Valuing Australia's Creative Industries

Final Report

Creative Industries Innovation Centre
December 2013

SGS Economics & Planning
Independent insight.
UTS
An Australian Government Initiative
ENTERPRISE CONNECT
Shaping Business, Transforming Industry

SGS Economics and Planning Pty Ltd
ACN 007 437 729
www.sgsep.com.au
Offices in Brisbane, Canberra, Hobart, Melbourne, Sydney

SGS Economics & Planning | Independent insight.

Table of contents

5. Creative industries by segment

6. The value of Australia's creative industries

Appendix A: Profile using the CIE definition

Australia depends not only on its traditional industries, but on its creativity and innovation — qualities on which our vibrant creative industries are built.

Our creative industries give our country a two-fold benefit. As this report shows, these industries contribute more than $90 billion to our economy annually in turnover, add more than $45 billion to GDP and generate annual exports of $3.2 billion.

And quite separate is the intangible but undeniable worth of knowing our nation creates great software, films, TV, radio, music, theatre, dance, design, media, writing, marketing and architecture.

We are proud to do what we can to support our creative industries through our Enterprise Connect program's Creative Industries Innovation Centre (CIIC), in partnership with the University of Technology, Sydney.

Over the last four years, the CIIC has worked with more than 1,500 Australian creative enterprises to improve their business capability. We have seen first-hand the value that they bring to other businesses across the Australian economy to assist them to compete in a global economy.

This report documents the important contribution of the creative industries to the national economy. It also shows for the first time the growth of the creative workforce in Australia and its distribution across all sectors of the economy.

It is important to have a clear picture of the value of the creative industries to our economy – and the next step is to ensure we are drawing links across innovation to ensure we are getting the most out of these industries in terms of productivity and global competitiveness.

These agile, sophisticated and digitally savvy businesses and the creative professionals they support are more significant in number than you might expect. In 2011 there were more than 600,000 people working in the creative industries in Australia and over 120,000 creative businesses.

This report comes at an important time as we work diligently and intelligently to retain and enhance our creative industries so they can keep doing what they do best – employing smart and hardworking Australians and contributing to the vibrant culture of our country.

Minister for Industry
Ian Macfarlane

A word from the Director

The Creative Industries Innovation Centre (CIIC) has worked with over 1,500 creative enterprises since 2009. This has given us a unique vantage point – indeed a privileged one, as we have seen first-hand what makes creative businesses tick: the strengths and opportunities as well as weaknesses and threats that are shaping their future.

The insights we have gained over this time now provide a valuable resource for individual businesses, allowing them to benchmark against their peers. At the same time, they provide an invaluable resource for industry, government and educators to better understand how to navigate, prepare and leverage the dynamics of a global economy.

As we develop sufficient data sets across creative industry sectors, the CIIC produces forensic reports that deliver much-needed analysis of each sector. There are nine forensic reports to date which will increase in value over time as our data set deepens and we work with industry to validate and expand these industry insights.

However, this sharp focus on individual businesses is not enough. We need to focus on the big picture – the sum of the parts – providing greater detail and analysis of the creative economy landscape.

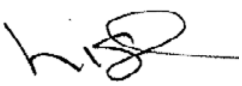
The following report validates and values the skills and capabilities of the creative industries in economic terms. It has the benefit of being internationally comparable, and clearly shows the increasing demand for creative skills sets across all industry sectors in our economy, as evidenced by the growing number of creatives employed within other industries.

The sector insights mentioned above and an interactive visualisation of the data in this report are available at www.creativeinnovation.net.au.

In ten years time, the workforce and working environment will look nothing like it does today. It is within the creative industries that these changes are being felt first and fast.

By combining big picture data with sector-specific insights, the CIIC is now in a strong position to inform policy and programs across government, industry and education to ensure the creative industries continue to add value to the Australian economy, and indeed to accelerate that growth.

Lisa Colley
Director - Creative Industries Innovation Centre
Enterprise Connect



Photography: Anna Zhu

Executive summary

Introduction

SGS has been commissioned by the Enterprise Connect Creative Industries Innovation Centre (CIIC) to prepare a current position report of the Australian creative economy. The report will constitute an update of a 2009 study by the Centre for International Economics (CIE) using the most appropriate definitions of creative industries and including the most recent data relating to those industries.

Importance of creative industries

The United Nations Conference on Trade and Development (UNCTAD) now recognises creative industries as a new dynamic sector in world trade. While creative industries are often micro businesses or small to medium sized enterprises that focus on local markets, they can develop into powerful economic clusters, helping to drive economic growth[1]. However, despite widespread acknowledgement of their importance, defining creative industries is still a matter for considerable disagreement in academic and policy-making circles.

Basic definition

As a most basic definition, creative industries can be distinguished from other industries in that creativity is used to create value for their consumers. While all industries will include an element of creativity within them to a greater or lesser extent, creative industries are different because they use creativity to create value for their clients and the products or services created are intellectual property.

Due to their dynamic nature, the creative industries are not simply defined and consist of a wide variety of businesses and individuals. They include cultural sectors like the visual and performing arts, as well as those sectors that are often dubbed digital media or multi-media including film and television, broadcasting, computer animation, web design and music. They also include a range of other sectors like architecture and urban design, industrial design, designer fashion, writing and publishing.

Understanding the extent of the creative economy is even more problematic due to the way that creative and non-creative workers and businesses intersect.

Best practice approach to definition and measurement (the Nesta method)

A number of different models have been put forward in recent years as a means of providing an understanding of the creative economy. To really understand the creative economy we must first understand the nature of the creative workforce.

The creative workforce represents a combination of employment within creative

1. UNCTAD (2010) "Creative Economy Report"

industries and creative occupations. The Creative Trident is Queensland University of Technology Centre of Excellence for Creative Industries and Innovation (QUT CCI)'s methodology for expressing the different metrics of the creative occupations and creative segments and sectors (refer to Figure 1).

- **Specialist creatives: those who are creatively occupied and work within the creative industries.**
- **Support workers: those who are not creatively occupied but do work within the creative industries.**
- **Embedded creatives: those who are creatively occupied but work outside the creative industries.**

		Industries		
		Employed in creative industries	Employed in non-creative industries	
Occupations	Employed in creative occupations	Specialist creatives	Embedded creatives	Total employment in creative occupations
	Employed in non-creative occupations	Support workers	Non-creative occupations in non-creative industries	
		Total employment in creative industries		Total creative workforrce

Figure 1. The creative trident.

Building on the UK Department of Culture Media and Sport (DCMS)'s work and the concept of the creative trident, the National Endowment for Science, Technology and the Arts (Nesta) conducted a dynamic mapping of the UK's creative industries in 2013. The method builds on the DCMS approach but focuses on creative intensity, that is, the proportion of total employment within an industry that is engaged in creative occupations. We found the Nesta method to be current best practice and have applied this approach to the most recent Australian data.

A profile of Australia's creative industries

Creative industries make a large contribution to the national economy. Based on IBISWorld estimates of industry value added[2] the industry value added of creative

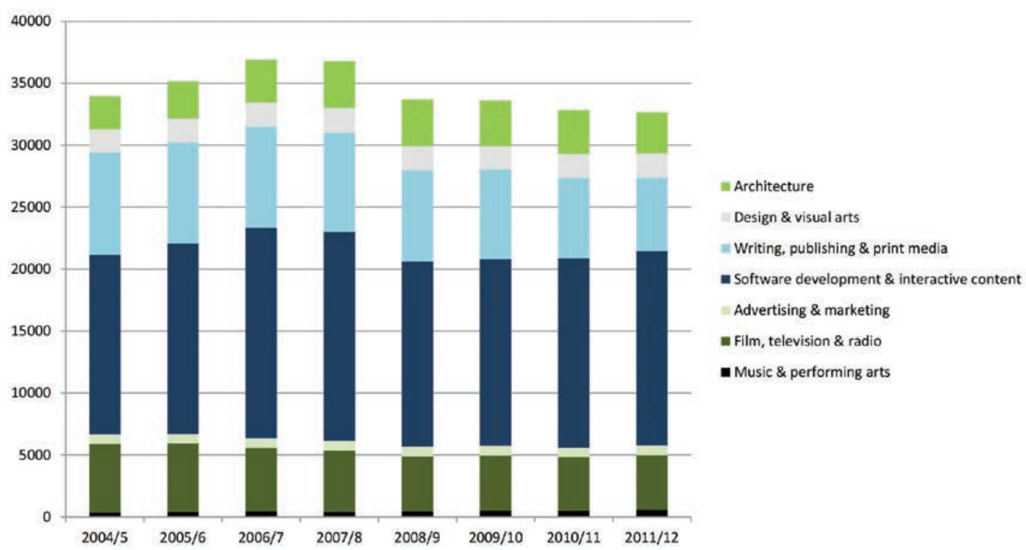


Figure 2. Industry gross product of the creative industries ($M)

2. Industry Value Added (IVA): The market value of goods and services produced by the industry minus the cost of goods and services used in production. IVA is also described as the industry's contribution to GDP, or profit plus wages and depreciation.

industries was around $32,666 million in 2011/12. However, this contribution has been steadily declining since 2007/8.

The Industry Gross Product (IGP) growth for the creative industries is significantly lower than the GDP average growth rate (for the three and seven year periods) for all the industries within the Australian economy. Overall, the creative industries have experienced a decline in IGP over the past seven years of around -1% per annum. This compares to growth of 3% per annum in the broader economy. The reasons for this vary across creative industry segments. For example, advertising and marketing were affected particularly strongly by the GFC and have continued to feel its effects in the following years. For other segments such as writing, publishing and print media, music and performing arts and to a lesser extent film, television and radio, the broad effects of economic slowdown have been compounded by the effects of technological changes and shifting consumer preferences which have resulted in profound movement away from the consumption of traditional media.

Within the creative industries, music and performing arts, software development and design and visual arts show the strongest performance in terms of real annual output growth over the past 5 years. Film television and radio remained stable and all other industry sectors experienced a decline.

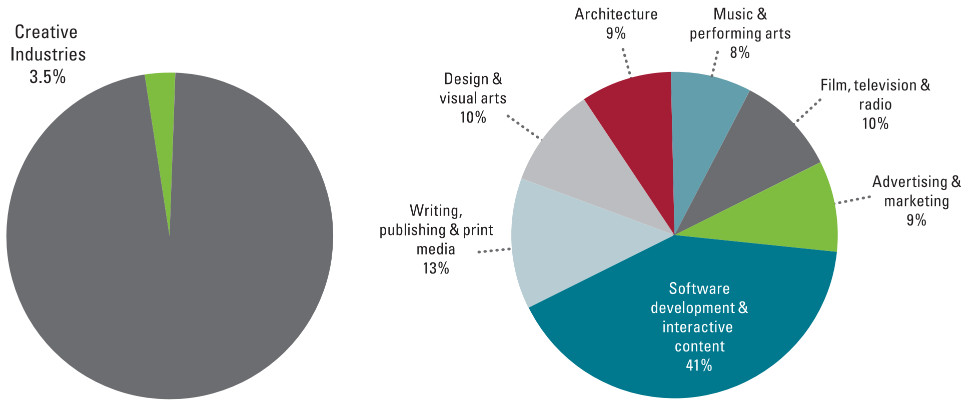


Figure 3.
Total national jobs, 2011.

Source: ABS Census, IBISWorld Industry Reports, SGS Economics and Planning, 2013.

EMPLOYMENT IN THE CREATIVE INDUSTRY CATEGORIES

According to the 2011 Census, there were 347,744 people employed in creative industry categories. Software development and interactive content is the largest category with 142,377 employees –roughly 41% of total creative employees.

While total jobs in creative industry categories have maintained a steady share of total national jobs at 3.5%, there has been considerable movement within the creative industries. Significant employment growth was experienced in software and interactive media with a small proportion of growth in design, music and visual arts. Writing, publishing and print media, although maintaining its position with the second largest share of employment, experienced falling job numbers in the last five years and a declining share of employment in the creative industries.

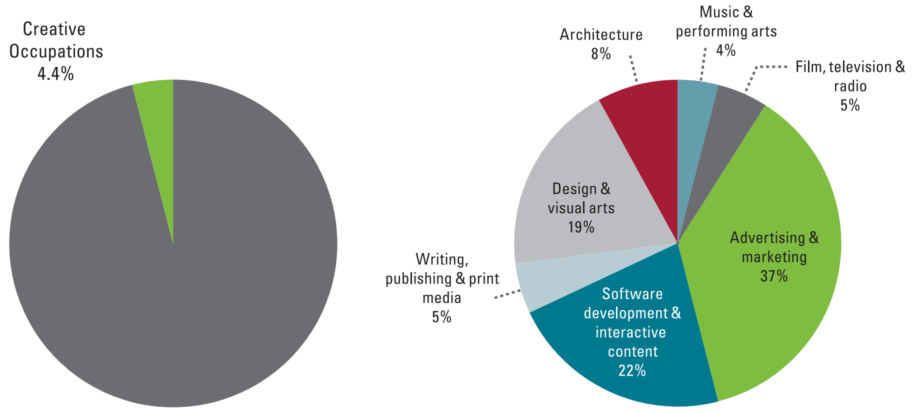


Figure 4.
Employment in creative occupations.

Source: ABS Census, IBISWorld Industry Reports, SGS Economics and Planning, 2013.

EMPLOYMENT IN THE CREATIVE OCCUPATION CATEGORIES

According to the 2011 Census, 432,965 people had creative occupations. This is an increase of 21% since the 2006 Census. The creative occupations represent 4.4% of total occupations.

In 2011, almost 40% of employment within creative occupations related to advertising and marketing, followed by software development and interactive content (22%) and design and visual arts (19%).

THE CREATIVE TRIDENT

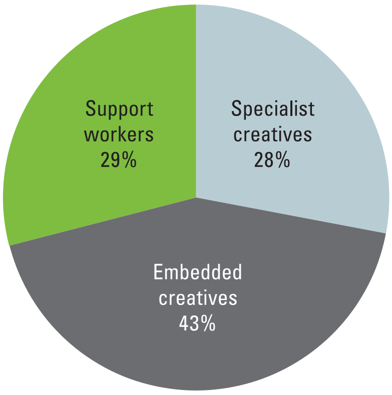


Figure 5. The creative trident 2011.

Source: ABS Census, IBISWorld Industry Reports, SGS Economics and Planning, 2013.

The size of the total creative workforce in 2011 was 611,307 people, which represented 6.2% of total employment. Almost half of those employed in creative occupations are working within non-creative industries – i.e. almost half of the total creative workforce are classified as embedded creatives.

This pattern for the creative workforce is repeated across Australia with embedded creatives making up the largest proportion of the total creative workforce in all states.

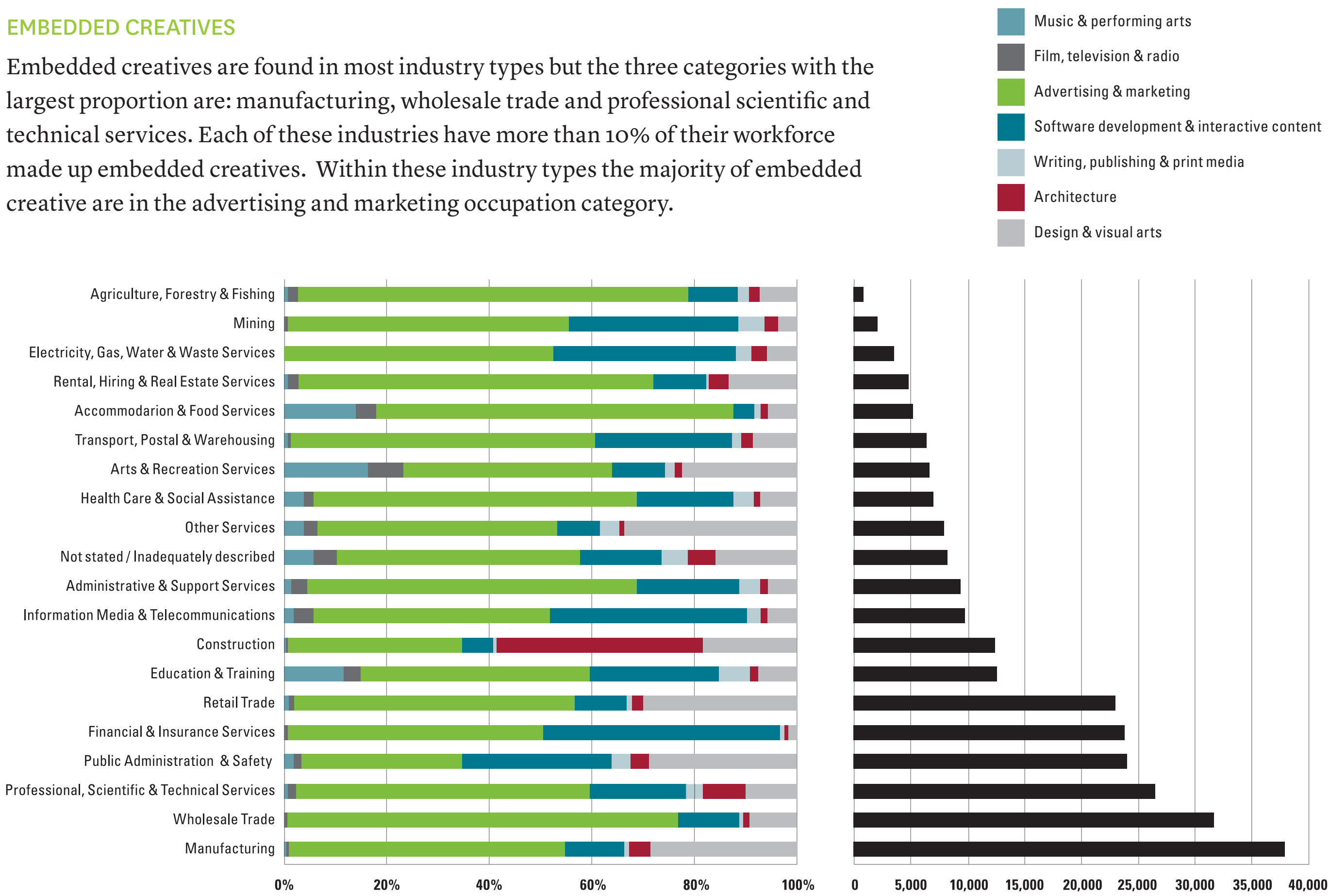
In terms of the geographic concentration of creative workers, ABS Census data shows that the creative workforce (which includes employment in the creative industries as well as creatives embedded in other industries) is concentrated in New South Wales with almost 40% of the workforce, followed by Victoria with 28% and Queensland with 16%.

Figure 6. Embedded creatives by industry, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

EMBEDDED CREATIVES

Embedded creatives are found in most industry types but the three categories with the largest proportion are: manufacturing, wholesale trade and professional scientific and technical services. Each of these industries have more than 10% of their workforce made up embedded creatives. Within these industry types the majority of embedded creative are in the advertising and marketing occupation category.



CREATIVE BUSINESSES

At the end of June 2011, there were 123,000 businesses operating in the creative industries. Since 2008, there has been growth of around 2% per annum in the number of businesses operating in the creative industry group. Around 75% of creative businesses are turning over less than $200,000 a year, this compares to around 65% of all businesses in Australia.

Between 2008 and 2011, the business entry and exit rates in the creative industries broadly followed the pattern for the rest of the economy but in terms of the change in business numbers, creative industry growth has tracked slightly higher than the rest of the economy. Creative industries are generally comprised of small businesses, as is true for businesses in the national economy. 98% of creative buinesses employ fewer than 20 employees. Although this is also true for businesses in the national economy, it is fair to say that creative businesses tend to be smaller with 98% employing fewer than 20 employees.

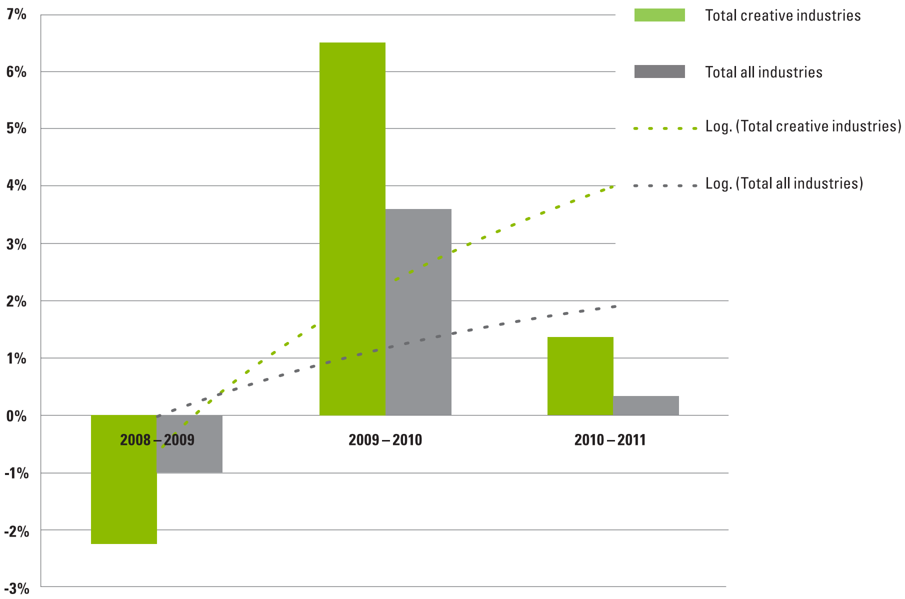


Figure 7.
Growth in business numbers.

Source: ABS Catalogue No. 8165.0
Note this ABS Catalogue does not provide business count for all the nfd industries.

The creative industry segments

We can divide the creative economy into distinct segments. These are summarised as follows:

MUSIC AND PERFORMING ARTS

In 2011/12, music and performing arts contributed around 2% of total IGP and 3% of total employment for the creative industries. In 2011, the music and performing arts segments workforce totalled 34,277 people. Embedded creatives make up the majority of this workforce at 52.2%.

FILM TELEVISION AND RADIO

In 2011/12, the film, television and radio segment contributed around 14% of total IGP and 11% of total employment for the creative industries. Pay television experienced the highest growth in IGP between 2004/5 and 2011/12 at around 6%. Overall, the film, television and radio segment has performed significantly below the GDP for the broader economy. In 2011, total workforce in the film, television and radio segment totalled 42,688 people. Around half of this workforce are support workers.

ADVERTISING AND MARKETING

In 2011, the advertising and marketing segment workforce totalled 183,270 people. The largest proportion of the workforce (83.4% or 152,816 people) are embedded creatives – i.e. advertising and marketing occupations in other industry categories.

SOFTWARE AND INTERACTIVE CONTENT

In 2011/12, the software and interactive content segment contributed around 50% to both total IGP and total employment for the creative industries. Internet publishing and broadcasting experienced the highest growth in IGP and employment between 2004/5 and 2011/12. In 2011, the software and interactive content sector workforce totalled 197,062 people. The largest proportion of the workforce (51.8%) is support workers.

WRITING PUBLISHING AND PRINT MEDIA

In 2011/12, writing, publishing and print media contributed around 18% of total IGP and 13% of total employment for the creative industries. IGP growth within this segment has been relatively weak compared to the broader economy. The writing, publishing and print media sector workforce totalled 55,645 people in 2011. The largest proportion of the workforce is support workers and these make up 61.8% of the workforce.

ARCHITECTURE

In 2011/12, the architecture segment contributed around 10% of total IGP and 9% of total employment for the creative industries. In 2011, the workforce of the architecture segment totalled 47,382 people. The largest proportion of the workforce is specialist creatives which represent 44.5% of the workforce.

DESIGN AND VISUAL ARTS

In 2011/12, design and visual arts contributed around 6% of total IGP and 9% of total employment for the creative industries. Growth in IGP for design and visual arts is much lower than GDP growth with professional photographic services experiencing significant decline between 2004/5 and 2011/12. In 2011, the design and visual arts workforce was 94,140 people. The largest proportion of the workforce is embedded workers which represent 62.2% of the workforce.

Within the creative industries, the creative segments are shown to have varying structure and varying levels of performance. Software and interactive content stands out as being the strongest segment – contributing the greatest amount (in terms of IGP) for the creative industries. Writing, publishing and print media, although still the second largest segment in IGP terms, has suffered declining IGP and is the only segment to have falling employment in the last 5 years.

The creative sector annually contributes $90.19 billion turnover to the national economy. It adds $45.89 billion in GDP, and generates annual exports of $3.2 billion

The value of Australia's creative industries

To measure the contribution of the Australian creative economy, SGS has used ABS 2008-09 national input output tables. The direct stimuli generated by the creative sector results in multiple rounds of buyer and supplier transactions.

The creative sector contributes around $90.19 billion to the national economy annually in turnover. It adds almost $45.89 billion in GDP and helps generate exports of $3.2 billion dollars annually. Over and above this contribution, the creative industries in Australia employ many volunteers, whose contribution is not included within these estimates, as exact figures relating to the number of volunteers and hours they commit is unavailable.

Every dollar in turnover generated by creative industries (i.e. initial revenue stimulus) results in 3.76 times total revenue for all other industries in the Australian economy. Similarly, each dollar in gross regional product generated by the creative sector results in an uplift in total value-added by all industries by a factor of 3. Finally, on average each job in creative industries (not necessarily creative workers) supports total employment in Australia, which is 2.92 times higher than employment in creative industries.

Total output, value-added and employment multipliers are all higher for creative industries than the equivalent values for all Australian industries.

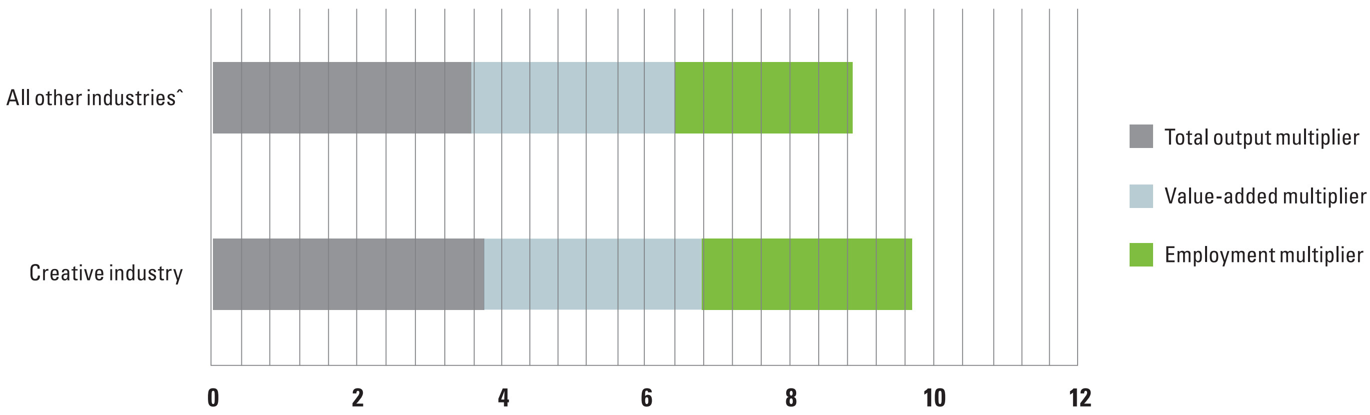


Table 1. Multipliers for creative and other industry sectors.

Source: SGS Economics and Planning calculations based on customised Input-Output table.
^ The multipliers of non-creative industry are averages of the multipliers of each 1-digit ANZSIC industry sector.

Closing remarks

This report sets out to measure and profile Australia's creative industries using best practice measurement techniques and current data. The application of the Nesta method has revealed the extent of the creative industries in this country. Through analysis of creative intensity and the creative trident, the study has illustrated how pervasive the creative workforce really is. This method demonstrates just how wide the creative workforce is spread and how embedded this workforce is in what may appear at first glance to be non-creative industry types.

Clearly, Australia's creative industries continue to have great value for the Australian economy. However, within them, particular segments have had very different recent fortunes. The needs and character of the industry segments and the creative workforce and indeed the dynamics within the segments themselves will need careful attention if the true potentials of Australia's creative industries are to be realised.

1. Introduction

1.1 Background

The use of the words creative industry is widespread yet the act of defining creative industries is still a matter for considerable disagreement in academic and policy-making circles. Usage of the term creative industry varies between countries. Appearing in Australia in 1994 in *Creative Nation*, Australia's first national cultural policy, it gained wider exposure in 1997 when the UK Department of Culture Media and Sport (DCMS) set up the Creative Industries Task Force.

A number of different models have been put forward in recent years as a means of providing an understanding of the creative industries. Regardless of how creative industries are defined, they are at the centre of the creative economy and indeed make a vital contribution to the economy at large.

The United National Conference on Trade and Development (UNCTAD) now recognises the sector as "the cycles of creation, production, and distribution of goods," noting that they focus on but are not limited to the arts and potentially generate significant income from trade and intellectual property rights. It regards them as "a new dynamic sector in world trade".

While creative industries are often micro businesses or small to medium sized enterprises that focus on local markets, they can develop into powerful economic clusters, helping to drive economic growth and development by exporting their intellectual property outside their own regions, either nationally or internationally. There are many examples such as the West Kowloon cultural District in Hong Kong or the Daishanzi Art District (Factory 798)[3] or on a smaller scale closer to home the loose agglomeration of professional service firms in Sydney's Sogo (south of Goulburn Street area[4] .)

3. Desmond Hui (2006), "From cultural to creative industries: Strategies for Chaoyang District, Beijing", International Journal of Cultural Studies, 9:317-331.

4. City of Sydney (2008) "Sydney 2030" Town Hall House, Sydney.

Highly dependent on creative talent, the economic value of the creative industries largely lies in their intellectual property. In other words, creative industries can be distinguished from other industries in that creativity is used to create value for their clients/ customers.

Due to their dynamic nature, the creative industries are not simply defined and consist of a wide variety of businesses and individuals. They include cultural sectors like the visual and performing arts, as well as those sectors that are often dubbed digital media or multi-media including film and television, broadcasting, computer animation, web design and music. They also include a range of other sectors like architecture and urban design, industrial design, designer fashion, writing and publishing.

If policymakers are to identify the mechanisms by which creative activities, rather than just industries, support innovation, and if they are to consider policies to encourage these activities, they need robust methodologies to map the creative economy. The most recent research in this area conducted by Nesta (Higgs et al, 2008), the UK government's agency charged with fostering innovation, has shown the necessity to include in any analysis and policy development the impact of those in specialist creative occupations that are employed outside of the specialist creative businesses. This embedded employment accounts for 50% of the employment of creative occupations in the UK.

1.2 Scope of the work

SGS has been commissioned by the Creative Industries Innovation Centre (CIIC) to prepare a current position report for the Australian creative economy. The report will constitute an update of the CIE report, using the most appropriate definition of creative industries and including the most recent data relating to those industries. The report will detail:

- **The method for the definition of creative industries and occupations.**
- **The current position of the creative industries sectors in terms of output, employment, industry formation, specialisation and clustering.**
- **Prevailing industry trends and growth forecasts.**
- **Industry linkage and the influence of creative industries on other parts of the economy.**

1.3 Report structure

The remainder of this report is structured as follows:

- **Section 2** reviews the contemporary Australian and international research for techniques in defining and measuring creative industries and outlines the key challenges faced by creative industries.

- **Section 3** defines creative occupations and industries in Australia using the Nesta method.

- **Section 4** provides an economic profile of the creative industries, including an overview of the creative industries at the macro level, information on each creative industry segment, the characteristics of businesses operating in the creative industries, location of the creative workforce and the flow-on contribution of creative industries to the Australian economy.

- **Appendix A** contains an update of the analysis undertaken by the CIE in the 2009 report, using the CIE definitions of creative industries and occupations.

2. What are the creative industries?

2.1 Introduction

While all industries to a greater or lesser extent include an element of creativity, the creative industries can be distinguished in that value for their consumers is driven by creativity.

Creative industries operate in a diverse range of sectors including music and performing arts, design and visual arts, television, radio and film, marketing, finance and distribution, social media, software development and interactive content, animation and print, writing, publishing. Techniques to measure the creative workforce within these segments have evolved over time as set out in contemporary Australian and international research. Over the past 10 years or so a range of definitions for creative industries and the creative economy have been put forward. To understand creative industries, we must first understand the nature of the creative workforce. In this area, three main methodological approaches have emerged to measure creative workers, with each successive approach addressing the limitations of its predecessor.

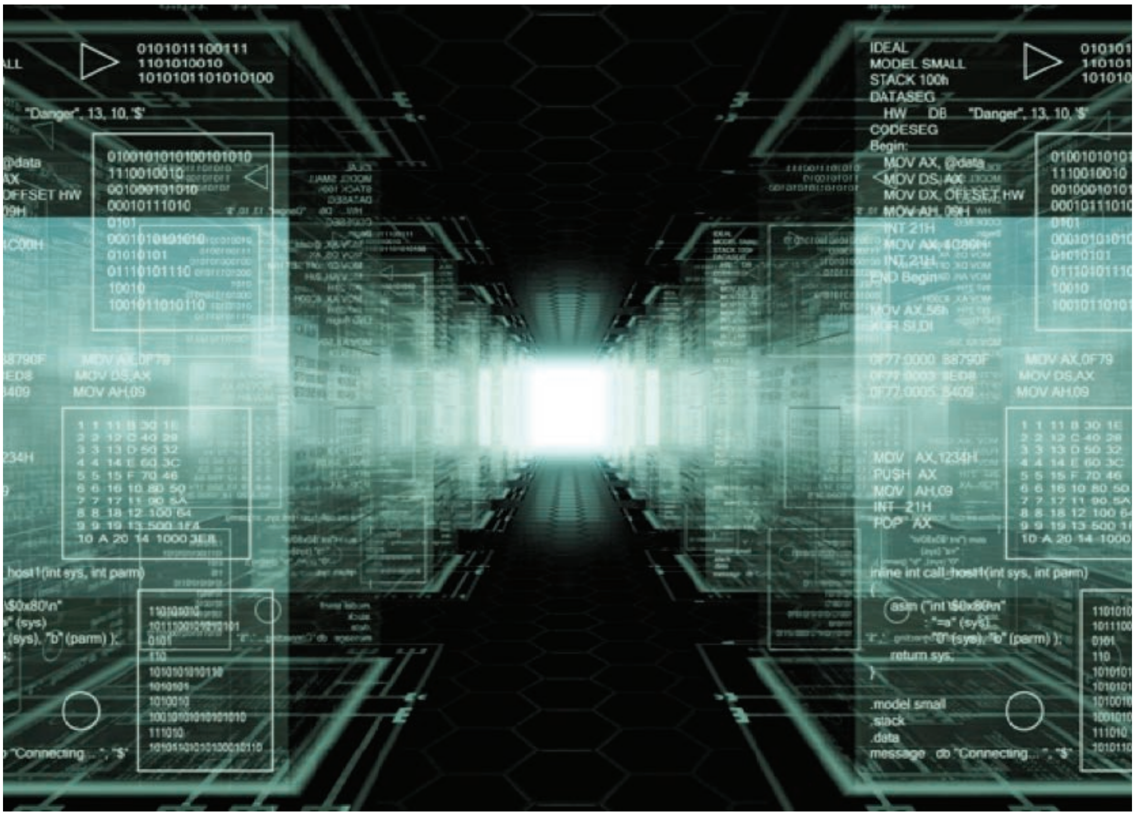
2.2 Leading approaches to defining creative industries

The first method to measure the workforce employed in the bundle of activities termed as the creative industries commenced with the UK Department for Culture, Media and Sport (DCMS) 1998 creative industries mapping study. This study defined creative industries as “those industries which have their origins in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual properties". The DCMS recognised that the key characteristic of the creative industries is their use of creativity for commercial purposes.

The DCMS mapping study became the template for numerous other reports commissioned by governments at the national, regional and city level including Creative Industries in New Zealand: Economic Contribution (2002), Creativity London's Core Business (2002), Brisbane's Creative Industries (2003), Economic Contributions of Singapore's Creative Industries (2003), The Development of Cultural and Creative Industries in Taiwan and Its Significance for SMEs (2004) (Bakhshi, Cunningham and Higgs, 2008).

The DCMS method focuses on measuring the employment and business activities within selected industrial classifications of either census of industry employment or surveys of businesses within industries. Based on this method, creative industries include traditional cultural sectors like the visual and performing arts, other digital media or multi-media sectors, including computer animation, web design and music, and others including film and television, broadcasting, architecture and urban design, industrial design, fashion, writing and publishing.

For instance, the 1998 UK study identified 13 creative industries for analysis: Advertising; Architecture; Art and Antiques Market; Crafts; Design; Designer Fashion; Film and Video; Interactive Leisure Software; Music; Performing Arts;



Publishing; Software and Computer Services; and Television and Radio.

Such an industry-based classification system for defining and measuring creative industries has some limitations. The first limitation is that of scope. Because creativity extends beyond rigid industry groupings, a definition based on industrial classification alone includes some industry classification codes where creativity is not the primary activity, and excludes others where creativity is quite pronounced. For example, the approach used by most analysts to measure the employment impact of the design segment is to count the people employed within firms in the specialist design industries of architectural services and photographic services. However, a significant number of designers may be embedded in other industries, such as business services or consultant engineering services, which may not be captured using this approach. Altering the scope of this list to exclude or include specific industry classifications does not solve the problem because of other definitional limitations. This approach does not distinguish between creative and non-creative occupations within a specified industry. These limitations reduce the utility of this method to compare the performance of creative industry segments over time as well as between segments, regions and countries.

An alternative approach was developed for measuring creative industries and the creative workforce. This method looks beyond industry codes and includes occupation data to measure creative industries. Creative occupations are defined as a selection of occupations that produce creative goods or services. Employees in creative occupations may be participants at any stage of the production process but it is the involvement of such people primarily in creative functions (rather than, for example, retail sales) that distinguishes them.

This method of combining occupation data and industry classifications had been proposed in the annual DCMS Creative Industries Economic Estimates Statistical Bulletin series, and was further developed by the Centre for Cultural Policy Research at the University of Hong Kong. Three types of creative employment were defined: occupations of creative production; associate profession of content/creative production; and occupations of creative/content production in all other industries. The method addresses the data availability and industry classification shortcoming of the DCMS Template approach. It has been cited in Baseline Study of Hong Kong's Creative Industries (2003) and Designing the Economy: A Profile of Ontario's Design Workforce (2004) reports (Bakhshi, Cunningham and Higgs, 2008). Combining occupation and industry data matrices, as evidenced in the Ontario Design Study, can help analyse cities and regions on the basis of specific occupation densities. This method however, has also attracted criticism, in that some occupations are excluded from the list which may be creative. Also, the criteria by which the occupations are classified as creative are somewhat subjective. This can result in erroneous and misleading results when measuring creative industries.

2.3 Current best practice

Building on the DCMS work and the concept of the creative trident, Nesta conducted a dynamic mapping of the UK's creative industries in 2013. The study was undertaken, because the UK's Department of Culture, Media and Sport (DCMS) classification of the creative industries had not been updated since 1998 and contains inconsistencies which need to be addressed to make it fully fit for purpose (Nesta 2013). Nesta developed an improved methodology which builds on the DCMS approach but focuses on creative intensity, that is, the proportion of total employment within an industry that is engaged in creative occupations. Below is a summary of the method developed by Nesta.

A first step to a solution: defining creative occupations

- Nesta developed a definition of a creative occupation and criteria to assess creative occupations based on existing research and their own research.

- Nesta defines a creative occupation as a role within the creative process that brings cognitive skills to bear to bring about differentiation to yield either novel, or significantly enhanced products whose final form is not fully specified in advance (Nesta 2013).

- The criteria for assessment are contained in Figure 8.

1. Novel process – Does the role most commonly solve a problem or achieve a goal, even one that has been established by others, in novel ways? Even if a well-defined process exists which can realise a solution, is creativity exhibited at many stages of that process?

2. Mechanisation resistant – The very fact that the defining feature of the creative industries is their use of a specialised labour force shows that the creative labour force clearly contributes something for which there is no mechanical substitute.

3. Non-repetitiveness or non-uniform function – Does the transformation which the occupation effects likely vary each time it is created because of the interplay of factors, skills, creative impulse and learning?

4. Creative contribution to the value chain – Is the outcome of the occupation novel or creative irrespective of the context in which it is produced; one such context being the industry (and its standard classification) of the organisational unit that hosts or employs the role? For example, a musician working on a cruise ship (a transport industry) is still creative while a printer working within a bank is probably operating printing technology and hence would be considered mechanistic and not creative.

5. Interpretation, not mere transformation – does the role do more than merely 'shift' the service or artefacts form or place or time? For instance, a draughtsperson/CAD technician takes an architect's series of 2D drawings and renders them into a 3D model of the building. While great skill and a degree of creative judgement are involved, arguably the bulk of the novel output is generated by the architect and not by the draughtsperson.

Figure 8. Criteria for assessment of creative occupations.

Source: Nesta, 2013.

Step two: rating the standard occupations using the creative grid

- All four digit occupations were examined and the value 1 assigned where the occupation complies with the criterion and 0 where it does not.
- The values were then totalled to provide an overall grid score.
- A threshold of four was set for an occupation to qualify as creative.

Step three: deriving rigorous intensity measures

- Creative intensity was calculated by Nesta by using the creative occupations identified above to determine the proportion of creatively occupied jobs within each industry of employment. The industries were broken down into DCMS creative and DCMS non-creative (depending on whether the industry is defined as creative by DCMS).
- A threshold for creative industries was determined based on the mean and standard deviation to determine which industries would be classified as creative (creative intensity of 30%).

Step four: a statistically resilient baseline

- Nesta refined the baseline to remove statistically volatile or unreliable codes, and derive the baseline estimate for creative employment arising from this analysis.

Testing the grid: reverse intensity and the specialisation of employment in the creative industries

- Reverse intensity was calculated to conduct a brief further reality check on the economic mode.
- Reverse intensity (or occupational intensity) is the proportion of the total employment of a given occupation that is found within a given industry.

Sensitivity analysis

- A sensitivity test was conducted to test the sensitivity of the employment estimates to the assumptions adopted throughout the study.
- The threshold creative intensity calculation performs, in effect, a reality check on any classification of industries into creative and non-creative, highlighting the inconsistencies and pointing to a superior classification in which these inconsistencies are almost completely eliminated.
- The sensitivity analysis provides a justification of the method adopted by Nesta.

3. Application of the Nesta method

3.1 Introduction

The method used by Bakhshi, Cunningham and Higgs in the 2013 Nesta report emerges as the most comprehensive method for the definition of Creative Industries through an analysis of the creative workforce. This method has been chosen in this study for the measurement of the Australian creative economy.

3.2 Defining creative occupations

The first step in the application of the Nesta method is the definition of the creative occupations. Each occupation category (ANZSCO 6-Digit) is assessed against the criteria established by Nesta (2013). Australian Bureau of Statistics ANZSCO definitions (2006) were consulted where further clarity was necessary, particularly in relation to the tasks undertaken by each occupation. The criteria are repeated in Figure 9.

1. Novel process – Does the role most commonly solve a problem or achieve a goal, even one that has been established by others, in novel ways? Even if a well-defined process exists which can realise a solution, is creativity exhibited at many stages of that process?

2. Mechanisation resistant – The very fact that the defining feature of the creative industries is their use of a specialised labour force shows that the creative labour force clearly contributes something for which there is no mechanical substitute.

3. Non-repetitiveness or non-uniform function – Does the transformation which the occupation effects likely vary each time it is created because of the interplay of factors, skills, creative impulse and learning?

4. Creative contribution to the value chain – Is the outcome of the occupation novel or creative irrespective of the context in which it is produced; one such context being the industry (and its standard classification) of the organisational unit that hosts or employs the role? For example, a musician working on a cruise ship (a transport industry) is still creative while a printer working within a bank is probably operating printing technology and hence would be considered mechanistic and not creative.

5. Interpretation, not mere transformation – does the role do more than merely 'shift' the service or artefacts form or place or time? For instance, a draughtsperson/CAD technician takes an architect's series of 2D drawings and renders them into a 3D model of the building. While great skill and a degree of creative judgement are involved, arguably the bulk of the novel output is generated by the architect and not by the draughtsperson.

Figure 9. Criteria for assessment of creative occupations.

Source: Nesta, 2013.

Where an occupation achieved a score of four or five out of five, it was considered to be creative. The results of this analysis are contained in Table 2.

Signature Prints / Photography: Andrew Cowen

Table 2.
Creative grid of occupations.

Source: SGS Economics and Planning, 2013.
Note: nfd= not further defined, nec = not elsewhere considered.

ANZSCO Code	ANZSCO Occupation	Creative Grid: Process novelty	Resistant to mechanisation	Non-repeating output	Creative function in process	Interpretation not transformation	Grid Score
131100	Advertising, Public Relations and Sales Managers, nfd	1	1	1	1	1	5
131112	Sales and Marketing Manager	1	1	1	1	1	5
131113	Advertising Manager	1	1	1	1	1	5
131114	Public Relations Manager	1	1	1	1	1	5
210000	Arts and Media Professionals, nfd	1	1	1	1	1	5
211000	Arts Professionals, nfd	1	1	1	1	1	5
211100	Actors, Dancers and Other Entertainers, nfd	1	1	1	1	1	5
211111	Actor	1	1	1	1	1	5
211112	Dancer or Choreographer	1	1	1	1	1	5
211113	Entertainer or Variety Artist	1	1	1	1	1	5
211199	Actors, Dancers and Other Entertainers, nec	1	1	1	1	1	5
211200	Music Professionals, nfd	1	1	1	1	1	5
211211	Composer	1	1	1	1	1	5
211212	Music Director	1	1	1	1	1	5
211213	Musician (Instrumental)	1	1	1	1	1	5
211214	Singer	1	1	1	1	1	5
211299	Music Professionals, nec	1	1	1	1	1	5
211311	Photographer	1	1	1	1	1	5
211400	Visual Arts and Crafts Professionals, nfd	1	1	1	1	1	5
211411	Painter (Visual Arts)	1	1	1	1	1	5
211412	Potter or Ceramic Artist	1	1	1	1	1	5
211413	Sculptor	1	1	1	1	1	5
211499	Visual Arts and Crafts Professionals, nec	1	1	1	1	1	5
212000	Media Professionals, nfd	1	1	1	1	1	5
212100	Artistic Directors, and Media Producers and Presenters, nfd	1	1	1	1	1	5
212111	Artistic Director	1	1	1	1	1	5
212112	Media Producer (excluding Video)	1	1	1	1	1	5
212113	Radio Presenter	1	1	1	1	1	5
212114	Television Presenter	1	1	1	1	1	5
212200	Authors, and Book and Script Editors, nfd	1	1	1	1	1	5
212211	Author	1	1	1	1	1	5
212212	Book or Script Editor	1	1	1	1	1	5
212300	Film, Television, Radio and Stage Directors, nfd	1	1	1	1	1	5
212311	Art Director (Film, Television or Stage)	1	1	1	1	1	5
212312	Director (Film, Television, Radio or Stage)	1	1	1	1	1	5
212313	Director of Photography	1	1	1	1	1	5
212314	Film and Video Editor	1	1	1	1	1	5
212315	Program Director (Television or Radio)	1	1	1	1	1	5
212316	Stage Manager	1	1	1	1	1	5
212317	Technical Director	1	1	1	1	1	5
212318	Video Producer	1	1	1	1	1	5
212399	Film, Television, Radio and Stage Directors, nec	1	1	1	1	1	5
212400	Journalists and Other Writers, nfd	1	1	1	1	1	5
212411	Copywriter	1	1	1	1	1	5
212412	Newspaper or Periodical Editor	1	1	1	1	1	5
212413	Print Journalist	1	1	1	1	1	5
212414	Radio Journalist	1	1	1	1	1	5
212415	Technical Writer	1	1	1	1	1	5
212416	Television Journalist	1	1	1	1	1	5
212499	Journalists and Other Writers, nec	1	1	1	1	1	5
224212	Gallery or Museum Curator	1	1	1	1	1	5
225000	Sales, Marketing and Public Relations Professionals, nfd	1	1	1	1	1	5
225100	Advertising and Marketing Professionals, nfd	1	1	1	1	1	5

ANZSCO Code	ANZSCO Occupation	Creative Grid: Process novelty	Resistant to mechanisation	Non-repeating output	Creative function in process	Interpretation not transformation	Grid Score
225111	Advertising Specialist	1	1	1	1	1	5
225112	Market Research Analyst	1	1	1	1	1	5
225113	Marketing Specialist	1	1	1	1	1	5
225311	Public Relations Professional	1	1	1	1	1	5
232000	Architects, Designers, Planners and Surveyors, nfd	1	1	1	1	1	5
232100	Architects and Landscape Architects, nfd	1	1	1	1	1	5
232111	Architect	1	1	1	1	1	5
232112	Landscape Architect	1	1	1	1	1	5
232300	Fashion, Industrial and Jewellery Designers, nfd	1	1	1	1	1	5
232311	Fashion Designer	1	1	1	1	1	5
232312	Industrial Designer	1	1	1	1	1	5
232313	Jewellery Designer	1	1	1	1	1	5
232400	Graphic and Web Designers, and Illustrators, nfd	1	1	1	1	1	5
232411	Graphic Designer	1	1	1	1	1	5
232412	Illustrator	1	1	1	1	1	5
232413	Multimedia Designer	1	1	1	1	1	5
232414	Web Designer	1	1	1	1	1	5
232511	Interior Designer	1	1	1	1	1	5
232611	Urban and Regional Planner	1	1	1	1	1	5
261100	ICT Business and Systems Analysts	1	1	1	1	1	5
261111	ICT Business Analyst	1	1	1	1	1	5
261112	Systems Analyst	1	1	1	1	1	5
261200	Multimedia Specialists and Web Developers, nfd	1	1	1	1	1	5
261211	Multimedia Specialist	1	1	1	1	1	5
261212	Web Developer	1	1	1	1	1	5
261313	Software Engineer	1	1	1	1	1	5
399411	Jeweller	1	1	1	1	1	5
399514	Make Up Artist	1	1	1	1	1	5
399611	Signwriter	1	1	1	1	1	5
399912	Interior Decorator	1	1	1	1	1	5
451814	Body Artist	1	1	1	1	1	5
233916	Naval Architect	1	1	1	1	1	5
225212	ICT Business Development Manager	1	1	1	1		4
261300	Software and Applications Programmers, nfd	1	1	1	1		4
261311	Analyst Programmer	1	1	1	1		4
261312	Developer Programmer	1	1	1	1		4
261399	Software and Applications Programmers, nec	1	1	1	1		4
312100	Architectural, Building and Surveying Technicians, nfd	1	1	1	1		4
312111	Architectural Draftsperson	1	1	1	1		4
312199	Architectural, Building and Surveying Technicians, nec	1	1	1	1		4

Subjective nature of Nesta method

The criteria (discussed above) for assessing whether an occupation is creative are somewhat subjective. To ensure consistency and accuracy, the assessment was conducted by multiple members of the project team. Where no clear decision could be made at the end of this process, occupations were deemed to be non-creative. We are mindful that this means that there are one or two borderline occupations that have been excluded where an argument could still be mounted for inclusion. In this sense the SGS application of the method can be considered somewhat conservative.

3.3 Creative intensity

Once identified, creative occupations were used to calculate the creative intensity of all industries of employment. Creative intensity is a measure of the proportion of jobs within an industry that are occupied by creative workers. Figure 10 shows the relative intensity, looking at both industries identified as creative and non-creative by the CIE.

The mean value for creative industries as defined in the CIE report is 55% and for non-creative industries is 7%. In our assessment of 2006 and 2011 data, the average of the two means, which is 31%. This is used as a benchmark to define the creative industries in our analysis. This compares to the benchmark used in the Nesta report of 30%.

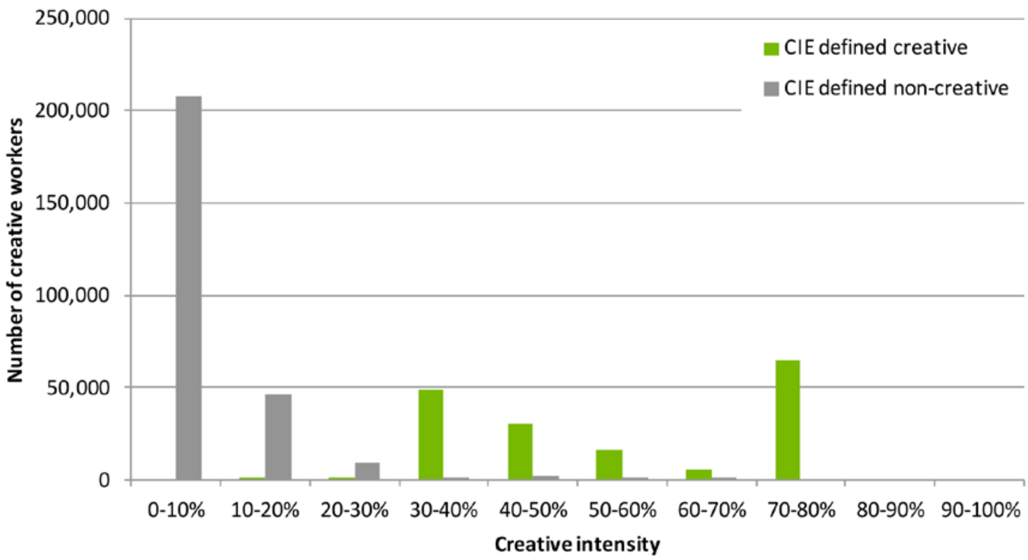


Figure 10. Distribution of creatively-occupied jobs by creative intensity, 2011, partitioned into CIE creative and CIE non-creative.

Source: SGS Economics and Planning, 2013.

The creative intensity for employment in 2006 is illustrated in Figure 11. In 2006 the mean for creative industries was 52% and the mean for non-creative industries was 7%. The average which is used as a benchmark to define the creative industries was 29% which is comparable to the 2011 benchmark.

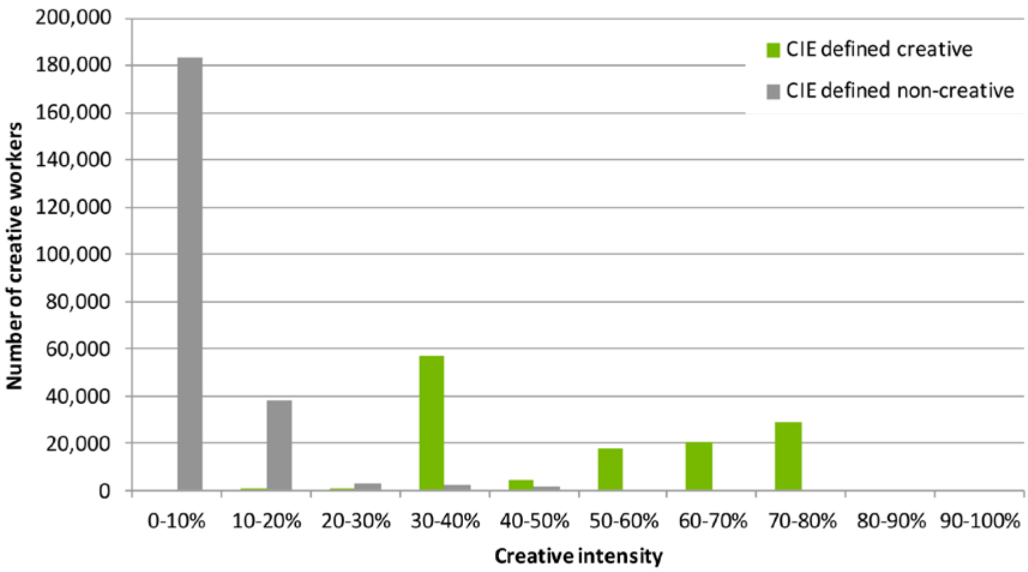


Figure 11. Distribution of creatively-occupied jobs by creative intensity, 2006, partitioned into CIE creative and CIE non-creative.

Source: SGS Economics and Planning, 2013.

3.4 Defining creative industries

A creative intensity benchmark of 30% was used to identify which industries would be defined as creative. Table 3 contains industries which are identified as creative by this benchmark plus the industries which were identified within the CIE report as creative (where they were not already identified by the benchmark).

Creative intensity benchmarks for both 2006 and 2011 have been highlighted. The industries were also assessed on their size (less than 1000 jobs) and volatility (where an industry moves from creative to non-creative or vice versa).

Where an industry met the benchmark but was either small or volatile or was defined by the CIE as creative but not by the benchmark, the industry was evaluated by the project team and a decision was made as to whether it was creative.

The following industries have been identified as creative:

- 5622 Cable and Other Subscription Broadcasting
- 5600 Broadcasting (except Internet), nfd
- 1612 Printing Support Services
- 5413 Book Publishing
- 7000 Computer System Design and Related Services
- 5500 Motion Picture and Sound Recording Activities, nfd
- J000 Information Media and Telecommunications, nfd
- 5420 Software Publishing
- 5411 Newspaper Publishing
- 9000 Creative and Performing Arts Activities, nfd
- 5620 Television Broadcasting, nfd
- 5510 Motion Picture and Video Activities, nfd
- 5700 Internet Publishing and Broadcasting
- 6940 Advertising Services
- 5412 Magazine and Other Periodical Publishing
- 5400 Publishing (except Internet and Music Publishing), nfd
- 2591 Jewellery and Silverware Manufacturing
- 5410 Newspaper, Periodical, Book and Directory Publishing, nfd
- 5621 Free-to-Air Television Broadcasting
- 9001 Performing Arts Operation
- 5610 Radio Broadcasting
- 5514 Post-Production Services and Other Motion Picture and Video Activities
- 5511 Motion Picture and Video Production
- 6921 Architectural Services
- 6924 Other Specialised Design Services
- 9002 Creative Artists, Musicians, Writers and Performers
- 6991 Professional Photographic Services

ANZSIC_4_Digit_Industry	2006 jobs	2006 creative jobs	2006 creative intensity (>30%)	2011 jobs
5522 Music and Other Sound Recording Activities	795	171	22%	853
9003 Performing Arts Venue Operation	2,611	438	17%	3,371
5521 Music Publishing	234	48	21%	294
5419 Other Publishing (except Software, Music and Internet)	264	73	28%	207
5622 Cable and Other Subscription Broadcasting	2,813	596	21%	3,240
5600 Broadcasting (except Internet), nfd	489	136	28%	484
1612 Printing Support Services	2,774	1,022	37%	2,268
5413 Book Publishing	6,238	1,993	32%	6,090
7000 Computer System Design and Related Services	103,865	35,413	34%	139,408
5500 Motion Picture and Sound Recording Activities, nfd	120	52	43%	179
5900 Internet Service Providers, Web Search Portals and Data Processing Services, nfd	123	39	32%	93
J000 Information Media and Telecommunications, nfd	2,220	877	40%	2,355
5420 Software Publishing	387	182	47%	696
5411 Newspaper Publishing	26,080	9,292	36%	23,472
9000 Creative and Performing Arts Activities, nfd	1,063	456	43%	1,041
5620 Television Broadcasting, nfd	162	62	38%	127
5510 Motion Picture and Video Activities, nfd	305	137	45%	436
5700 Internet Publishing and Broadcasting	1,138	415	36%	2,273
6940 Advertising Services	26,845	9,884	37%	30,454
5412 Magazine and Other Periodical Publishing	8,404	3,606	43%	8,017
5400 Publishing (except Internet and Music Publishing), nfd	1,770	815	46%	2,052
2591 Jewellery and Silverware Manufacturing	4,177	2,143	51%	3,859
5410 Newspaper, Periodical, Book and Directory Publishing, nfd	101	49	49%	118
5621 Free-to-Air Television Broadcasting	12,466	6,241	50%	14,058
9001 Performing Arts Operation	4,212	2,341	56%	5,449
5610 Radio Broadcasting	5,140	2,747	53%	5,480
5514 Post-Production Services and Other Motion Picture and Video Activities	877	431	49%	1,208
5511 Motion Picture and Video Production	7,216	4,274	59%	8,702
1891 Photographic Chemical Product Manufacturing	15	0	0%	9
6921 Architectural Services	29,720	20,572	69%	33,836
6924 Other Specialised Design Services	18,351	13,174	72%	22,466
9002 Creative Artists, Musicians, Writers and Performers	13,923	11,137	80%	20,689
6991 Professional Photographic Services	6,947	4,959	71%	9,287

2011 creative jobs	2011 creative intensity (>30%)	CIE defined creative industries	Small Sample (<1000 jobs)	Volatile	Comments	SGS defined creative industries
159	19%	Y	Y			N
661	20%	Y			Industry description suggests it is not creative.	N
58	20%	Y	Y			N
52	25%	Y	Y		Borderline case in 2006.	N
916	28%	Y			Borderline case in 2011. Included for consistency in broadcasting industries.	Y
151	31%		Y	Y	Borderline in 2006, now considered creative. Issue of consistency with broadcasting industries.	Y
724	32%					Y
2,026	33%	Y				Y
46,440	33%	Y				Y
67	37%		Y			Y
36	39%		Y		Small sample. ABS industry description suggests it is not creative.	N
968	41%					Y
287	41%	Y	Y			Y
9,817	42%	Y				Y
449	43%					Y
55	43%		Y			Y
193	44%		Y			Y
1,039	46%	Y				Y
14,866	49%	Y				Y
3,982	50%	Y				Y
1,034	50%					Y
2,041	53%	Y				Y
63	53%		Y			Y
7,549	54%	Y				Y
2,989	55%	Y				Y
3,025	55%	Y				Y
707	59%	Y				Y
5,252	60%	Y				Y
6	67%		Y	Y	High creative intensity, extremely small sample, volatile and not part of the CIE definition. Should be excluded	N
24,757	73%	Y				Y
16,849	75%	Y				Y
15,840	77%	Y				Y
7,316	79%	Y				Y

Table 3. Defining the creative industries.

Source: SGS Economics and Planning, 2013.

3.5 Reverse intensity

An analysis of reverse intensity (or occupational intensity) was conducted as a reality check. Reverse intensity is the share of total jobs in particular occupation categories that are found within a given industry. For example, 97% of television journalists are found in creative industries – the highest reverse intensity. A high reverse intensity indicates that the occupation acts as a specialist resource for the creative industries. The average for the creative occupations is 53%, which is higher than the average of the Nesta study of 41%.

Table 4. Reverse intensity of creative occupations, 2011.

Source: SGS Economics and Planning, 2013.

ANZSCO Code	ANZSCO Occupation	Total jobs 2011	Total jobs in creative industries 2011	Reverse intensity
212416	Television Journalist	1,122	1,088	97%
212414	Radio Journalist	604	571	95%
212413	Print Journalist	5,512	5,208	94%
212313	Director of Photography	302	276	91%
212315	Program Director (Television or Radio)	1,086	988	91%
212314	Film and Video Editor	2,214	1,945	88%
212112	Media Producer (excluding Video)	6,921	5,998	87%
212114	Television Presenter	399	342	86%
212311	Art Director (Film, Television or Stage)	164	140	85%
225111	Advertising Specialist	4,720	3,998	85%
232111	Architect	14,972	12,714	85%
211311	Photographer	9,547	8,038	84%
211211	Composer	284	237	83%
212300	Film, Television, Radio and Stage Directors, nfd	169	137	81%
212113	Radio Presenter	1,960	1,555	79%
212312	Director (Film, Television, Radio or Stage)	1,822	1,424	78%
232100	Architects and Landscape Architects, nfd	31	24	77%
232412	Illustrator	1,771	1,364	77%
211411	Painter (Visual Arts)	2,330	1,779	76%
212318	Video Producer	963	736	76%
212400	Journalists and Other Writers, nfd	2,126	1,612	76%
131113	Advertising Manager	2,320	1,748	75%
211200	Music Professionals, nfd	257	192	75%
211400	Visual Arts and Crafts Professionals, nfd	499	372	75%
212211	Author	2,562	1,925	75%
212317	Technical Director	392	294	75%
211214	Singer	940	693	74%
211413	Sculptor	648	479	74%
212411	Copywriter	1,456	1,081	74%
210000	Arts and Media Professionals, nfd	508	361	71%
212412	Newspaper or Periodical Editor	5,057	3,596	71%
211000	Arts Professionals, nfd	1,929	1,340	69%
211111	Actor	1,614	1,106	69%
232414	Web Designer	5,013	3,436	69%
211213	Musician (Instrumental)	6,030	4,062	67%
212212	Book or Script Editor	1,650	1,094	66%
212100	Artistic Directors, and Media Producers and Presenters, nfd	242	158	65%
212200	Authors, and Book and Script Editors, nfd	74	47	64%
212000	Media Professionals, nfd	2,088	1,324	63%
212399	Film, Television, Radio and Stage Directors, nec	624	389	62%

ANZSCO Code	ANZSCO Occupation	Total jobs 2011	Total jobs in creative industries 2011	Reverse intensity
212499	Journalists and Other Writers, nec	1,704	1,062	62%
261212	Web Developer	7,119	4,426	62%
232400	Graphic and Web Designers, and Illustrators, nfd	396	241	61%
232112	Landscape Architect	2,869	1,730	60%
312111	Architectural Draftsperson	10,761	6,471	60%
232411	Graphic Designer	25,514	15,058	59%
212316	Stage Manager	288	168	58%
261211	Multimedia Specialist	687	399	58%
211113	Entertainer or Variety Artist	1,748	962	55%
261399	Software and Applications Programmers, nec	28	15	54%
211100	Actors, Dancers and Other Entertainers, nfd	119	63	53%
232511	Interior Designer	7,023	3,706	53%
225212	ICT Business Development Manager	2,397	1,269	53%
211112	Dancer or Choreographer	1,138	579	51%
261313	Software Engineer	21,672	11,158	51%
261300	Software and Applications Programmers, nfd	1,722	879	51%
232413	Multimedia Designer	2,427	1,156	48%
399611	Signwriter	5,613	2,670	48%
225100	Advertising and Marketing Professionals, nfd	466	220	47%
232313	Jewellery Designer	510	241	47%
261200	Multimedia Specialists and Web Developers, nfd	45	21	47%
261312	Developer Programmer	26,886	12,759	47%
211299	Music Professionals, nec	60	26	43%
212111	Artistic Director	239	100	42%
399411	Jeweller	3,952	1,677	42%
211199	Actors, Dancers and Other Entertainers, nec	1,091	396	36%
211499	Visual Arts and Crafts Professionals, nec	1,874	674	36%
261100	ICT Business and Systems Analysts	292	95	33%
261111	ICT Business Analyst	10,663	3,375	32%
232000	Architects, Designers, Planners and Surveyors, nfd	4,175	1,223	29%
261311	Analyst Programmer	6,302	1,800	29%
212415	Technical Writer	2,562	699	27%
261112	Systems Analyst	9,691	2,653	27%
211412	Potter or Ceramic Artist	458	117	26%
211212	Music Director	386	97	25%
399912	Interior Decorator	1,277	245	19%
232300	Fashion, Industrial and Jewellery Designers, nfd	90	16	18%
232611	Urban and Regional Planner	9,932	1,675	17%
131100	Advertising, Public Relations and Sales Managers, nfd	1,326	205	15%
399514	Make Up Artist	1,656	235	14%
225113	Marketing Specialist	37,068	4,910	13%
225000	Sales, Marketing and Public Relations Professionals, nfd	907	97	11%
232311	Fashion Designer	3,410	382	11%
225311	Public Relations Professional	16,192	1,688	10%
232312	Industrial Designer	2,926	283	10%
131112	Sales and Marketing Manager	89,787	6,890	8%
225112	Market Research Analyst	3,194	254	8%
312100	Architectural, Building and Surveying Technicians, nfd	189	16	8%
131114	Public Relations Manager	4,939	272	6%
451814	Body Artist	1,551	90	6%
312199	Architectural, Building and Surveying Technicians, nec	1,293	59	5%
233916	Naval Architect	330	10	3%
224212	Gallery or Museum Curator	1,099	19	2%

4. Profile of Australia's creative industries

4.1 Creative industries at the macro scale

Based on IBISWorld estimates of industry value added[5], the industry gross product (IGP) of the creative industries in 2011/12 was around $32,666 million (refer to Table 5). This figure is lower than the IGP for 2010/11 $32,809 and is representative of a steady decline in IGP over the past five years.

It should be noted that although IBISWorld reports are the most comprehensive source for business data, IBISWorld Reports were not available for a number of ANZSIC 4 digit industries and thus analysis of IGP does not include a number of industries such as 9002 Creative Artists, Musicians, Writers and Performers, 5600 Broadcasting (except Internet), nfd, 5500 Motion Picture and Sound Recording Activities, nfd, 5620 Television Broadcasting, nfd, 5510 Motion Picture and Video Activities, nfd, 9000 Creative and Performing Arts Activities, nfd, J000 Information Media and Telecommunications, nfd, 5400 Publishing (except Internet and Music Publishing), nfd, 5410 Newspaper, Periodical, Book and Directory Publishing, nfd).

Software development and interactive content is the greatest contributor to IGP of the creative industries, contributing to nearly half of total IGP.

Creative industries make a large contribution to the national economy but this contribution has been steadily declining over the last five years.

Industry gross product and growth

Creative industry sector	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	7 year average growth
Music & performing arts	372	412	450	440	459	494	512	559	6%
Film, television & radio	5,516	5,504	5,105	4,883	4,418	4,463	4,327	4,419	-3%
Advertising & marketing	778	779	793	806	805	784	768	767	0%
Software development & interactive content	14,500	15,373	17,000	16,876	14,931	15,053	15,286	15,708	1%
Writing, publishing & print media	8,254	8,159	8,131	8,016	7,365	7,231	6,484	5,925	-5%
Design & visual arts	1,867	1,897	1,943	1,965	1,925	1,876	1,907	1,939	1%
Architecture	2,680	3,020	3,470	3,820	3,800	3,700	3,525	3,350	3%
Total creative industries	**33,966**	**35,144**	**36,891**	**36,805**	**33,704**	**33,600**	**32,809**	**32,666**	**-1%**

Table 5. Industry gross product of the creative industries ($ M)

Source: IBISWorld Industry Reports, SGS Economics and Planning.

The average contribution of the creative industries to gross domestic product (GDP) between 2004/5 and 2011/12 was approximately 3% (refer to Figure 12).

5. Industry Value Added (IVA): The market value of goods and services produced by the industry minus the cost of goods and services used in production. IVA is also described as the industrys contribution to GDP, or profit plus wages and depreciation.

Wildwon / Photography: Andrew Cowen

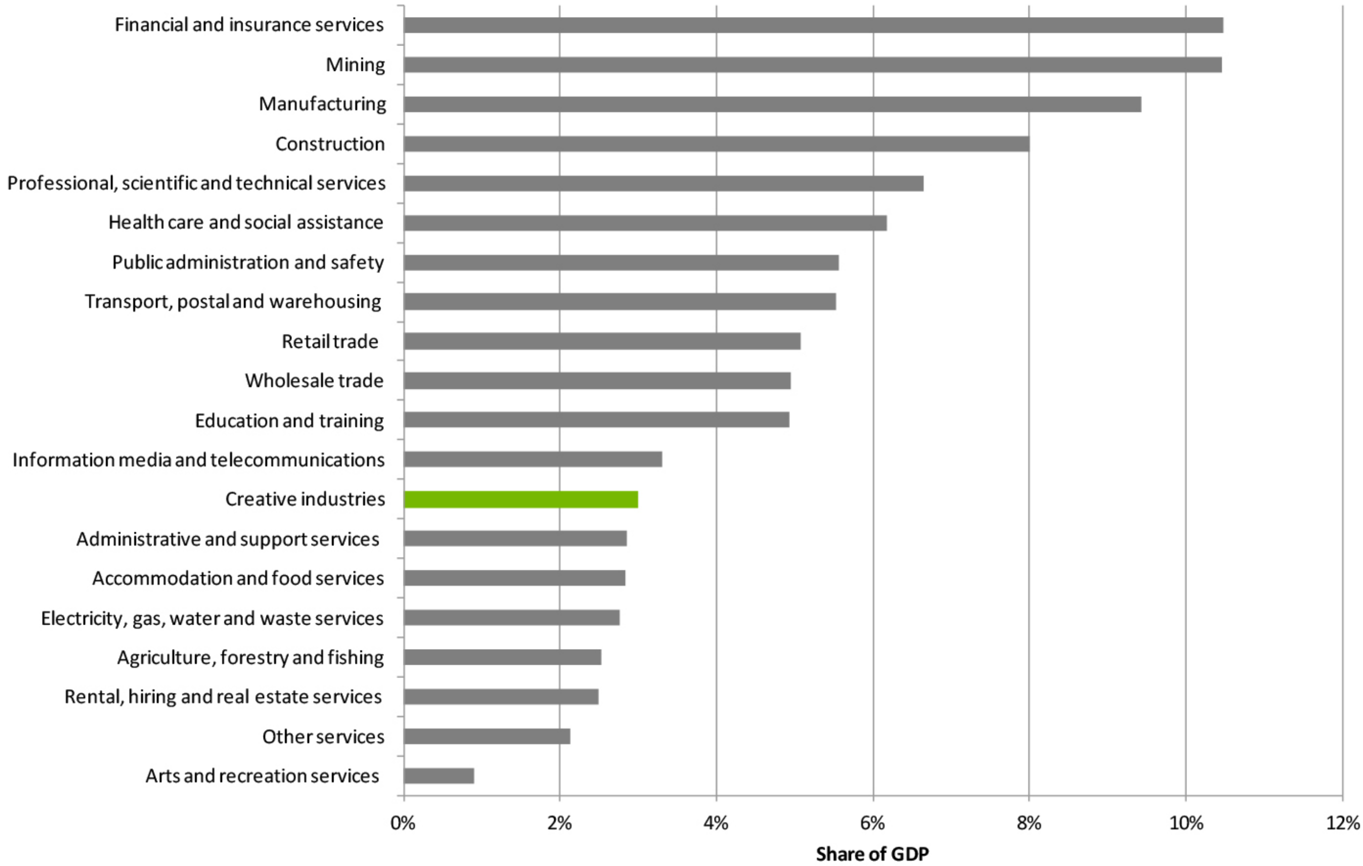


Figure 12.
Industry share of gdp 2004/5 to 2011/12.

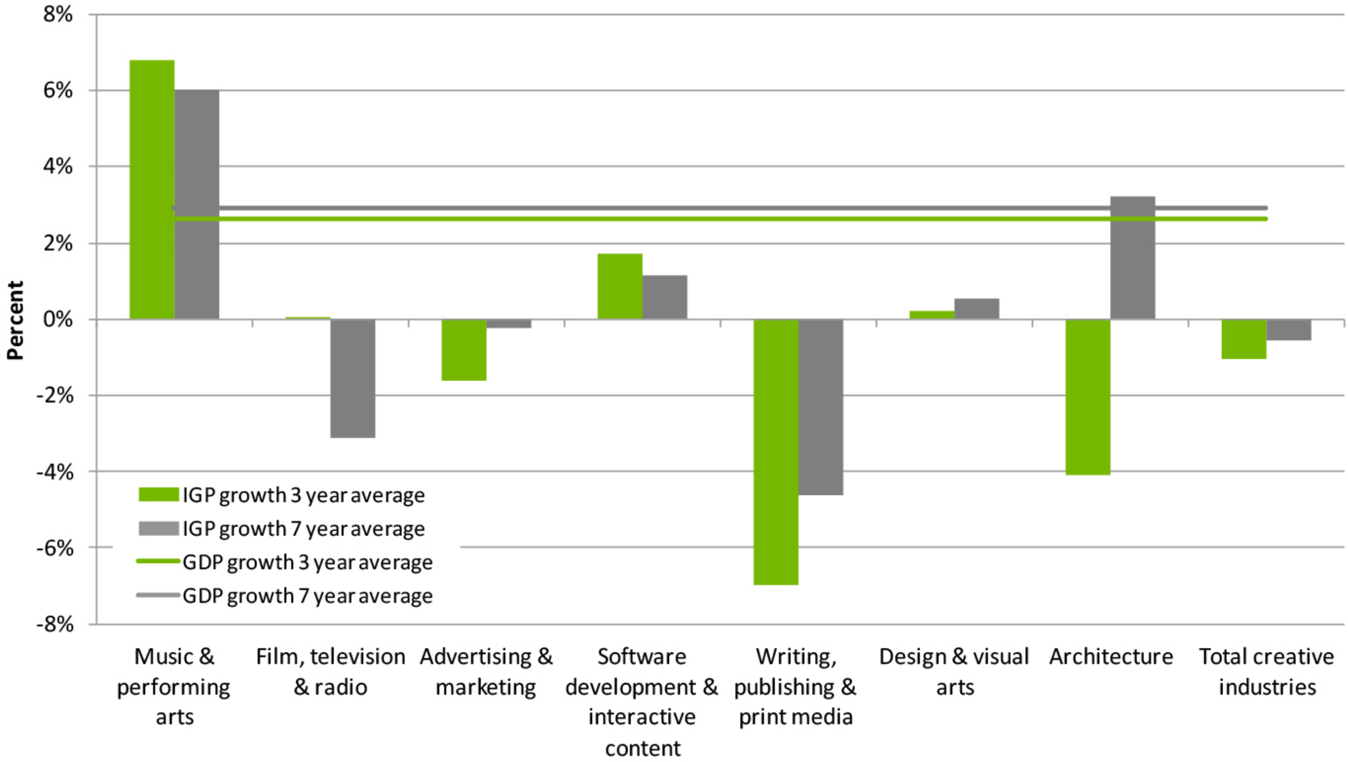
Source: IBISWorld Industry Reports, ABS Catalogue 5204.0, SGS Economics and Planning, 2013. Note: creative industries are double counted being a part of the traditional ANZSIC divisions e.g. Arts and recreation services may include some industries that are also included within the creative industries.

Figure 13 illustrates real annual average growth over the past three years, between 2008/9 and 2011/12, and over the past seven years, between 2004/5 and 2011/12. Three industries have experienced growth in IGP over the past three years:

- **Music and performing arts**
- **Software development**
- **Design and visual arts**

Film television and radio remained stable and all other industry sectors experienced a decline. Overall, the creative industries experienced negative growth over the three and seven year periods. The IGP growth for the creative industries is significantly lower than the GDP average growth rate (for the three and seven year periods) for the all industries within the Australian economy. The reasons for this vary across creative industry segments. For example, advertising and marketing were affected particularly strongly by the global financial crisis and have continued to feel its affects in the following years. For other segments such as writing, publishing and print media, music and performing arts and to a lesser extent film, television and radio, the broad effects of economic slowdown have been compounded by the effects of technological changes and shifting consumer preferences which have resulted in profound movement away from the consumption of traditional media.

Music and performing arts, software development and design and visual arts show the strongest performance in terms of real annual output growth over the past 5 years



Writing publishing and print media is the only creative industry segment with falling employment numbers and a declining share of national employment

Figure 13.
Real annual average growth, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, ABS Catalogue 5204.0, SGS Economics and Planning, 2013.

Employment in the creative industries

According to the 2011 Census, there were 347,744 people employed in the creative industries (refer to Table 6). Software development and interactive content is the most significant sector of employment within the creative industries representing around 41% of total employment within the creative industries.

Industry sector of employment	Employment No.[6]	Share of creative industries	Share of total employment
Music & performing arts	27,179	7.8%	0.3%
Film, television & radio	33,914	9.8%	0.3%
Advertising & marketing	30,454	8.8%	0.3%
Software development & interactive content	142,377	40.9%	1.4%
Writing, publishing & print media	44,372	12.8%	0.5%
Design & visual arts	35,612	10.2%	0.4%
Architecture	33,836	9.7%	0.3%
Total creative industries	**347,744**	**100.0%**	**3.5%**

Table 6.
Employment in creative industries, 2011

Source: ABS Census of Population and Housing, SGS Economics and Planning, 2013.

6. Includes employed full-time, employed part-time and employed but away from work.

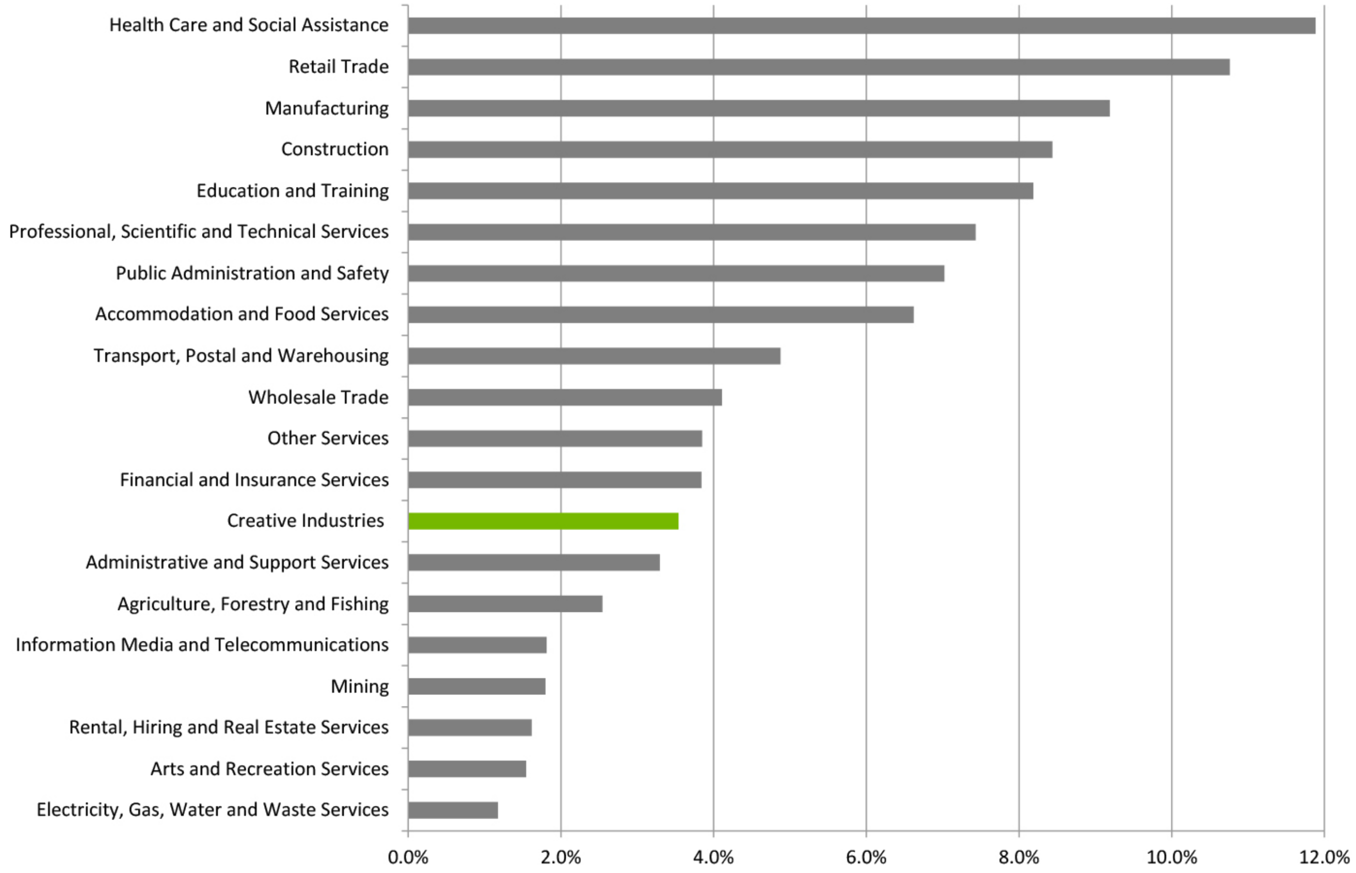


Figure 14.
Industry share of employment, 2011.

Source: ABS Census of Population and Housing, IBISWorld Industry Reports, SGS Economics and Planning, 2013.

Employment within the creative industries represented approximately 3.5% of total employment in 2011 and this is illustrated in Figure 14.

Table 7 highlights the change in employment within the creative industries between 2006 and 2011. Significant employment growth was experienced in the software and interactive media with a small proportion of growth in design and visual arts. While overall, the creative industries have experienced limited change in the share of total employment (total change in share was 0.18%) between the census periods, there has been a shift in employment numbers for particular industry segments.

While creative industries have, in total, maintained a steady share of total national jobs at 3.5%, there has been considerable movement within the creative industries group

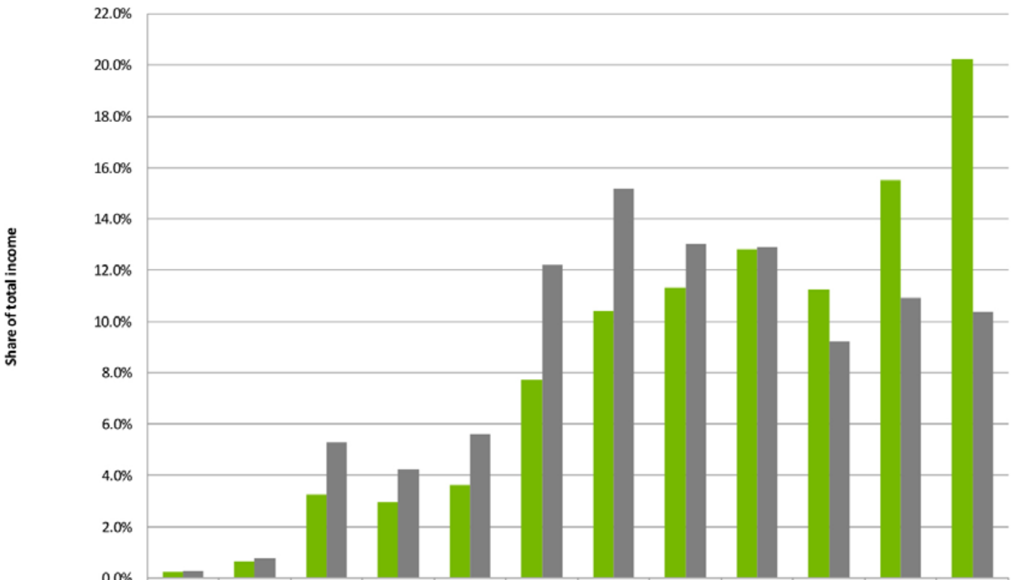
Table 7.
Change in employment in creative industries, 2006-2011.

Industry sector of employment	Change in Employment No.	Change in share of creative industries	Change in share of total employment
Music & performing arts	7,981	1.1%	0.05%
Film, television & radio	4,326	-0.5%	0.00%
Advertising & marketing	3,609	-0.6%	0.00%
Software development & interactive content	36,987	4.3%	0.22%
Writing, publishing & print media	-3,215	-3.8%	-0.10%
Design & visual arts	6,137	0.0%	0.02%
Architecture	4,116	-0.6%	0.00%
Total creative industries	**59,941**	**0.0%**	**0.18%**

Source: ABS Census of Population and Housing, SGS Economics and Planning, 2013.

Income

The incomes of those employed within the creative industries are increasing. Over 20% of those employed within the creative industries in 2011 were earning $2000 or more per week (refer to Figure 15) – equivalent to $104,000 pa. This is an increase from around 13% in 2006. The average incomes of those working in the creative industries are significantly higher than those employed within other industries of employment.



	Negative income	Nil income	$1-$199	$200-$299	$300-$399	$400-$599	$600-$799	$800-$999	$1,000-$1,249	$1,250-$1,499	$1,500-$1,999	$2,000 or more
Creative industries	0.2%	0.7%	3.2%	2.9%	3.6%	7.7%	10.4%	11.3%	12.8%	11.3%	15.5%	20.2%
All industries	0.3%	0.8%	5.3%	4.2%	5.6%	12.2%	15.2%	13.0%	12.9%	9.2%	10.9%	10.4%

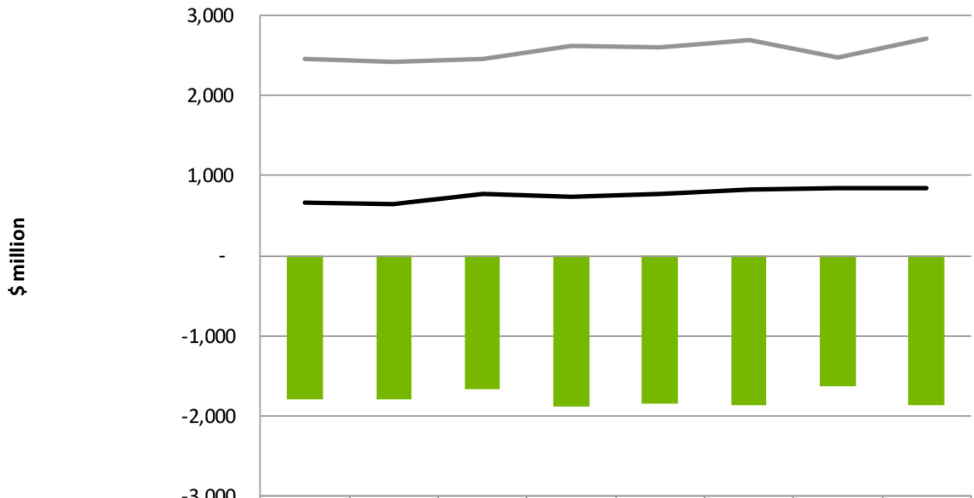
Figure 15.
Weekly income distribution, 2011.

Source: ABS Census of Population and Housing, SGS Economics and Planning, 2013.

> *Creative workers are highly valued and this is reflected in higher than average incomes.*

Productivity

Creative industry imports have remained significantly higher than exports, resulting in a steady but negative trend in net exports.



	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12
Net exports ($mn)	-1,797	-1,785	-1,673	-1,880	-1,842	-1,870	-1,636	-1,869
Trade (exports) ($mn)	657	643	777	744	766	824	845	843
Trade (imports) ($mn)	2,453	2,428	2,450	2,624	2,608	2,694	2,481	2,713

Figure 16.
Trade in the creative industries, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, SGS Economics and Planning, 2013.

4.2 Employment in creative occupations

Employment estimates for creative occupations are contained in Table 8. According to the 2011 Census, 432,965 people were employed within the creative occupations, which is an increase of 21% since the 2006 Census. The creative occupations represent 4.4% of total employment.

In 2011, almost 40% of employment within creative occupations related to advertising and marketing, followed by software development and interactive content (22%) and design and visual arts (19%).

In 2011, almost 433,000 people were employed in creative occupations, which is an increase of 21% since 2006.

Creative occupations represent 4.4% of total employment, with the major industry of employment being advertising and marketing

Occupation segment	Employment No.	Share of creative industries	Share of total employment
Music and performing arts	16,392	3.8%	0.2%
	(1,965)	(-0.2%)	(0.0%)
Film, television and radio	21,311	4.9%	0.2%
	(3,534)	(0%)	(0.0%)
Advertising and marketing	162,375	37.5%	1.7%
	(32,786)	(1.3%)	(0.1%)
Software development and interactive content	94,944	21.9%	1.0%
	(15,993)	(-0.1%)	(0.0%)
Writing, publishing and print media	21,247	4.9%	0.2%
	(1,880)	(-0.5%)	(0.0%)
Design and visual arts	82,076	19.0%	0.8%
	(12,317)	(-0.5%)	(0.0%)
Architecture	34,620	8.0%	0.4%
	(6,653)	(0.2%)	(0.0%)
Total creative occupations	**432,965**	**100.0%**	**4.4%**
	(75,128)		**(0.2%)**

Table 8. Employment in creative occupations, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are change between 2006 and 2011.

4.3 Creative industries workforce

The creative workforce, or creative trident, includes:

SUPPORT WORKERS	SPECIALIST CREATIVES	EMBEDDED CREATIVES
Those employed in creative occupations in creative industries.	Those employed in creative industries in non-creative occupations.	Those employed in creative occupations in non-creative industries.

The total creative workforce in 2011 was 611,307 people which represented 6.2% of total employment. As highlighted in Table 9, almost half of those employed in creative occupations are working within non-creative industries.

> *Almost half of those employed in creative occupations are working within non-creative industries. The total creative workforce in 2011 was 611,000 people with 263,000 employed as embedded creatives*

	Creative industries	Non-creative industries	Total industries
Creative occupations	169,402 (1.7%)	263,563 (2.7%)	432,965 (4.4%)
Non-creative occupations	178,342 (1.8%)	-	178,342 (1.8%)
Total occupations	347,744 (3.5%)	263,563 (2.7%)	611,307 (6.2%)

Table 9.
Total creative workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment.

Figure 17.
Creative trident, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

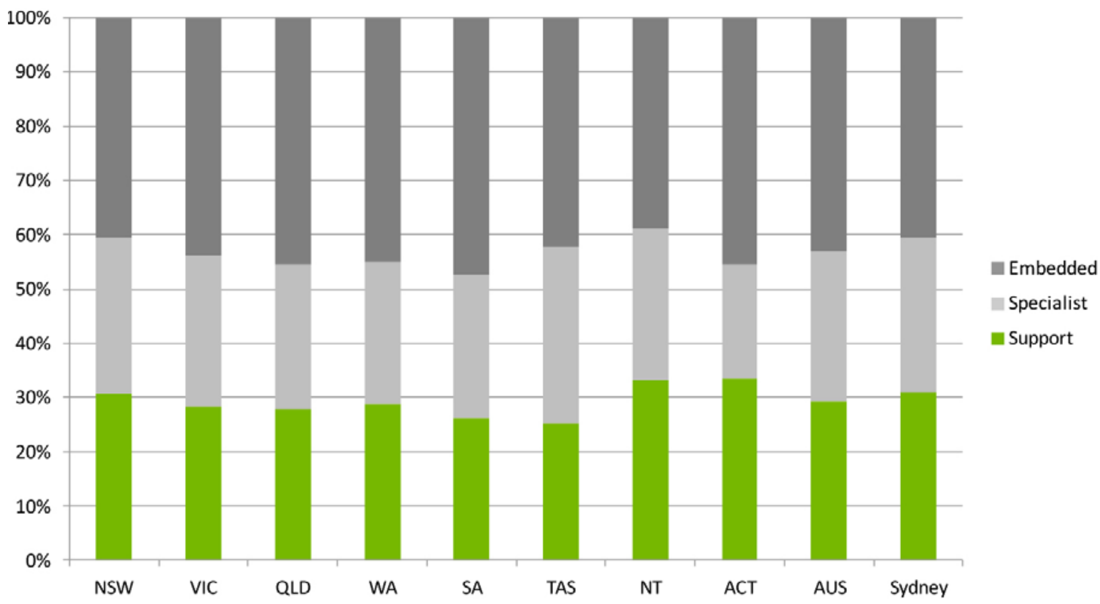
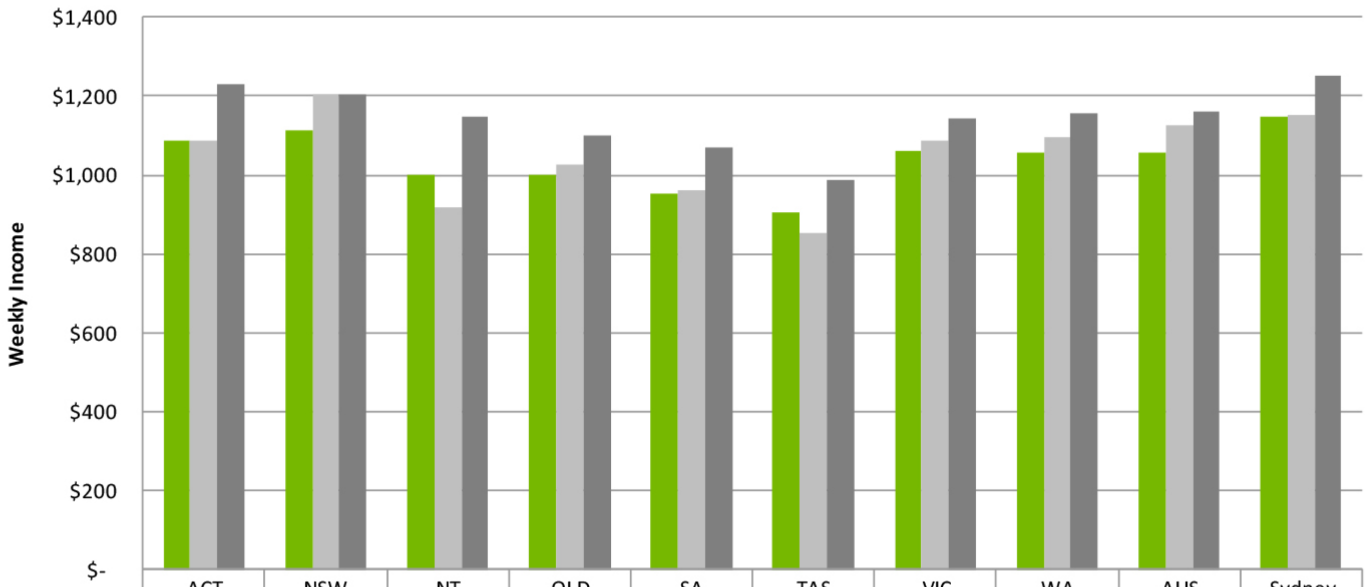


Figure 17 compares the creative workforce of each state in Australia alongside Sydney, the largest capital city in Australia. Within each geography, embedded workers represent the largest proportion of the creative workforce and is the largest in the ACT and South Australia[7].

In terms of the creative trident, specialist creatives earn a lower weekly income than embedded creatives and support workers (refer to Figure 18).

Figure 18.
Income by creative trident, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.



	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	AUS	Sydney
Support	$1,088	$1,113	$1,002	$999	$952	$904	$1,060	$1,057	$1,055	$1,148
Specialist	$1,087	$1,202	$916	$1,024	$960	$853	$1,088	$1,097	$1,126	$1,152
Embedded	$1,231	$1,205	$1,149	$1,102	$1,071	$988	$1,144	$1,158	$1,160	$1,253

7. This is in contrast to the analysis conducted using the CIE definition where the largest proportion of workers in the creative industries were support (refer to Appendix A).

4.4 Embedded creatives

Embedded creatives are workers with creative occupations in other (non-creative) industries.

The industries of employment (ANZSIC 1-Digit) of embedded creatives (by creative occupation) are detailed in Table 10. The four major industries of employment for embedded creatives are:

- **Manufacturing**
- **Wholesale trade**
- **Professional, scientific and technical services**
- **Public administration and safety.**

Table 10. Embedded creatives in Australia, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

Industry (ANZSIC 1 Digit)	Occupations								
	Music and performing arts	Film, television and radio	Advertising and marketing	Software development and interactive content	Writing, publishing and print media	Architecture	Design and visual arts	Total creative[8]	Proportion
Manufacturing	155	247	20,320	4,343	381	1,559	10,804	37,809	14.35%
Wholesale Trade	63	117	24,114	3,787	239	411	2,912	31,643	12.01%
Professional, Scientific and Technical Services	126	480	15,172	4,968	844	2,225	2,648	26,463	10.04%
Public Administration and Safety	516	281	7,500	7,051	895	871	6,931	24,045	9.12%
Financial and Insurance Services	40	107	11,880	10,989	297	125	395	23,833	9.04%
Retail Trade	269	167	12,654	2,339	229	526	6,909	23,093	8.76%
Education and Training	1516	371	5,569	3,194	764	176	959	12,549	4.76%
Construction	47	22	4,229	787	82	5,010	2,276	12,453	4.72%
Information Media and Telecommunications	210	358	4,481	3,749	266	107	571	9,742	3.70%
Administrative and Support Services	150	277	6,002	1,886	413	128	526	9,382	3.56%
Not stated/Inadequately described	496	363	3,913	1,328	418	471	1,291	8,280	3.14%
Other Services	334	174	3,720	668	305	61	2,680	7,942	3.01%
Health Care and Social Assistance	273	116	4,427	1,325	275	83	499	6,998	2.66%
Arts and Recreation Services	1076	445	2,686	683	144	82	1,469	6,585	2.50%
Transport, Postal and Warehousing	49	19	3,740	1,682	131	133	542	6,296	2.39%
Accommodation and Food Services	730	197	3,557	220	63	46	309	5,122	1.94%
Rental, Hiring and Real Estate Services	46	71	3,396	504	29	182	651	4,879	1.85%
Electricity, Gas, Water and Waste Services	5	6	1,849	1,258	104	108	200	3,530	1.34%
Mining	0	11	1,086	648	107	48	75	1,975	0.75%
Agriculture, Forestry and Fishing	9	17	717	94	18	21	68	944	0.36%
Total creatives	**6,110**	**3,846**	**141,012**	**51,503**	**6,004**	**12,373**	**42,715**	**263,563**	**100.00%**

Note: Excludes where industry was not stated/inadequately described.

Table 11 details the industries of employment for all embedded creatives by state and for Sydney. Focusing on the major industry of employment for each state, or city, reveals a similar pattern manufacturing or public administration and safety employing the most embedded creatives.

In Sydney, NSW and Australia as a whole, embedded creatives comprise the largest component of the creative trident.

Industry (ANZSIC 1 Digit)	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	AUS	Sydney
Manufacturing	261	12,821	121	6,125	2,906	449	11,966	3,047	37,809	10,368
Wholesale Trade	234	13,099	77	4,463	1,447	275	9,780	2,150	31,643	11,794
Professional, Scientific and Technical Services	836	9,924	114	4,008	1,234	301	7,621	2,154	26,463	8,736
Public Administration and Safety	4,593	5,386	352	4,768	1,852	477	4,532	2,032	24,045	3,895
Financial and Insurance Services	144	11,974	44	2,346	829	124	7,005	1,221	23,833	11,174
Retail Trade	186	8,443	123	3,844	1,402	262	6,773	1,975	23,093	6,830
Education and Training	440	3,908	79	2,342	901	210	3,503	1,187	12,549	2,904
Construction	147	3,815	66	2,293	739	122	3,220	1,901	12,453	2,992
Information Media and Telecommunications	275	4,292	26	972	408	72	3,256	443	9,742	4,018
Administrative and Support Services	126	3,704	54	1,652	418	114	2,529	716	9,382	3,293
Not stated/Inadequately described	113	2,608	9	1,059	353	79	1,984	555	8,280	2,065
Other Services	233	2,545	48	1,513	539	90	2,208	746	7,942	1,987
Health Care and Social Assistance	131	2,225	38	1,284	543	90	1,915	583	6,998	1,829
Arts and Recreation Services	269	1,828	63	1,285	346	159	1,969	549	6,585	1,445
Transport, Postal and Warehousing	71	2,179	19	1,295	312	49	1,849	427	6,296	2,000
Accommodation and Food Services	69	1,833	63	1,237	252	109	1,099	410	5,122	1,372
Rental, Hiring and Real Estate Services	101	1,674	29	1,017	212	39	1,298	456	4,879	1,420
Electricity, Gas, Water and Waste Services	56	924	28	608	273	102	1,119	370	3,530	655
Mining	3	218	6	644	102	18	138	859	1,975	118
Agriculture, Forestry and Fishing	0	247	3	164	125	31	272	79	944	138
Total	**8,288**	**93,647**	**1,362**	**42,919**	**15,193**	**3,172**	**74,036**	**21,860**	**263,563**	**79,033**

Table 11. Industry of employment of embedded creatives by state, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

4.5 Creative industry enterprises

Business Numbers

At the end of June 2011, there were 123,000 businesses operating in the creative industries (refer to Table 12). Despite numbers for writing, publishing and media and music and performing arts declining over the past 4 years, overall, there has been some growth within creative industries. The most notable growth has been in software development and interactive content segment.

Growth in the number of businesses in the creative industries was greater than growth in the number businesses in the aggregate economy over this period, 2% compared to 1%.

Since 2008, there has been growth of around 2% per annum in the number of businesses operating in the creative industries.

In 2011, there were around 123,000 businesses operating in the creative industries. In broad terms the business entry and exit rates for creative industries are comparable to the broader economy.

Between 2008 and 2011, the business entry and exit rates in the creative industries were comparable to the rest of the economy (refer to Figure 19), however a number of industry categories appear to be more volatile in terms of entry and exit rates – these are music and performing arts, film, television and radio, advertising and marketing, software development and interactive content, design and visual arts.

Writing, publishing and print media stands out from the other segments due to its relatively low entry and exit rates. This is symptomatic of an industry in stagnation and perhaps comes as no surprise given the major structural change experienced by this segment. Three segments have significantly higher exit than entry rates – these are: Writing publishing and print media, architecture and music and performing arts. This is indicative of these industries being in decline in the 2008-2011 period.

Table 12.
Number of business 2008-2011.

Source: ABS Catalogue No. 8165.0
Note this ABS Catalogue does not provide business count for all the nfd industries.

	2008	2009	2010	2011	Average annual growth
Music and performing arts	15,247	14,314	15,042	14,786	-1.0%
Film, television and radio	6,311	6,377	6,655	6,787	2.5%
Advertising and marketing	10,887	10,558	11,281	11,314	1.3%
Software development and interactive content	45,136	44,707	48,261	49,824	3.3%
Writing, publishing and print media	3,574	3,488	3,470	3,450	-1.2%
Design and visual arts	21,069	20,614	22,198	22,397	2.1%
Architecture	13,906	13,528	14,042	14,006	0.2%
Total creative industries	116,130	113,586	120,949	122,564	1.8%
Total all industries	2,070,869	2,051,198	2,124,822	2,132,431	1.0%

A large proportion of creative businesses are turning over less than $200,000 a year.

98% of creative businesses employ fewer than 20 employees.

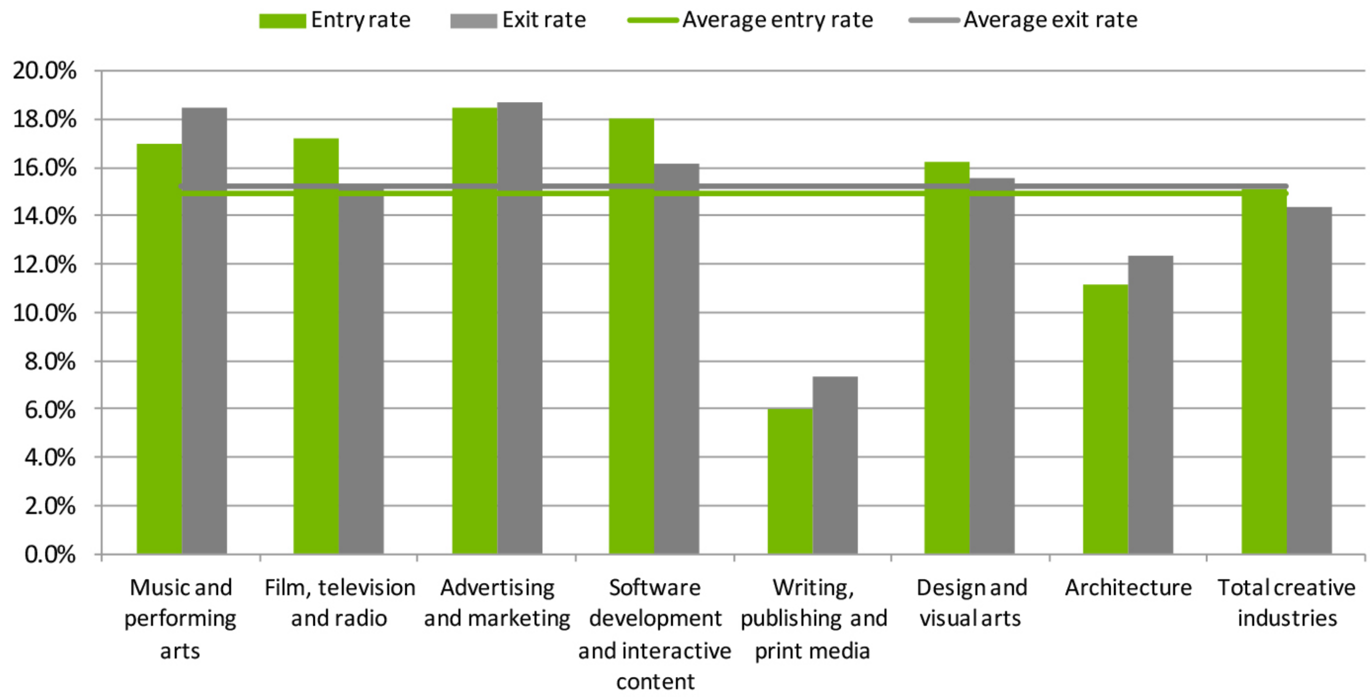


Figure 19.
Entry and exit rates in the creative industries, 2008-2011.

Source: ABS Catalogue No. 8165.0, SGS Economics and Planning, 2013.

Scale of creative industry businesses

Creative industries are generally comprised of small businesses, as is true for businesses in the national economy. 98% of creative buinesses employ fewer than 20 employees.

Creative industry sector	Non employing	1-19	20-199	200+	Total
Music and performing arts	12,318	2,345	111	12	14,786
Film, television and radio	4,078	2,324	312	73	6,787
Advertising and marketing	6,707	4,129	446	32	11,314
Software development and interactive content	27,196	21,470	1,059	99	49,824
Writing, publishing and print media	1,111	1,415	161	25	3,450
Design and visual arts	15,543	6,575	265	14	22,397
Architecture	7,319	6,356	308	23	14,006
Total creative industries	**75,010**	**44,614**	**2,662**	**278**	**122,564**
Total all industries	**1,306,046**	**739,260**	**80,999**	**6,126**	**2,132,431**

Table 13.
Business count by number of employees, 2011.

Source: ABS Catalogue No. 8165.0, SGS Economics and Planning, 2013.

Figure 20 highlights that although 98% of all businesses in the creative industries employ fewer than 20 employees, this is a trend which is also apparent within the wider economy.

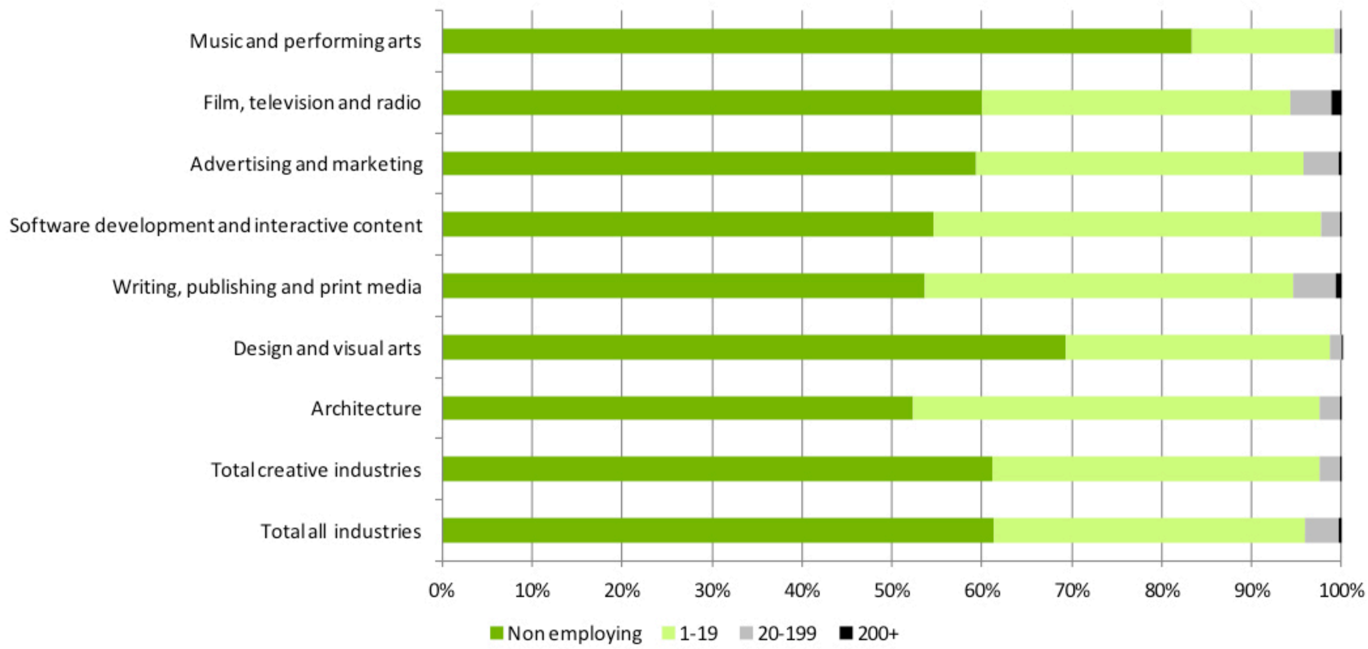


Figure 20.
Share of business size, 2011.

Source: ABS Catalogue No. 8165.0, SGS Economics and Planning, 2013.

Creative industry turnover

In terms of turnover, creative industries have a large proportion of businesses turning over $200,000 or less each year (refer to Table 14).

	$0-50k	$50-200k	$200k-2m	$2m+	Total
Music and performing arts	7,910	5,093	1,659	124	14,786
Film, television and radio	2,615	2,328	1,522	322	6,787
Advertising and marketing	4,059	3,278	3,157	820	11,314
Software development and interactive content	17,801	18,249	11,977	1,797	49,824
Writing, publishing and print media	1,204	903	1,114	229	3,450
Design and visual arts	9,108	8,033	4,803	453	22,397
Architecture	3,710	6,094	3,706	496	14,006
Total creative industries	**46,407**	**43,978**	**27,938**	**4,241**	**122,564**
Total all industries	**617,557**	**736,395**	**653,241**	**125,238**	**2,132,431**

Table 14.
Business count by turnover, 2011.

Source: ABS Catalogue No. 8165.0, SGS Economics and Planning, 2013.

As illustrated in Figure 21, turnover varies slightly between creative industry segments and the wider economy. The share of turnover in advertising and marketing and software and interactive content is comparable to the aggregate economy.

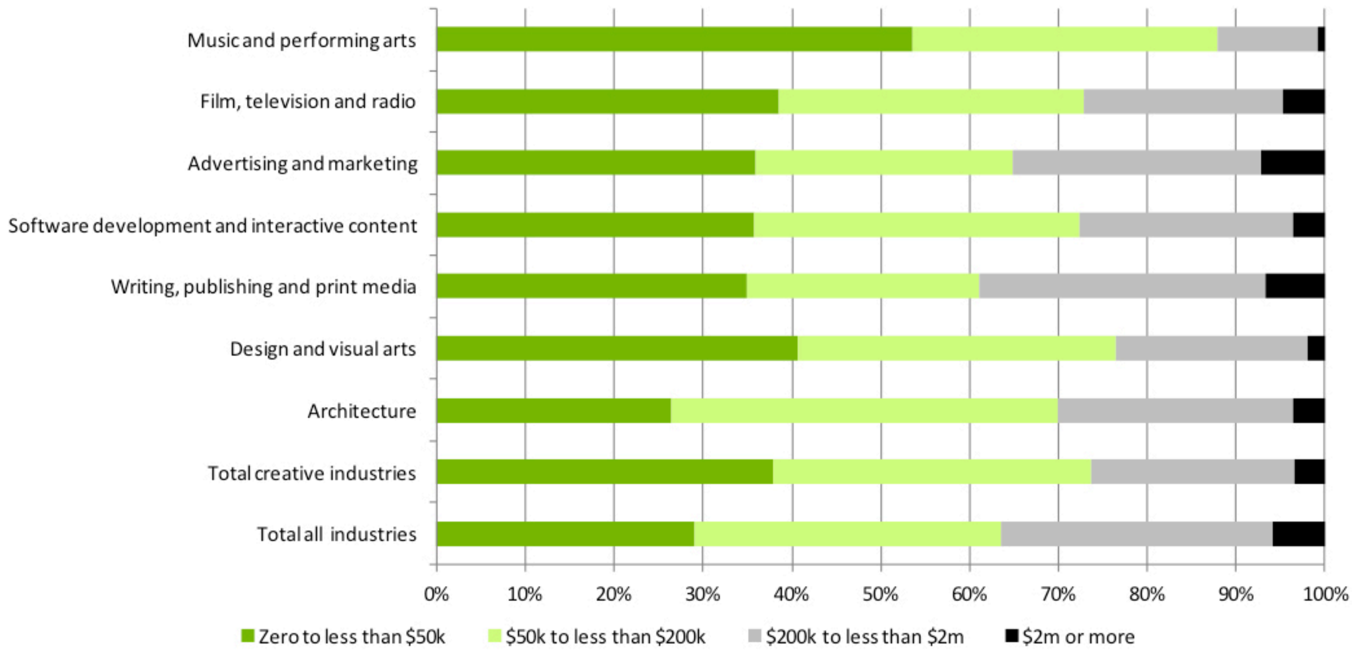


Figure 21.
Business size by turnover, 2011.

Source: ABS Catalogue No. 8165.0, SGS Economics and Planning, 2013.

4.6 Creative industry locations

Location of the creative workforce

The creative workforce is concentrated in a few states in Australia.

Table 15 highlights that the creative workforce (which includes employment in the creative industries as well as creatives embedded in other industries) is concentrated in New South Wales with almost 40% of the workforce, followed by Victoria with 28% and Queensland with 16%. In the ACT however, the creative workforce represents a larger share of total employment than within any other state or territory. In other words, the profile of the ACT workforce is skewed more towards creatives than any other state.

There have been marginal movements within the share of the creative workforce in each state between 2006 and 2011, with the creative workforce overall maintaining its share of around 6% of the total workforce in Australia.

The creative workforce and creative businesses are heavily concentrated in NSW and Victoria.

State/Territory	Employment No	Share of creative workforce %	Share of state's total employment %
NSW	231,810	37.9%	7.74%
	(-35,079)	(0.46%)	(-0.49)
VIC	168,754	27.6%	6.97%
	(-27,749)	(-0.10%)	(-0.36)
QLD	94,465	15.5%	4.80%
	(-14,378)	(0.179%)	(-0.13%)
WA	48,645	8.0%	4.54%
	(-8,645)	(-0.15%)	(0.01%)
SA	32,159	5.3%	4.51%
	(-2,534)	(0.52%)	(0.02%)
ACT	18,263	3.0%	8.60%
	(-2,643)	(0.06%)	(-0.11%)
TAS	7,528	1.2%	3.69%
	(-866)	(0.07%)	(-0.16%)
NT	3,502	0.6%	3.54%
	(-605)	(-0.01%)	(-0.07%)
Total Australia	**611,307**	**100.00%**	**6.22%**
	(-98,673)		**(-0.23%)**

Table 15. The creative workforce by state, 2006-2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are change between 2006 and 2011.

Almost 40% of the creative workforce is employeed in NSW, and nearly 30% in Victoria.

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
Number of businesses									
Music and performing arts	5,887	4,156	2,348	783	1,099	224	73	216	14,786
Film, television and radio	3,225	1,768	875	306	424	73	37	75	6,783
Advertising and marketing	4,621	2,997	2,075	574	795	103	29	117	11,311
Software development and interactive content	19,272	14,119	7,911	2,294	3,925	554	160	1,528	49,763
Writing, publishing and print media	1,334	940	627	172	261	44	15	51	3,444
Design and visual arts	8,401	6,243	3,766	1,357	1,902	335	107	280	22,391
Architecture	4,550	3,999	2,501	752	1,682	231	77	208	14,000
Total creative industries	47,290	34,222	20,103	6,238	10,088	1,564	498	2,475	122,478
Share of segment									
Music and performing arts	39.8%	28.1%	15.9%	5.3%	7.4%	1.5%	0.5%	1.5%	100%
Film, television and radio	47.5%	26.1%	12.9%	4.5%	6.3%	1.1%	0.5%	1.1%	100%
Advertising and marketing	40.9%	26.5%	18.3%	5.1%	7.0%	0.9%	0.3%	1.0%	100%
Software development and interactive content	38.7%	28.4%	15.9%	4.6%	7.9%	1.1%	0.3%	3.1%	100%
Writing, publishing and print media	38.7%	27.3%	18.2%	5.0%	7.6%	1.3%	0.4%	1.5%	100%
Design and visual arts	37.5%	27.9%	16.8%	6.1%	8.5%	1.5%	0.5%	1.3%	100%
Architecture	32.5%	28.6%	17.9%	5.4%	12.0%	1.7%	0.6%	1.5%	100%
Total creative industries	**38.6%**	**27.9%**	**16.4%**	**5.1%**	**8.2%**	**1.3%**	**0.4%**	**2.0%**	**100%**

Location of creative businesses

The pattern of the locations of creative businesses in the creative industries closely resembles the pattern for the location of the creative workforce. A large proportion of businesses (66%) are located in NSW and Victoria (refer to Table 16). This is followed by Queensland, Western Australia and South Australia.

Table 16.
Creative industry businesses by state, 2011.

Source: ABS Catalogue 8165.0, SGS Economics and Planning, 2013.

Zig Zag Lane / Photography: Andrew Cowen


BBC

5. Creative industries by segment

5.1 Music and performing arts

The music and performing arts segment includes the following industry classifications:

- **Creative Artists, Musicians, Writers and Performers**
- **Creative and Performing Arts Activities, nfd**[9]
- **Performing Arts Operation**

In 2011/12, music and performing arts contributed around 2% of total IGP and 3% of total employment for the creative industries.

The film, television and radio segment's workforce totalled over 40,000 people, support workers making up half the workforce.

	Music and Performing Arts industries	Other industries	Total
Music and performing arts occupations	9,294 (27.1%) (2.7%)	7,098 (20.7%) (-8.2%)	16,392 (60.4%) (-5.6%)
Other occupations	17,885 (52.2%) (5.6%)		17,885 (52.2%) (5.6%)
Total	27,179 (79.3%) (8.2%)	7,098 (20.7%) (-8.2%)	34,277 (100.0%)

Table 17.
Music and performing arts sector workforce (australia 2011).

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011.

The music and performing arts segment workforce in 2011 was 34,277 people (refer to Table 17). The largest proportion of the workforce are support workers (52.2%).

Figure 22 compares the music and performing arts sector workforces of each state in Australia alongside Sydney. Within each geography, support creatives make up the largest proportion of the music and performing arts sector workforce and is the largest in the Northern Territory.

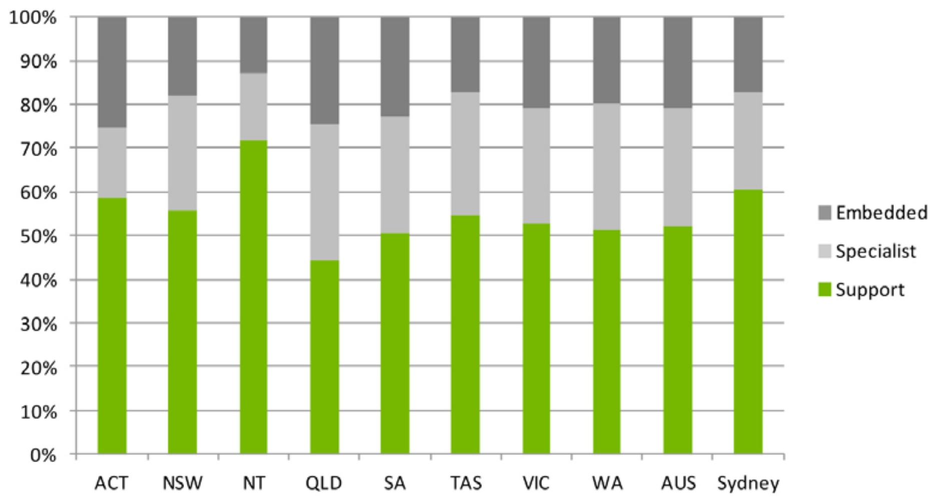


Figure 22.
Music and performing arts sector workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

9. nfd stands for not fully defined. This relates to Census entries which are not fully articulated but which can nevertheless be broadly attributed to categories..

5.2 Film, television and radio

The film, television and radio segment includes the following industry classifications:

- **Cable and Other Subscription Broadcasting**
- **Broadcasting (except Internet), nfd**
- **Motion Picture and Sound Recording Activities, nfd**
- **Television Broadcasting, nfd**
- **Motion Picture and Video Activities, nfd**
- **Free-to-Air Television Broadcasting**
- **Radio Broadcasting**
- **Post-Production Services and Other Motion Picture and Video Activities**
- **Motion Picture and Video Production**

The film, television and radio segment's workforce totalled over 40,000 people in 2011 with half of this workforce being support workers.

In 2011/12, the film, television and radio segment contributed around 14% of total IGP and 11% of total employment for the creative industries.

As illustrated in Figure 23, pay television experienced the highest growth in IGP between 2004/5 and 2011/12 at around 6%. Overall, the film, television and radio segment has performed significantly below the GDP for the broader economy.

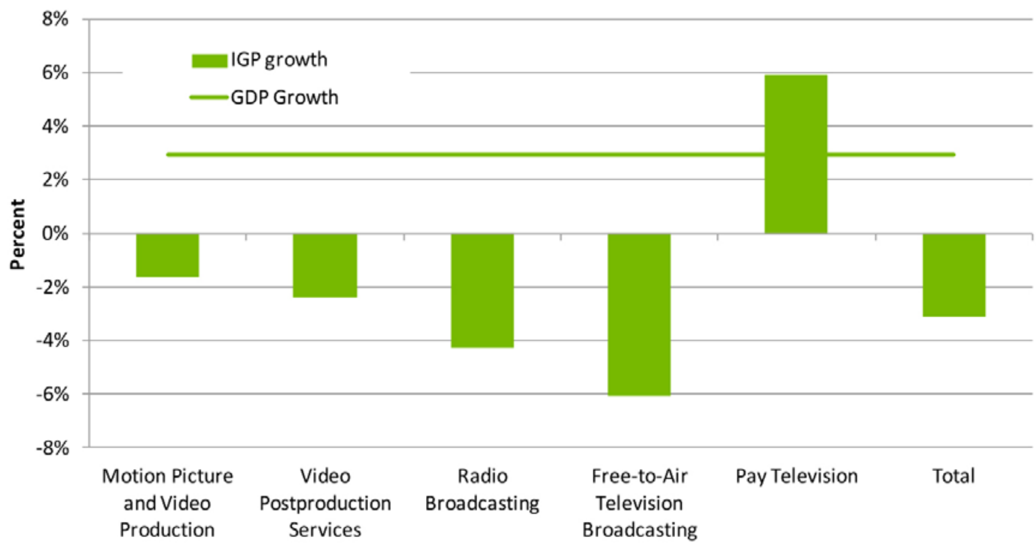


Figure 23.
Growth in film, television and radio, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, ABS Catalogue No. 5204.0, SGS Economics and Planning, 2013.

Table 18.
Film, television and radio workforce (total Australia 2011).

	Film, Television and Radio industries	Other industries	Total
Film, Television and Radio occupations	12,537 (29.4%) (0.2%)	8,774 (20.6%) (1.2%)	21,311 (49.9%) (1.5%)
Other occupations	21,377 (50.1%) (-1.5%)		21,377 (50.1%) (-1.5 %)
Total	33,914 (79.4%) (-1.2%)	8,774 (20.6%) (0.3%)	42,688 (100.0%)

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011.

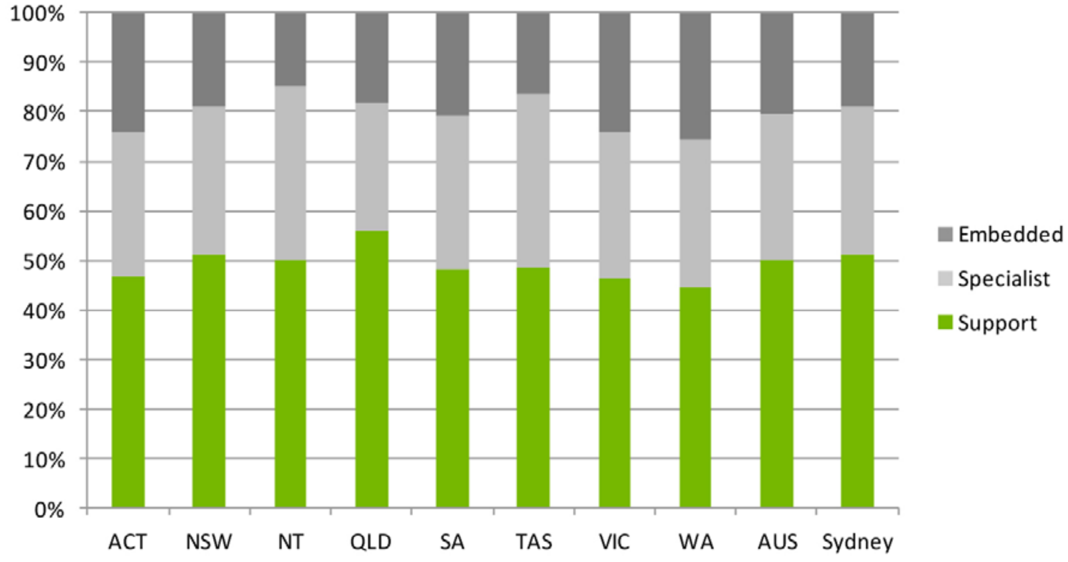


Figure 24.
Film, television and radio workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

Figure 24 compares the film, television and radio segment workforce of each state in Australia alongside Sydney. Within each geography, support workers make up the largest proportion of the film, television and radio segment's workforce.

5.3 Advertising and marketing

The advertising and marketing segment includes the following industry classification:

- **Advertising services**

In 2011, the advertising and marketing segment workforce totalled 183,270 people (refer to Table 19). The largest proportion of the workforce (83.4% or 152,816 people) are embedded creatives – i.e. advertising and marketing occupations in other industry categories.

	Advertising and Marketing industries	Other industries	Total
Advertising and Marketing occupations	9,559 (5.2%) (1.7%)	152,816 (83.4%) (1.1%)	162,375 (88.6%) (2.8%)
Other occupations	20,895 (11.4%) (-2.8%)		20,895 (11.4%) (-2.8%)
Total	30,454 (16.6%) (-1.1%)	152,816 (83.4%) (1.1%)	183,270 (100.0%)

Table 19.
Advertising and marketing sector workforce (Australia 2011).

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011.

Advertising and marketing is the second largest segment of the creative industries in terms of workforce size with around 180,000 people employed. More than 80% of these workers are embedded creatives.

Figure 25 compares the advertising and market sector workforces of each state in Australia alongside Sydney. Within each geography, embedded creatives make up the largest proportion of the workforce.

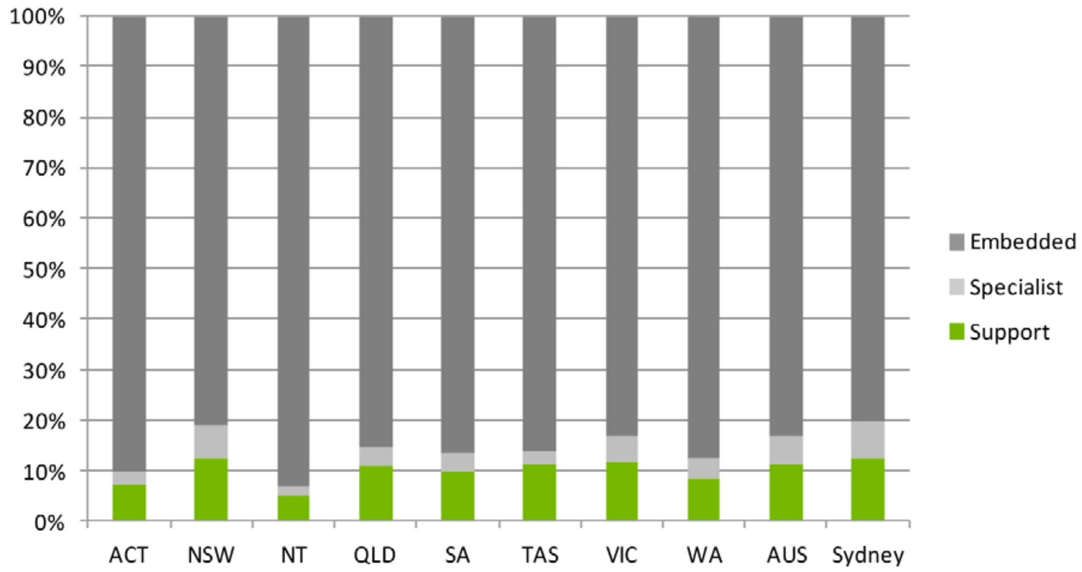


Figure 25. Advertising and market sector workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

5.4 Software and interactive content

The software and interactive content segment includes the following industry classifications:

- **Computer system design services**
- **Software publishing**
- **Internet publishing and broadcasting**

In 2011/12, the software and interactive content segment contributed around 50% to both total IGP and total employment for the creative industries.

As illustrated in Figure 26, within the software and interactive content segment, internet publishing and broadcasting experienced the highest growth in IGP and employment between 2004/5 and 2011/12.

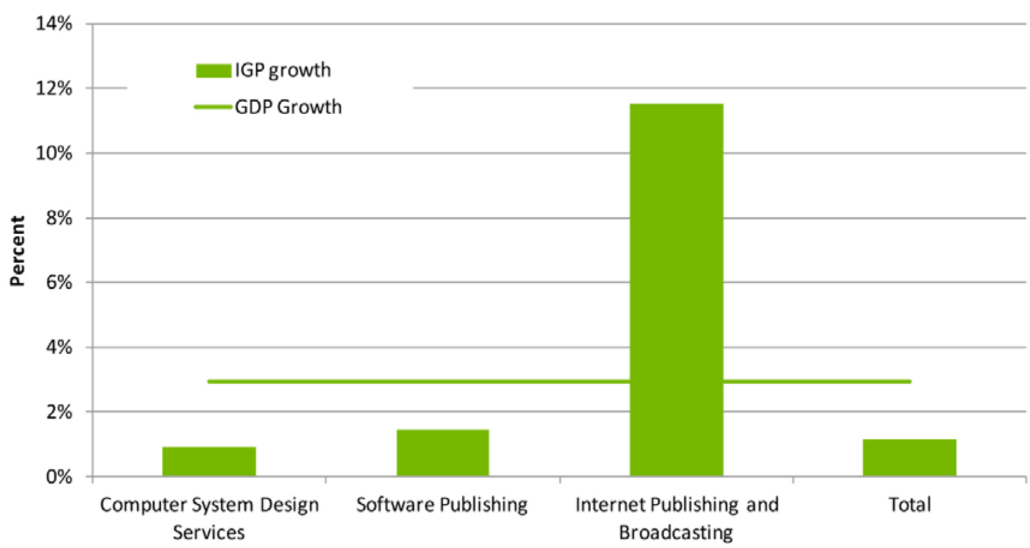


Figure 26. Growth in software and interactive content, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, ABS Catalogue No. 5204.0, SGS Economics and Planning, 2013.

	Software and Interactive Content industries	Other industries	Total
Software and Interactive Content occupations	40,259 (20.4%) (0.3%)	54,685 (27.8%) (-3.6%)	94,944 (48.2%) (-3.3%)
Other occupations	102,118 (51.8%) (3.3%)		102,118 (51.8%) (3.3%)
Total	142,377 (72.2%) (3.6%)	54,685 (27.8%) (-3.6%)	197,062 (100.0%)

Table 20. Software and interactive content sector workforce (total australia 2011).

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011. Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011.

In 2011, the software and interactive content segment workforce totalled 197,062 (refer to Table 20). Most of the workforce in this segment (51.8%) are support workers.

> *The software and interactive content is the largest segment within creative industries with around 200,000 people in the workforce. Over 50% of these are employed as support workers*

Figure 27 compares the software and interactive content workforces of each state in Australia alongside Sydney. In 2011, support workers represented the largest proportion of the software and interactive content workforce.

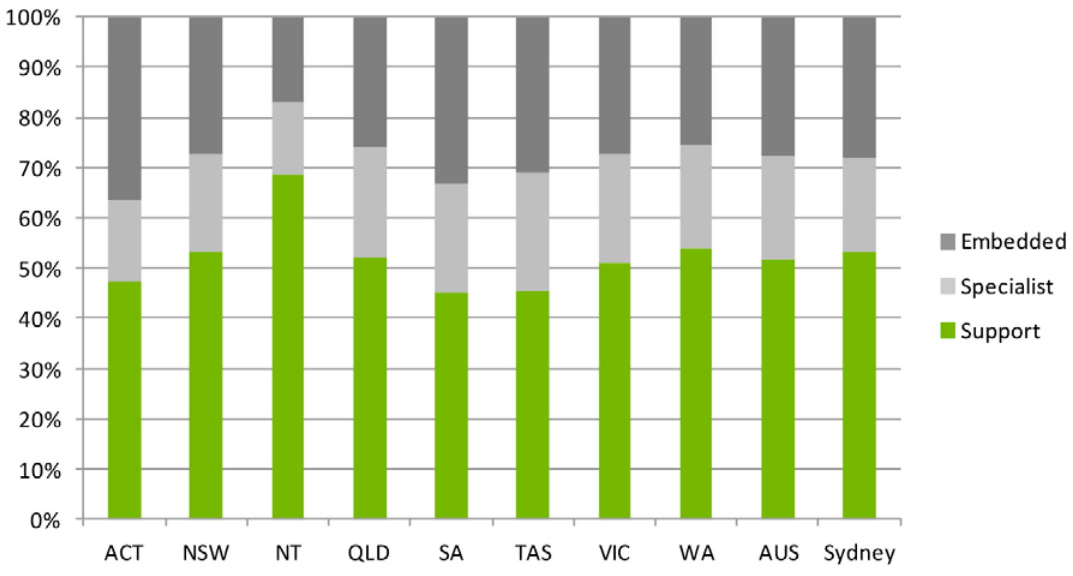


Figure 27. Software and interactive content sector workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

5.5 Writing, publishing and print media

The writing, publishing and print media segment includes the following industry classifications:

- **Printing Support Services**
- **Book Publishing**
- **Information Media and Telecommunications, nfd**
- **Newspaper Publishing**
- **Magazine and Other Periodical Publishing**
- **Publishing (except Internet and Music Publishing), nfd**
- **Newspaper, Periodical, Book and Directory Publishing, nfd**

The writing, publishing and print media segment has been in decline since 2006. In 2011, the workforce totalled around 55,645 people with the majority of these being support workers.

In 2011/12, writing, publishing and print media contributed around 18% of total IGP and 13% of total employment for the creative industries.

As illustrated in Figure 28, IGP growth within this segment has been relatively weak compared to the broader economy with total IGP growth.

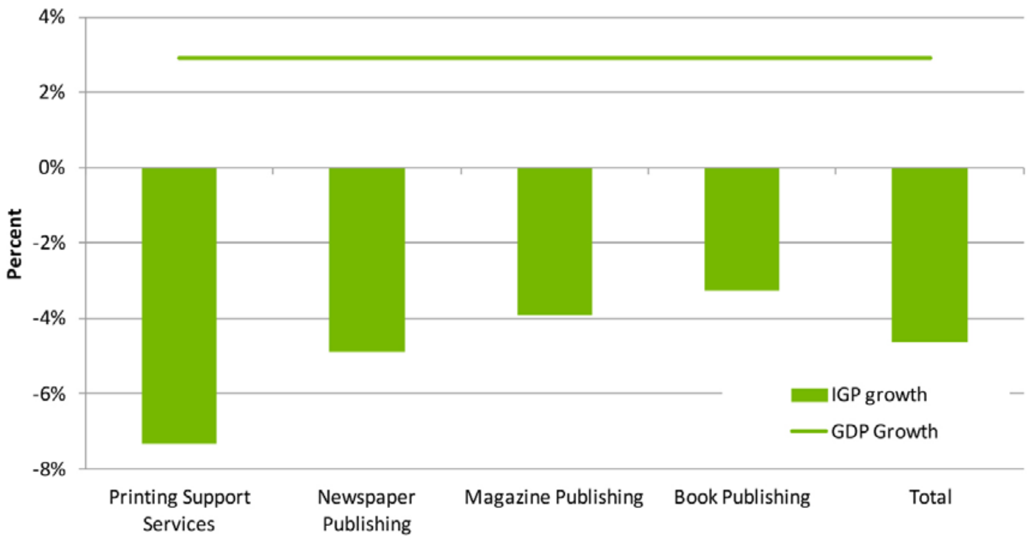


Figure 28.
Growth in writing, publishing and print media, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, ABS Catalogue No. 5204.0, SGS Economics and Planning, 2013.

Table 21.
Writing, publishing and print media sector workforce (total australia 2011).

	Writing, Publishing and Print Media industries	Other industries	Total
Writing, Publishing and Print Media occupations	9,974 (17.9%) (0.8%)	11,273 (20.3%) (3.5%)	21,247 (38.2%) (4.3%)
Other occupations	34,398 (61.8%) (-4.3 %)		34,398 (61.8%) (-4.3 %)
Total	44,372 (79.7%) (-3.5%)	11,273 (20.3%) (3.5%)	55,645 (100.0%)

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011

The writing, publishing and print media sector workforce was 55,645 people in 2011 (refer to Table 21). The largest proportion of the workforce are support workers which represent 61.8% of the workforce.

Figure 29 compares the writing, publishing and print media segment workforces of each state in Australia alongside Sydney. In 2011, support workers represented the largest proportion of the writing, publishing and print media segment workforce in all geographies except for the ACT where the largest proportion of the workforce within this sector are embedded creatives. This is most likely a reflection of a large number writing, publishing and print media professionals working in various government and administrative positions in the ACT.

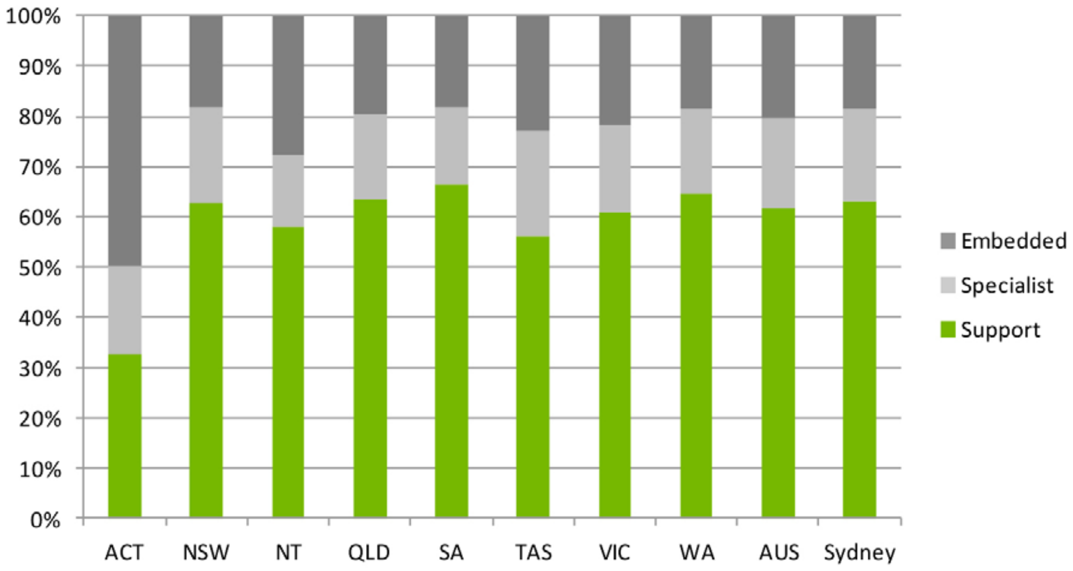


Figure 29. Writing, publishing and print media sector workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

5.6 Design and visual arts

The design and visual arts segment includes the following industry classifications:

- **Jewellery and Silverware Manufacturing**
- **Other Specialised Design Services** [10]
- **Professional Photographic Services**

In 2011/12, design, music and visual arts contributed around 6% of total IGP and 9% of total employment for the creative industries. Within this segment, as illustrated in Figure 30, growth in IGP in design and visual arts is much lower than GDP growth with professional photographic services experiencing significant decline between 2004/5 and 2011/12.

> *In 2011, there were around 95,000 people employed within the design and visual arts industry segment in Australia. The majority of these are embedded workers*

10. Includes Commercial art service, Fashion design service, Graphic design service, Interior design service, Jewellery design service, Signwriting, Textile design service and Ticket writing.

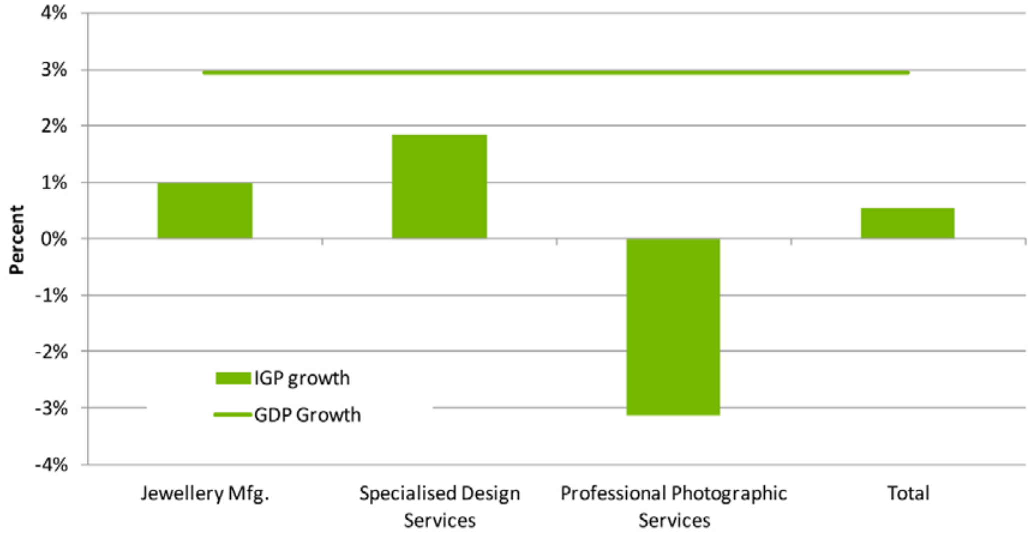


Figure 30.
Growth in design and visual arts, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, ABS Catalogue No. 5204.0, SGS Economics and Planning, 2013.

In 2011, the design and visual arts workforce was 94,140 people (refer to Table 22). The largest proportion of the workforce are embedded creatives which represent 62.2% of the workforce.

Table 22.
Design and visual arts workforce (total australia 2011).

	Design and Visual Arts industries	Other industries	Total
Design and Visual Arts occupations	23,548 (25.0%) (2.8%)	58,528 (62.2%) (-1.5%)	82,076 (87.2%) (1.3%)
Other occupations	12,064 (12.8%) (-1.3%)		12,064 (12.8%) (-1.3%)
Total	35,612 (37.8%) (1.5%)	58,528 (62.2%) (-1.5%)	94,140 (100.0%)

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011.

Figure 31 compares the structure of the design and visual arts workforces of each state in Australia alongside Sydney. Each geography shows a similar pattern with embedded creative dominating the workforce. The Northern Territory has a particularly high proportion of embedded creatives (around 70%) making up the creative workforce in this segment.

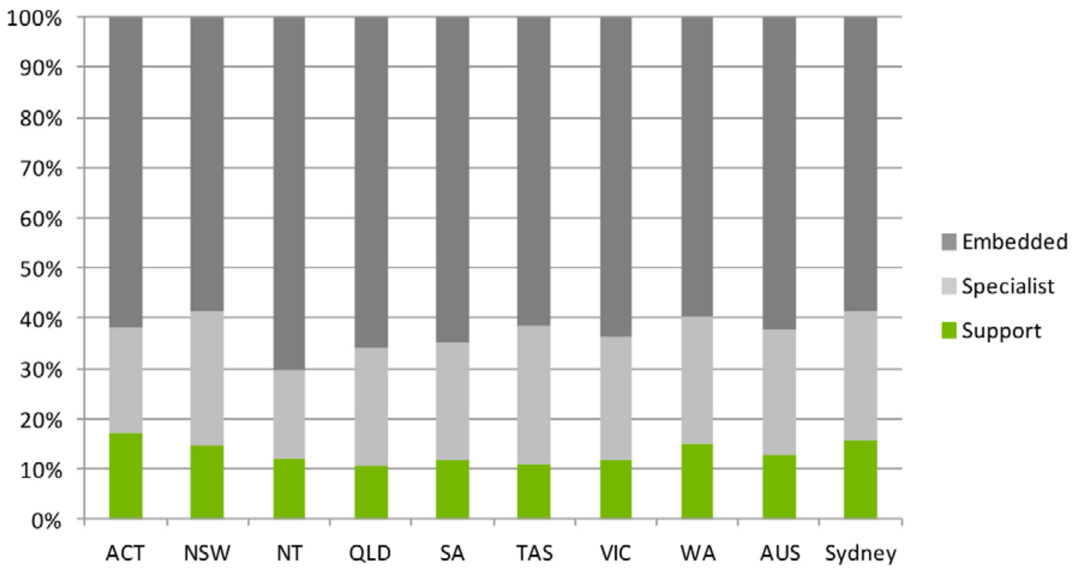


Figure 31.
Design and visual arts, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

5.7 Architecture

In 2011/12, architecture contributed around 10% of total IGP and 9% of total employment for the creative industries

In 2011, the architecture workforce was 47,382 people (refer to Table 23). The largest proportion of the workforce is specialist creatives which represent 44.5% of the workforce.

Figure 32 compares the architecture workforces of each state in Australia alongside Sydney. In 2011, there was a relatively even distribution among the creative trident with slightly higher proportions of specialist creatives in most states.

The architectural workforce is highly specialised. It is the only creative industry segment comprised of over 30% specialist workers.

	Architecture industries	Other industries	Total
Architecture occupations	21,074 (44.5%) (0.9%)	13,546 (28.6%) (2.6%)	34,620 (73.1%) (-3.4%)
Other occupations	12,762 (26.9%) (-3.4%)		12,762 (26.9%) (-3.4%)
Total	33,836 (71.4%) (-2.6%)	13,546 (28.6%) (2.6%)	47,382 (100.0%)

Table 23. Architecture workforce (total Australia 2011).

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011.

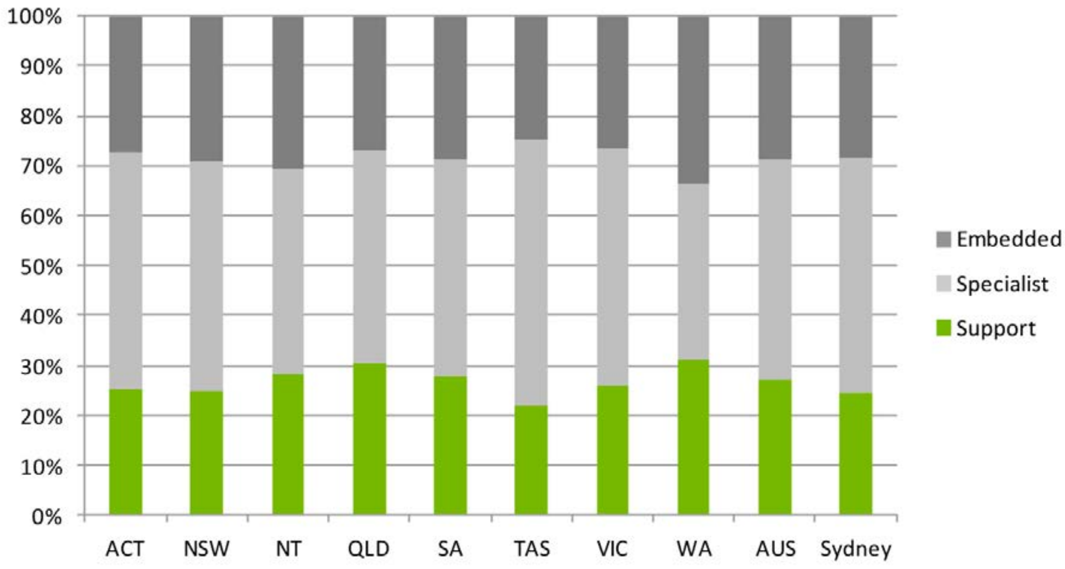


Figure 32. Architecture workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

Blue Sky Design Group / Photography: Andrew Cowen


40
DELL
DELL
design

6. The value of Australia's creative industries

6.1 Introduction

Creative industries are acknowledged as significant contributors to regional and national economies around the world. Such is the importance of these industries, that governments around the world, especially in the newly industrialising countries of Singapore, China and elsewhere in East Asia, are looking to creative industries to drive future growth of metropolitan economies (Wong and Gao 2008).

Consequently, it is important that the distribution of creative industries economic activity is accurately measured, enabling policy makers and industry professionals to communicate key concepts, share reliable data, and make the case for greater investment in this sector.

This section reports on the methodology used by SGS to estimate the direct and indirect (or flow-on) contribution of the creative industries to the Australian economy. It identifies the different types of multipliers that prospering creative industries confer on an economy.

6.2 A purpose built input output model

To measure the contribution of the Australian creative economy, SGS has used 2008-09 input-output tables (IO tables) published by the ABS in 2012. IO tables provide a means of assessing the process of production and the use of goods and services (products), and of the income generated in that production within an economy. These tables provide detailed information about the supply and use of products in the Australian economy and about the structure of and inter-relationships between Australian industries. The published tables in 2012 contain data pertaining to 2009.

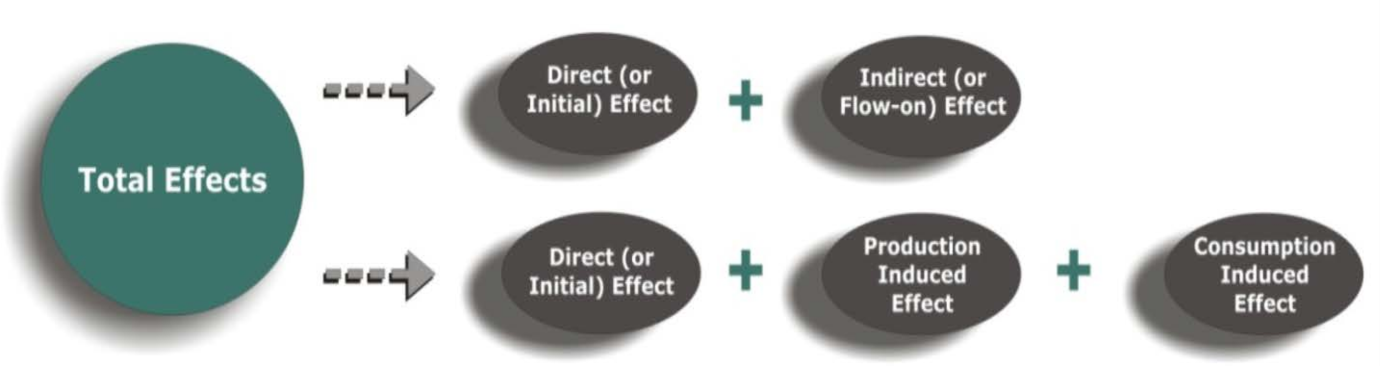
The IO model structure has been incorporated into national accounting in many developed countries, and as such forms an important part of measures such as Gross Domestic Product (GDP) and Gross Regional Product (GRP). Most published studies that measure the economic contribution of industries make use of such tables.

There are 111 industries included in the IO table. To measure the economic contribution of the creative industries to the national economy, we have estimated the inputs used by and outputs produced by creative industries in each segment in the IO table. These inputs and outputs have been separated out from the other industries on a pro-rata basis according to 2006 Census employment shares. The employment share is used, given the limited amount of detailed information available for the 4-digit ANZSIC industries by which the creative industries are defined in this report.

The purpose built IO model produces multipliers, which capture the amount of additional economic activity that is generated from an initial economic stimulus such as policy changes or additional funding granted for creative industries. It is the multiple of this economic stimulus that will result in the overall effects.

These multipliers can be used to calculate the direct impact and indirect impacts (also known as the "flow-on effects") of an economic stimulus. As shown in the diagram, the indirect impacts/ effects can be disaggregated into production induced effects and consumption induced effects[11].

ECONOMIC IMPACT ASSESSMENT



The direct and indirect impacts are aggregated to estimate the overall economic impact of an industry.

6.3 Economic impacts defined

The multipliers of each creative industry segment are expressed in terms of the total output, value added (gross regional product) and employment. While these measures describe how the multiplier effects are manifest in an economy in different ways, they are not cumulative or additive. Each type of these measures considered is described as follows:

- **Total output** is akin to the turnover of a company. This impact represents the total economic activity produced as a result of the stimulus;
- **Value added** is a measure of net output and is akin to the profit and wages of a company. Perhaps the most useful indicator. Value added is the net output (benefit or cost) that the stimulus has on the Australian economy; and
- **Employment:** simply refers to the number of full time employment (FTE) jobs that the stimulus action creates.

11. In order to understand this, consider Company A that spends money on its suppliers and its employees. The indirect effect of Company A relates to the benefits to the economy (or additional economic activity) as the company's suppliers utilise their earnings from Company A to spend on their suppliers and employees etc (known as production induced effects) and secondly as company A's employees spend their wages on businesses who in turn spend on their suppliers and employees (known as consumption induced effects).

6.4 Estimated contributions

Headline contributions made by the creative sector to the Australian economy are reported in Figure 33 below, while Figure 34 presents these contributions by various industry segments.

The creative sector contributes around $90.19 billion to the national economy annually in turnover. It adds almost $45.89 billion in gross domestic product (GDP) and helps generate exports of $3.2 billion dollars annually.

Over and above this contribution, creative industries in Australia employ many volunteers, whose contribution is not included within these estimates, as exact figures relating to the number of volunteers and hours they commit is unavailable.

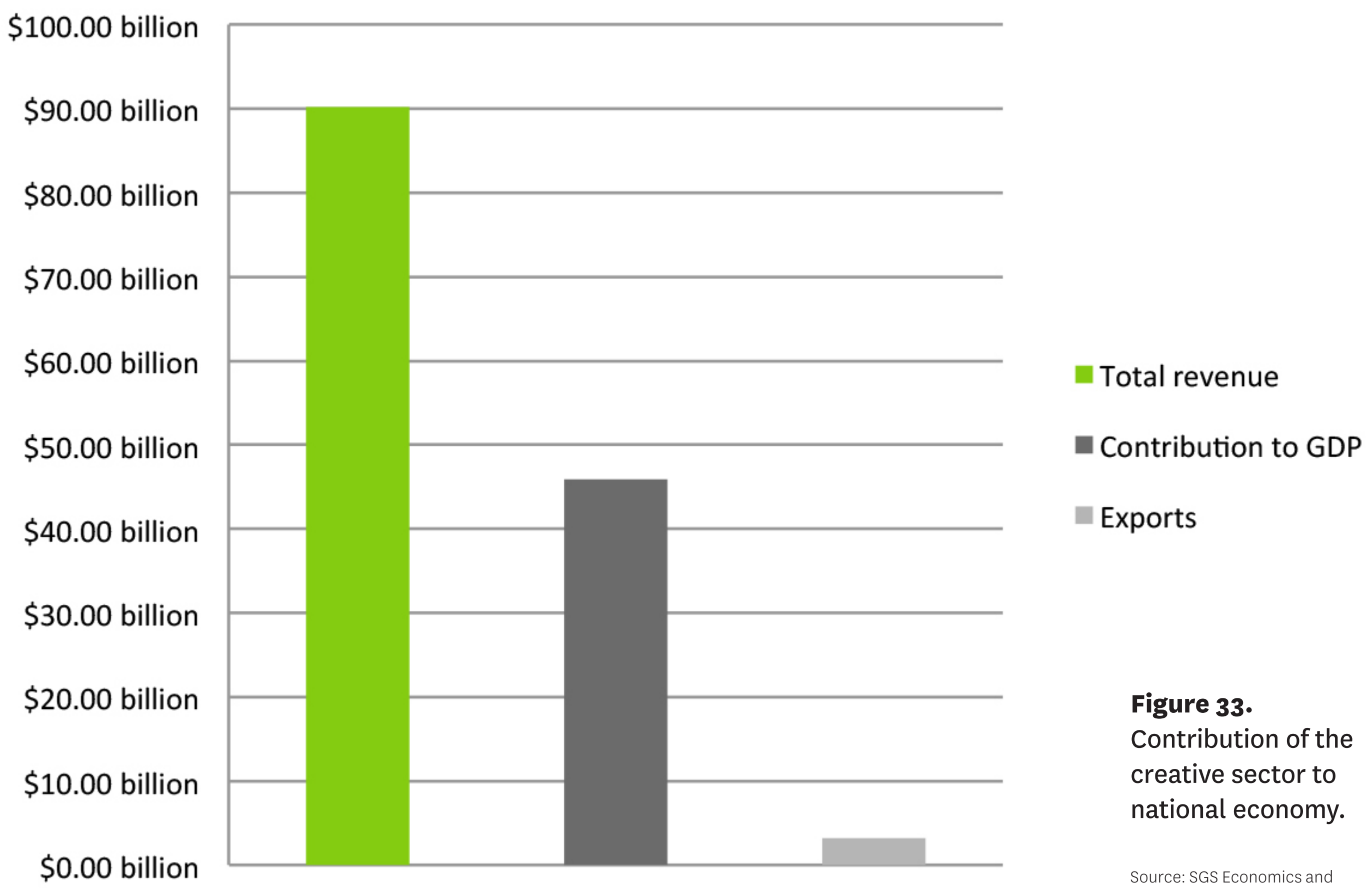
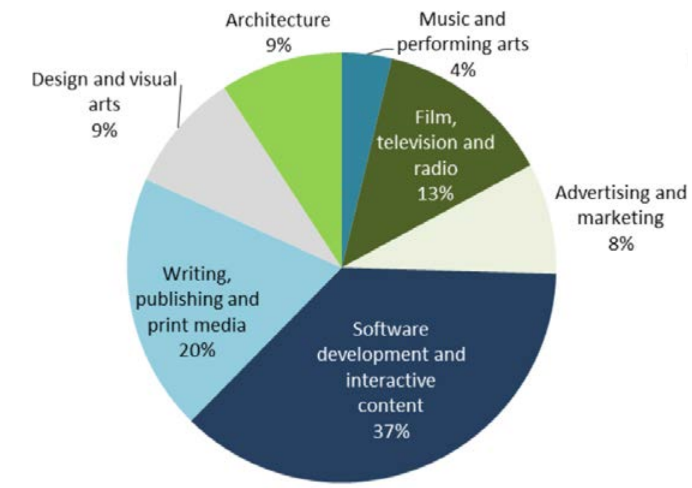


Figure 33. Contribution of the creative sector to national economy.

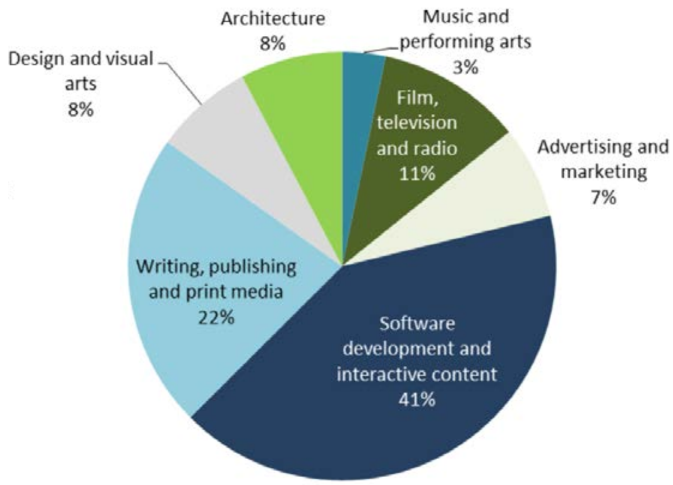
Source: SGS Economics and Planning estimates based on customised 2008-09 Input-Output table

The major contributors to industry revenue are software development and interactive content, followed by writing, publishing and print media. Firms in the film, TV and radio industries segment also contribute substantially towards the national turnover.

REVENUE



CONTRIBUTION TO GDP



EXPORTS

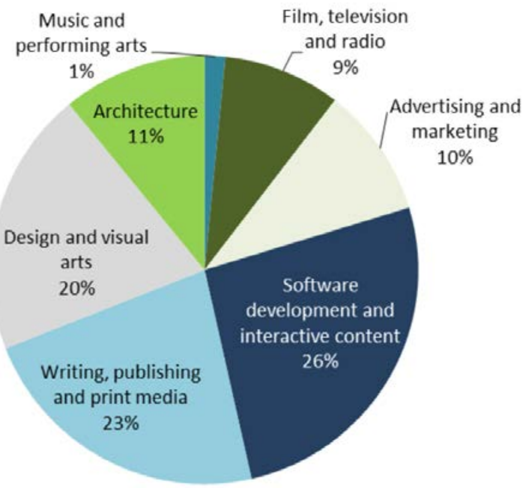


Figure 34. Contribution by creative industry segments.

Source: SGS Economics and Planning estimates based on customised 2008-09 Input-Output table.

As with national turnover, the software development and interactive content segment contributes the highest (almost $19 billion) towards GDP, followed by the $10 billion contribution from writing, publishing and print media segment. Also, advertising and marketing, architecture and design and visual arts segments substantially contribute (over $3 billion each) towards the gross value-added (or GDP).

Compared to the contribution towards GDP, the design and visual arts segment makes a much higher contribution towards the Australian exports. This indicates some industries (e.g. Jewellery and Silverware Manufacturing) under design and visual arts segment are more export-oriented than industries in other segments.

Overall, the software development and interactive content and writing, publishing and print media segments are the two biggest contributors towards the total turnover, GDP and exports of Australia's creative industries.

6.5 Multiplier (or flow-on) effects

The direct stimuli generated by the creative sector results in multiple rounds of buyer and supplier transactions as explained in the previous section. Table 24 indicates the magnitude of the flow-on contributions to the Australian economy of the industries in each creative segment as well as the creative industries as a whole, in terms of total output, value added and employment.

Creative industry segments	Total output multiplier	Value-added multiplier	Employment multiplier
Advertising and marketing	4.02	3.56	2.91
Architecture	4.02	3.56	2.91
Design and visual arts	3.95	3.53	2.88
Film, television and radio	3.52	3.21	3.57
Music and performing arts	3.57	3.10	1.84
Software development and interactive content	4.02	2.83	3.13
Writing, publishing and print media	3.14	2.30	3.24
The creative industry sector	**3.76**	**3.00**	**2.92**

Table 24. Multipliers for creative industry segments.

Source: SGS Economics and Planning calculations based on customised Input-Output table.

Every dollar in turnover generated by creative industries (i.e. initial revenue stimulus) results in 3.76 times total revenue for all other industries in the Australian economy.

Amongst the different creative industry segments, advertising and marketing and architecture have the highest total output and value-added multipliers, indicating a stronger linkage with industries in the national economy. In terms of the employment generation, film, television and radio segment has the highest flow-on effect.

The following table compares the multipliers of creative industries and all other industries.

Creative industry segment	Total output multiplier	Value-added multiplier	Employment multiplier
Creative industries	**3.76**	**3.00**	**2.92**
All other industries^	**3.59**	**2.80**	**2.47**

Table 25. Multipliers for creative and other industry sectors.

Source: SGS Economics and Planning calculations based on customised Input-Output table.
^ The multipliers of non-creative industry are averages of the multipliers of each 1-digit ANZSIC industry sector.

Importantly, industries in the creative sector have higher flow-on contributions to the Australian economy than all other sectors taken as a whole, in terms of all three measures.

6.6 Limitations of the data

There are a number of limitations of the data available, particularly Census data from the ABS. The key issues, also acknowledged by the CIE, include:

- Creatives may be hidden in other occupations and may not be accounted for. This limitation is associated with the subjective assessment of creative occupations

- Volunteers and workers who are not paid may not have been accounted for

- Some people may work in more than one occupation

- Many people who could be viewed as creative may not identify themselves as creative

- Those who have retired or no longer work within the creative industries might still associate themselves within the industry

These issues can potentially impact on the employment numbers and are likely to result in an underestimation of the creative industries. IBISWorld Reports were not available for a number of ANZSIC 4 digit industries and thus analysis of IGP does not include a number of industries – 9002 Creative Artists, Musicians, Writers and Performers, 5600 Broadcasting (except Internet), nfd, 5500 Motion Picture and Sound Recording Activities, nfd, 5620 Television Broadcasting, nfd, 5510 Motion Picture and Video Activities, nfd, 9000 Creative and Performing Arts Activities, nfd, J000 Information Media and Telecommunications, nfd, 5400 Publishing (except Internet and Music Publishing), nfd, 5410 Newspaper, Periodical, Book and Directory Publishing, nfd).


TALON
TOUCH TOOLS
coles
QANTAS

Appendix A: Profile using the CIE definition

Summary of method

SGS updated the analysis undertaken by the CIE in the 2009 report for the CIIC. This involved analysis of data from the Australian Bureau of Statistics and IBISWorld Industry World Reports to provide updated tables and graphs which highlight the values of creative industries to the Australian economy.

SGS has also included analysis of each state, to highlight which states have the highest contribution to the creative industries.

The 2009 CIE report used 1993 ANSZIC categories, however SGS has adopted the 2006 ANSZIC categories which were identified in Appendix A of the CIE report. The variation in these categories and therefore data, has resulted in some differences between the figures reported. A number of IBISWorld reports used in the CIE Report are no longer available and this has also resulted in variations between the reported figures.

The creative industries at the macro scale

Industry gross product and growth

Creative industry sector	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12	7 year average growth
Music & performing arts	744	808	892	869	868	911	941	1,000	4%
Film, television & radio	5,516	5,504	5,105	4,883	4,418	4,463	4,327	4,419	-3%
Advertising & marketing	778	779	793	806	805	784	768	767	0%
Software development & interactive content	14,500	15,373	17,000	16,876	14,931	15,053	15,286	15,708	1%
Writing, publishing & print media	7,776	7,748	7,750	7,660	7,031	6,936	6,200	5,644	-4%
Architecture, design & visual arts	4,547	4,917	5,413	5,785	5,725	5,576	5,432	5,289	2%
Total creative industries	**33,860**	**35,129**	**36,953**	**36,878**	**33,779**	**33,722**	**32,954**	**32,826**	**0%**

Table 26. Industry gross product of the creative industries ($ M).

Source: IBISWorld Industry Reports, SGS Economics and Planning.

Based on IBISWorld estimates of industry value added[12], the industry gross product (IGP) of the creative industries was around $32,826 million in 2011/12 (refer to Table 26). The creative industries have experienced a decline in IGP since 2006/7 from $36,953 million to $32,826 million.

Software development and interactive content is the greatest contributor to IGP of the creative industries, contributing to nearly half of total IGP. This structure is further detailed in Figure 41.

12. Industry Value Added (IVA): The market value of goods and services produced by the industry minus the cost of goods and services used in production. IVA is also described as the industry's contribution to GDP, or profit plus wages and depreciation.

The IGP of the creative industries between 2004/5 and 2007/8 reported above is greater than the IGP reported in the 2009 report. The CIE report indicated that the IGP of the creative industries was:

- **2004/5: $24,954 million**
- **2005/6: $26,803 million**
- **2006/7: $29,494 million**
- **2007/8: $31,122 million**

The discrepancies between the figures are likely due to the change in ANZSIC categories. The CIE report used the 1993 ANZSIC categories whereas this report has used the 2006 ANZSIC categories. The proportionate share of IGP between each sector has remained relatively stable between reports.

The average contribution of creative industries to gross domestic product (GDP) between 2004/5 and 2011/12 was approximately 3% (refer to Figure 35).

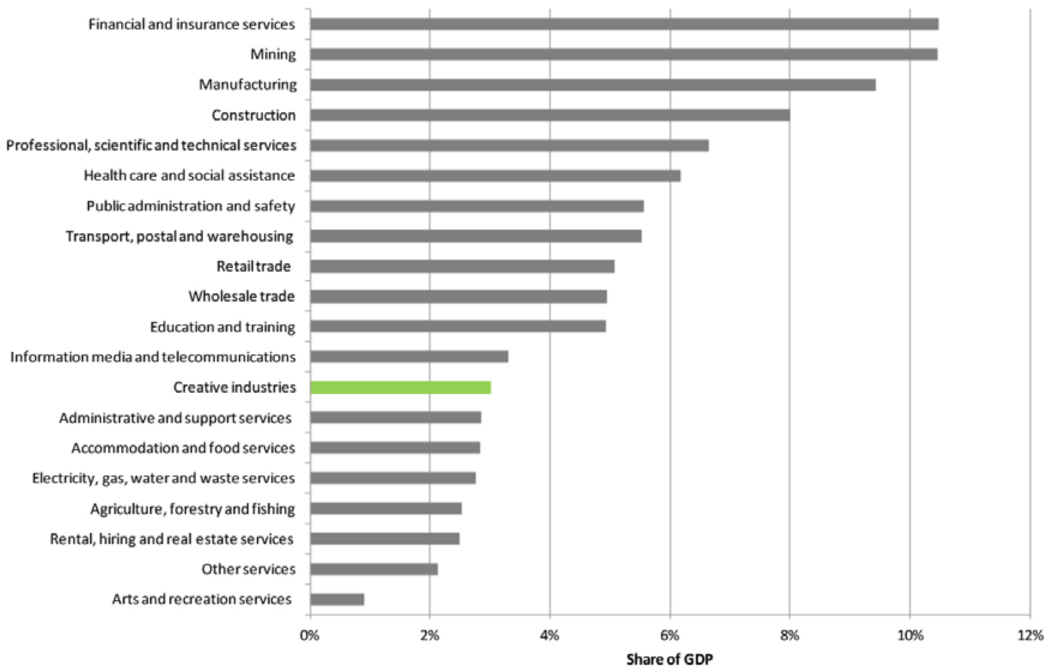


Figure 35. Industry share of gdp 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, ABS Catalogue 5204.0, SGS Economics and Planning, 2013.

Industry share of GDP has remained relatively stable within all industries since the 2009 report by The CIE. Financial and insurance services and mining have overtaken manufacturing as the major contributors to GDP and the contribution of the creative industries has increased from 2.8% to 3%.

Figure 36 illustrates real annual average growth over the past three years, between 2008/9 and 2011/12, and over the past seven years, between 2004/5 and 2011/12. Only two industries have experienced growth in IGP over the past three years:

- **Music and performing arts**
- **Software development**

Film television and radio remained stable and all other industry sectors experienced a decline. Overall, the creative industries experienced negative growth over the three and seven year periods. This is significantly lower than the GDP average growth rate for the three and seven year periods.

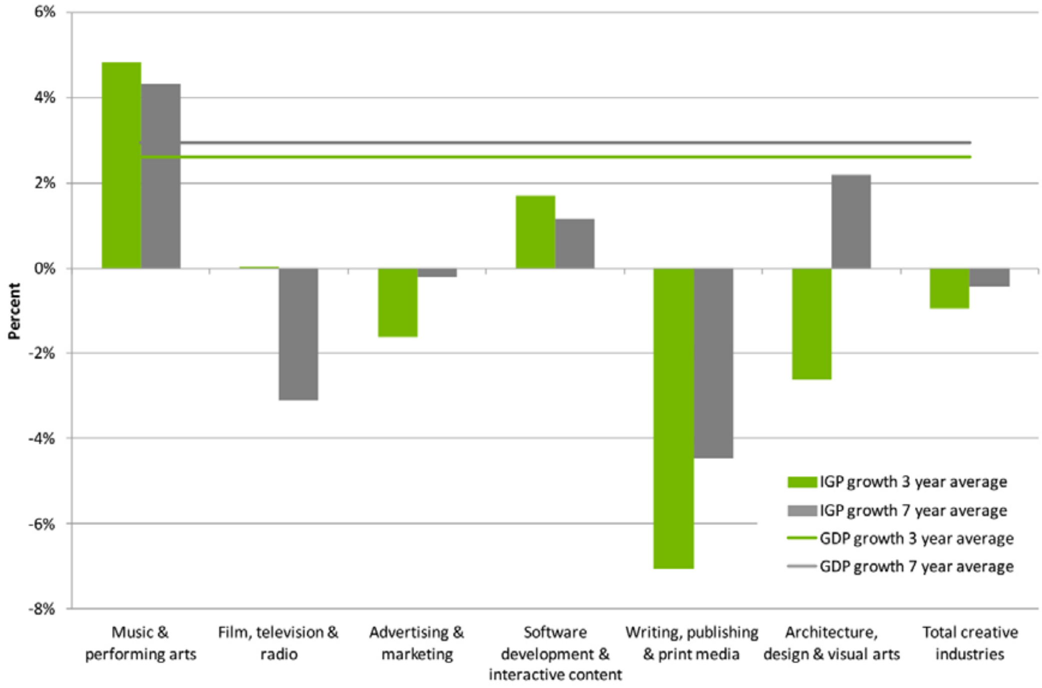


Figure 36.
Real annual average growth, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, ABS Catalogue 5204.0, SGS Economics and Planning, 2013.

Real annual average growth has experienced considerable change since the 2009 report with major declines in writing, publishing and print media which had previously experienced reasonable growth. Music and performing arts has improved significantly from negative to positive growth which is likely due to the change in ANZSIC classifications.

Employment in the creative industries

According to 2011 Census, there were 343,409 people employed in the creative industries (refer to Table 27). Software development and interactive content is a significant sector of employment within the creative industries representing over 40% of total employment within the industry. This was followed by architecture, design and visual arts which contributed 26% of total employment within the creative industries.

Employment within the creative industries represented approximately 3.5% of total employment in 2011 and this is illustrated in Figure 37.

Industry sector of employment	Employment No.	Share of creative industries	Share of total employment
Music & performing arts	9,967	3%	0.10%
Film, television & radio	32,688	10%	0.33%
Advertising & marketing	30,454	9%	0.31%
Software & interactive media	142,377	41%	1.45%
Writing, publishing & print media	37,786	11%	0.38%
Architecture, design & visual arts	90,137	26%	0.92%
Total creative industries	343,409	100%	3.50%

Table 27.
Employment in creative industries, 2011.

Source: ABS Census of Population and Housing, SGS Economics and Planning, 2013.

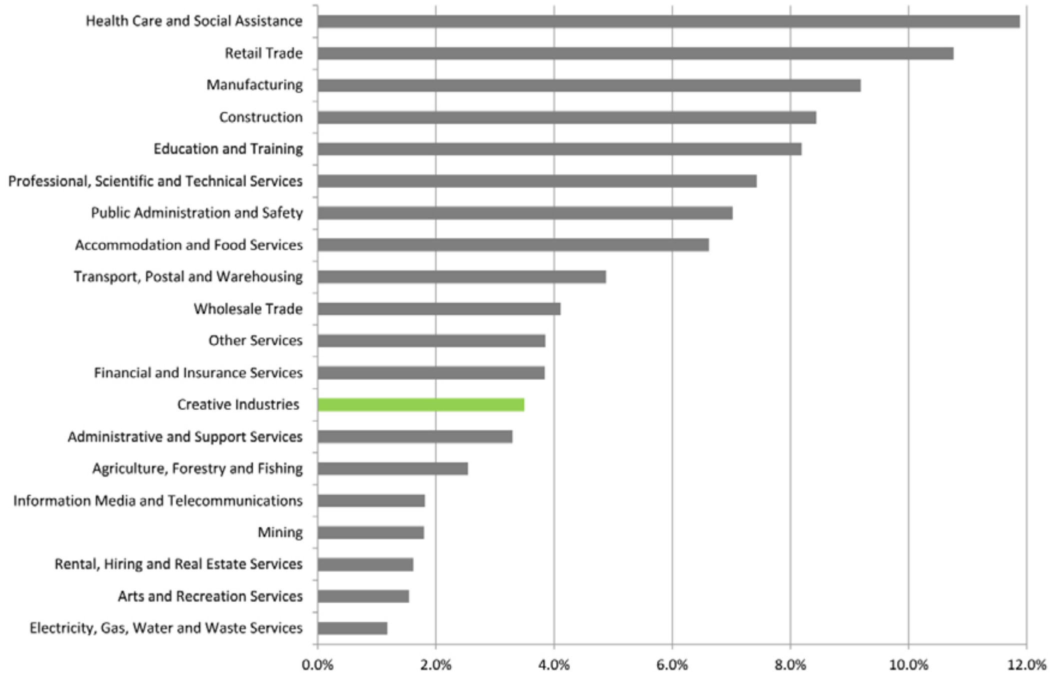


Figure 37.
Industry share of employment, 2011.

Source: ABS Census of Population and Housing, IBISWorld Industry Reports, SGS Economics and Planning, 2013.

Table 28 highlights the change in employment within the creative industries. Between 2006 and 2011, significant employment growth was experienced in the software and interactive media and architecture, design and visual arts sectors. These two sectors increased the share of employment within the creative industries by 4.2% and 0.4% respectively. Overall, the creative industries have experienced limited growth in the share of total employment at 0.19% between the census periods.

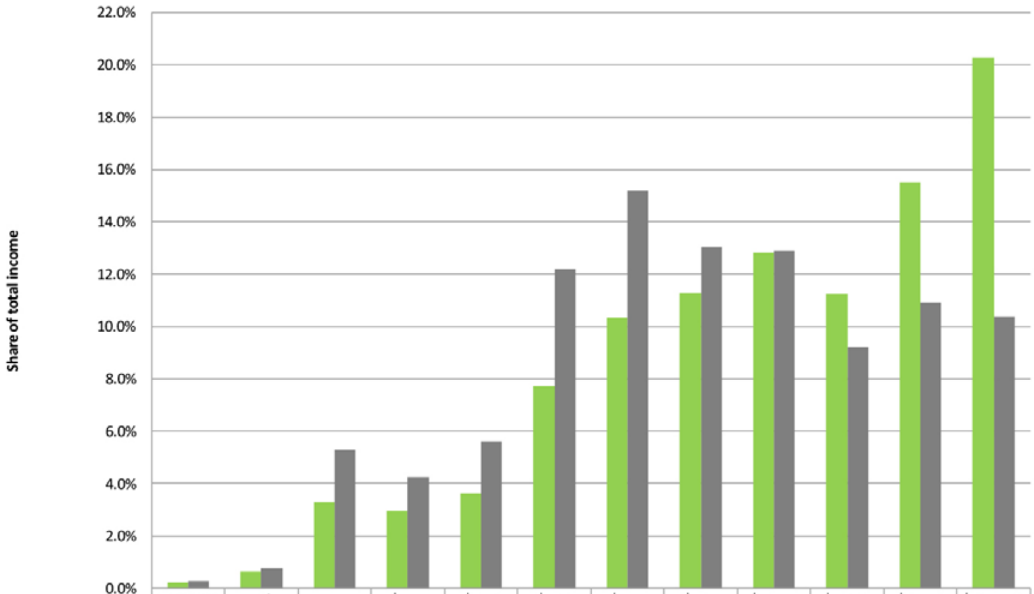
Industry sector of employment	Change in Employment No.	Change in share of creative industries	Change in share of total employment
Music & performing arts	2,115	0.1%	0.01%
Film, television & radio	4,176	-0.6%	0.00%
Advertising & marketing	3,609	-0.6%	0.00%
Software & interactive media	36,987	4.2%	0.22%
Writing, publishing & print media	-3,200	-3.5%	-0.09%
Architecture, design & visual arts	17,019	0.4%	0.06%
Total creative industries	60,706	0.0%	0.19%

Table 28.
Change in employment in creative industries, 2006-2011.

Source: ABS Census of Population and Housing, SGS Economics and Planning, 2013.
Note: This table details actual change in employment and may vary to the annual employment growth reported by segment using IBISWorld data.

INCOME

In 2006, the income of those employed in the creative industries tended to be higher than those employed in other industries within the Australian economy (CIE, 2009). This trend has continued with the incomes of those employed within the creative industries increasing. Over 20% of those employed within creative industries, in 2011, were earning $2000 or more per week. This is an increase from around 13% in 2006. In 2011 the incomes of those working in the creative industries are significantly higher than those employed within other industries of employment.



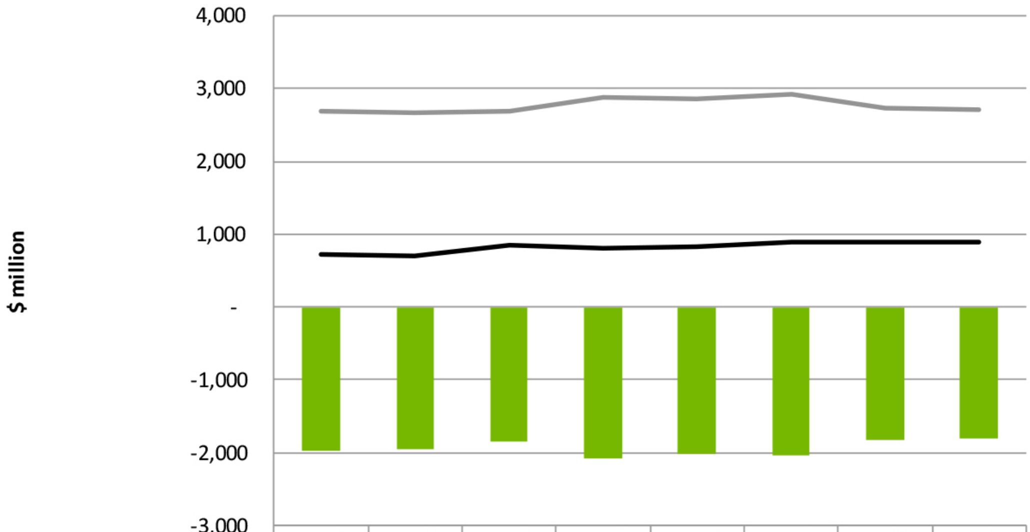
	Negative income	Nil income	$1-$199	$200-$299	$300-$399	$400-$599	$600-$799	$800-$999	$1,000-$1,249	$1,250-$1,499	$1,500-$1,999	$2,000 or more
Creative industries	0.2%	0.7%	3.3%	3.0%	3.6%	7.7%	10.3%	11.3%	12.8%	11.3%	15.5%	20.3%
All industries	0.3%	0.8%	5.3%	4.2%	5.6%	12.2%	15.2%	13.0%	12.9%	9.2%	10.9%	10.4%

Figure 38.
Weekly income distribution, 2011.

Source: ABS Census of Population and Housing, SGS Economics and Planning, 2013.

PRODUCTIVITY

The creative industry imports have continued to remain significantly higher than exports, resulting in a steady, however, negative trend in net exports. Over the past two years, there has been an improvement in the net exports with an increase from -2035 in 2009/10 to -1812 in 2011/12. Trade in the creative industries reflects a relatively similar picture to what was reported in 2009.



	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	2011/12
Net exports ($mn)	-1,965	-1,959	-1,845	-2,072	-2,012	-2,035	-1,830	-1,812
Trade (exports) ($mn)	719	707	845	815	839	890	901	901
Trade (imports) ($mn)	2,684	2,666	2,690	2,887	2,851	2,925	2,731	2,713

Figure 39.
Trade in the creative industries, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, SGS Economics and Planning, 2013.

Employment in creative occupations

Employment estimates for creative occupations are contained in Table 29. According to the 2011 Census, 247,012 people were employed within the creative occupations, representing an increase of 15.6% since the 2006 Census. The creative occupations represent 2.5% of total employment. In 2011, over 40% of employment within creative occupations related to architecture, design and visual arts with 16% of employment related to software and interactive media.

Industry of employment	Employment No.	Share of creative industries	Share of total employment
Music & performing arts	20,486	8.3%	0.2%
	(2,477)	(-0.1%)	
Film, television & radio	21,732	8.8%	0.2%
	(3,081)	(0.1%)	
Advertising & marketing	43,244	17.5%	0.4%
	(2,521)	(-1.6%)	
Software & interactive media	39,571	16.0%	0.4%
	(9,090)	(1.8%)	
Writing, publishing & print media	19,438	7.9%	0.2%
	(1,207)	(-0.7%)	
Architecture, design & visual arts	102,541	41.5%	1.0%
	(14,947)	(0.5%)	
Total creative industries	247,012	100.0%	2.5%
	(33,23)		

Table 29. Employment in creative occupations, 2011 (fte).

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are change between 2006 and 2011.

Creative industries workforce

SUPPORT WORKERS

Those employed in creative occupations in creative industries.

SPECIALIST CREATIVES

Those employed in creative industries in non-creative occupations.

EMBEDDED CREATIVES

Those employed in creative occupations in non-creative industries.

The total creative workforce in 2011 was 460,726 people which represented 4.7% of total employment. As highlighted in Table 31, almost half of those employed in creative occupations are working within non-creative industries.

	Creative industries	Non-creative industries	Total industries
Creative occupations	129,695	117,317	247,012
	(1.3%)	(1.2%)	(2.5%)
Non-creative occupations	213,714	-	213,714
	(2.2%)		(2.2%)
Total occupations	343,409	117,317	460,726
	(3.5%)	(1.2%)	(4.7%)

Table 30. Total creative workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment.

Figure 40 compares the creative workforces of each state in Australia alongside Sydney, the largest capital city in Australia. Within each geography, support workers make up the largest proportion of the creative workforce and is the largest in the ACT.

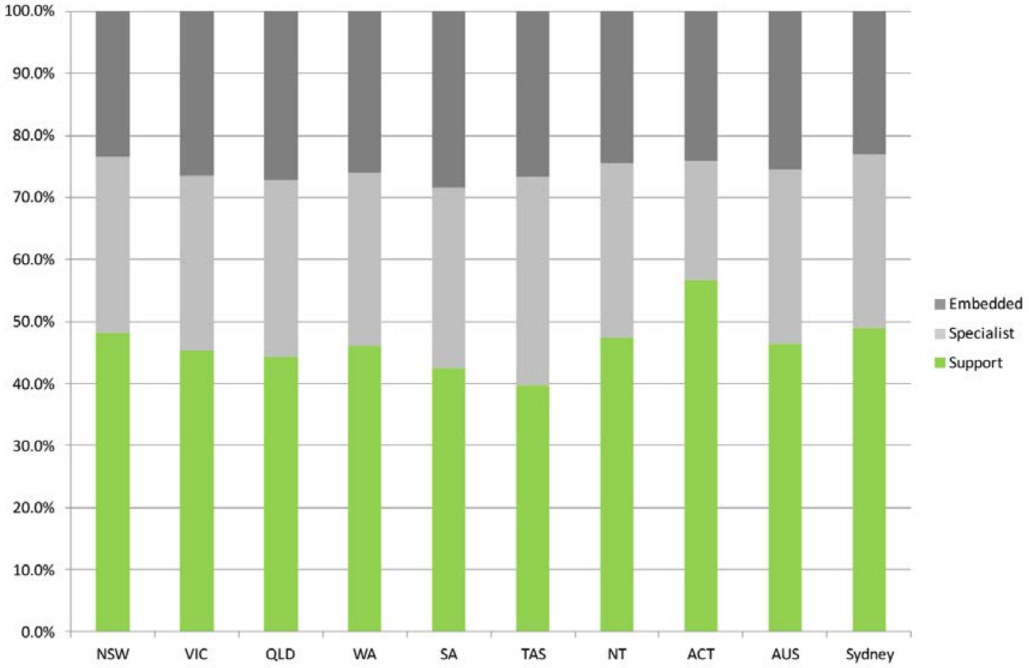


Figure 40.
Creative industries trident, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

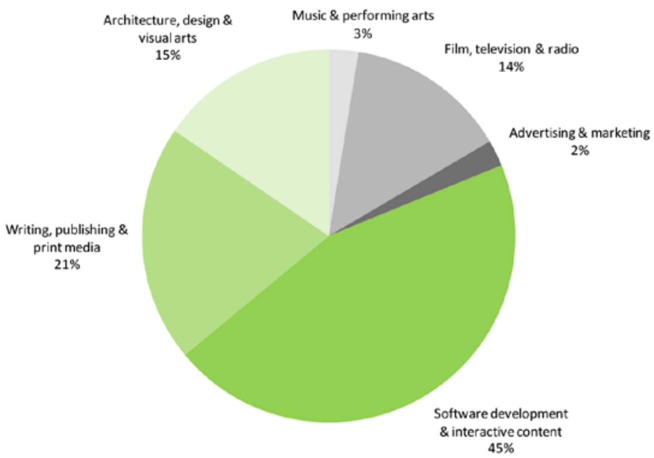
Creative industries by segment

Figure 41 illustrates the relative size of each creative industry segment in terms of IGP and employment. According to the IBISWorld Industry Reports, software and interactive content is a significant contributor towards IGP and employment within the creative industries, representing 45% and 48% respectively. The breakdown by segment in terms of IGP and employment reflects similar patterns reported in 2009. Each segment is analysed in further detail below.

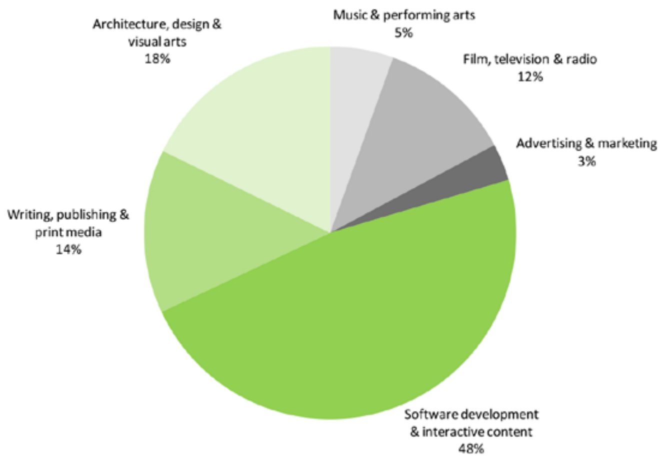
Figure 41.
Creative industries by segment, 2004/5-2011/12.

Source: IBISWorld Industry Reports, SGS Economics and Planning, 2013.

IGP



EMPLOYMENT



Music and performing arts

Between 2004/5 and 2011/12, the music and performing arts segment contributed around 3% of total IGP and 5% of total employment for the creative industries. The music and performing arts segment includes the following industry classifications:

- **Music publishing and sound recording**
- **Music and theatre productions**
- **Performing arts venues and operation**

As illustrated in Figure 42, music and theatre products experienced the highest growth in IGP between 2004/5 and 2011/12 and music publishing experienced the highest growth in employment between the same period. Overall, IGP growth has been relatively strong compared to GDP growth in the broader economy, however employment growth has remained relatively consistent with trends within the broader economy.

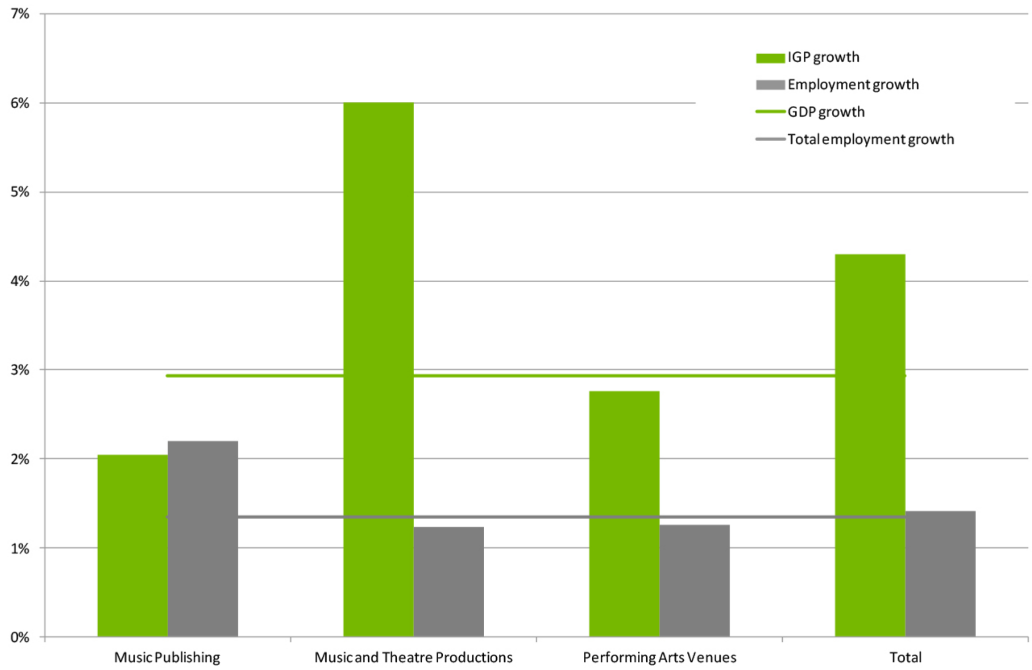


Figure 42. Growth in music and performing arts, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, ABS Catalogue No. 5204.0, SGS Economics and Planning, 2013.

The update reflects a significantly different picture to what was reported in 2009. This is likely due to changes in categorisation.

The total music and performing arts sector workforce in 2011 was 26,284 people (refer to Table 31). The largest proportion of the workforce are embedded workers (64.8%).

Table 31. Music and performing arts sector workforce (total Australia 2011).

	Music and Performing Arts industries	Other industries	Total
Music and Performing Arts occupations	3,444 (13.1%) (2.3%)	17,042 (64.8%) (-1.5%)	20,486 (77.9%) (0.8%)
Other occupations	5,798 (22.1%) (-0.8%)		5,798 (22.1%) (-0.8%)
Total	9,242 (35.2%) (1.5%)	17,042 (64.8%) (-1.5%)	26,284 (100.0%)

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011.

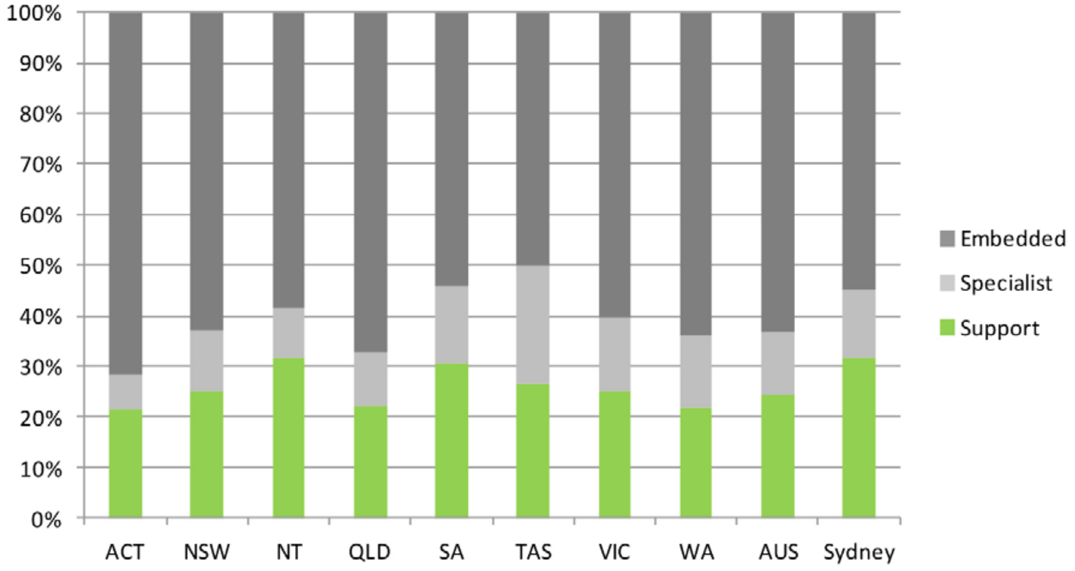


Figure 43. Music and performing arts sector workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

Figure 43 compares the music and performing arts sector workforces of each state in Australia alongside Sydney. Within each geography, embedded creatives make up the largest proportion of the music and performing arts sector workforce and is the largest in the ACT and Qld.

Film, television and radio

Between 2004/5 and 2011/12, film, television and radio contributed around 14% of total IGP and 12% of total employment for the creative industries. The film, television and radio segment includes the following industry classifications:

- **Motion picture and video production**
- **Video postproduction services**
- **Radio broadcasting**
- **Free-to-air television broadcasting**
- **Pay television**

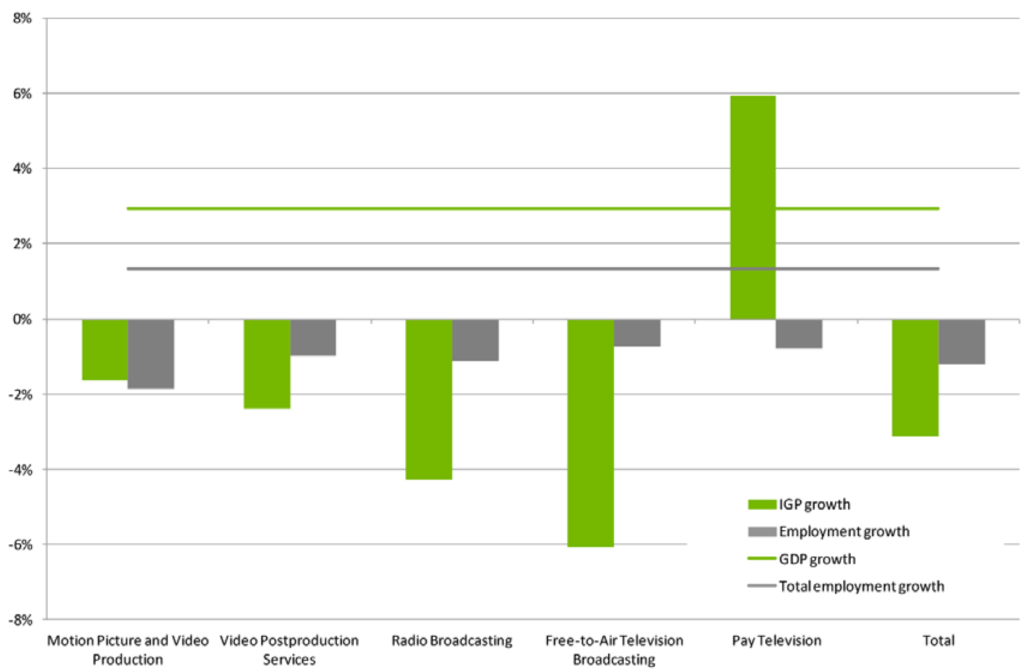


Figure 44. Growth in film, television and radio, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, ABS Catalogue No. 5204.0, SGS Economics and Planning, 2013.

As illustrated in Figure 44, pay television experienced the highest growth in IGP between 2004/5 and 2011/12 at around 6%. In relation to employment, however, all areas within film, television and radio experienced a decline in employment growth. Overall, the film, television and radio segment has performed significantly below the GDP and employment trends for the broader economy.

	Film, Television and Radio industries	Other industries	Total
Film, Television and Radio occupations	13,636 (34.7%) (-2.5%)	6,620 (16.8%) (6.7%)	20,256 (51.5%) (4.2%)
Other occupations	19,052 (48.5%) (-4.2%)		19,052 (48.5%) (-4.2%)
Total	32,688 (83.2%) (-6.7%)	6,620 (16.8%) (6.7%)	39,308 (100.0%)

Table 32.
Film, television and radio workforce (total Australia 2011).

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011.

Figure 45 compares the film, television and radio sector workforces of each state in Australia alongside Sydney. Within each geography, support workers make up the largest proportion of the music and performing arts sector workforce and is the largest in the ACT and Qld.

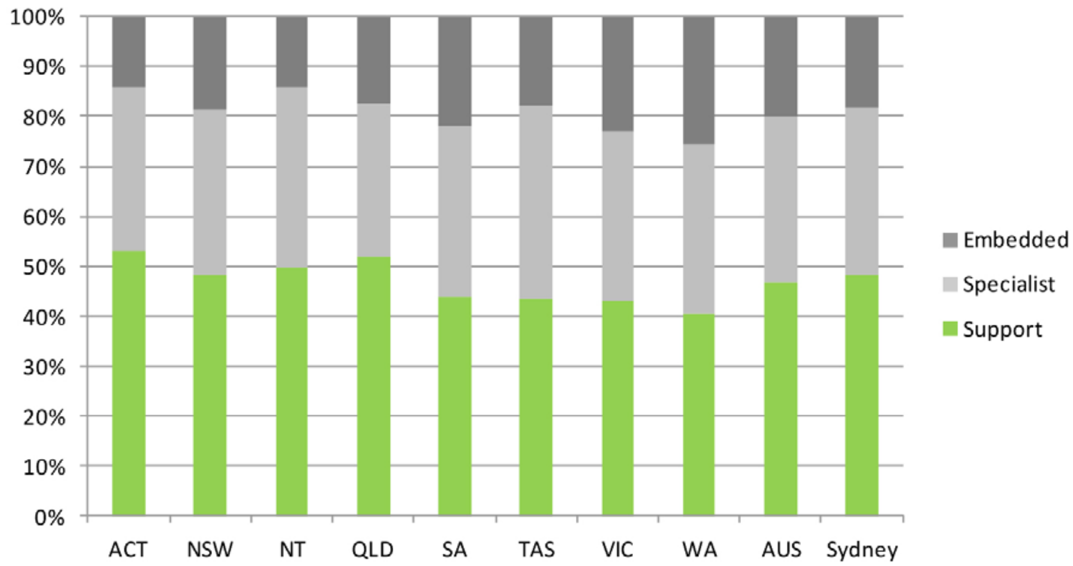


Figure 45.
Film, television and radio workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

Advertising and marketing

The advertising and marketing segment includes the following industry classification:

- **Advertising services**

In 2011, the advertising and marketing sector workforce was 67,737 people (refer to Table 33). The largest proportion of the workforce (55%) are embedded creatives.

Figure 46 compares the advertising and marketing sector workforces of each state in Australia alongside Sydney.

Table 33. Advertising and market sector workforce (total Australia 2011).

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011.

	Advertising and Marketing industries	Other industries	Total
Advertising and Marketing occupations	5,961 (8.8%) (1.2%)	37,283 (55.0%) (-2.2%)	43,244 (63.8%) (-1.0%)
Other occupations	24,493 (36.2%) (1.0%)		24,493 (36.2%) (1.0%)
Total	30,454 (45.0%) (2.2%)	37,283 (55.0%) (-2.2%)	67,737 (100.0%)

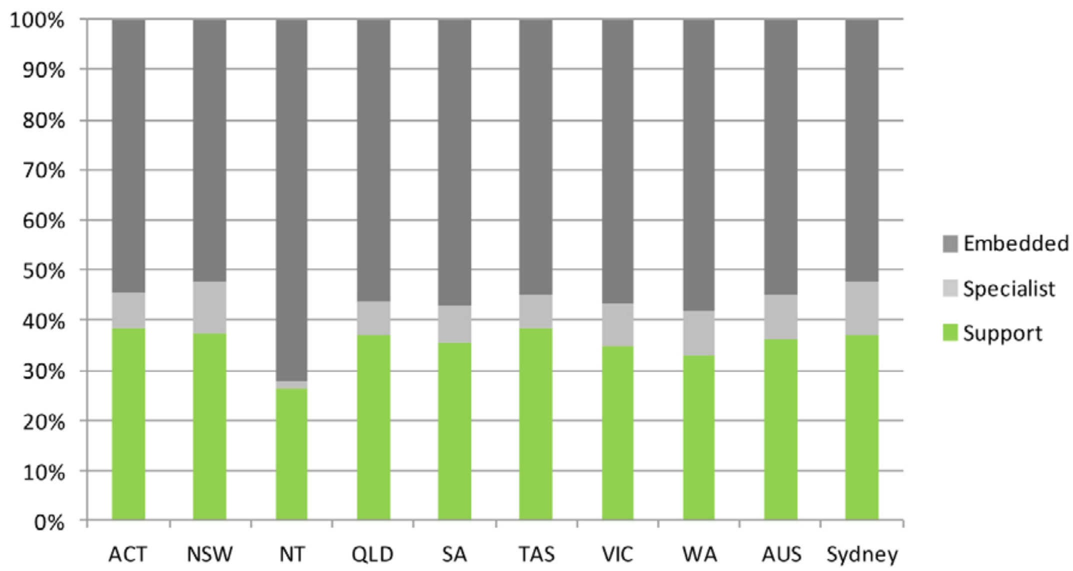


Figure 46. Advertising and marketing sector workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

Software and interactive content

Between 2004/5 and 2011/12, the software and interactive content segment contributed around 45% of total IGP and 48% of total employment for the creative industries. The software and interactive content segment includes the following industry classifications:

- **Computer system design services**
- **Software publishing**
- **Internet publishing and broadcasting**

As illustrated in Figure 47, internet publishing and broadcasting experienced the highest growth in IGP and employment between 2004/5 and 2011/12. Overall, employment growth within this segment has been relatively strong in relation to the broader economy, however IGP growth has been below the average growth rate for the economy.

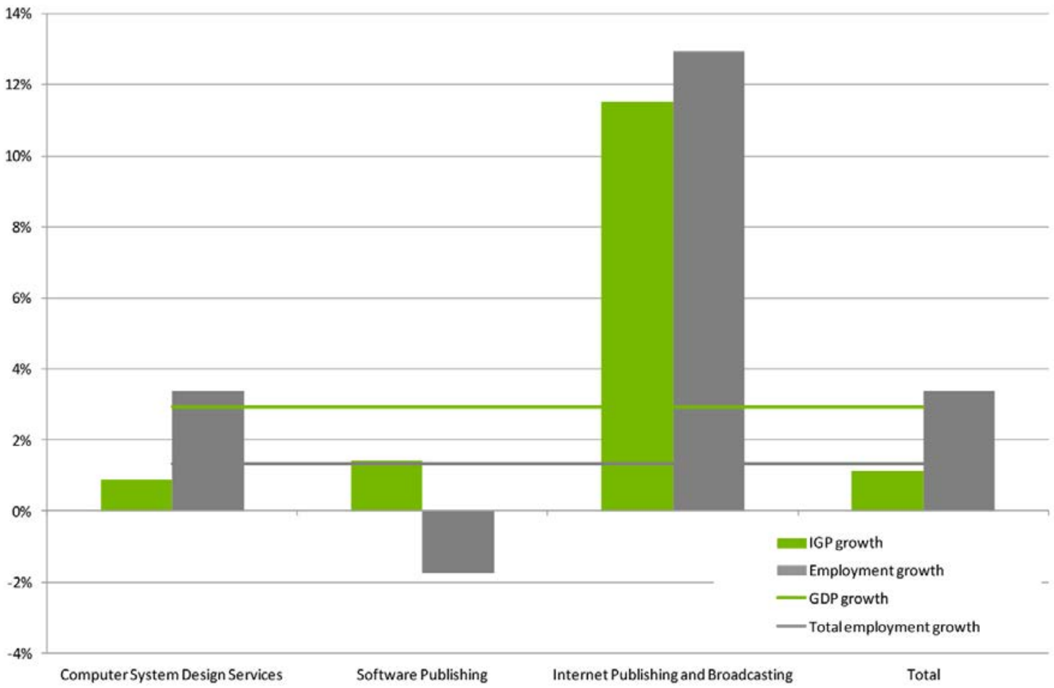


Figure 47. Growth in software and interactive content, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, ABS Catalogue No. 5204.0, SGS Economics and Planning, 2013.

In 2011, the software and interactive content sector workforce was 163,325 people (refer to Table 34). The largest proportion of the workforce (75.8%) are support workers.

Table 34. Software and interactive content sector workforce (total australia 2011).

	Software and Interactive Content industries	Other industries	Total
Software and Interactive Content occupations	18,623 (11.4%) (0.7%)	20,948 (12.8%) (-1.3%)	39,571 (24.2%) (-0.6%)
Other occupations	123,754 (75.8%) (0.6%)		123,754 (75.8%) (0.6%)
Total	142,377 (87.2%) (1.3%)	20,948 (12.8%)	163,325 (100.0%)

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011.

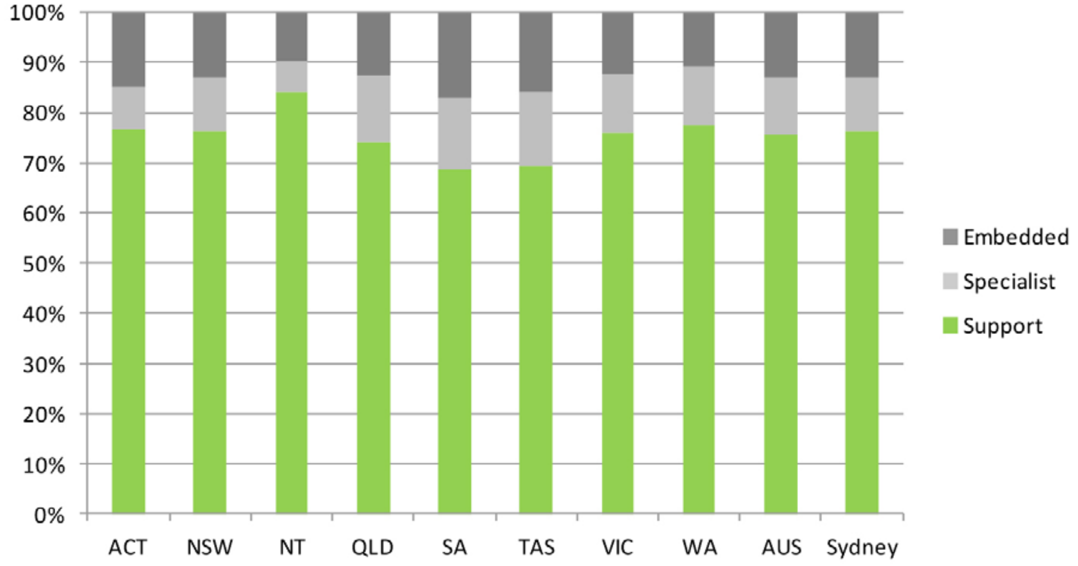


Figure 48. Software and interactive content sector workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

Figure 48 compares the software and interactive content workforces of each state in Australia alongside Sydney. In 2011, support workers represented the largest proportion of the software and interactive content sector workforce and is the largest in the NT.

Writing, publishing and print media

Between 2004/5 and 2011/12, writing, publishing and print media contributed around 21% of total IGP and 14% of total employment for the creative industries. The writing, publishing and print media segment includes the following industry classifications:

- **Newspaper publishing**
- **Magazine publishing**
- **Book publishing**
- **Other publishin**g

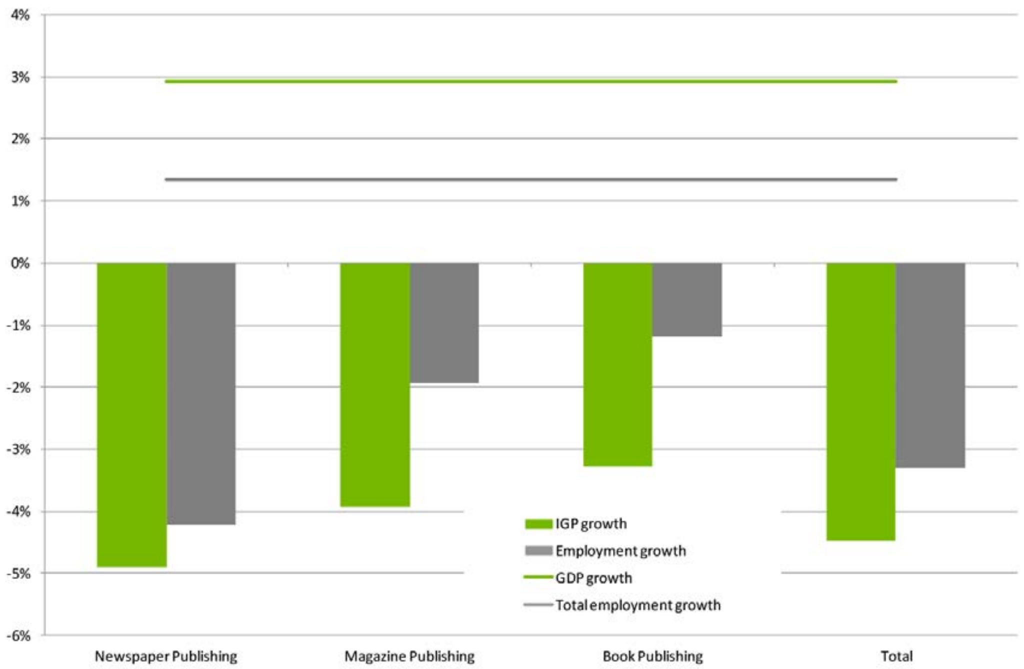


Figure 49. Growth in writing, publishing and print media, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, ABS Catalogue No. 5204.0, SGS Economics and Planning, 2013.

As illustrated in Figure 47, both IGP and employment growth within this segment has been relatively weak compared to the broader economy with all total IGP growth and employment growth, well below the average growth rates for the broader economy. Since the previous report in 2009, writing, publishing and print media has experienced a significant decline in IGP and employment growth. This sector of the creative industries previously had positive, albeit minimal, growth when the 2009 report was produced.

The writing, publishing and print media sector workforce was 48,403 people in 2011 (refer to Table 35). The largest proportion of the workforce are embedded creatives which represent 59.8% of the workforce.

Table 35. Writing, publishing and print media sector workforce (total Australia 2011).

	Writing, Publishing and Print Media industries	Other industries	Total
Writing, Publishing and Print Media occupations	8,821 (18.2%) (0.0%)	28,965 (59.8%) (-3.7%)	37,786 (78.1%) (-3.7%)
Other occupations	10,617 (21.9%) (3.7%)		10,617 (21.9%) (3.7%)
Total	19,438 (40.2%) (3.7%)	28,965 (59.8%) (-3.7%)	48,403 (100.0%)

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011.

Figure 50 compares the writing, publishing and print media sector workforces of each state in Australia alongside Sydney. In 2011, support workers represented the largest proportion of the writing, publishing and print media sector workforce in all geographies except for the ACT where the largest proportion of the workforce within this sector are embedded creatives.

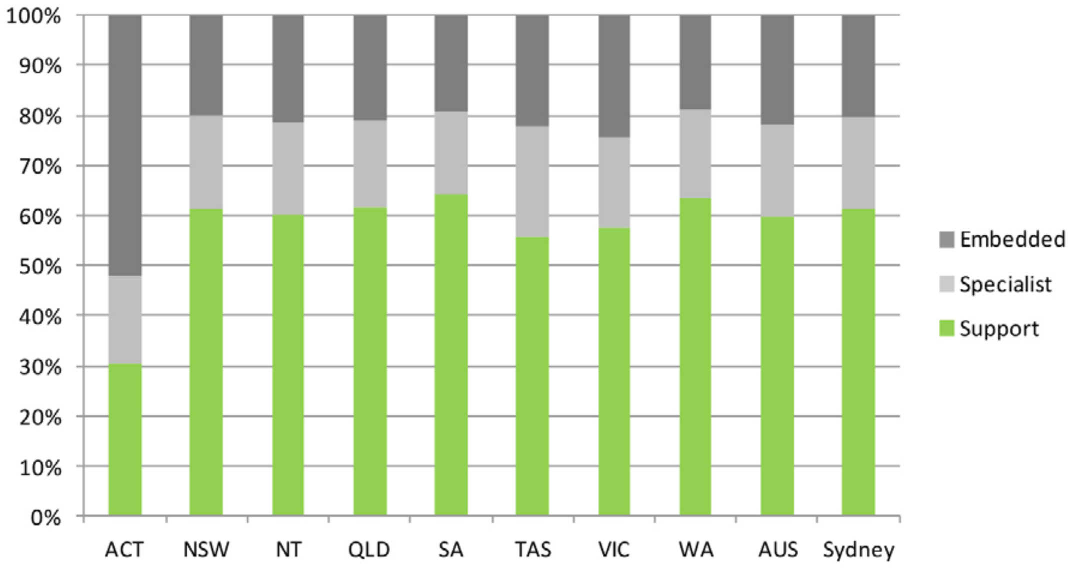


Figure 50. Writing, publishing and print media sector workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

Architecture, design and visual arts

Between 2004/5 and 2011/12, architecture, design and visual arts contributed around 15% of total IGP and 18% of total employment for the creative industries. The architecture, design and visual arts segment includes the following industry classifications:

- **Jewellery manufacturing**
- **Architectural services**
- **Specialised design services**[13]
- **Professional photographic services**
- **Creative artists, musicians, writers, performers**

As illustrated in Figure 51, architectural services experienced the highest growth in IGP between 2004/5 and 2011/12, at a level comparable to the broader economy. Growth was also experienced in specialised design services, however decline was experienced in photographic services in relation to IGP and jewellery manufacturing in relation to employment. Overall, employment growth within this segment has been relatively consistent with the broader economy, however IGP growth has been relatively weak in comparison to the average growth rate for the economy.

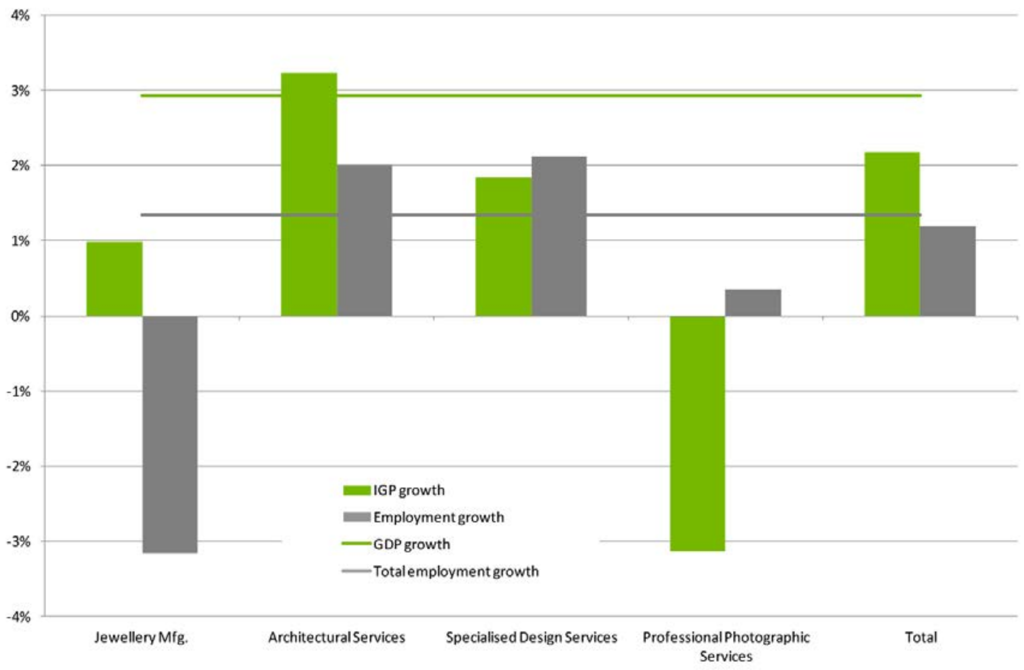


Figure 51. Growth in architecture, design and visual arts, 2004/5 to 2011/12.

Source: IBISWorld Industry Reports, ABS Catalogue No. 5204.0, SGS Economics and Planning, 2013.

13. Includes Commercial art service, Fashion design service, Graphic design service, Interior design service, Jewellery design service, Signwriting, Textile design service and Ticket writing.

In 2011, the architecture, design and visual arts sector workforce was 144,133 people (refer to Table 36). The largest proportion of the workforce is embedded creatives which represent 37.5% of the workforce, closely followed by specialist creatives which represent 33.7%.

	Architecture, Design and Visual Arts industries	Other industries	Total
Architecture, Design and Visual Arts occupations	48,545 (33.7%) (1.6%)	53,996 (37.5%) (-2.5%)	102,541 (71.1%) (-0.8%)
Other occupations	41,592 (28.9%) (0.8%)		41,592 (28.9%) (0.8%)
Total	90,137 (62.5%) (2.5%)	53,996 (37.5%) (-2.5%)	144,133 (100.0%)

Table 36. Architecture, design and visual arts sector workforce (total Australia 2011).

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are share of total employment within the sector and change in share of employment between 2006 and 2011.

Figure 52 compares the architecture, design and visual arts sector workforces of each state in Australia alongside Sydney. In 2011, there was a relatively even distribution among the creative trident with slightly higher proportions of embedded and specialist creatives in most states.

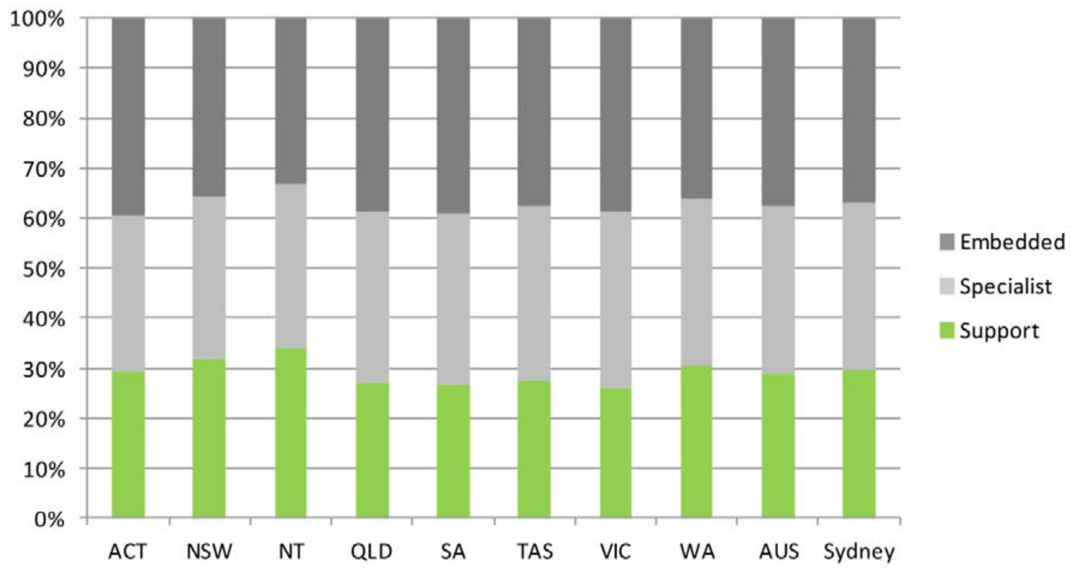
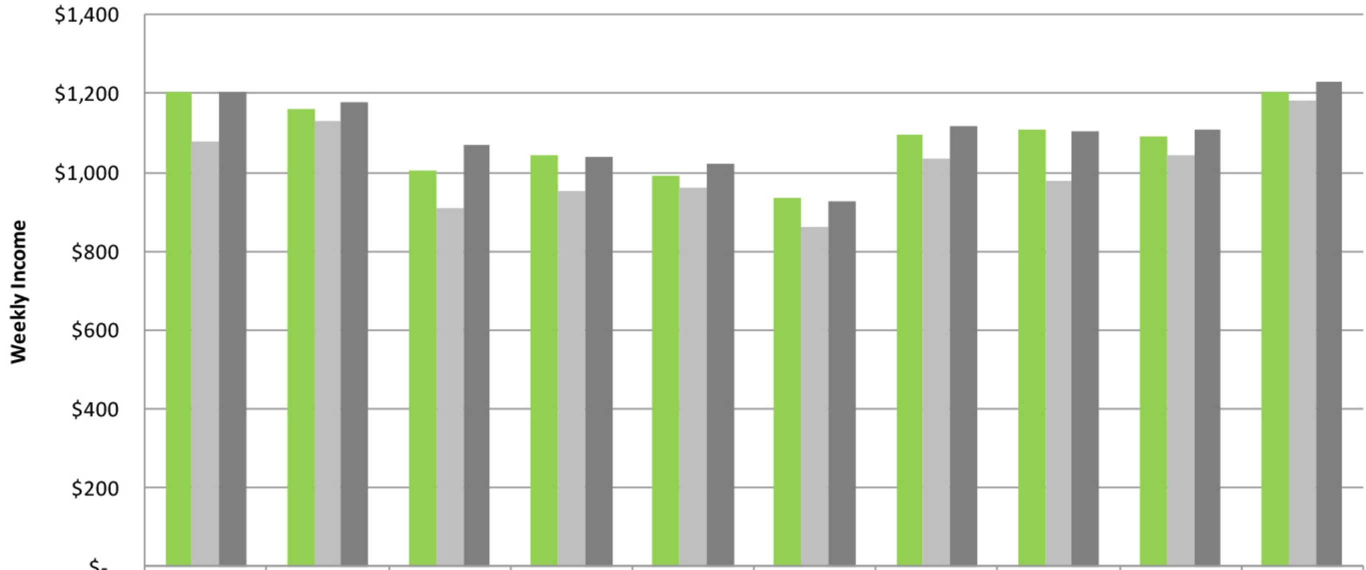


Figure 52. Architecture, design and visual arts sector workforce, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

Income by creative industries trident

In terms of the creative trident, specialist creatives earn a lower weekly income than embedded creatives and support workers (refer to Figure 53). Incomes are highest in Sydney, the ACT and NSW.



	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	AUS	Sydney
Support	$1,205	$1,163	$1,003	$1,042	$992	$933	$1,094	$1,108	$1,091	$1,204
Specialist	$1,076	$1,129	$908	$953	$959	$859	$1,036	$980	$1,042	$1,184
Embedded	$1,204	$1,180	$1,069	$1,041	$1,021	$925	$1,115	$1,105	$1,106	$1,228

Figure 53.
Income by creative trident, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.

Embedded creatives

The industries of employment (ANZSIC 1-Digit[14]) of embedded creatives (by creative occupation) are detailed in Table 37. The four major industries of employment for embedded creatives are:

- **Manufacturing**
- **Public administration and safety**
- **Professional, scientific and technical services**
- **Retail trade**

14. The Australian and New Zealand Standard Industrial Classification (ANZSIC) has been jointly developed by the Australian Bureau of Statistics (ABS) and Statistics New Zealand (Statistics NZ). An individual business entity is assigned to an industry based on its predominant activity. The ANZSIC is a hierarchical classification with four levels .1 digit is the highest level and a broad categorisation.

Industry (ANZSIC 1 Digit)	Occupations						
	Music and performing arts	Film, TV and radio	Advertising and marketing	Software and interactive media	Writing, print and publishing media	Architecture, visual arts and design	Total creative[15]
Manufacturing	191	273	4,141	1,908	412	9,285	16,210
Public Administration and Safety	607	147	1,537	2,135	863	7,783	13,072
Professional, Scientific and Technical Services	250	341	4,560	2,060	845	3,973	12,029
Retail Trade	976	169	2,921	1,061	224	6,204	11,555
Wholesale Trade	165	121	5,050	1,497	231	2,839	9,903
Education and Training	1,659	302	1,785	1,658	738	1,191	7,333
Construction	196	23	713	276	76	5,934	7,218
Information Media and Telecommunications	541	798	1,526	1,742	864	873	6,344
Financial and Insurance Services	52	104	2,844	2,537	279	453	6,269
Arts and Recreation Services	1,141	375	630	370	121	1,899	4,536
Not stated/Inadequately described	669	327	1,167	659	342	1,280	4,444
Administrative and Support Services	325	210	1,716	711	425	644	4,031
Other Services	885	147	772	363	281	1,133	3,581
Health Care and Social Assistance	301	84	1,050	453	256	557	2,701
Accommodation and Food Services	778	188	854	106	49	329	2,304
Rental, Hiring and Real Estate Services	350	76	816	151	25	697	2,115
Transport, Postal and Warehousing	48	35	638	511	121	571	1,924
Electricity, Gas, Water and Waste Services	15		308	253	94	232	902
Mining	3	4	181	132	107	92	519
Agriculture, Forestry and Fishing	9	13	194	25	10	76	327
Total	**9,161**	**3,737**	**33,403**	**18,608**	**6,363**	**46,045**	**117,317**

Table 37.
Embedded creatives in Australia, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

15. Excludes where industry was not stated/inadequately described.

ANZSIC 1 Digit	ACT	NSW	NT	QLD	SA	TAS	VIC	WA	AUS	Sydney
Manufacturing	149	5,810	54	2,327	1,284	197	5,301	1,160	16,210	4,747
Wholesale Trade	48	4,495	14	1,081	261	51	3,543	390	9,903	4,134
Professional, Scientific and Technical Services	353	4,132	67	2,061	632	163	3,506	1,005	12,029	3,513
Public Administration and Safety	1,364	3,418	202	2,683	985	299	2,851	1,215	13,072	2,353
Financial and Insurance Services	40	3,226	6	620	172	26	1,835	225	6,269	3,037
Retail Trade	102	4,268	74	1,851	619	144	3,537	902	11,555	3,469
Education and Training	262	2,286	59	1,410	508	143	2,055	720	7,333	1,640
Construction	97	2,090	42	1,187	407	66	2,031	1,141	7,218	1,619
Information Media and Telecommunications	158	2,924	3	634	313	55	1,871	280	6,344	2,586
Administrative and Support Services	47	1,563	17	765	185	46	1,108	282	4,031	1,355
Not stated/Inadequately described	44	1,403	6	520	162	41	1,054	273	4,444	1,105
Other Services	76	1,183	34	651	252	33	1,023	327	3,581	919
Health Care and Social Assistance	57	791	16	515	196	41	733	203	2,701	663
Arts and Recreation Services	236	1,269	45	863	232	123	1,272	406	4,536	921
Transport, Postal and Warehousing	12	625	3	461	94	15	574	110	1,924	578
Accommodation and Food Services	27	800	29	584	114	46	524	181	2,304	573
Rental, Hiring and Real Estate Services	51	749	15	422	115	36	563	179	2,115	617
Electricity, Gas, Water and Waste Services	23	232	0	148	64	33	291	75	902	174
Mining	0	68	0	178	38	3	26	230	519	33
Agriculture, Forestry and Fishing	0	111	3	54	48	12	70	33	327	59
Total	**3,146**	**41,443**	**689**	**19,015**	**6,681**	**1,573**	**33,768**	**9,337**	**117,317**	**34,095**

Table 38 details the industries of employment for all embedded creatives by state and for Sydney. Focusing on the major industry of employment for each state, or city, reveals a similar pattern with all geographies registering either manufacturing or public administration and safety as the industry employing the most embedded creatives.

Table 38. Industry of employment of embedded creatives by state, 2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2011.

Creative industry enterprises

Business numbers

At the end of June 2011, there were 124,000 businesses operating in the creative industries (refer to Table 39). There has been a major decline in the number of music and performing arts businesses since the last report in 2009. This may be related to the change in ANZSIC classifications. Declines were also experienced in writing, publishing and media. Overall, there was been some growth in the creative industries, mostly in software development and interactive content. Growth in the number of businesses in the creative industries was greater than growth in the number businesses in the aggregate economy over this period, 2%, compared to 1.7%.

Table 39. Number of business 2003-2011[16].

Source: ABS Catalogue No. 8165.0.

	2003 ('000)	2004 ('000)	2005 ('000)	2006 ('000)	2007 ('000)	2008 ('000)	2009 ('000)	2010 ('000)	2011 ('000)	Average annual growth
Music and Performing Arts[17]	10.9	10.2	9.9	9.8	10.1	3.6	3.4	3.3	3.3	-14.0%
Film, television and radio	6.5	6.3	6.3	6.4	6.5	6.3	6.4	6.7	6.8	0.5%
Advertising and marketing	9.4	9.7	9.9	10.0	10.3	10.9	10.6	11.3	11.3	2.3%
Software development and interactive content	37.2	36.0	35.5	35.6	37.7	45.1	44.7	48.3	49.8	3.7%
Writing, publishing and print media	3.6	3.7	3.6	3.5	3.7	3.1	3.1	3.0	3.1	-2.0%
Architecture, design and visual arts	38.3	37.5	37.0	36.7	38.2	48.5	46.9	49.9	49.8	3.3%
Total creative industries	**106.0**	**103.4**	**102.2**	**102.1**	**106.6**	**117.5**	**115.0**	**122.4**	**124.1**	**2.0%**
Total all industries	**1,870.1**	**1,911.5**	**1,940.0**	**1,964.9**	**2,011.9**	**2,070.9**	**2,051.2**	**2,124.8**	**2,132.4**	**1.7%**

Between 2008 and 2011, the business entry and exit rates in the creative industries were higher than for the entire economy, however the gap was minimal (refer to Figure 54). Both film, television and radio and software development and interactive content had higher entry rates than exit rates.

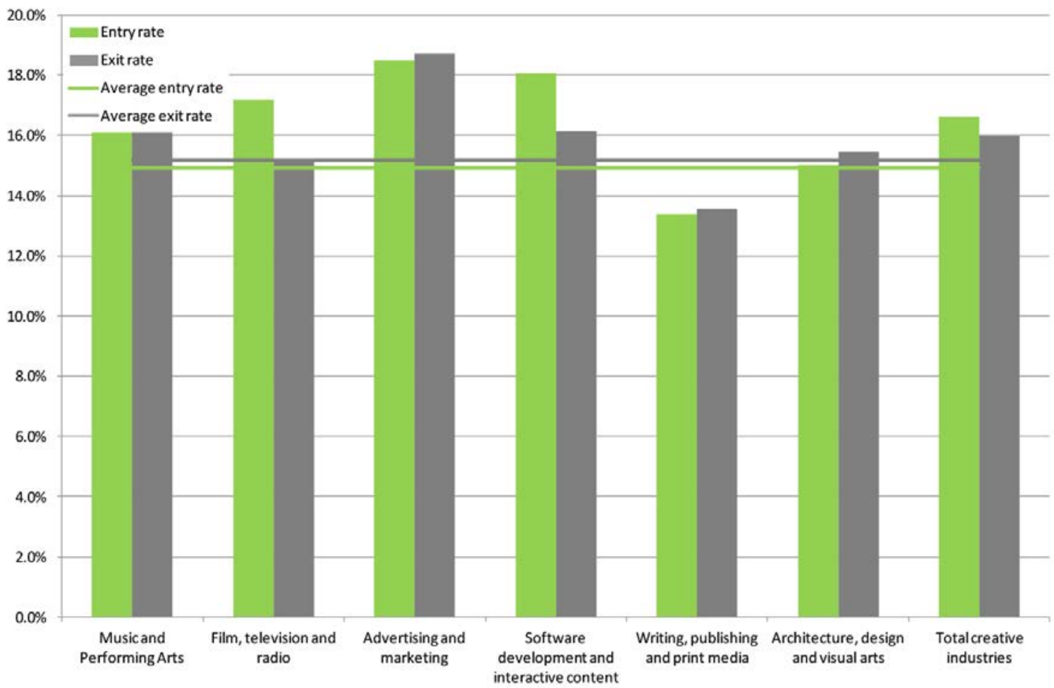


Figure 54. Entry and exit rates in the creative industries, 2008-2011.

Source: ABS Catalogue No. 8165.0.

Entry and exit rates in the creative industries have remained relatively similar to what was reported in the 2009 report by The CIE.

16. Data for 2003 and 2007 has been taken directly from The CIE report in 2009.

17. The significant gap between 2007 and 2008 is likely due to change in definitions of industry categories.

Scale of creative industry businesses

Businesses within the creative industries are small with around 98% employing less than 20 employees. This is a trend that has continued since 2006. Table 40 provides a snapshot of businesses within the creative industries in terms of number of employees at the end of June in 2011.

Creative industry sector	Non employing	10-19	20-199	200+	Total
Music and Performing Arts	2,228	914	122	12	3,276
Film, television and radio	4,078	2,324	312	73	6,787
Advertising and marketing	6,707	4,129	446	32	11,314
Software development and interactive content	27,196	21,470	1,059	99	49,824
Writing, publishing and print media	1,669	1,214	147	25	3,055
Architecture, design and visual arts	34,201	14,935	639	43	49,818
Total creative industries	76,079	44,986	2,725	284	124,074
Total all industries	1,306,046	739,260	80,999	6,126	2,132,431

Table 40.
Business count by number of employees, 2011.

Source: ABS Catalogue No. 8165.0, SGS Economics and Planning, 2013.

In terms of the breakdown of businesses by number of employees, this has remained relatively similar to what was reported back in 2009 by the CIE. There has, however, been an increase in the total number of businesses.

Figure 55 highlights that although around 98% of all businesses in the creative industries employ less than 20 employees, this is a trend which is also apparent within the wider economy.

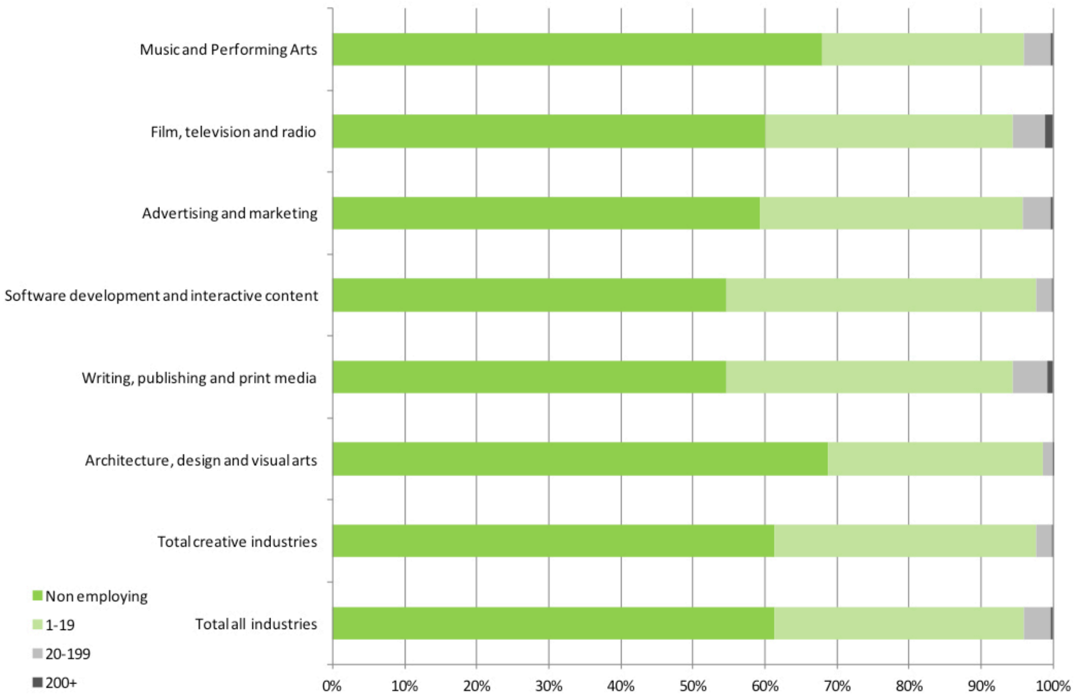


Figure 55.
Share of business size, 2011.

Source: ABS Catalogue No. 8165.0, SGS Economics and Planning, 2013.

Turnover in the creative industries

In terms of turnover, the creative industries have a large proportion of businesses turning over $200,000 or less each year (refer to Table 41).

	$0-50k	$50-200k	$200k-2m	$2m+	Total
Music and Performing Arts	1,410	1,071	667	128	3,276
Film, television and radio	2,615	2,328	1,522	322	6,787
Advertising and marketing	4,059	3,278	3,157	820	11,314
Software development and interactive content	17,801	18,249	11,977	1,797	49,824
Writing, publishing and print media	1,101	783	950	221	3,055
Architecture, design and visual arts	20,093	18,802	9,904	1,019	49,818
Total creative industries	47,079	44,511	28,177	4,307	124,074
Total all industries	**617,557**	**736,395**	**653,241**	**125,238**	**2,132,431**

Table 41.
Business count by turnover, 2011.

Source: ABS Catalogue No. 8165.0, SGS Economics and Planning, 2013.

The increase in total businesses experienced within the creative industries since the previous report by The CIE has mostly been accommodated within the $0-$50k category for turnover.

As illustrated in Figure 56, turnover varies slightly between creative industries segments and the wider economy. The share of turnover in advertising and marketing, writing, publishing and print media is comparable to the aggregate economy.

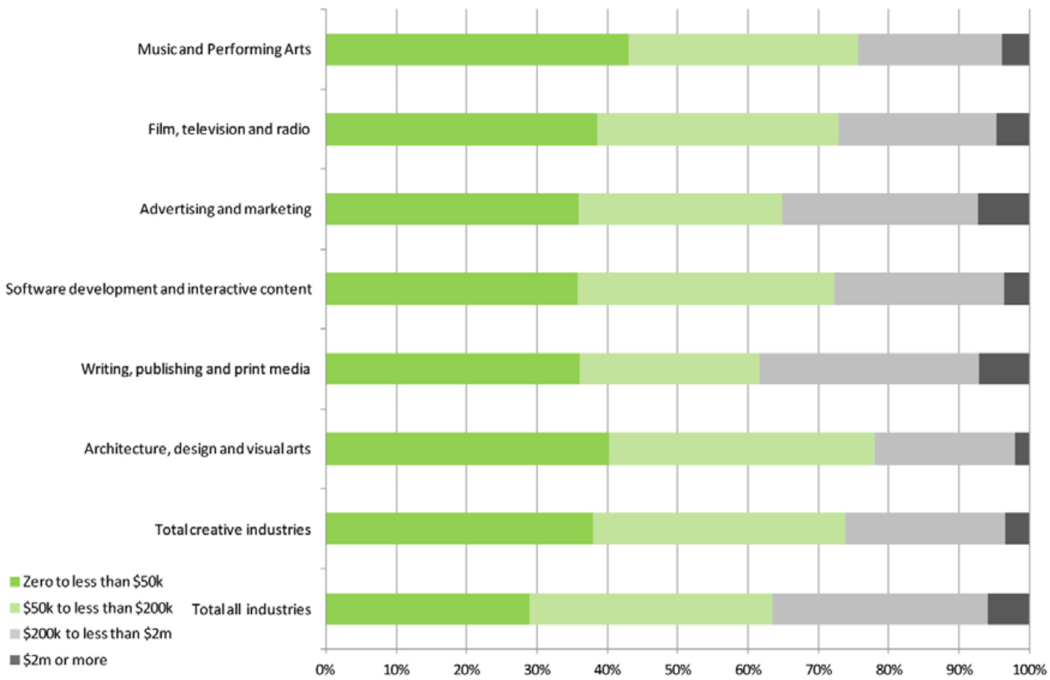


Figure 56.
Business size by turnover, 2006-2011.

Source: ABS Catalogue No. 8165.0, SGS Economics and Planning, 2013.

Location of the creative industries

Location of the creative workforce in Australia

Focusing on the creative workforce by state reveals that workers are concentrated within a few states in Australia. Table 42 highlights that the creative workforce (which includes employment in the creative industries as well as creatives embedded in other industries) is concentrated in New South Wales with almost 40% of the workforce, followed by Victoria with 28% and Queensland with 15%. In the ACT, however, the creative workforce represents a larger share of total employment than within any other state or territory.

There have been marginal movements within the share of the creative workforce in each state between 2006 and 2011, with the creative workforce overall maintaining its share of 4.6% of the total workforce in Australia.

State/Territory	Employment No	Share of creative workforce %	Share of state's total employment %
NSW	177,366	38.5%	5.92%
	(25,910)	(0.19%)	(0.34%)
VIC	127,307	27.6%	5.26%
	(20,006)	(0.22%)	(0.23%)
QLD	70,127	15.2%	3.56%
	(9,258)	(-0.33%)	(0.01%)
WA	35,896	7.8%	3.35%
	(5,492)	(0.02%)	(-0.11%)
SA	23,588	5.1%	3.28%
	(1,258)	(-0.58%)	(-0.11%)
ACT	13,030	2.8%	6.13%
	(1,700)	(-0.07%)	(-0.02%)
TAS	5,895	1.3%	2.82%
	(527)	(-0.09%)	(0.04%)
NT	2,826	0.6%	2.86%
	(420)	(0.00%)	(-0.02%)
Total Australia	460,726	100.0%	4.58%
	(69,255)		(0.11%)

Table 42.
The creative workforce by state, 2006-2011.

Source: SGS Economics and Planning, 2013 using ABS Census of Population and Housing 2006 and 2011.
Note: Numbers in brackets are change between 2006 and 2011.

Location of creative industry businesses

A large proportion of businesses within the creative industries (67%) are located in NSW and Victoria (refer to Table 43). This is followed by Queensland, Western Australia and South Australia.

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
Number of businesses									
Music and Performing Arts	1,446	871	491	153	231	42	22	20	3,276
Film, television and radio	3,225	1,768	875	306	424	73	37	75	6,783
Advertising and marketing	4,621	2,997	2,075	574	795	103	29	117	11,311
Software development and interactive content	19,272	14,119	7,911	2,294	3,925	554	160	1,528	49,763
Writing, publishing and print media	1,197	842	555	133	227	38	15	42	3,049
Architecture, design and visual arts	18,259	14,024	8,390	2,838	4,579	769	253	694	49,806
Total creative industries	**48,020**	**34,621**	**20,297**	**6,298**	**10,181**	**1,579**	**516**	**2,476**	**123,988**
Share of segment									
Music and Performing Arts	44.1%	26.6%	15.0%	4.7%	7.1%	1.3%	0.7%	0.6%	100%
Film, television and radio	47.5%	26.1%	12.9%	4.5%	6.3%	1.1%	0.5%	1.1%	100%
Advertising and marketing	40.9%	26.5%	18.3%	5.1%	7.0%	0.9%	0.3%	1.0%	100%
Software development and interactive content	38.7%	28.4%	15.9%	4.6%	7.9%	1.1%	0.3%	3.1%	100%
Writing, publishing and print media	39.3%	27.6%	18.2%	4.4%	7.4%	1.2%	0.5%	1.4%	100%
Architecture, design and visual arts	36.7%	28.2%	16.8%	5.7%	9.2%	1.5%	0.5%	1.4%	100%
Total creative industries	**38.7%**	**27.9%**	**16.4%**	**5.1%**	**8.2%**	**1.3%**	**0.4%**	**2.0%**	**100%**

Table 43. Creative industry businesses by state, 2011.

Source: ABS Catalogue 8165.0, SGS Economics and Planning, 2013.

Overall, the creative industry businesses breakdown by state has remained consistent with what was reported in 2009.

Summary

This section, a profile of the creative industries using the CIE 2009 definition (as opposed to the main body of this report which adopts the Nesta methodology), finds that:

- Since the analysis conducted in 2009, the creative industries have been heavily affected by economic downturns and changes in technology.
- Changes in technology and the increasing use of the internet for business has potentially led to the decline in the above sectors, with growth occurring in software development and interactive content.
- In relation to the broader economy, the creative industries have been relatively weak in terms of gross product growth but have been relatively stable in terms of industry share of GDP.
- The incomes of those employed within the creative industries grew between 2006 and 2011 and are significantly higher than all other industries.
- In terms of business characteristics, the creative industries have been performing comparably to the aggregate economy.
- In terms of the creative trident, the largest proportion of workers within the creative workforce are support workers, that is those employed in creative industries in non-creative occupations. Within each segment, however, the split between specialist creatives, embedded creatives and support workers varies.
- A significant proportion of the creative workforce is concentrated in New South Wales, specifically in Sydney.

Appendix B: Data sources

ARC CCI (2005) Australia's Creative Economy Information Sheet, https://wiki.cci.edu.au/download/attachments/5598/Australia_Creative_Economy_Information_Sheets.pdf

Australian Bureau of Statistics

- Australian Census of Population and Housing
- Australian and New Zealand Standard Classification of Occupations, Catalogue No. 1220.0.
- Australia and New Zealand Standard Industrial Classifications, Catalogue No. 1292.0.
- Australian Standard Classification of Occupations Catalogue No. 1220.0.
- Australian Industry, Catalogue No. 8155.0.
- Counts of Australian Businesses, including Entries and Exits, Catalogue No. 8165.0.

IBISWorld Industry Reports:

- C1612 Printing Support Services
- R9001 - Music and Theatre Productions
- J5521 - Music Publishing
- R9003 - Performing Arts Venues
- J5511 - Motion Picture and Video Production
- 5514 - Video Postproduction Services
- 5512 - Motion Picture and Video Distribution
- J5610 - Radio Broadcasting
- J5621 - Free-to-Air Television Broadcasting
- J5622 - Pay Television
- M6941 - Advertising Agencies
- M7000 - Computer System Design Services
- J5420 - Software Publishing
- J5411 - Newspaper Publishing
- J5412 - Magazine Publishing
- J5413 - Book Publishing
- C2591 - Jewellery Mfg.
- M6921 - Architectural Services
- M6924 - Specialised Design Services
- M6991 - Professional Photographic Services

Bakhshi, H., Freeman, A, Higgs, P. (2013). A dynamic Mapping of the UK's Creative Industries. Nesta and CCI.

Higgs, P., Cunningham, S., and Bakhshi, H. (2008). Beyond the Creative Industries: Mapping the creative economy in the United Kingdom. Nesta.

Cuningham, S and Higgs, P. (2008). Creative Industries Mapping: where have we come from and where are we going? Creative Industries Journal 1(1). pp 7-30.

Higgs, Peter L. and Cunningham, Stuart D. and Bakhshi, Hasan (2008) Beyond the creative industries: mapping the creative economy in the United Kingdom. Nesta, London http://www.Nesta.org.uk/assets/pdf/beyond_creative_industries_report_Nesta.pdf

Nesta 2013, A dynamic mapping of the UK's creative industries.

Strategic Industry Leaders Group 2005, Unlocking The Potential: Digital Content Industry Action Agenda, http://www.archive.dcita.gov.au/__data/assets/pdf_file/0006/37356/06030055_REPORT.pdf.

Appendix C: IO model notes

It is prudent to understand some of the limitations of using an IO model.

First and foremost, the revenue and GRP estimates produced by the table for a particular region are an industry average for that region. Particular businesses in the region may be generating either more or less revenue and utilising either more or fewer raw materials compared to the industry average benchmark shown by this table. Without a thorough survey of actual businesses in the region, which was beyond the scope of this report, it is difficult to estimate actual revenue of these firms. Having said this, utilising IO models is an established method of measuring output of industries in particular regions. Moreover, entrepreneurs are unlikely to provide a true estimate of their revenues for disclosure reasons even when asked, consequently making a survey based technique to gather such data highly unreliable.

Secondly, the IO model assumes that relationships between industries are static. That is, productivity improvements are not factored in and historic relationships are assumed to hold. Additionally, this approach does not account for any underutilised capacity at the industry level or additional economies of scale that might ensue, as production expands from its existing base. Consequently, the productivity relationships and underutilised capacity observed in 2009 by the national IO tables are assumed to hold by the analysis undertaken in this report.

As a result of these shortcomings, the estimates shown in this report should be considered as approximations

Signature Prints / Photography: Andrew Cowen


SILVER SCRIM
TAN SILK
PINK SILK
LIME SILK
CREAM SILK

Valuing Australia's Creative Industries

Final Report

Creative Industries Innovation Centre

December 2013

CANBERRA
Level 1, 55 Woolley Street
Dickson ACT 2602
+61 2 6262 7603
sgsact@sgsep.com.au

HOBART
Unit 2, 5 King Street
Bellerive TAS 7018
+61 (0)439 941 934
sgstas@sgsep.com.au

MELBOURNE
Level 5, 171 La Trobe Street
Melbourne VIC 3000
+61 3 8616 0331
sgsvic@sgsep.com.au

SYDNEY
Studio 2.09, 50 Holt Street
Surry Hills NSW 2010
+61 2 8307 0121
sgsnsw@sgsep.com.au

Creative Industries Innovation Centre
University of Technology, Sydney
Building 6, Level 4,
702-730 Harris Street
Ultimo NSW 2007

Connect with us
T: 02 8217 5000
contact@creativeinnovation.net.au
creativeinnovation.net.au
Facebook.com/creativeinnovation
Twitter.com/c_innovation

Enterprise Connect Hotline 131 791
enterpriseconnect.gov.au

An Australian Government Initiative

ENTERPRISE CONNECT
Shaping Business, Transforming Industry