compared
3. Due to limitations in the industry coding, the employment for crafts on an industry basis does not fully cover the crafts sector.

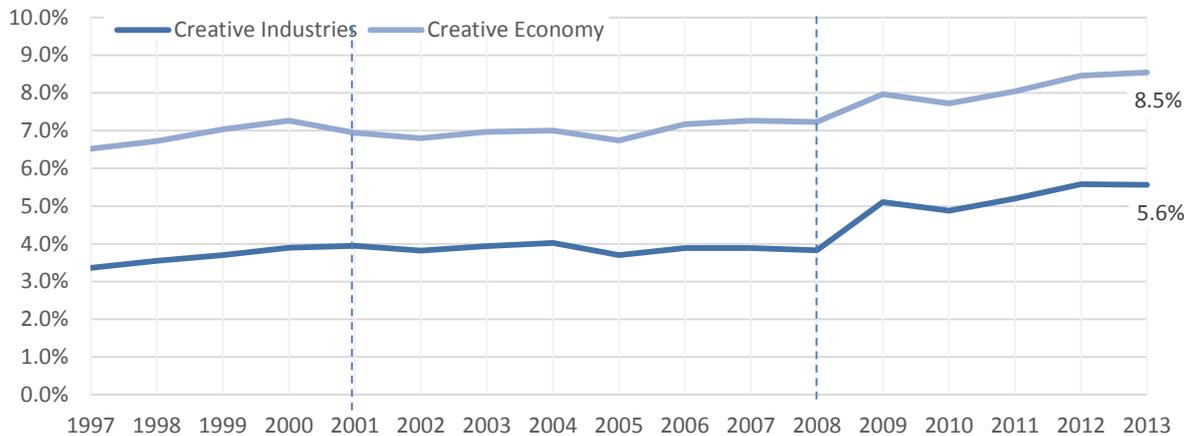
Employment in the Creative Economy: A Time Series (1997 – 2013)

New data developed by ONS for this release (see Annex E) allows us to see how employment in the Creative Economy has changed since 1997.

Between 1997 and 2013 the Creative Economy increased by 0.81m jobs, from 1.81m to 2.62m. This was equivalent to a rise of 44.8 per cent, over four times greater than the 10.6 per cent increase in the number of jobs in the UK Economy over the same period. This is equivalent to a compound average growth rate (CAGR) of 2.3 per cent each year compared to 0.6 per cent in the UK Economy.

Within the Creative Industries employment has risen by an average of 3.9 per cent each year from 0.93m to 1.71m since 1997. This increase has been driven by an increase in the number of creative jobs in the Creative Industries which rose by 138.4 per cent since 1997, an increase over thirteen times larger than the increase in total UK employment (Table 6).

Figure 4: Creative Economy share of all jobs in the UK



Notes:

1. Source, ONS Methodology Estimates and ONS Annual Population Survey
2. See notes under Figure 5

In 1997 the Creative Economy accounted for 6.5 per cent of total UK jobs. Within this, the Creative Industries comprised 3.4 per cent of total UK employment. In 2013, employment in the Creative Economy had risen to 8.5 per cent of total UK employment, largely influenced by an increase to 5.6 per cent in the Creative Industries.

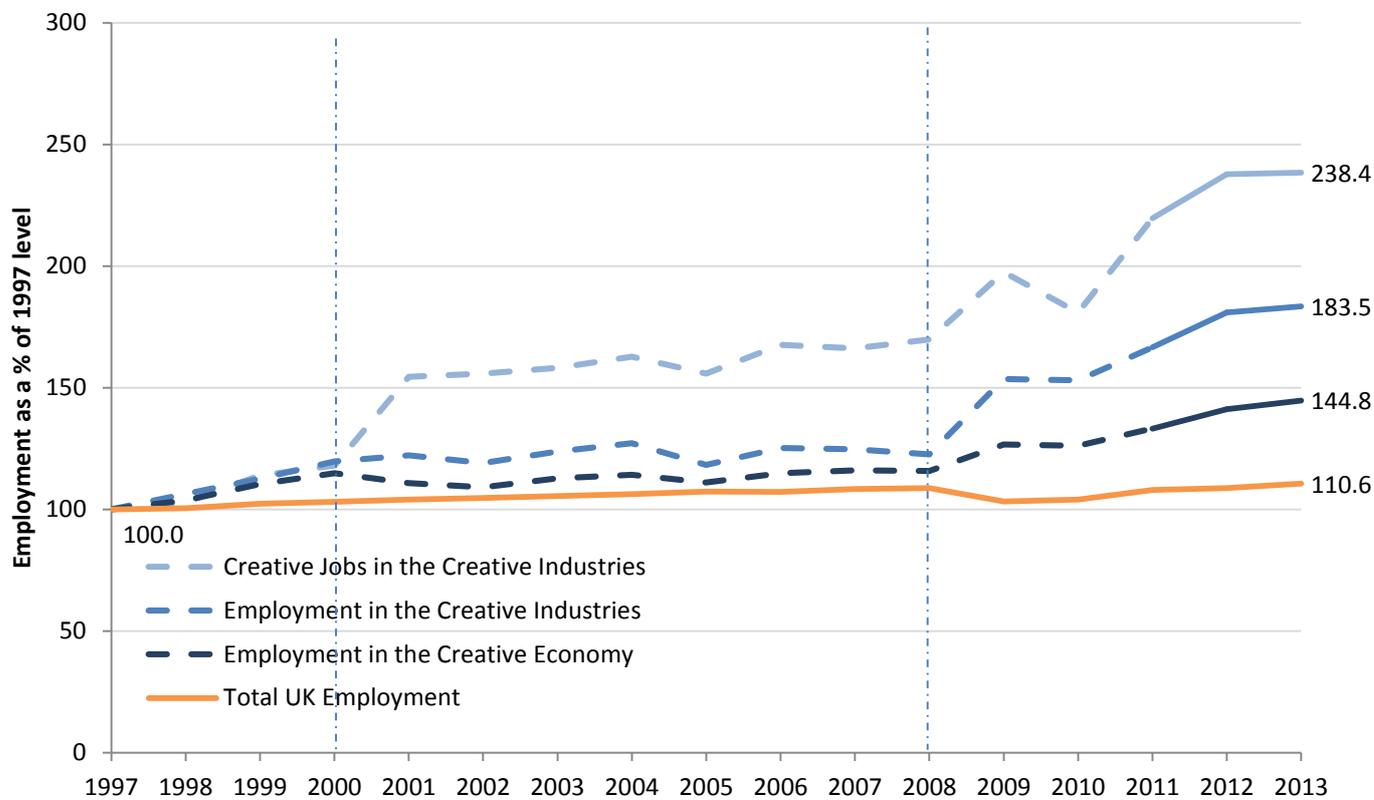
Table 6: Employment in the Creative Economy from 1997 to 2013

	Employment in the Creative Economy 1997	Employment in the Creative Economy 2013	Percentage Change
UK Total Employment	27,706,000	30,643,000	10.6%
Creative Economy	1,806,000	2,616,000	44.8%
Creative Industries	931,000	1,708,000	83.5%
Creative Jobs in the Creative Industries	373,000	890,000	138.4%

Notes:

1. Source, ONS Methodology Estimates and ONS Annual Population Survey
2. Figures have been rounded to the nearest thousand, and therefore totals may not sum

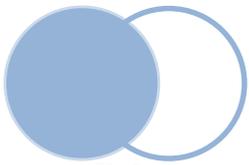
Figure 5: Change in creative employment indexed to 1997 = 100



Notes:

1. Source, ONS Methodology Estimates and ONS Annual Population Survey
2. Employment shown as a percentage of employment in 1997
3. The dotted lines indicate data from ONS Methodology Estimates while solid lines represent data calculated by DCMS
4. The vertical, broken lines indicate major breaks in the data series: the large increase between 2000 and 2001 is likely to be due to the change from SOC90 to SOC2000 codes in 2001. Values prior to 2001 have been adjusted to account for this change but this has not completely removed the effect from the data; the large increase between 2008 and 2009 is likely due to significant increases in employment in both the 'Architecture' and 'Design: product, graphic and fashion design' groups. These are possibly caused by the change from SIC03 to SIC07 codes in 2009. There was also a fall in the total number of UK jobs between 2008 and 2009 which may account for some of the rise in the proportion of jobs.

Figure 5 shows employment from 1997-2013 indexed against employment in 1997. This allows for comparison between the number of creative jobs in the Creative Industries, total employment in the Creative Industries, total employment in the Creative Economy and employment in the UK economy. The data have been indexed to 1997 as this was the lowest value for all four data series' in the time period covered (1997 – 2013).



Chapter 4: Gross Value Added (1997 – 2013)

Gross Value Added (GVA), calculated in current prices (i.e. not adjusted for inflation) has been estimated for businesses within the Creative Industries using approximate GVA (aGVA) from the Annual Business Survey (ABS)⁶. This refers to GVA which is directly attributable to the Creative Industries. To note: A GVA estimate for the wider Creative Economy has not been included, as these economic estimates do not currently attempt to calculate the GVA contribution of creative jobs outside of the Creative Industries. See Annex D for more information on further developments.

The implementation by the ONS of the new international statistics manuals European System of Accounts (ESA 2010) for Blue Book 2014 has resulted in substantial upwards revisions eg UK GVA for 2012 was revised up by £93bn. This has resulted in the share of the Creative Industries as a proportion of the UK economy being revised downwards eg GVA in 2012 was previously published as 5.2 per cent, but is now 4.7 per cent using new Blue Book data.⁷

Key findings (2008 – 2013)

GVA of the Creative Industries was £76.9bn in 2013 and accounted for 5.0 per cent of the UK Economy. In 2008, GVA of the Creative Industries was £61.1bn, and accounted for 4.5 per cent of the UK economy.

GVA of the Creative Industries has increased by 25.8 per cent since 2008, compared to an increase of 11.4 per cent for the UK Economy as a whole.

Creative Industries GVA increased by 9.9 per cent between 2012 and 2013, a higher rate than for any Blue Book sector. Between 2008 and 2013, only GVA of Real Estate Activities increased by more than that of the Creative Industries (28.8% and 25.8% respectively).

As a proportion of UK GVA, the Creative Industries fell from 4.5 per cent to 4.3 per cent between 2008 and 2010 and then increased to 5.0 per cent in 2013. This reflects the fact that the GVA for the Creative Industries decreased at a higher rate than GVA for the UK as a whole between 2008 and 2009, had a slightly slower recovery than the UK Economy between 2009 and 2010 and then experienced much stronger growth than the Economy UK between 2010 and 2013.

⁶ Approximate GVA (aGVA) and GVA are not identical measures. Aggregate aGVA is the best source of GVA for the Creative Industries as it provides the required granularity of detail. A full description of the differences between aGVA and GVA can be found at <http://www.ons.gov.uk/ons/guide-method/method-quality/specific/business-and-energy/annual-business-survey/quality-and-methods/a-comparison-between-abs-and-national-accounts-measures-of-value-added.pdf>

⁷ Revisions table: <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-336654>

Articles: <http://www.ons.gov.uk/ons/rel/naa1-rd/united-kingdom-national-accounts/the-blue-book--2014-edition/rpt---useful-links.html#tab-Articles>

Table 7: GVA of the UK Creative Industries 2008 – 2013

Creative Industries Group	GVA (£m)					
	2008	2009	2010	2011	2012	2013
Advertising and marketing	8,347	6,967	6,840	8,128	9,339	10,248
Architecture	3,565	3,205	2,638	3,235	3,497	3,592
Crafts	195	218	268	264	248	172
Design: product, graphic and fashion design	1,856	1,886	2,049	2,504	2,500	3,094
Film, TV, video, radio and photography	8,222	6,296	7,973	9,987	9,821	9,308
IT, software and computer services	26,018	26,403	26,991	27,672	30,552	35,073
Publishing	9,255	8,968	9,580	9,286	9,624	9,938
Museums, galleries and libraries	-	-	-	-	-	-
Music, performing and visual arts	3,740	3,779	3,434	4,184	4,581	5,453
Total	61,145	57,618	59,753	65,180	70,012	76,909
UK Total (ONS Blue Book code: ABML)	1,368,717	1,345,046	1,400,684	1,441,598	1,475,948	1,525,304
Percentage share of UK Total	4.47%	4.28%	4.27%	4.52%	4.74%	5.04%

Notes:

1. Source, ONS Annual Business Survey
2. Figures are expressed in current prices (i.e. not adjusted for inflation)
3. The ABS does not fully account for GVA of 'Museums, galleries and libraries' (see Annex D) so these data are not shown in this table
4. The ABS does not include data for micro-business so may underestimate GVA, particularly for groups including 'Music' and 'Crafts' where self-employment is substantial
5. GVA for 'Crafts' has been calculated on a single SIC 07 code, and therefore changes over a single year should be treated with extreme caution
5. ABML is the name of the Blue Book series used to measure total GVA of the UK

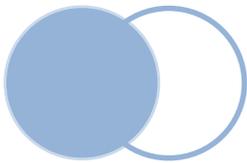
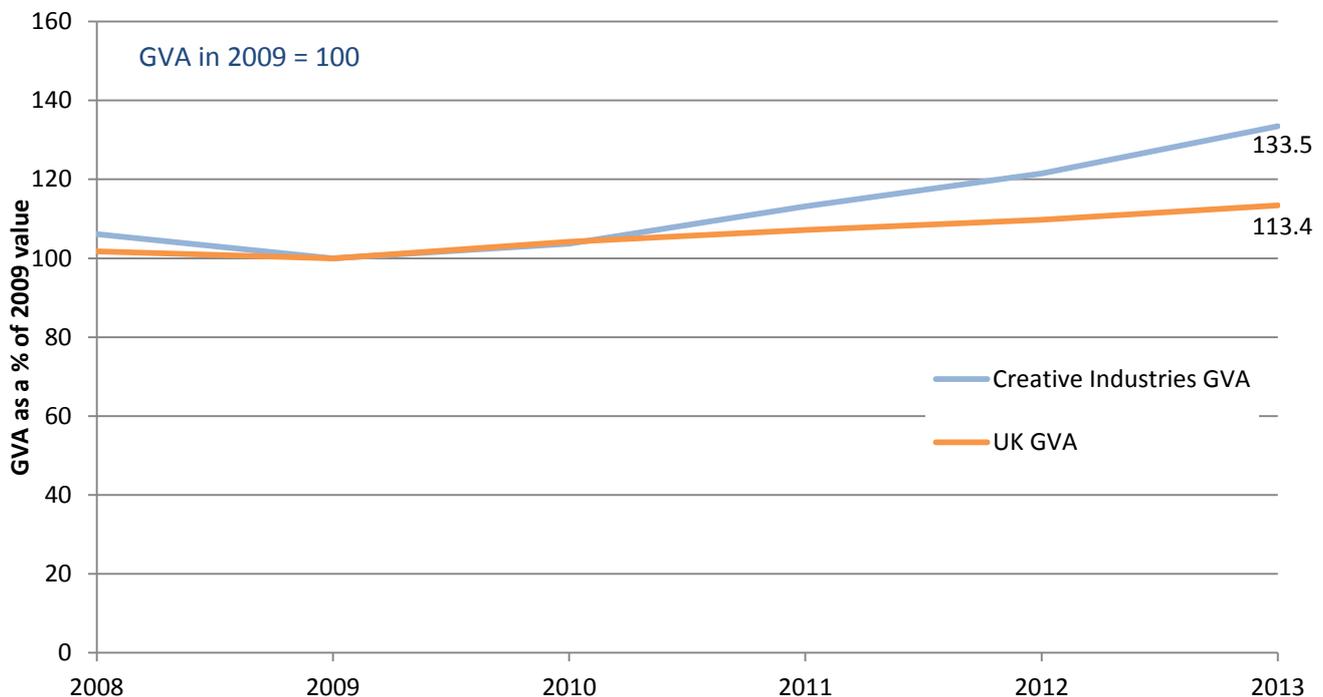


Figure 6: Changes in GVA indexed to 2009 = 100

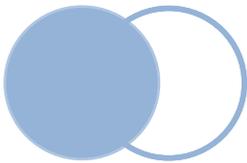


Notes:

1. Source, ONS Annual Business Survey
2. GVA (current prices, i.e. not adjusted for inflation) shown as a percentage of GVA in 2009. This shows the different rates of change between the Creative Industries (blue) and the UK Economy as a whole (orange) over the past 6 years
3. Total UK GVA has been revised up since the last release in line with international standards on statistics. This has increased the UK total, and as a result the Creative Industries share of the UK total has gone down. More information can be found on the national accounts pages of the ONS website (<http://www.ons.gov.uk/ons/guide-method/method-quality/specific/economy/national-accounts/index.html>)

The Creative Industries have sustained high growth over the past 3 years. GVA for the Creative Industries increased by 9.1 per cent between 2010 and 2011, and by 7.4 per cent between 2011 and 2012, and most recently 9.9 per cent between 2012 and 2013. This compares to UK GVA which increased by 2.9 per cent, 2.4 per cent, and 3.3 per cent in those years respectively.

Figure 6 shows GVA indexed against GVA in 2009. This allows for straightforward comparison between GVA in the Creative Industries and the UK economy. The data have been indexed to 2009 as this was the lowest value for both the Creative Industries and the UK economy in the time period covered (2008 – 2013)



Estimates by Creative Industries Group

GVA of the 'IT, software and computer services' group was £35.1bn in 2013, accounting for 45.6 per cent of GVA in the Creative Industries as a whole. GVA for this group steadily increased between 2008 and 2011, before rising quickly between 2011 and 2013.

Table 8: Percentage change in GVA

Sector	% Change Between 2012 and 2013	Compound Annual Growth Rate (2008-2013)
Advertising and marketing	9.7%	4.2%
Architecture	2.7%	0.2%
Crafts	-	-
Design: product, graphic and fashion design	23.8%	10.8%
Film, TV, video, radio and photography	-5.2%	2.5%
IT, software and computer services	14.8%	6.2%
Publishing	3.3%	1.4%
Museums, galleries and libraries	-	-
Music, performing and visual arts	19.0%	7.8%
Creative Industries Total	9.9%	4.7%
UK Total (Blue book, ABML)	3.3%	2.2%

Notes:

1. Source, ONS Annual Business Survey
2. Changes are based on current prices (i.e. not adjusted for inflation)
3. ABML is the Blue Book series identifier
4. The ABS does not fully account for GVA of 'Museums, galleries and libraries' or 'Crafts' (see Annex D) these data have not been shown in this table.

The 'Design: product, graphic and fashion design' group had the largest increase in GVA between 2012 and 2013 (23.8%). This group has shown the largest compound annual growth rate over the period, growing at an average of 10.8 per cent each per-year.

After falling by 9.1 per cent between 2009 and 2010, GVA of the 'Music, performing and visual arts' group has been strong in each year between 2009 and 2013. Most recently, GVA of this group increased by 19.0 per cent between 2012 and 2013.

Between 2012 and 2013, there was a fall of 5.2 per cent in the GVA of the 'Film, TV, video, radio and photography group'. This was driven by a fall in the GVA of television programming and broadcasting activities, from £4.4bn to £4.0bn over this period.

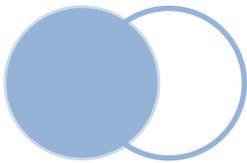
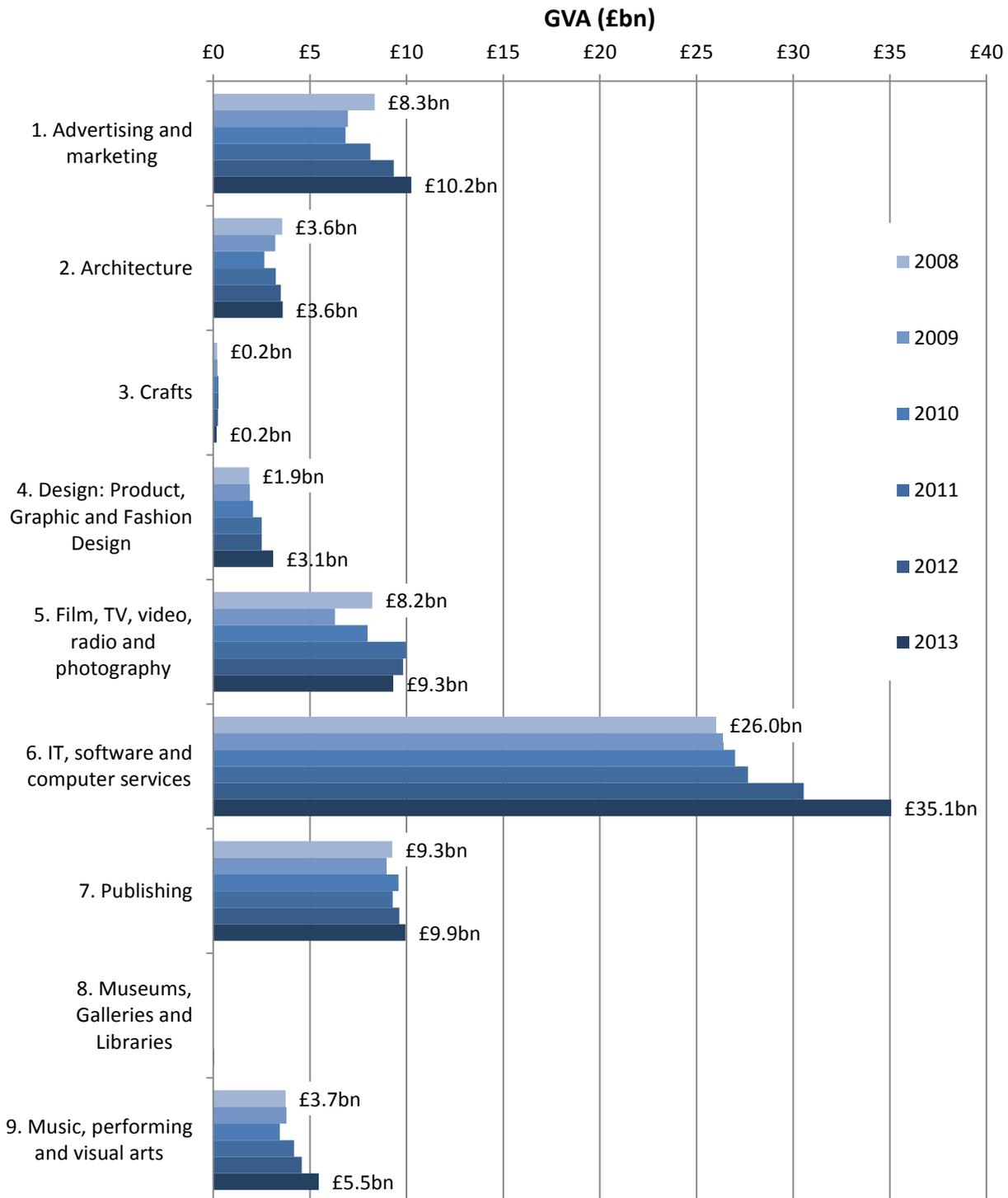
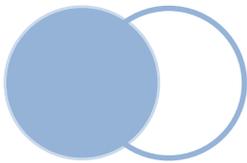


Figure 7: GVA of the Creative Industries



Notes:

1. Source – ONS Annual Business Survey (2013)
2. Current prices (i.e. not adjusted for inflation)
3. The ABS does not fully account for GVA of 'Museums, galleries and libraries' (see Annex D) these data have not been shown in this figure.



Comparisons with other Industries

This section compares the Creative Industries to the broad industry sectors in the ONS Blue Book. The Blue Book is the best estimate of national GVA, and the most appropriate comparator. It should be noted that the Creative Industries is not separately identified in the Blue Book as a sector. The Creative Industries is a cross cutting sector and contain economic contributions from across a number of traditional sectors identified in the Blue Book.

GVA of the Creative Industries increased by 25.8 per cent between 2008 and 2013. Real estate activities was the only sector in the Blue Book to have a greater percentage increase over the same period (28.8%).

Furthermore, GVA of the Creative Industries increased by a larger percentage than any of the Blue Book sectors between 2012 and 2013. Between these two years GVA of the Creative Industries increased by 9.9 per cent. 'Total professional and support activities', which includes legal, scientific and architectural industries among others, had the next highest increase of 5.9 per cent.

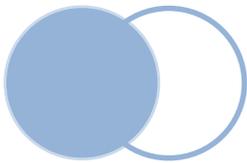
Table 9: GVA of the Creative Industries and Blue Book Sectors

Blue Book Sector or Creative Industries	Percentage Change in GVA between 2012 & 2013	Percentage Change in GVA between 2008 & 2013
<i>Creative Industries</i>	9.9%	25.8%
Total professional and support	5.9%	15.1%
Real estate activities	5.0%	28.8%
Distribution, transport, hotels and restaurants	4.5%	10.4%
Construction	4.1%	2.7%
Other services	3.5%	18.1%
Information and communication	2.9%	7.5%
Finance and insurance activities	2.4%	13.1%
Government, health and education	1.3%	11.3%
Production	0.9%	1.2%
Agriculture, forestry and fishing	-0.6%	9.4%
UK Economy Total	3.3%	11.4%

Notes:

1. Source - ONS Blue Book Dataset (2014)⁸
2. Current prices (i.e. not adjusted for inflation)

⁸ <http://www.ons.gov.uk/ons/rel/naa1-rd/united-kingdom-national-accounts/the-blue-book-2014-edition/index.html>



GVA of the Creative Industries: A Time Series (1997 – 2013)

New estimates for the GVA of the Creative Industries have been made covering the period 1997 to 2007. These were calculated in the project carried out by the ONS Methodology Advisory Service (see Annex E for the detailed methodology).

The estimates of the GVA for the Creative Industries and constituent sectors are shown in Table 10. Between 1997 and 2013, GVA for the Creative Industries increased by an average (CAGR) of 5.8 per cent each year, compared with 4.2 per cent for the UK economy.

The contribution of the Creative Industries to the GVA of the UK economy has been growing over time, and is now at its highest level (5.0%). However, between 1999 and 2001 the Creative Industries accounted for a larger percentage of the total UK GVA than they did for the period between 2002 and 2012.

Throughout 1997 to 2013, 'IT, software and computer services' accounted for the largest proportion of the GVA of the Creative Industries. This proportion varied over time, to a peak in 2007 of 46.5 per cent of the total GVA of the Creative Industries.

Figure 8: Changes in estimated GVA from 1997 indexed to 1997 = 100

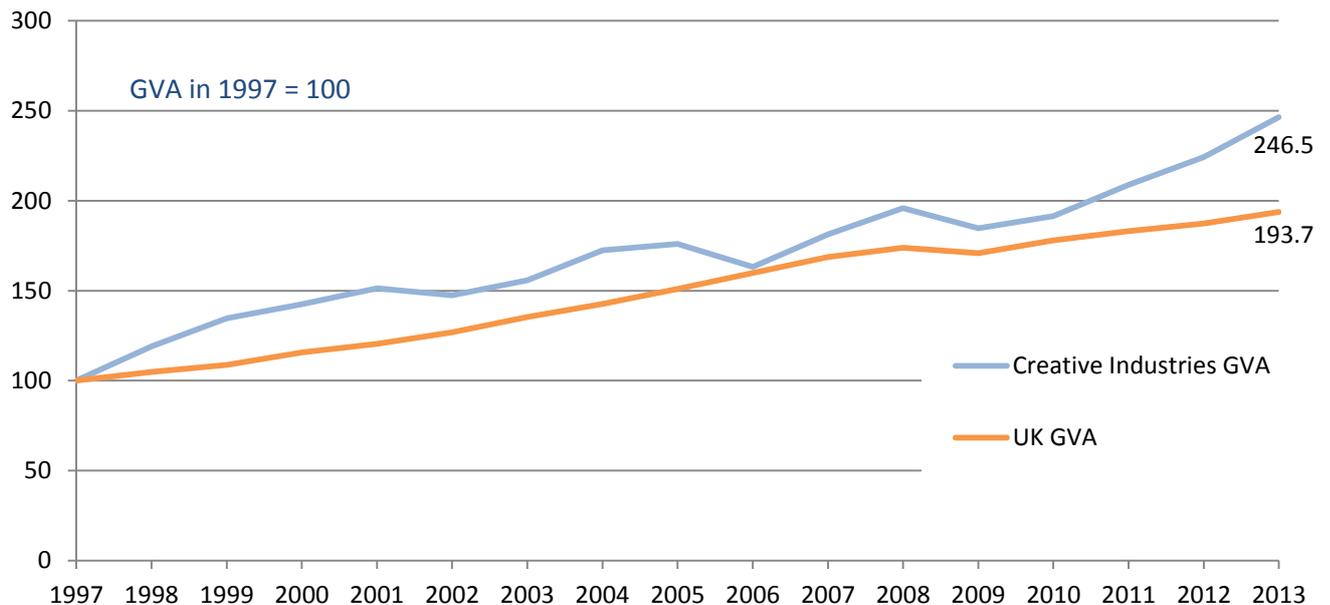
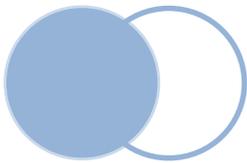


Table 10: GVA of the UK Creative Industries 1997 – 2013

Creative Industries Group	GVA (£m)																
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Advertising and marketing	3,677	3,890	5,859	6,588	6,032	5,833	5,722	6,162	7,364	6,067	7,118	8,347	6,967	6,840	8,128	9,339	10,248
Architecture	1,392	1,470	1,437	1,571	1,653	1,552	1,805	1,868	2,132	2,161	2,518	3,565	3,205	2,638	3,235	3,497	3,592
Crafts	243	311	289	289	350	326	327	294	229	263	341	195	218	268	264	248	172
Design: product, graphic and fashion design	905	887	993	1,177	1,062	1,095	1,173	1,380	1,507	1,608	1,684	1,856	1,886	2,049	2,504	2,500	3,094
Film, TV, video, radio and photography	5,985	6,035	7,333	8,802	8,982	9,427	9,258	10,473	8,487	5,973	5,349	8,222	6,296	7,973	9,987	9,821	9,308
IT, software and computer services	9,846	14,591	15,218	14,790	17,825	16,144	18,269	20,838	22,469	22,267	26,296	26,018	26,403	26,991	27,672	30,552	35,073
Publishing	6,341	6,991	7,733	7,983	8,165	8,135	8,390	9,072	9,198	9,011	9,196	9,255	8,968	9,580	9,286	9,624	9,938
Museums, galleries and libraries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Music, performing and visual arts	2,669	2,904	3,140	3,257	3,124	3,360	3,542	3,626	3,312	3,517	3,913	3,740	3,779	3,434	4,184	4,581	5,453
Creative Industries Total	31,205	37,160	42,002	44,480	47,225	45,985	48,620	53,833	54,951	50,955	56,601	61,145	57,618	59,753	65,180	70,012	76,909
Percentage share of UK Total	3.96%	4.50%	4.90%	4.88%	4.98%	4.60%	4.56%	4.79%	4.62%	4.05%	4.26%	4.47%	4.28%	4.27%	4.52%	4.74%	5.04%

- Notes:
1. Source, ONS Annual Business Survey and ONS Methodology Advisory Service Report (Annex E)
 2. Figures are expressed in current prices (i.e. not adjusted for inflation)
 3. The ABS does not include data for micro-business so may underestimate GVA, particularly for groups including 'Music' and 'Crafts' where self-employment is substantial



Chapter 5: Exports of Services (1997 – 2012)

Exports of Services are measured using ONS International Trade in Services (ITIS) data. These are based on a survey of just under 15,000 UK businesses, and record the value of the services which businesses export. This section looks at Exports of Services from the Creative Industries themselves, and does not consider Exports of Services from the wider Creative Economy. Results are in current prices (i.e. are not adjusted for inflation).

Key findings (2009 – 2012)

The value of services exported by the UK Creative Industries was £17.3bn in 2012, an increase of 29.7 per cent since 2009. Over that period, service exports increased by 15.4 per cent for the UK as a whole.

Between 2011 and 2012, exports of services by the Creative Industries increased by £1.8bn (11.3%). Exports of Services from the UK as a whole increased by 2.8 per cent over the same period.

'IT, software and computer services' accounted for 46.4 per cent of Creative Industry service exports in 2012, up from 43.5 per cent in 2009.

Table 11: Exports of Services for the UK Creative Industries

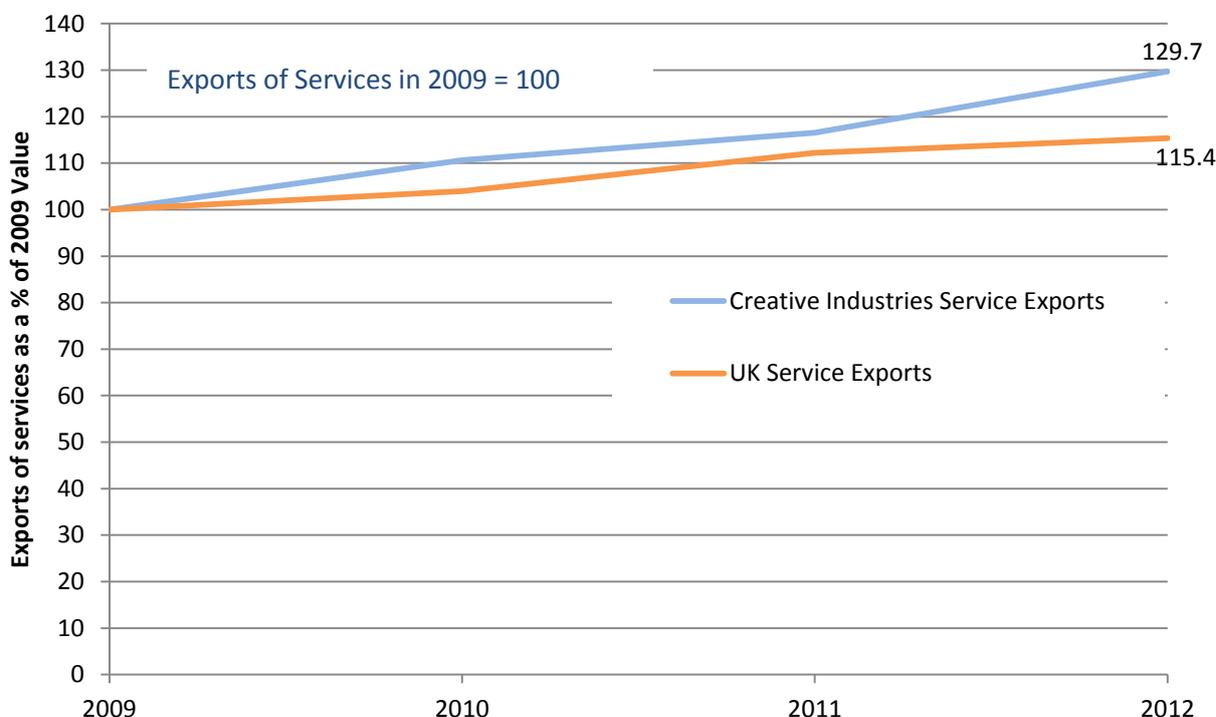
Creative Industries Group	Exports (£m)			
	2009	2010	2011	2012
Advertising and marketing	2,136	1,861	2,013	2,343
Architecture	319	384	362	373
Crafts	-	-	-	-
Design: product, graphic and fashion design	116	122	131	190
Film, TV, video, radio and photography	3,826	4,658	4,257	4,345
IT, software and computer services	5,811	6,286	7,210	8,011
Publishing	806	1,032	1,245	1,415
Museums, galleries and libraries	-	-	-	-
Music, performing and visual arts	286	357	275	574
Creative Industries Total	13,303	14,719	15,503	17,258
UK Total (ONS Balance of Payments, Pink Book)	169,514	176,241	190,268	195,593
Creative Industries as a percentage of UK Total	7.8%	8.4%	8.1%	8.8%

Notes:

1. Source – International Trade in Services survey (2009 – 2012)
2. Current prices (i.e. not adjusted for inflation)
3. For reasons of non-disclosure some figures in this table have been suppressed

Table 11 shows that Exports of Services from the Creative Industries increased by £4.0bn between 2009 and 2012. Over this period, the proportion of UK service exports accounted for by the Creative Industries increased from 7.8 in 2009, to 8.8 per cent in 2012.

Figure 9: Changes in Exports of Services indexed to 2009 = 100



Notes:

1. Source, ONS International Trade in Services survey (2009 – 2012)
2. Creative Industries Exports of Services (in current prices not adjusted for inflation) expressed as a percentage of their value of in 2009. This shows the different rates of change between the Creative Industries (blue) and UK service exports as a whole (orange) between 2009 and 2012.

Estimates by Creative Industries Group

‘IT, software and computer services’ accounted for 46.4 per cent of Creative Industries service exports in 2012. Exports in the ‘IT, software and computer services’ industries group increased from £5.8bn in 2009 to £7.2bn in 2011, and most recently to £8.0bn in 2012. This was an increase of 8.2 per cent between 2009 and 2010, 14.7 per cent between 2010 and 2011 and 11.1 per cent between 2011 and 2012.

The group which grew by the largest percentage between 2009 and 2012 was ‘Publishing’. Exports of Services from ‘Publishing’ grew by 28.0 per cent between 2009 and 2010, 20.6 per cent between 2010 and 2011 and 13.7 per cent between 2011 and 2012, taking the value of Exports of Services from ‘Publishing’ from £0.8bn in 2009 to £1.4bn in 2012.

Exports of Services for the ‘Advertising and marketing’ group have continued to increase in 2012 after a dip in 2010. Between 2009 and 2010 there was a decrease in exports for the ‘Advertising and marketing’ group from £2.1bn to £1.9bn, this increased to £2.0bn in 2011 and again in 2012 to £2.3bn.

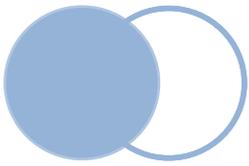
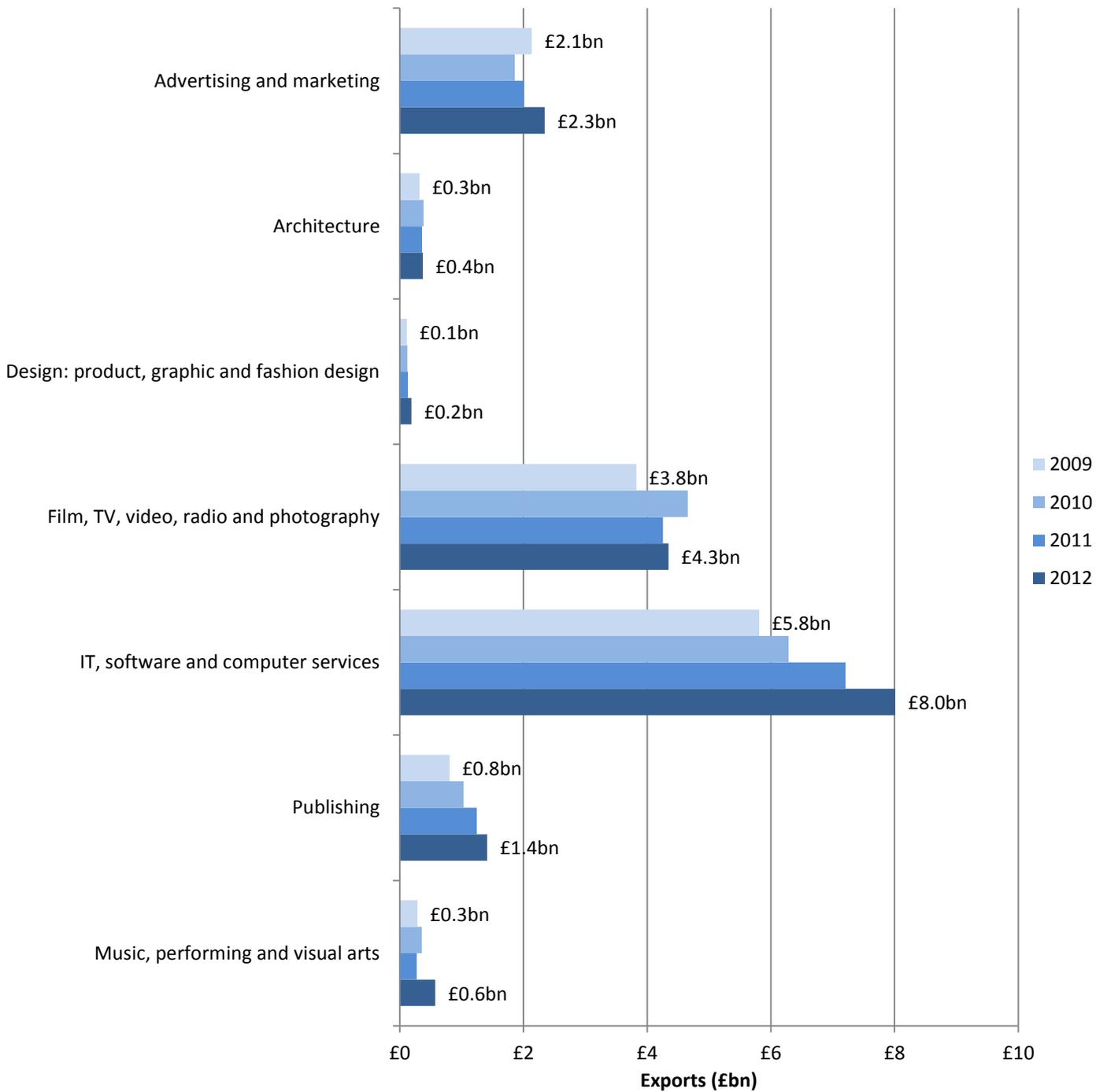


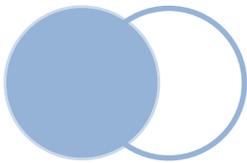
Figure 10: Value of Exports of Services (2009 – 2012)



Notes:

1. Source, ONS International Trade in Services survey (2009-2012)

2. Value of Exports of Services of the Creative Industries between 2009 and 2012 in current prices (not adjusted for inflation).



Comparisons with other Service Exports sectors

In this section, Creative Industries Exports of Services are compared with the ONS Pink Book. The Pink Book contains the best estimate of national Exports of Services, and is therefore the best comparator to use. The Creative Industries is not a Pink Book category itself, and includes service exports from across a number of Pink Book sectors.

Between 2009 and 2012, Exports of Services for the Creative Industries increased by 29.7 per cent. The largest increase of the Pink Book sectors was for Personal, cultural and recreational services (76.5%), which have a large overlap with the Creative Industries.

Table 12: Exports of Services of the Creative Industries and Pink Book Service Sectors

Pink Book Services Sectors compared to the Creative Industries	Percentage Change in Exports of Services Between 2011 and 2012	Percentage Change in Exports of Services Between 2009 and 2012
Personal, cultural and recreational services	13.6%	76.5%
Manufacturing on physical inputs owned by others	18.9%	65.4%
Maintenance and repair	19.6%	65.4%
Telecommunication, computer and information services	15.8%	29.7%
Creative Industries	11.3%	29.7%
Transport	8.2%	26.3%
Construction	6.0%	7.9%
Travel	5.9%	19.8%
Government	5.9%	2.6%
Other business	4.5%	13.7%
Insurance and pension services	0.0%	32.8%
Financial	-3.7%	3.4%
Intellectual property	-8.9%	-6.6%
UK Economy Total	2.8%	15.4%

Notes:

1. Source, ONS Balance of Payments Pink Book.
2. Current prices (i.e. not adjusted for inflation)

Interpreting Exports of Services Data

The [Balance of Payments methodology and glossary webpage](#) includes the following documents:

[An introduction to the UK Balance of Payments \(PDF\)](#) to the United Kingdom balance of payments provides an overview of the concepts and coverage of the UK Balance of Payments.

The [Balance of Payments Glossary](#) document provides a list of terms used in the UK balance of payments is available on the National Statistics website.

There are also more detailed [Balance of Payments Methodological Notes \(PDF\)](#) available. Information on Trade in Services begins on page 13 of this document.

Exports of Services: A Time Series (1997 – 2012)

The project carried out by ONS Methodology Advisory Service investigated the historic time series of Exports of Services from the Creative Industries from 1997 to 2012. In order to create this time series a process was used to make data based on historic SIC codes consistent with SIC 2007. The conversion from SIC92 to SIC03 was relatively straightforward with the minor differences having no impact on the figures, however, converting from SIC03 to SIC07 was far more complex (see Annex E for more details).

The ‘backcast’ estimates show that, in 2004, the Creative Industries exported just under £9bn of services, accounting for 7.9 per cent of total UK service exports. By 2012, that value had increased to £17.3bn, 8.8 per cent of total UK service exports.

Further back, these estimates show that in 1997, Exports of Services from the Creative Industries accounted for 4.0 per cent of the total UK figure, or approximately £2.7bn, but these earlier estimates are not directly comparable.

This is because, the increase between 1997 and 2004 is partly due to a large change between 2002 and 2004 (from 4.9% to 7.9%) which can be seen in Figure 11. This is due to the fact that Exports of Services values were not available for SIC 72.21 (software publishing) until 2003. Therefore, this increase may be driven by the inclusion of SIC 72.21 in the ‘IT, software and computer services’ sector.

Comparison between 2004 and 2012 is, therefore, more reliable and data from this period are not directly comparable with estimates between 1997 and 2003.

Figure 11: Export of Services from the Creative Industries as a percentage of the UK total

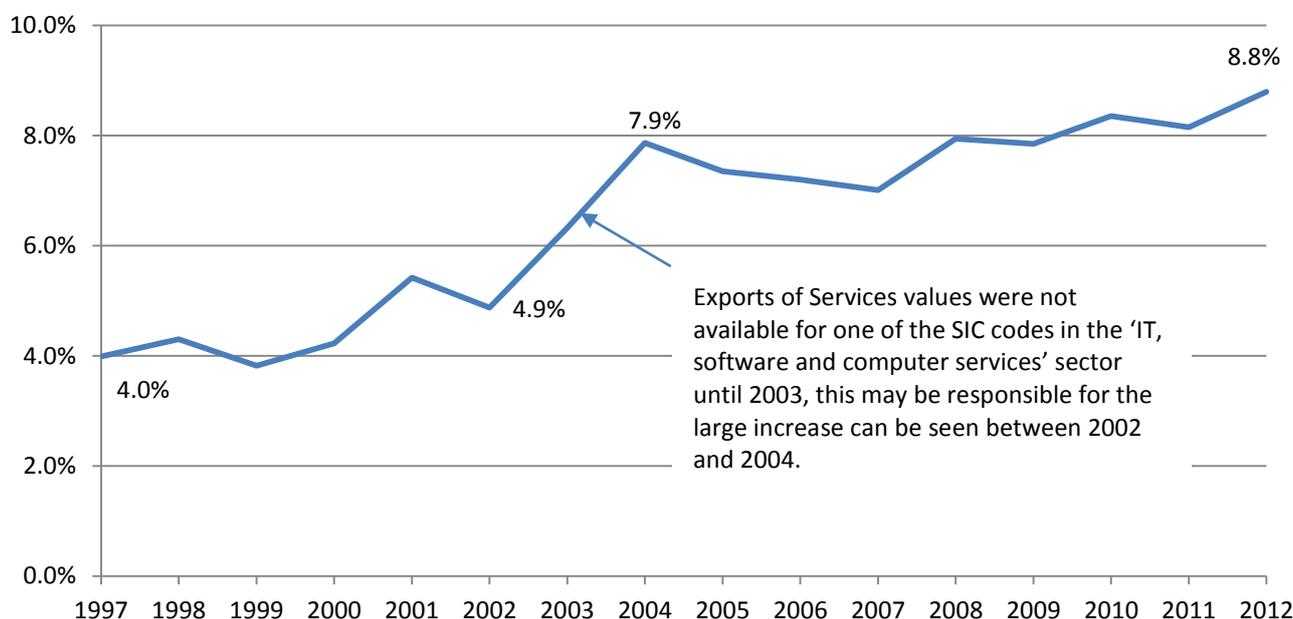
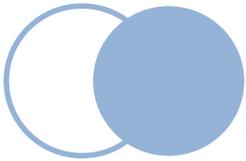


Table 13 shows how the value of Exports of Services have increased over time for all sectors in the Creative Industries between 1997 and 2012.

Table 13: Exports of Services of the Creative 1997 – 2012 (current prices – i.e. not adjusted for inflation)
Due to inconsistencies in the SIC codes prior to 2003, comparisons are most reliable from 2004 onwards

£m	1997	1998	1999	2000	2001	2002	2003 ^(a)	2004	2005	2006	2007	2008	2009	2010	2011	2012
Advertising and marketing	746	689	623	774	791	938	1,175	1,138	1,370	1,501	1,609	1,637	2,136	1,861	2,013	2,343
Architecture	33	56	63	57	123	58	64	100	94	186	296	451	319	384	362	373
Crafts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Design: product, graphic and fashion design	90	88	64	62	173	185	200	191	178	197	176	195	116	122	131	190
Film, TV, video, radio and photography	1,063	1,303	1,159	1,416	2,659	2,370	2,471	2,539	2,534	3,030	2,808	3,983	3,826	4,658	4,257	4,345
IT, software and computer services	46	68	85	87	258	244	1,809	4,041	4,296	4,309	4,887	5,766	5,811	6,286	7,210	8,011
Publishing	541	649	715	801	629	602	742	759	777	917	941	812	806	1,032	1,245	1,415
Museums, galleries and libraries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Music, performing and visual arts	143	151	176	232	131	125	127	206	223	305	303	328	286	357	275	574
Creative Industries Total	2,674	3,013	2,889	3,438	4,771	4,527	6,597	8,994	9,479	10,483	11,028	13,175	13,303	14,719	15,503	17,258

^(a)SIC 72.21 (software publishing) is included in the 'IT, software and computer services' sector from 2003. Comparisons are more reliable from 2004 onwards



Annex A: Creative Occupations

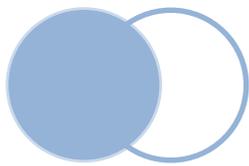
Occupations used in this report are 4 digit Standard Occupational Classification 2010 (SOC) codes. Table 14 below list of contains a list of Creative Occupations.

Table 14: Creative Occupations

Creative Occupations Group	SOC (2010)	Description
Advertising and marketing	1132	Marketing and sales directors
	1134	Advertising and public relations directors
	2472	Public relations professionals
	2473	Advertising accounts managers and creative directors
	3543	Marketing associate professionals
Architecture	2431	Architects
	2432	Town planning officers
	2435	Chartered architectural technologists
	3121	Architectural and town planning technicians
Crafts	5211	Smiths and forge workers
	5411	Weavers and knitters
	5441	Glass and ceramics makers, decorators and finishers
	5442	Furniture makers and other craft woodworkers
	5449	Other skilled trades not elsewhere classified
Design: product, graphic and fashion design	3421	Graphic designers
	3422	Product, clothing and related designers
Film, TV, video, radio and photography	3416	Arts officers, producers and directors
	3417	Photographers, audio-visual and broadcasting equipment operators
IT, software and computer services	1136	Information technology and telecommunications directors
	2135	IT business analysts, architects and systems designers
	2136	Programmers and software development professionals
	2137	Web design and development professionals
Publishing	2471	Journalists, newspaper and periodical editors
	3412	Authors, writers and translators
Museums, galleries and libraries	2451	Librarians
	2452	Archivists and curators
Music, performing and visual arts	3411	Artists
	3413	Actors, entertainers and presenters
	3414	Dancers and choreographers
	3415	Musicians

- a) Following consultation, five additional SOC codes have been included to represent occupations in the crafts sector.
- b) Further information on occupation codes proposed and the rationale for inclusion can be found in the consultation paper⁹ and in Bakhshi, Freeman and Higgs (2013).

⁹ <https://www.gov.uk/government/consultations/classifying-and-measuring-the-creative-industries-consultation-on-proposed-changes>



Annex B: Creative Industries

The “creative intensity” of each 4-digit Standard Industrial Classification 2007 (SIC) code was calculated and used to inform the identification of Creative Industries from other industries in the economy.

Table 15: Creative Industries

Creative Industries Group	SIC	Description
Advertising and marketing	70.21	Public relations and communication activities
	73.11	Advertising agencies
	73.12	Media representation
Architecture	71.11	Architectural activities
Crafts	32.12	Manufacture of jewellery and related articles
Design: product, graphic and fashion design	74.10	Specialised design activities
Film, TV, video, radio and photography	59.11	Motion picture, video and television programme production activities
	59.12	Motion picture, video and television programme post-production
	59.13	Motion picture, video and television programme distribution
	59.14	Motion picture projection activities
	60.10	Radio broadcasting
	60.20	Television programming and broadcasting activities
	74.20	Photographic activities
IT, software and computer services	58.21	Publishing of computer games
	58.29	Other software publishing
	62.01	Computer programming activities
	62.02	Computer consultancy activities
Publishing	58.11	Book publishing
	58.12	Publishing of directories and mailing lists
	58.13	Publishing of newspapers
	58.14	Publishing of journals and periodicals
	58.19	Other publishing activities
	74.30	Translation and interpretation activities
Museums, galleries and libraries	91.01	Library and archive activities
	91.02	Museum activities
Music, performing and visual arts	59.20	Sound recording and music publishing activities
	85.52	Cultural education
	90.01	Performing arts
	90.02	Support activities to performing arts
	90.03	Artistic creation
	90.04	Operation of arts facilities

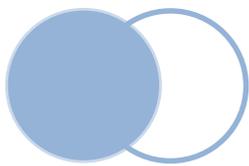
The “creative intensity” of each SIC code included in these estimates is shown in Table 16 below.

Table 16: Creative Intensities

SIC	Description	Creative Intensity (%)
90.03	Artistic creation	91.5
74.30	Translation and interpretation activities	82.2
90.01	Performing arts	78.8
74.20	Photographic activities	77.8
60.10	Radio broadcasting	62.7
74.10	Specialised design activities	62.1
71.11	Architectural activities	61.5
70.21	Public relations and communication activities	59.3
58.14	Publishing of journals and periodicals	58.3
90.02	Support activities to performing arts	56.8
59.1	Motion picture, video and television programme activities	56.4
32.12	Manufacture of jewellery and related articles	56.2
62.01	Computer programming activities	55.8
59.20	Sound recording and music publishing activities	54.1
60.20	Television programming and broadcasting activities	53.5
73.11	Advertising agencies	50.5
58.11	Book publishing	49.9
58.13	Publishing of newspapers	48.8
73.12	Media representation	48.3
58.21	Publishing of computer games	43.1
58.29	Other software publishing	40.8
90.04	Operation of arts facilities	38.4
58.19	Other publishing activities	37.8
85.52	Cultural education	34.6
62.02	Computer consultancy activities	32.8
58.12	Publishing of directories and mailing lists	31.0
91.01	Library and archive activities	23.8
91.02	Museum activities	22.5

Notes:

- a) *Creative intensity for SIC 59.1 is calculated at 3-digit level in order to capture the whole industry as data at the 4-digit level are not statistically robust (due to low levels of employment of the 4-digit codes).*
- b) *SIC codes 91.01 and 91.02 have been included after consultation, despite having creative intensities below the 30 per cent threshold. One reason they may have a lower creative intensity is due to large numbers employed in facilities maintenance in Museums, galleries and libraries.*
- c) *SIC code 32.12 Manufacture of jewellery and related articles has been included after consultation to represent the Crafts industry, although due to limitations in the underlying SIC codes (which are agreed internationally) this clearly does not fully capture the crafts sector.*
- d) *Industry codes proposed and the rationale for inclusion can be found in the consultation: <https://www.gov.uk/government/consultations/classifying-and-measuring-the-creative-industries-consultation-on-proposed-changes>*



Annex C: Computer Games

In order to base this release on an internationally comparable basis, the statistics in this release is based on 4-digit SIC codes. However to maintain continuity with previous releases, Employment and GVA estimates have also been calculated for the computer games industry using data at the 5-digit SIC level.

The estimates for the computer games industry have been calculated for the SIC codes:

- 58.21 Publishing of Computer Games.
- 62.01/1 Ready-made interactive leisure and entertainment software development.

To note, a number of software programming companies in 62.01 Computer programming activities may also contribute to the output of computer games, as part of a range of programming activities. This is not included in these computer games estimates, but again will have been implicitly included in the IT, software and computer services group in the main estimates.

Employment

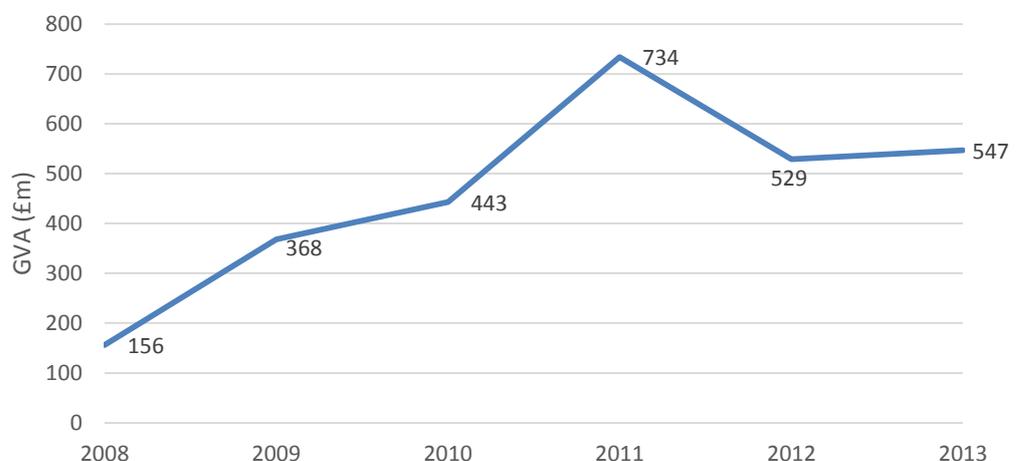
The computer games industry in the UK had employment of around 19,000 in 2013. There were an estimated 15,000 jobs in the computer games industry in 2012.

GVA

GVA for the computer games industry in the UK was £547m in 2013. This represents a small increase on last year, and a large increase on 2008. However, GVA was even higher in 2011, at £734m. This might be due to de-stocking as the value of purchases made by the computer games industry was lower in 2011 than it was in either 2010 or 2012. Computer Games which have been developed but not released might also have contributed to this change.

However, estimates at this level of detail are volatile and dependent on survey data and, as such, should be treated with caution. In particular, single years of data can be misleading.

Figure 12: GVA of the Computer Games Industry (2008 – 2013)



Annex D: Data limitations & further development

The research and consultation process underpinning the estimates presented in this statistical release has shown that there are a number of sectors (crafts, music, fashion, museums and galleries) for whom the official estimates represent an imperfect measurement solution. These limitations and areas for further development are summarised below.

1. Data Limitations – international standards

Industry (SIC) and Occupation (SOC) classifications: These estimates have been constructed from ONS Official Statistics, which for comparability rely on international classifications. However, there are substantial limitations to the underlying classifications these official statistics are based on. Specifically, the underlying international classifications do not adequately represent the Creative Industries, with sectors like: music, crafts and fashion industries particularly poorly served. Through continued industry consultation and with the ONS, the DCMS intends to make a strong case to improve these codes at the next international review cycle.

UK Standard Industrial Classification of economic activities 2007 (UK SIC (2007)):

The Director General of ONS, has written to the Director of the UN Statistical Division, outlining the UK Government's concerns that the Creative Industries are not well represented in the current classifications.

There is a possibility that an update of the International Standard Industrial Classification (ISIC) Rev 4, will be discussed at the UN Expert Group Meeting on International Classifications, in May 2015. If the discussion takes place and a decision is made to update ISIC Rev 4, this may, depending on the level of changes required, start the international revision procedure that will ultimately result in a revision of the UK Standard Industrial Classification of economic activities 2007 (UK SIC(2007)).

Standard Occupational Classification 2010 (SOC2010): The ONS Classifications and Harmonisation Unit (CHU) will identify possible options in terms of scale of a revision to the Standard Occupational Classification 2010 (SOC2010). A preliminary recommendation will be made and stakeholders will be consulted. Currently it is anticipated that this work will commence mid-2016.

Although changes to the SOC structure cannot be made at this time, ongoing research on occupation titles has revealed new entries to be added to the first published index from June 2010. For example, on 26 November 2014 an update to SOC Volume 2 - the coding index was made to include 324 new job titles, including the 6 listed below, to unit group 3421 Graphic Designers.

- Artist, 3D
- Artist, digital
- Artist, effects, visual
- Artist, VFX
- Designer, 3D
- Designer, digital

The coding index and full details can be found [here](#)

2. Data Limitations – impact on industries

Crafts: There are substantial difficulties in adequately representing the Crafts sector due to the weaknesses in the underlying classifications that official data are based on. DCMS is working with the Crafts Council, who have commissioned [further research](#) to address the problem. Five SOC codes have been included in the estimates to represent occupations in the Crafts sector (Annex A). SIC code 32.12 “Manufacture of jewellery and related articles” (Annex B) has been included to represent the Crafts industry, although this is a significant under-estimate of the scale of the true Crafts industry.

[More recent research](#) commissioned by the Crafts council seeks to more fully account for the economic contribution of Crafts by building on the more limited DCMS approach. This expands the estimates to a wider definition and to include the contribution of micro-businesses and the contribution of crafts workers who work outside the creative industries “embedded” workers.

Music: While a good part of the music industry is *implicitly* included in the codes making up the Creative Industries Economic Estimates, the industry and occupation codes do not allow the contribution of music to be satisfactorily identified in a separate category. Occupation codes do not allow a number of roles to be identified e.g. in A&R. Even at the highest resolution of detail available in the ONS data we use, live music is counted alongside theatre in a single “Performing arts” category. There are also challenges related to capture of micro-businesses and the inaccurate classification of music businesses in the ONS Business Register that underpins the Annual Business Survey on which GVA estimates in this release are produced. UK Music is currently working with the ONS and DCMS on these areas. It has used industry data from its members to separately estimate the size of the music industry in its latest report [Measuring Music](#), which estimates that the UK music industry’s contribution to the British economy in 2013 was £3.8bn, up 9 per cent year-on-year (£3.5bn in 2012).

Fashion: The estimates in this release are intended to measure the design element of the fashion industry. Ideally, fashion design category would be separately identified in the estimates. However, it is not possible to separate design associated with fashion from the category 74.10 “Specialised design activities” with any degree of confidence. Nor is it possible to identify in official data the full range of fashion occupations across industries. The fashion industry has taken a broader approach to measuring its activities, going beyond the design element, for example, including relevant retail activities, published in the report [Value of the UK Fashion Industry](#).

Computer Games: GVA estimates in this release are based on the ONS Annual Business Survey and therefore do not include micro-businesses. The current SIC structure and the level of detail needed to produce the estimates from the ABS (combining one four and one five digit SIC code) mean that they are volatile and, as they are dependent on survey data, should be treated with caution. In particular, single years of data can be misleading. Estimates from the ABS also rely on businesses being correctly classified on the ONS Business Register. UKIE is working with DCMS, ONS and the Computer Games industry to ensure accurate classification.

To overcome these limitations, recent research by Nesta and UKIE taking a big data approach seeks to include the broader contribution of micro-businesses, which when combined with official estimates, suggests that the contribution of the computer games industry could be substantially higher with the sector

generating GVA of up to £1.7bn. This uses a range of data sources from 2011 to 2014. <http://www.nesta.org.uk/publications/map-uk-games-industry>

3. Developments completed

Time series: This release has been based on ONS data sources which use the latest occupational classification (SOC 2010) and the latest industrial classification (SIC 2007). Relatively short runs of these series are currently available which use these latest classifications. DCMS has worked with the ONS to develop longer run time series which span data that use earlier classifications. This data has been presented as part of this release for the first time.

4. Further developments currently in train

The ONS Methodology Advisory Service is currently working on a project to more fully capture the contribution of the Creative sector to the economy. This looks at expanding coverage to include micro-businesses and the contribution of “embedded” creative workers. The work will explore the feasibility of including these estimates in future issues of this statistical release.

Inclusion of micro-businesses: The Annual Population Survey used to construct the employment estimates is a household survey so captures self-employed individuals as well as employees. Very small businesses (particularly in Sectors like the Crafts and Music) are not counted in the main ONS business surveys which we have used to calculate Creative Industries’ GVA, however.

GVA for the whole Creative Economy: Currently estimates of GVA are calculated for the Creative Industries only as the data source is from a business survey (the ONS Annual Business Survey) which measures GVA from the business perspective. To estimate GVA for the whole of the Creative Economy, estimates would need to be made of the GVA contribution of individuals working outside the Creative Industries “embedded” creative workers. This is more complex.

5. Potential further developments

Museums, galleries and libraries: Museums, galleries and libraries have been fully included and separately identified as categories in these estimates. While curation has always been included as a creative occupation, prior to 2014 museums, galleries and libraries were not included as industries in their own right. However, it is notoriously difficult to measure the value of their output. The Annual Business Survey data used in these estimates are likely to substantially under value the sector and have not been shown separately. (For consistency with other sectors, the estimates have been included in overall totals for the Creative Industries GVA estimates.)

Supply chain: These Creative Industries Economic Estimates look at the direct contribution of the creative sector to the UK Economy. Potential further work could explore the supply chain effects of the Creative Economy and indirect contributions to the wider economy.

Exports of Goods: These estimates cover exports of services only. While the Creative Industries are predominantly service industries they do also directly export a substantial amount of products classified as goods (and of course indirectly contribute to the export of a range of goods across the wider

economy). While ONS service exports are available on an industry (rather than a product) basis, and straightforward to include in this release, Official Statistics on goods exports are not. We are currently working with the ONS trade team to see if it is feasible to include Exports of Goods estimates in a consistent way.

Annex E: Technical Annex on ONS ‘backcasting’

The methodology for current estimates of Creative Industries is:

- Creative Employment – combined counts of “main jobs (LFS variable SOC10M)” and “second jobs (LFS variable SOC10S)” from the Annual Population Survey (APS)
- GVA – aggregate values of “Approximate gross value added at basic prices (aGVA)” from the Annual Business Survey (ABS)
- Export of Services – aggregate values of “Adjusted value” for “Receipt total” from the International Trade in Services survey (ITIS)

To construct historic estimates over the period 1997 to 2013 work was needed to make these consistent with the latest standards, as the input data were reported on three revisions (each) of two different classifications:

- Standard Industrial Classifications: 1992 (SIC92), 2003 (SIC03) and 2007 (SIC07)
- Standard Occupational Classifications: 1990 (SOC90), 2000 (SOC2000) and 2010 (SOC2010)

This means that the 4-digit SIC07 defining Creative Industries and the 4-digit SOC10 codes defining Creative Occupations needed to be converted (and sometimes double-converted):

- From SIC92 to SIC03 the minor differences between SIC92 and SIC03 had no impact
- from SIC03 to SIC07
- from SOC90 to SOC2000
- from SOC2000 to SOC2010.

Factors for converting between SIC03 (ignoring the conversion from 1992) and SIC07 were sourced from the ONS website. These factors were based on dual coding counts, employment and turnover – the factor that was used depended on the values being converted:

- for GVA – turnover;
- for Export of Services – turnover; and
- for Creative Employment – employment.

Factors for converting between SOC90 and SOC2000, and SOC2000 and SOC2010 were also sourced from the ONS website. The factors were calculated based on the two Labour Force Survey (LFS) samples and a 1 per cent sample of the nearest Census:

- SOC90 – SOC2000 factors were based on Census 1991, LFS 1996/97, and LFS 2000; and
- SOC2000 – SOC2010 factors were based on LFS 1996/97, Census 2001, and LFS January-March 2007.

As the data being converted were from the LFS, the Classifications and Harmonisation (CHU) team in ONS recommended using LFS-based factors for SOC conversion. They also advised that dual-coding of the earlier data was less reliable, due to the changes in terminology and now out-dated job market job titles, so the factors based on the most recent LFS data were used.

The other difference between the SIC and SOC conversion factors was that the SOC factors were provided by sex. However, the LFS data being converted were counts – and not broken down by sex – so the male and female conversion factors needed to be combined. To do this, the factors were weighted by the male/female LFS sample sizes used to estimate them (provided alongside the conversion factors on the ONS website) as the sex distribution of these samples was assumed to also be representative of the sample underlying the LFS data being converted.

Data Used

The data for GVA came from the variable “Approximate gross value added at basic prices (aGVA)” collected by the ONS ABS:

- data from 1997 to 2007; <http://www.ons.gov.uk/ons/rel/abs/annual-business-inquiry/index.html>; and
- data from 2008 to 2011; <http://www.ons.gov.uk/ons/publications/reference-tables.html?edition=tcM%3A77-303374>.

All data were at 4-digit SIC level.

The data for Export of Services came from the variable “Adjusted value” for “Receipt total” collected by the ITIS survey:

- micro-data from 1997 to 2011 were provided internally within ONS; and
- data deliveries from 2004 to 2011 previously provided to DCMS (under various titles).

The ONS micro-data were cross-checked with the data deliveries to DCMS to ensure that the data matched previously published estimates by DCMS. All data were at 5-digit SIC level.

The data for Creative Employment came from two different sources:

- data (April-June only) from 1997 to 2010 came from the LFS variables “main jobs (SOC10M)” and “second jobs (SOC10S)” and were provided internally within ONS; and
- data (January-December) from 2006 to 2013, came from the APS variables “main jobs (SOC10M)” and “second jobs (SOC10S)” and were provided internally within ONS.

Data from the LFS and the APS were at 4-digit SIC and SOC level.

Discontinuities

The changes in SIC and SOC definitions had the largest impact on Exports of Services data. The changes which had the largest effect were:

1. The ‘Design: product, graphic and fashion design’ group consists of the SIC07 code 74.10 – in the consultation document this was also referred to as 74.1. These equivalent SIC07 codes convert to different SIC03 codes – 74.1 to 74.8, and 74.10 to 74.87. The differences between GVA values based on 74.8 and 74.87 were small except in 2007, when the value for 74.87 stood out as a clear error (it was too small by a factor of 10). Hence SIC07 code 74.1 was used for accuracy. As Exports of Services values

were not available for 74.87 until 2003, SIC07 code 74.1 was used from 1997 to 2002 for practicality. From 2003 to 2008 the different SIC03 codes made a large difference to Exports of Services values. Exports of Services values based on 74.8 led to fairly stable values, but were (£85M) too large compared with Exports of Services values from 2009 to 2012. Exports of Services values based on 74.87 were very volatile, and were (£65M) too large compared with Exports of Services values from 2009 to 2011. Given 2009 marked the start of the recession, and a drop would be expected, SIC07 code 74.1 was also used from 2003 to 2008 for accuracy.

2. The 'IT, software and computer services' group includes SIC07 codes 58.21 and 58.29 – in the consultation document these were also combined as 58.2. These equivalent SIC07 codes convert to different SIC03 codes – 58.2 to 72.2 and 72.4, 58.21 and 58.29 to 72.21 and 72.40. As GVA values were not available for 72.21 until 2003, SIC07 code 58.2 was used from 1997 to 2002 for practicality. From 2003 to 2007 the different SIC03 codes made a large difference to GVA values. GVA values based on 72.2 and 72.4 were steadily increasing, but were too small compared with GVA values from 2008 to 2012. GVA values based on 72.21 and 72.40 were more volatile, but were of a similar size to GVA values from 2008 to 2011. Hence SIC07 codes 58.21 and 58.29 were used from 2003 to 2007 for consistency (this caused a small discontinuity between 2002 and 2003). Exports of Services values were not available for 72.21 until 2003, so SIC07 code 58.2 was used from 1997 to 2002 for practicality. From 2003 to 2008 the different SIC03 codes made a large difference to Exports of Services values – with 72.21 and 72.40 leading to larger and more volatile Exports of Services values: too large compared to Exports of Services values from 2009 to 2012. Hence SIC07 code 58.2 was also used from 2003 to 2008 for accuracy and consistency.

Background Information

Previous reports:

The data covered in this release has been calculated using a new methodology using the latest industry and occupational codes (SIC2007 and SOC2010). Therefore, these estimates are not comparable to reports produced on the Creative Industries prior to 2014. Earlier reports are available from the following area of the DCMS website:

<https://www.gov.uk/government/publications/creative-industries-economic-estimates>

Next release of data:

The next update of these statistics will be published by the first quarter of 2016.

Sources:

Information presented in the Creative Industries Economic Estimates has been derived from several ONS National Statistics sources, from: the Annual Population Survey; the Annual Business Survey; & the International Trade in Services survey.

Methodology:

Details of the “creative intensities” methodology can be found in the consultation <https://www.gov.uk/government/consultations/classifying-and-measuring-the-creative-industries-consultation-on-proposed-changes>

Calculation of Creative Intensities

Data from the Annual Population Survey from 2 years (2011 and 2012) have been combined. The number of creative jobs in each industry has been divided by the total number of jobs in that industry. Industries (SIC07) which have more than 6,000 jobs and a “creative intensity” of more than 30 per cent were considered as candidates for inclusion. Industries on the threshold of either criterion have been carefully considered through consultation. We will periodically review the list of Creative Occupations and Creative Industries with a view to fully capture the changing nature of sector.

Employment

Employment data have been sourced from the Annual Population Survey (APS). The APS database contains a large number of variables, but only a few are used in this publication. Micro-data (record level data) have been analysed using syntax programmes. First, the data have been restricted to those who are employees or self-employed (main job - inecac05= 1 or 2; second job – secjmbr = 1, 2 or 3). Next, both main jobs (SOC10M) and second jobs (SOC10S) are counted, and weighted according to the person weighting (pwta11). The number of jobs in each occupation, in each industry (main job - INDC07M; second job – INDC07S) is then counted. Confidence intervals were constructed at the 95% confidence level according to guidance in the LFS user manual.

More information on the APS can be found here:

<http://www.ons.gov.uk/ons/guide-method/method-quality/specific/labour-market/labour-market-statistics/index.html>

GVA

Data relating to GVA have been sourced from the provisional Annual Business Survey (ABS) for each industry, and the Blue Book Dataset for UK totals.

Information on the ABS can be found here:

<http://www.ons.gov.uk/ons/rel/abs/annual-business-survey/index.html>

The UK total for GVA is taken from the Blue Book, as the ABS excludes financial services. The variable used is ABML.

Information on the Blue Book can be found here:

<http://www.ons.gov.uk/ons/rel/naa1-rd/united-kingdom-national-accounts/index.html>

Exports of Services

Export data are taken from the International Trade in Services (ITIS) dataset.

Data has been analysed and disclosure rules applied. Further information about the ITIS dataset can be found from here:

<http://www.ons.gov.uk/ons/rel/itis/international-trade-in-services/index.html>

The UK total for Exports of Services is taken from the Pink Book, as ITIS does not have full coverage. The variable used is KTMQ.

Information on the Pink Book can be found here:

<http://www.ons.gov.uk/ons/rel/bop/united-kingdom-balance-of-payments/index.html>

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The UK Statistics Authority

This release is published in accordance with the Code of Practice for Official Statistics (2009), as produced by the UK Statistics Authority. The Authority has the overall objective of promoting and safeguarding the production and publication of official statistics that serve the public good. It monitors and reports on all official statistics, and promotes good practice in this area. Details on the pre-release access arrangements for this dataset have been published alongside this release

Glossary

Standard Occupational Classification SOC 2010

The Standard Occupational Classification, a means of classifying the occupation of a person according to the work they do and the skill level required. The latest version (SOC 2010) is available here: <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/index.html>

The Standard Industrial Classification SIC 2007

The Standard Industrial Classification, a means of classifying businesses according to the type of economic activity that they are engaged in. The latest version (SIC 2007) is available here: <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/index.html>

Creative Intensities methodology

This methodology makes use of a robust finding from research that having high levels of “creative intensity” – that is, the proportion of the workforce in creative occupations – separates the Creative Industries from other industries¹⁰.

The methodology comprises 3 steps. First, a set of occupations are identified as creative against criteria¹¹. Second, creative intensity is computed for all industries in the economy. Third, all industries with a creative intensity above a certain “threshold” are classified as Creative Industries. Further explanation can be found in the consultation document and underlying papers <https://www.gov.uk/government/consultations/classifying-and-measuring-the-creative-industries-consultation-on-proposed-changes>

Creative Economy

The Creative Economy, which includes the contribution of all those employed in the Creative Industries as well as the contribution of those who are in creative occupations outside the Creative Industries.

Creative Industries

The Creative Industries, a subset of the Creative Economy which includes only those working in the Creative Industries themselves (and who may be in creative occupations or in other roles e.g. finance).

Gross Value Added

Gross Value Added (GVA) measures the contribution to the economy of each individual producer, industry or sector in the United Kingdom. GVA is closely linked to the more commonly used Gross Domestic Product (GDP)

$$GVA + Taxes\ on\ products - Subsidies\ on\ Products = GDP$$

¹⁰ Bakhshi, H., Freeman, A., and Higgs, P. (2013) ‘A Dynamic Mapping of the UK’s Creative Industries’, Nesta: London

¹¹ Bakhshi et al (2013) propose criteria which can be used to assess which occupation codes should be considered creative for measurement purposes



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