

# Creative Industries Statistical Analysis for Western Australia

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This report has been prepared on behalf of the Department of Culture and the Arts.



Government of **Western Australia**  
Department of **Culture and the Arts**

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# Executive Summary

## Background

The Department of Culture and the Arts has a vision of a Western Australian community that is enriched by unique and transforming culture and arts experiences. Enacting this vision is 'Creating Value: an arts and culture sector policy framework', which articulates the public values goals and drivers across four outcomes areas: Creative People; Creative Communities; Creative Economies; and Creative Environments.

This research is an undertaking of the Creative Economies outcome area and may be of assistance to decision-makers in understanding how the profile of the Western Australian creative industries has changed since the initial study was undertaken in 2007 for the City of Perth <http://www.cci.edu.au/publications/perths-creative-industries>.

The Creative Economies outcome area has an over-arching aim of encouraging the economic sustainability of the culture and arts sector and facilitating stronger connections between cultural and creative industries. Through encouraging closer relationships between the subsidised and profit-driven creative sectors, the Department will support growth and development of each.

This report will be used by the Department to generate a greater understanding of the dynamism and potential of the creative industries, and as a key input to policy and program review.

## An Overview of Western Australia's Creative Industries

In Western Australia, the creative workforce represents 3.76% of the state's total workforce (compared to 5.29% nationally). This places Western Australia on par with Queensland and South Australia, but below the comparable proportions for Victoria and New South Wales, where a higher share of the workforce is accounted for by 'creatives'.

Of the state's 41,317 creative workers, 28,485 or over two-thirds (69%) are employed in the creative industries as 'specialist' creatives or support staff; 31% or approximately 12,830 are 'embedded' creatives working in other (non-creative) industry sectors such as public administration, professional services, education and manufacturing.

Approximately 70% of all creative occupations in Western Australia are in the 'creative services' segments (Software and digital content; Architecture and design; and Advertising and marketing). Creative services enterprises and creative entrepreneurs provide inputs that are central to businesses across many industries, from manufacturing and construction to retailing and entertainment.

Around 30% of Western Australia's creative workforce is employed in the 'cultural production' segments (Film, TV and radio; Music, visual and performing arts; and Publishing). This 70/30 split between creative services and cultural production segments is typical of most of Australia's states and territories.

Support staff account for the largest share of Western Australia's creative industries employment, in both the cultural production and the creative services sectors, at 45% and 40% of their employment respectively and 42% of total creative employment. The cultural production segments however, employ a proportionally larger number of specialists (31% of its total employment) than the creative services sectors (23%).

Western Australia's largest creative segment is Software and digital content, which accounts for 13,505 jobs (specialist, support and embedded), or 33% of the state's total creative workforce. This is followed by Architecture and design, which accounts for approximately 9,700 jobs or 23% of Western Australia's creative employment.

Western Australia's smallest creative segment is Film, TV and radio which accounts for fewer than 2,000 jobs state-wide or 5% of total creative employment.

The extent to which creative workers are embedded in other industries differs across segments. Over two-thirds (69%) of Western Australia's Advertising and marketing workers are embedded in other (non-creative) industries. Around one-third of Architecture and design workers are embedded in other industries, while 21% of Software and digital content workers are employed in other (non-creative) sectors.

By comparison, across the three cultural production segments, far fewer workers are employed in industries other than the creative segments.

### Creative Employment Growth

Western Australia's creative workforce grew at an average annual rate of 3.2% or by 5,956 workers, from 35,361 in 2006 to 41,317 in 2011. This is comparable to the state's total workforce growth over the period.

Like elsewhere in Australia, WA's creative employment growth has been strongest in the creative services segments. Employment in Western Australia's creative services grew at an average annual rate of 4.6%, second only to the Northern Territory, where the creative services workforce grew by 5.1% per annum.

Western Australia's Software and digital content segment experienced the highest average annual rate of creative employment growth, of 5.3%, followed by Architecture and design, which grew at an average annual rate of 4.8% between 2006 and 2011.

Average Annual Growth Rate in Employment, 2006-2011		In Creative Industries	In Other Industries	Total Workforce	Creative Employment
2006	In creative occupations	9,057	11,657	20,714	
	In other occupations	14,647	900,765	915,412	
	<b>Total 2006</b>	<b>23,704</b>	<b>912,422</b>	<b>936,126</b>	<b>35,361</b>
2011	In creative occupations	11,095	12,832	23,927	
	In other occupations	17,390	1,056,562	1,073,952	
	<b>Total 2011</b>	<b>28,485</b>	<b>1,069,394</b>	<b>1,097,879</b>	<b>41,317</b>
Average Annual Growth, 2006-2011	In creative occupations	4.1%	1.9%	2.9%	
	In other occupations	3.5%	3.2%	3.3%	
	<b>Total</b>	<b>3.7%</b>	<b>3.2%</b>	<b>3.2%</b>	<b>3.2%</b>

Advertising and marketing (growth of 2.6% per annum) and the state's three cultural production segments – Music, visual and performing arts (1.6%), Publishing (0.8%) and Film, TV and radio (0.2%) – all grew at a rate below Western Australia's average workforce growth (of 3.2% per annum) between 2006 and 2011.

Western Australia's cultural production workforce remained static overall, with a slight increase of 0.3% per annum between 2006 and 2011. With the exception of Victoria and New South Wales, all other states and territories experienced a decline in their cultural production workforce over the five years to 2011.

## **Perth's Creative Industries**

The majority (89%) of Western Australia's creative workforce is located in the Perth metropolitan area. Of the total 41,317 Western Australians employed in creative occupations, 36,873 of those are located in Perth.

Approximately 92% of Western Australia's creative services jobs are located in the capital city. A comparatively higher proportion of the state's jobs in the cultural production segments (17%) are located in non-metropolitan Western Australia.

Comparing Australia's major capital cities, between 2006 and 2011, Perth's average annual rate of creative employment growth of 3.1%, was second only to that of Melbourne (3.9%).

Despite the majority of the state's creative workforce being located in Perth, only 1.2% of Perth's workforce is employed in creative occupations. This is below the comparable proportions for all other major capital cities.

With the exception of Sydney, comparing 2006 and 2011, employment in creative occupations declined as a proportion of the total workforce in all major capital cities including Perth.

Compared to the other capitals, Perth has the highest number of Architecture and Design workers as a proportion of the city's total creative workforce.

Between 2006 and 2011 Perth experienced employment growth across all creative segments with the exception of Publishing, which showed a fall in employment growth in all the major capitals.

Nationally, employment growth in Perth's Architecture and design segment (of 4.6% per annum) was second only to that of Melbourne where employment in Architecture and design increased by 6.1% per annum.

# 1. Introduction

## 1.1 Background

The Department of Culture and the Arts (DCA) aims to deliver Public Value to the Western Australian community through the delivery of services and support for arts and culture as outlined in *Creating Value: an Arts and Culture Sector Policy Framework*.

DCA has undertaken the redevelopment of its website in order to create a more accessible and easy-to-navigate communication platform, which includes the development of a new online information area, the 'Research Hub'. The aim of the Research Hub is to clearly communicate DCA's research and data through a more interactive and publically-accessible avenue.

DCA is also aiming to present research and statistics in a more visually-appealing format. Thus, high quality data analysis is needed that DCA staff can convert into graphs, texts and info-graphics. At the same time, the website redevelopment is an opportunity to aggregate and report on key outcomes from DCA's arts and cultural investment. Facts and information will be updated regularly.

In order to provide Western Australians with background research on the performance of the cultural and creative segments of the Western Australian economy, there will be a section in the Research Hub dedicated to creative industries and related topics. To this end, DCA has commissioned this report to provide an updated analytical overview of the Perth creative industries and similarly structured data for the whole of Western Australia.

## 1.2 Context

### Defining Creative Industries

Terms like 'the creative economy', 'creative industries', 'creative regions' and 'creative cities' are still relatively new phrases in government policy, industry and academic discourse. As the United Nations (2008) explains, the creative industries concept "*is of relatively recent origin, emerging in Australia in 1994 with the launching of the report, Creative Nation. It was given wider exposure by policy-makers in the United Kingdom in 1997, when the Government, through the Department of Culture, Media and Sport, set up the Creative Industries Task Force*".

The cultural and creative industries are those areas of practice that turn original individual creativity into social and commercial outcomes. They draw on Western Australia's unique identity to produce new artistic, cultural and aesthetic-functional products and services for local, national and international markets.

In terms of accurate statistical analysis, a challenge for Western Australia, like elsewhere, is allocating the Australian Bureau of Statistics' detailed 'ANZSIC'<sup>1</sup> industry classifications into the commonly-accepted creative industry segment definitions.

In Australia, the accepted definition of 'creative segments', at least for the purpose of statistical analysis, consists of:

- Music, visual and performing arts;
- Film, TV and radio;

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<sup>1</sup> Australian and New Zealand Standard Industrial Classification

- Advertising and marketing;
- Architecture and design;
- Software and digital content; and
- Publishing.

This is a widely-accepted grouping which has improved upon earlier iterations by more accurately categorising industry sectors according to the role of ‘creativity’ as their primary source of value. It excludes, for example, those sectors which serve as retailers of creative goods and services without generating creative capital in their own right (see discussion on measuring creative industries below).

The creative segments presented herein are similar to classifications used overseas, as demonstrated for example in New York (Center for an Urban Future, December 2005), Hong Kong (Hong Kong Central Policy Unit, 2003) and Singapore (Singapore Department of Statistics, 2003).

**FIGURE 1. CREATIVE SEGMENTS**



### **‘Embedded’ Creatives**

While the commonly-accepted ‘creative segment’ categorisations are valid and also very useful for the purpose of statistical analysis, ‘creativity’ extends beyond rigid industry groupings. This is because, as Hartley (2005) notes, the creative industries depend on “*some decidedly anti-industrial folk*”. Rather than being separate sectors of the economy, creative industries are a pervasive input to many, if not all industries.

This fact is reflected in the statistical analysis presented in this report which, besides measuring employment in creative industries, also identifies employment of creative workers (by occupation) ‘embedded’ in other non-creative industry sectors.

### The ‘Creative Trident’

Measuring the creative industries’ share of the Western Australian workforce needs to include both ‘specialist’ creative activity and ‘creatives’ employed in other sectors of the economy. To capture the full range of employment types the ‘Creative Trident’ has been developed. It includes three categories: creative occupations within the core creative industries (what we term ‘specialists’), creative occupations employed in other (non-creative) industries (termed ‘embedded’ creatives) and non-creative occupations (‘support staff’) employed in the creative industries.

FIGURE 2. WESTERN AUSTRALIA’S 2011 CREATIVE EMPLOYMENT ACROSS THE CREATIVE TRIDENT

Occupation of Employment		In Creative Industries	In Other Industries	Total Workforce	Total (Trident) Creative Employment
	In creative occupations	11,095	<b>12,832</b>	23,927	
	In other occupations	17,390	1,056,562	1,073,952	
	<b>Total Employment</b>	<b>28,485</b>	<b>1,069,394</b>	<b>1,097,879</b>	<b>41,317</b>

Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

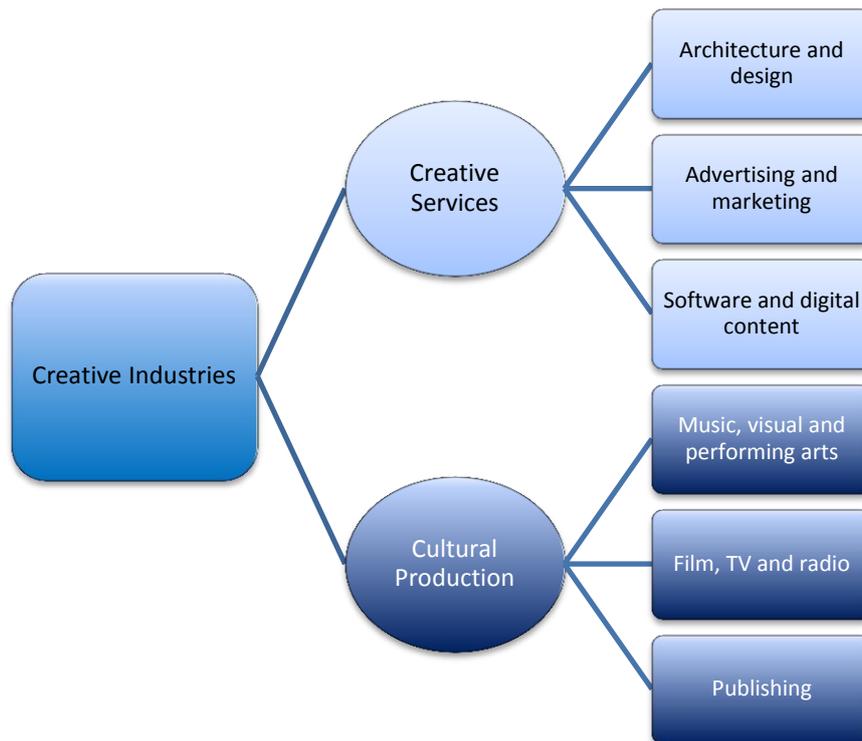
### Creative Services and Cultural Production Segments

Broadly speaking, the six creative segments fall into one of two sub-groups. One is the ‘creative services’ segments which include: architecture and design; advertising and marketing; and software and digital content.

Creative services enterprises and creative entrepreneurs provide inputs that are central to businesses across many industries, from manufacturing and construction to retailing and entertainment. Representing what is in effect, a ‘creative services economy’, creative enterprises add value to production through design, technical performance, packaging and branding.

The ‘cultural production’ segments on the other hand include: film, TV and radio; music, visual and performing arts; and publishing. These sectors embody the role of arts and cultural assets as contributors to quality of life and community well-being and as important contributors to economic activity and economic development in their own right.

FIGURE 3. CREATIVE SERVICES AND CULTURAL PRODUCTION SEGMENTS



### Measuring Creative Employment

Creative employment in all of its complexity and variations is still regarded by policy makers as a critical component of a vibrant society and economy. In the UK the prestigious body charged with overseeing its innovation system, the National Endowment for Education, Science, Technology and the Arts (NESTA) has continued to research and publish on the creative industries.

NESTA's most recent research paper, *A Dynamic Mapping of the UK's Creative Industries*<sup>2</sup>, has broken new ground in the way the set of creative occupations and industries are selected in an effort to improve accuracy and to reduce distortions introduced by special interests and perpetuation of erroneous selections in the original definitions.

The analysis focuses on the activities that define core creative production capacity and thereby excludes those manufacturing, distribution and retailing functions where these are able to be separated from the core creative industries and occupations. Hence, for example, the analysis counts employment in publishing businesses but not printers nor book stores; it also counts employment in post-production services and TV broadcasters but not providers of television transmission towers, and so on.

There is no standard definition of what makes up Australia's creative industries or occupations. Two major studies, *The Economic Contribution of Australia's Copyright Industries* by the Australian Copyright Council and the Australian Bureau of Statistics' *Employment in Culture Australia*, December 2012 have different approaches to that used in this report.

The Australian Bureau of Statistics (ABS) 'cultural employment' definition of industries has until now, been much broader than that contained herein, as it includes zoos, botanical gardens, nature

<sup>2</sup> [http://www.nesta.org.uk/about\\_us/assets/features/a\\_dynamic\\_mapping\\_of\\_the\\_uk\\_s\\_creative\\_industries](http://www.nesta.org.uk/about_us/assets/features/a_dynamic_mapping_of_the_uk_s_creative_industries)

reserves, religious and funeral services, arts education, wholesaling and retailing activities while it does not count elements of digital media and software development critical to cultural and creative production and consumption in Australia. However, the ABS has just released a discussion paper on the feasibility of establishing a Satellite Account for Cultural and Creative Industries. A number of Australian states are using the release of the results from the 2011 Census to update their creative employment estimates to better inform the 'refresh' of their creative industries development strategies.

The Copyright Industries report is broader again in its industry focus as its definition is based on the World Intellectual Property organisation (WIPO) approach and includes wholesaling and retailing such as bookshops, newsstands and cinemas and the manufacture and wholesale of TV sets, computers, musical instruments, photographic materials, photocopiers, blank DVDs and paper, while it only counts part of architectural services, interior design and museums and galleries.

This report uses the NESTA method for defining and measuring the creative industries, which focuses on the activities that define core creative production capacity in both occupations and industries. Following the methodology developed for NESTA, the approach developed by CCI which is used in this report, first evaluates Australia's occupation classifications using five criteria – those scoring 4 or 5 are considered 'creative occupations'.<sup>3</sup> It then calculates the share of employment that creative occupations account for in each of the standard (ANZSIC) industry classifications to generate what it terms 'creative intensity'. Industry classifications with a creative intensity above a statistically determined threshold are deemed 'creative industries'.

### **Comparing this Report with the 2007 Report, *Perth's Creative Industries – An Analysis***

DCA holds research data for a number of cultural and creative initiatives including the state's creative industries research. The data presented in this report builds on the findings of existing information which includes a 2007 report titled *Perth's Creative Industries – An Analysis*.

The original 2007 report on Perth and Western Australia's creative industries used data from a number of different sources including a custom survey of creative businesses to inform the economic modelling. Data on growth rates and densities of businesses was based on the number of registered businesses using the Australian Business Register as the source of the data. The main source of data however, was employment data from the ABS Census of Population and Housing for 2001 and 2006. The 2007 report was prepared for the City of Perth in partnership with DCA and other state government agencies and was largely based on ABS data from the 2001 Census and 2006 Australian Taxation Office (ATO) information. A summary report is available at <http://www.cci.edu.au/publications/perths-creative-industries>.

This report, prepared for the Department of Culture and the Arts (DCA), updates the employment analysis using the most recent, 2011 Census data. Due to a change in the industry and occupation classification codes in 2006, there is a discontinuity which means employment growth between 2001 and 2011 cannot be measured directly. Instead, growth would be shown as between 2001 and 2006 under the previous classification system and from 2006 to 2011 under the current system. As explained earlier, the analysis presented in this report for DCA focuses on the activities that define core creative production capacity and thereby excludes those manufacturing, distribution and retailing functions where these are able to be separated from the core creative industries and

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<sup>3</sup> The originator of the UK's creative industries policy movement, the Department of Culture, Media and Sport, recently released a discussion document to redefine the way creative employment is measured using the methodology published in the Dynamic Mapping Report. See the discussion at <http://www.labkultur.tv/en/blog/nesta-how-big-are-uks-creative-industries-part-2>.

occupations. A detailed explanation of how the new definition differs from the one used in the 2007 report, is presented in Appendix A.

### Using the Census Data

Census data has a number of benefits for creative employment analysis. Firstly, it is an authoritative and inclusive source of data. Secondly, scaling factors, which can expose any results to challenge, have not been used either by the data gatherers or the analysts. The census does provide comprehensive and relatively accurate data that allows us to track changes from census to census, but it has a number of limitations.

The main limitations of census data for measuring creative employment arise directly because they are national datasets and are therefore, required to use standardised classifications to access the data. The census questions, the answers given, and the processes used to encode them, also shape the data. For instance, in the census data a person's industry of employment can only be encoded with one out of the 600 or so standard industry codes that encompass all economic activity. Likewise an individual's occupation of employment can be classified with approximately 1,000 occupations of which some 90 are considered to be 'creative'.

Some occupation codes are quite specific, e.g. "landscape architect" while others may include a mix of occupations that from some points of view seem relatively unrelated - for example, the ANZSCO<sup>4</sup> code 211499 Visual Arts and Crafts Professionals n.e.c (not elsewhere classifiable) includes New Media Artist, as well as Leadlighter and Textile Artist.

The census gathers information on a person's main job only through a series of questions such as "In the main job held last week, what was the person's occupation?" with a similar question for the industry of employment. Unfortunately, we can't use census data to calculate how many people were also working in a second job in a creative or non-creative field and the only data available, from the Throsby series of surveys for the Australia Council<sup>5</sup>, addresses cultural production occupations and not those in creative services. Throsby data indicates that some 37% of artists have only a single job, 33% have an additional arts-related job and 23% have an additional non-arts job while 8% have three jobs.

Another limitation is that income is gathered on total personal income from all sources which could include first and second jobs, grants and investment income. So, unfortunately, there is no way of knowing if the first job provides the bulk of the income for an individual and if the creative component of overall income is improving or reducing.

Despite these limitations, the census data is a valuable and authoritative source of data for assessing the quantum and growth of creative employment and for making direct comparisons between states/territories, cities and regions. To this end, this report uses the NESTA method for defining and measuring the creative industries explained above, providing an updated analytical overview of the Perth creative industries, and similarly structured data for the whole of Western Australia. Comparisons are made, where relevant, with other States and Territories and selected capital cities. It is expected the data will be used to help inform a renewed approach to Western Australia's creative industries policies and strategies.

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<sup>4</sup> Australian and New Zealand Standard Classification of Occupations

<sup>5</sup> Throsby, C.D. and Hollister, V. (2003)

## 2. Western Australia's Creative Industries – An Analysis

### 2.1 Overview

Measuring the creative industries' impact on the broader economy includes both specialist creative activity and creatives employed in other sectors of the economy. To capture the full range of employment types the 'Creative Trident' has been developed. It includes three categories: (1) creative occupations within the core creative industries (i.e. specialists); (2) non-creative occupations (support staff) employed in the creative industries; and (3) creative occupations employed or 'embedded' in other (non-creative) industries.

Table 1 summarises Western Australia's trident creative employment in 2011. Creative employment falls into one of two sub-groups: one is the 'creative services' category, which includes: architecture and design; advertising and marketing; and software and digital content. The other is the 'cultural production' category, which includes: film, TV and radio; music, visual and performing arts; and publishing.

TABLE 1. CREATIVE TRIDENT EMPLOYMENT SUMMARY BY SEGMENT, WESTERN AUSTRALIA, 2011

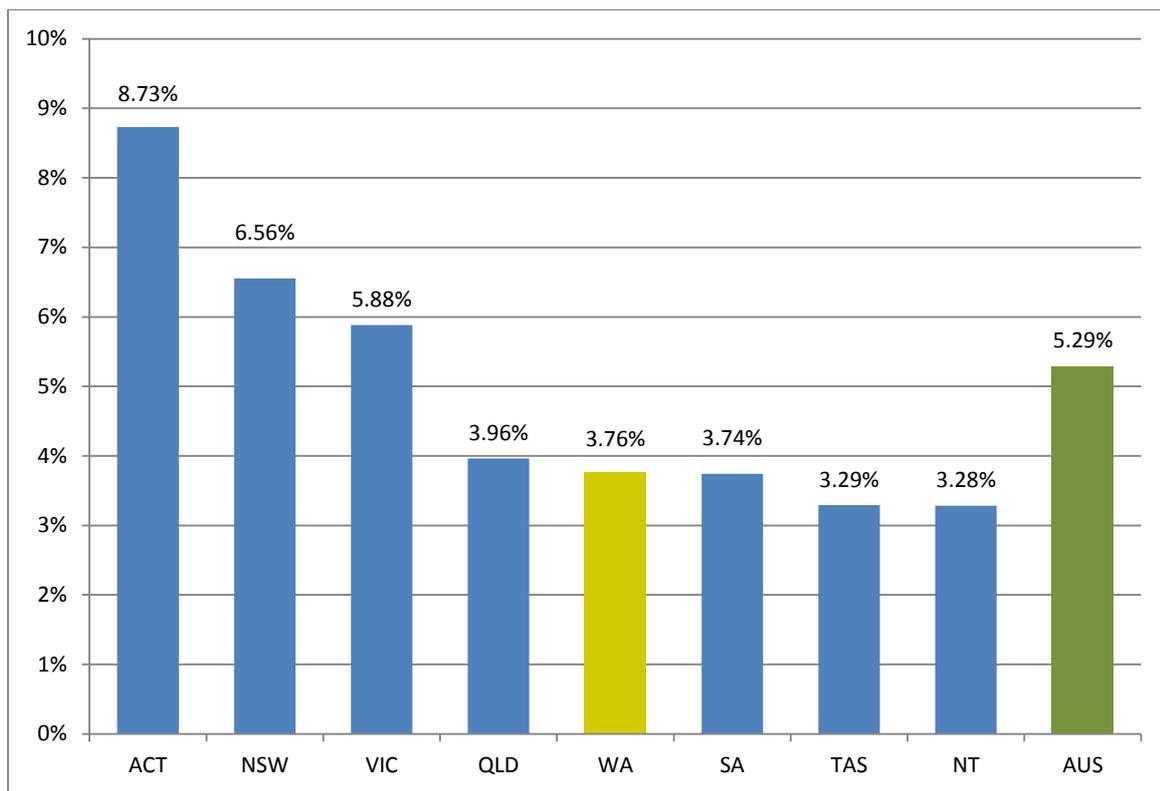
Western Australia's Creative Employment 2011	Creative Services segments				Cultural Production segments				Total Creative Workers
	Advertising and Marketing	Architecture and Design	Software and Digital Content	Total Creative Services segments	Film, TV and Radio	Music, Visual and Performing Arts	Publishing	Total Cultural Production segments	
Specialists	749	3,600	2,417	6,766	893	2,108	1,328	4,329	11,095
Support staff	1,012	2,941	8,304	12,257	797	1,721	2,615	5,133	17,390
Embedded	3,977	3,177	2,784	9,938	246	1,315	1,333	2,894	12,832
<b>Total Creative Employment</b>	<b>5,738</b>	<b>9,718</b>	<b>13,505</b>	<b>28,961</b>	<b>1,936</b>	<b>5,144</b>	<b>5,276</b>	<b>12,356</b>	<b>41,317</b>

Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

Using the trident method of analysis, according to the 2011 Census of Population and Housing, across Australia 5.29% of the workforce are employed in creative occupations. In Western Australia, 3.76% of the workforce is employed in creative occupations.

This places Western Australia on par with Queensland and South Australia in this regard, but below the comparable proportions for Victoria and New South Wales, where a higher proportion of the workforce is accounted for by 'creatives'.

**FIGURE 4. CREATIVE EMPLOYMENT AS A PROPORTION OF THE WORKFORCE, AUSTRALIA'S STATES AND TERRITORIES, 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

In total, approximately 41,300 workers are employed in creative jobs in Western Australia. Of those, 28,485 or over two-thirds (69%) are employed in the creative industries; 31% or approximately 12,830 are 'embedded' creatives working in other (non-creative) industry sectors.

## 2.2 Employment in the Creative Industries

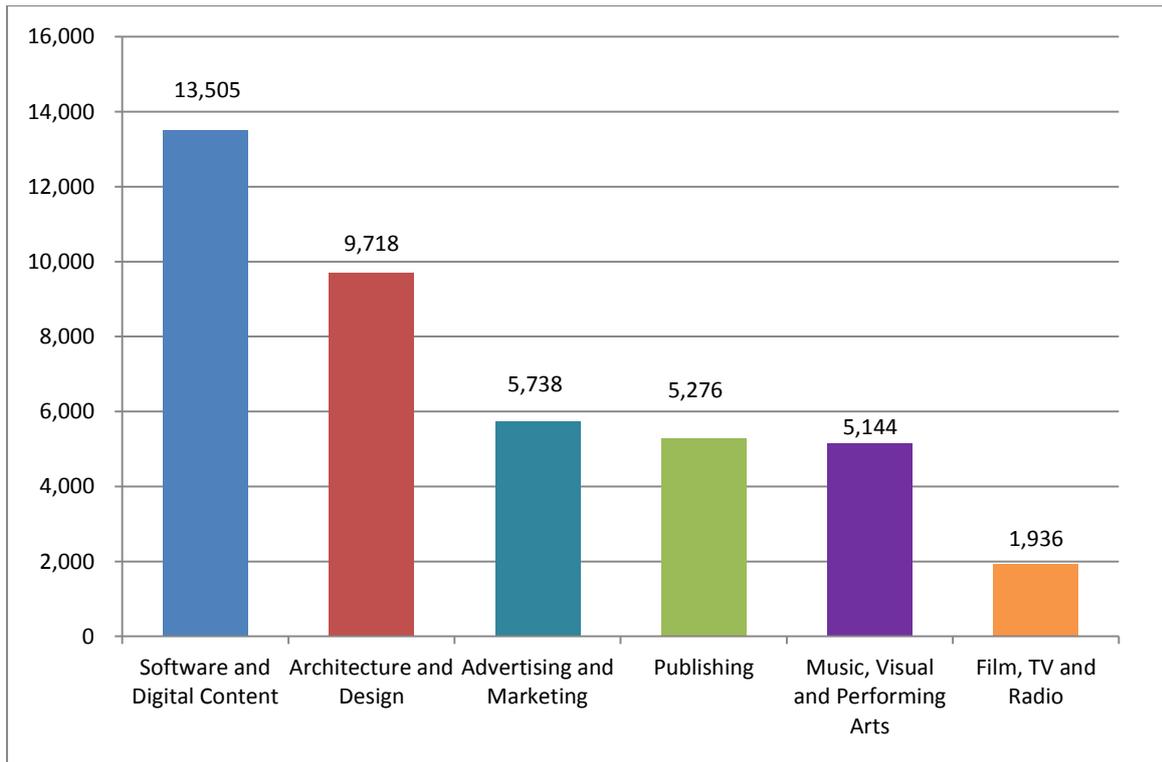
### Creative Employment Totals, Western Australia

Figure 5 illustrates the breakdown of trident employment across creative industries occupations. It shows Western Australia's largest creative segment is Software and digital content, which account for 13,505 jobs (specialist, support and embedded), or 33% of the state's total creative employment. This is followed by Architecture and design, which accounts for approximately 9,700 jobs or 23% of Western Australia's creative employment.

The state's smallest creative segment is Film, TV and radio which accounts for fewer than 2,000 jobs state-wide or 5% of total creative employment.

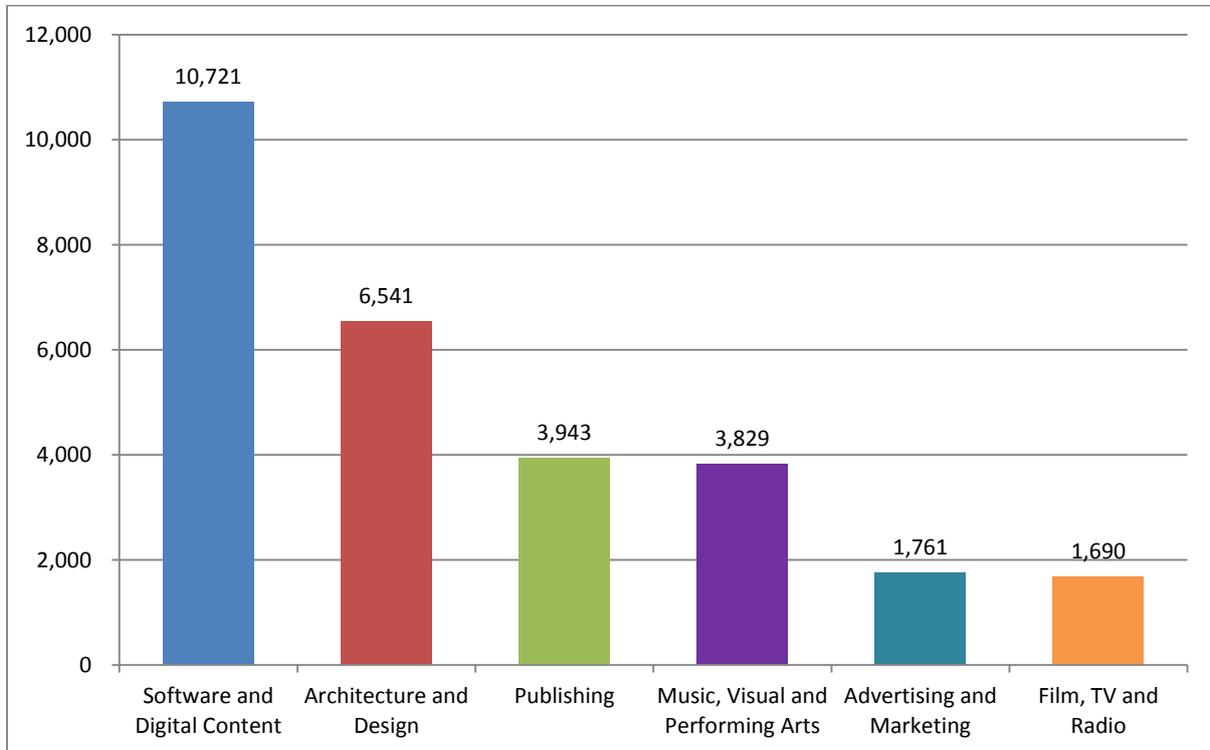
When embedded creatives (in other industries) are removed from the equation, creative employment falls by almost one-third, from 41,317 creative workers to 28,485. Figure 6 illustrates the breakdown of employment by segment excluding embedded creative workers.

**FIGURE 5. CREATIVE TRIDENT EMPLOYMENT TOTALS BY SEGMENT, WESTERN AUSTRALIA, 2011**



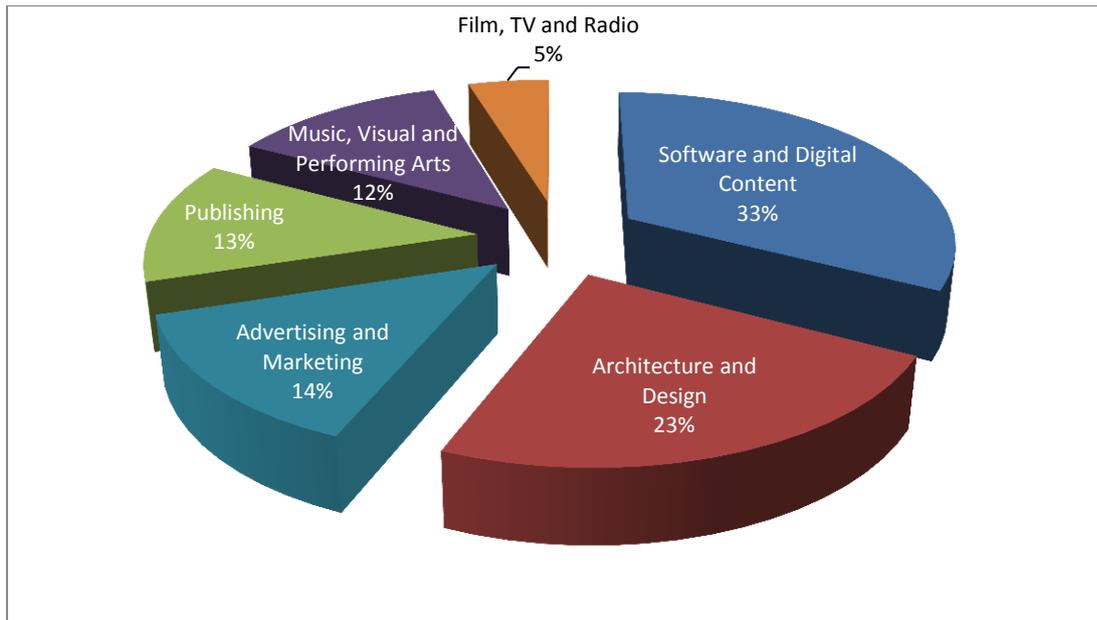
Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

**FIGURE 6. CREATIVE INDUSTRIES (EXCLUDING EMBEDDED) BY SEGMENT, WESTERN AUSTRALIA, 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

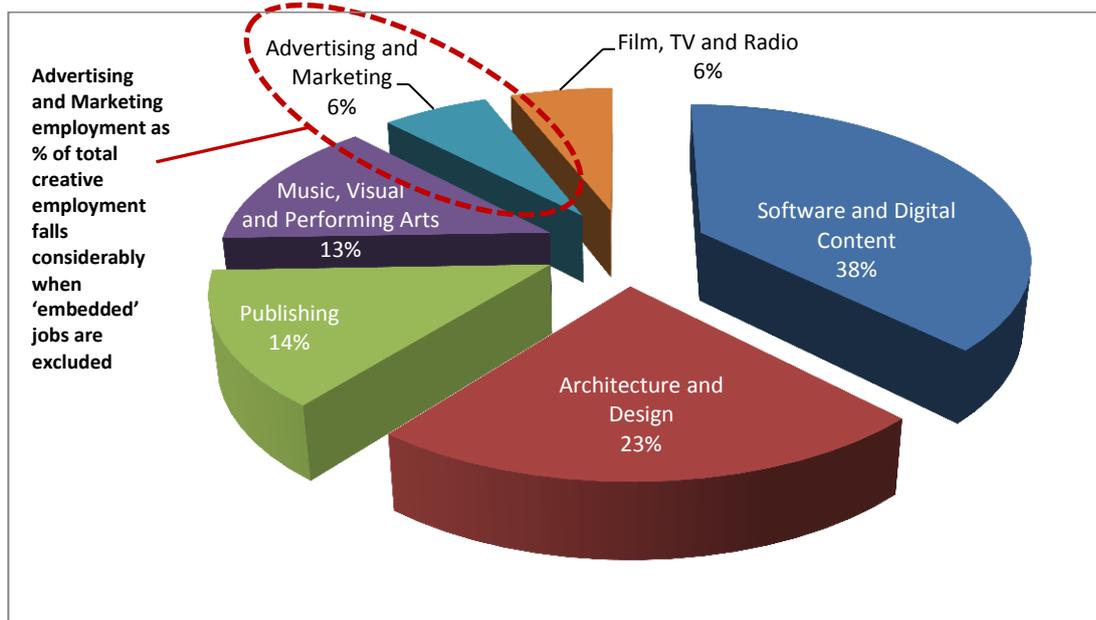
**FIGURE 7. CREATIVE TRIDENT EMPLOYMENT BY SEGMENT (%), WESTERN AUSTRALIA, 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

The following chart shows employment by creative segment excluding those creative jobs which are embedded in other non-creative industry sectors. The chart shows the breakdown by creative segment, of the 28,445 specialist creative workers and support staff who together account for 69% of total trident employment in creative occupations. The smaller proportional share of jobs in the Advertising and marketing segment highlights the large number of creative workers in this segment who are embedded in other industry sectors.

**FIGURE 8. CREATIVE INDUSTRIES EMPLOYMENT (EXCLUDING EMBEDDED) BY SEGMENT (%), WESTERN AUSTRALIA, 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

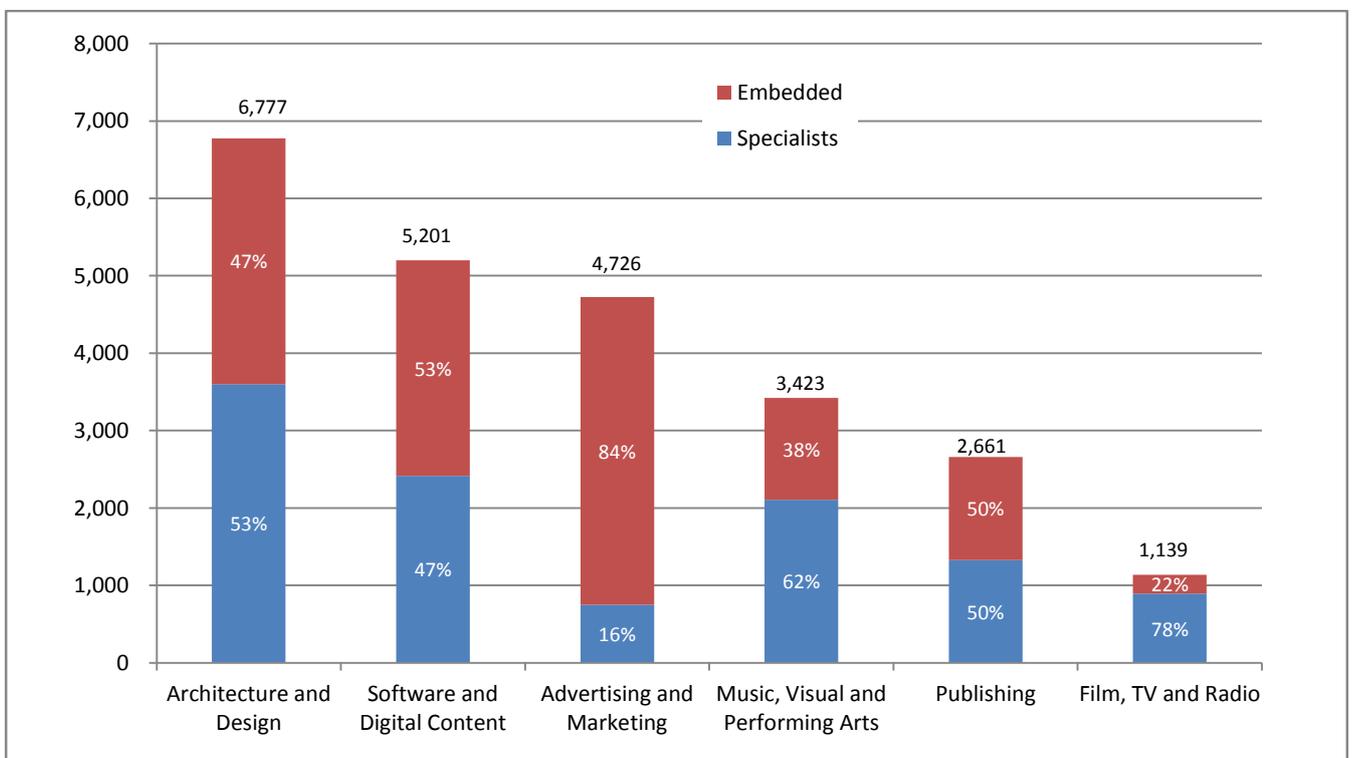
Considering only the creative occupations either employed in the creative industries or embedded in other sectors (i.e. excluding support staff), as shown below, the largest segment of employment is the Architecture and design segment, which employs 6,777 creative workers.

This is followed by Software and digital content (5,201 creative workers) and Advertising and marketing (4,726).

Advertising and marketing has the state’s highest proportion of embedded creatives as a share of total creative workers, with 84%. Only 16% of the Architecture and design segment’s creative workers are specialist creatives working in the creative industries.

The cultural production segments of Film, TV and radio and Music, visual and performing arts employ the state’s highest proportions of specialist creatives, with 78% and 62% of total creative workers respectively.

**FIGURE 9. EMPLOYMENT IN CREATIVE OCCUPATIONS (EXCLUDING SUPPORT STAFF) BY SEGMENT, WESTERN AUSTRALIA, 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

## 2.3 Trident Employment Breakdown by Segment

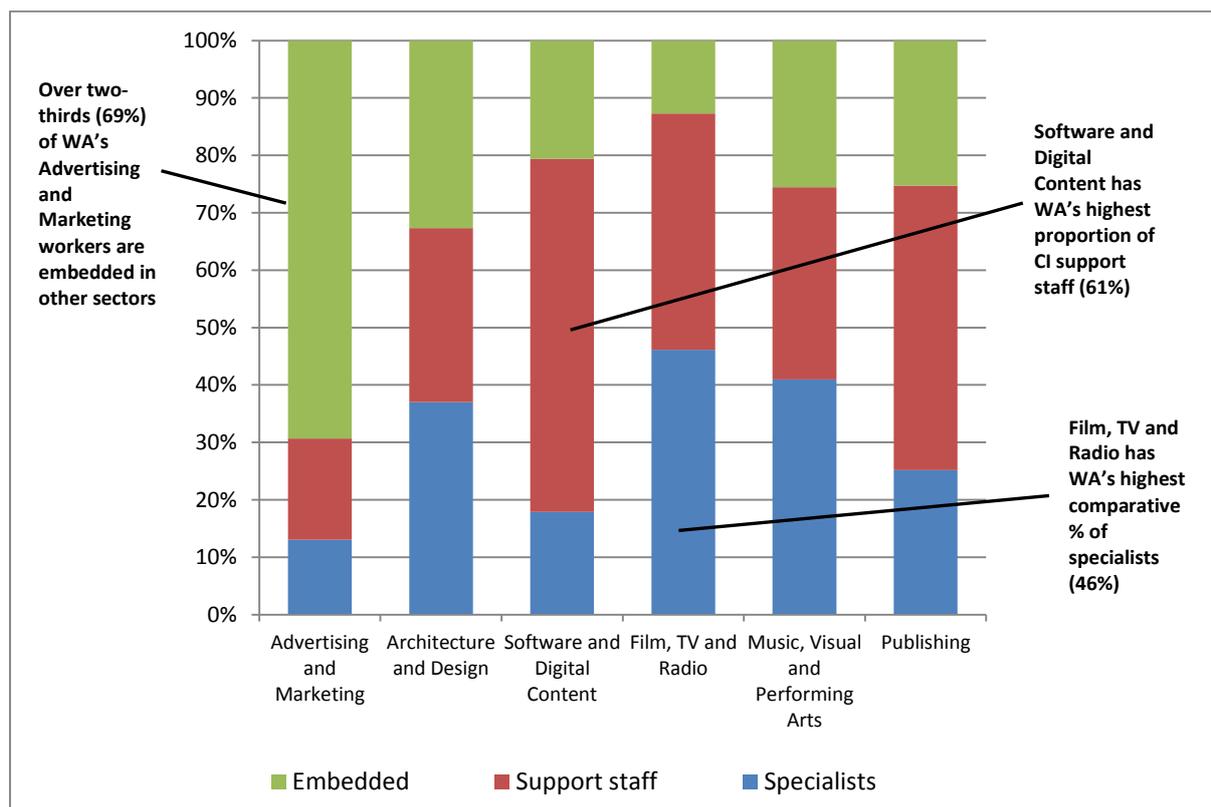
### Creative Employment by Occupation Type by Segment

A large share of creative services workers are employed in other (non-creative industries) sectors. As illustrated in Figure 10, over two-thirds (69%) of Western Australia's Advertising and marketing workers are embedded in other (non-creative) industries. Around one-third of Architecture and design workers are embedded in other industries, while 21% of Software and digital content workers are employed in other (non-creative) sectors.

By comparison, across the three cultural production segments, far fewer workers are employed in industries other than the creative segments: 26% of Music, visual and performing arts employees are embedded in non-creative industries; 25% of Publishing workers; and just 13% of Film, TV and radio employees are employed in other non-creative industries.

The cultural production segments of Film, TV and radio and Music, visual and performing arts employ the highest proportion of specialist creatives with 46% and 41% of total employment respectively.

FIGURE 10. CREATIVE TRIDENT EMPLOYMENT BREAKDOWN BY SEGMENT (%), WESTERN AUSTRALIA, 2011



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

Table 2 summarises Western Australia's trident creative employment and average annual growth between 2006 and 2011. It shows that while total trident creative employment grew at an average annual rate of 3.2% between 2006 and 2011, creative employment in creative industries (excluding embedded) increased at the higher rate of 3.7% per annum over the period.

TABLE 2. CREATIVE TRIDENT EMPLOYMENT GROWTH SUMMARY, WESTERN AUSTRALIA, 2006 TO 2011

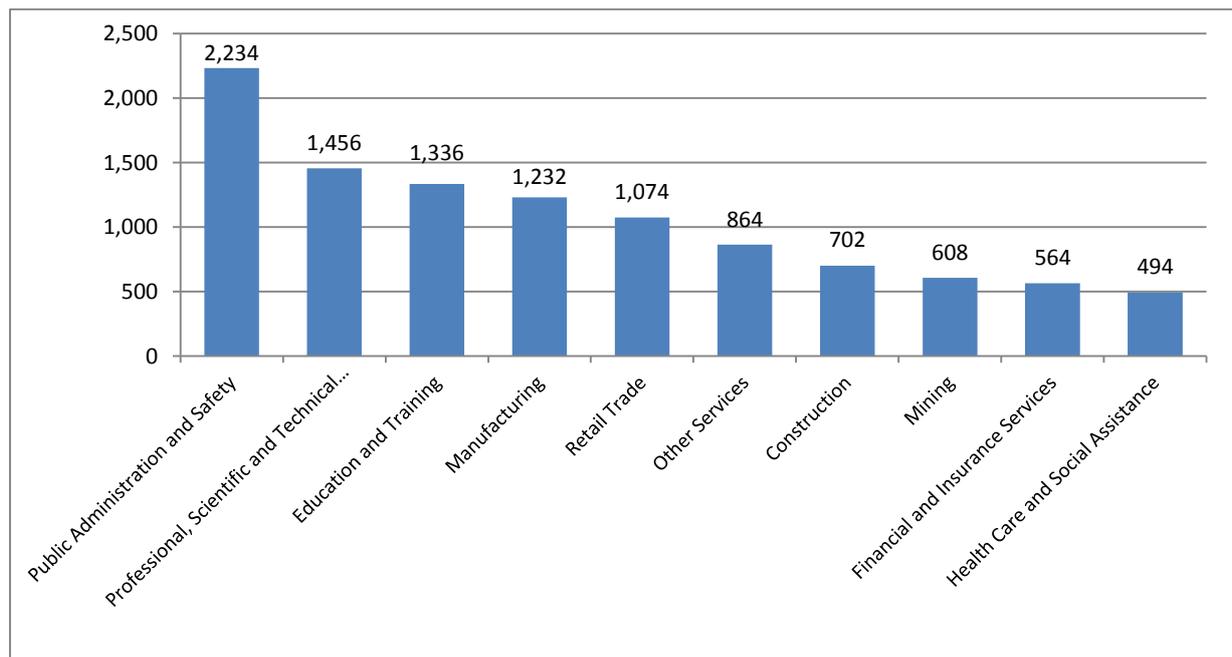
Average Annual Growth Rate in Employment, 2006-2011		In Creative Industries	In Other Industries	Total Workforce	Total Creative Employment
2006	In creative occupations	9,057	11,657	20,714	
	In other occupations	14,647	900,765	915,412	
	<b>Total 2006</b>	<b>23,704</b>	<b>912,422</b>	<b>936,126</b>	<b>35,361</b>
2011	In creative occupations	11,095	12,832	23,927	
	In other occupations	17,390	1,056,562	1,073,952	
	<b>Total 2011</b>	<b>28,485</b>	<b>1,069,394</b>	<b>1,097,879</b>	<b>41,317</b>
Average Annual Growth, 2006-2011	In creative occupations	4.1%	1.9%	2.9%	
	In other occupations	3.5%	3.2%	3.3%	
	<b>Total</b>	<b>3.7%</b>	<b>3.2%</b>	<b>3.2%</b>	<b>3.2%</b>

Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

### Creative Employment in other (Non-Creative) Industries

As illustrated in Figure 11, the (non-creative) industry sectors in Western Australia with the largest representation of employees in creative roles is Public administration and safety (2,234 creative workers) followed by Professional, scientific and technical services (1,456), Education and training (1,336), Manufacturing (1,232) and Retail Trade (1,074).

FIGURE 11. TOP TEN NON-CREATIVE SECTORS OF EMPLOYMENT OF CREATIVE WORKERS, WESTERN AUSTRALIA, 2011



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

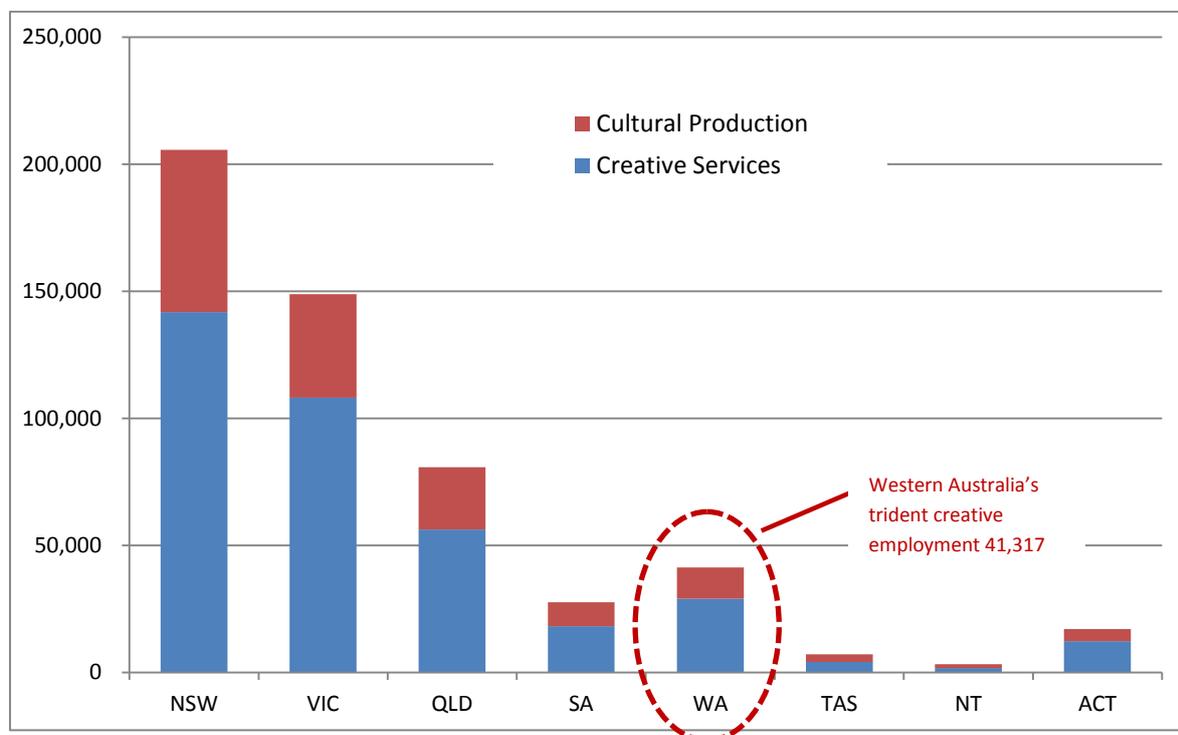
## 2.4 Creative Services and Cultural Production Segments

As explained in the introduction, broadly speaking, the six creative industries segments fall into one of two sub-groups: the creative services and the cultural production segments.

The creative services segments include: architecture and design; advertising and marketing; and software and digital content. Creative services enterprises and creative entrepreneurs provide inputs that are central to businesses across many industries, from manufacturing and construction to retailing and entertainment. Representing what is in effect, a ‘creative services economy’, creative enterprises add value to production through design, technical performance, packaging and branding.

The cultural production segments include: film, TV and radio; music, visual and performing arts; and publishing. These sectors embody the role of arts and cultural assets as contributors to quality of life and community well-being and as important contributors to economic activity and economic development in their own right.

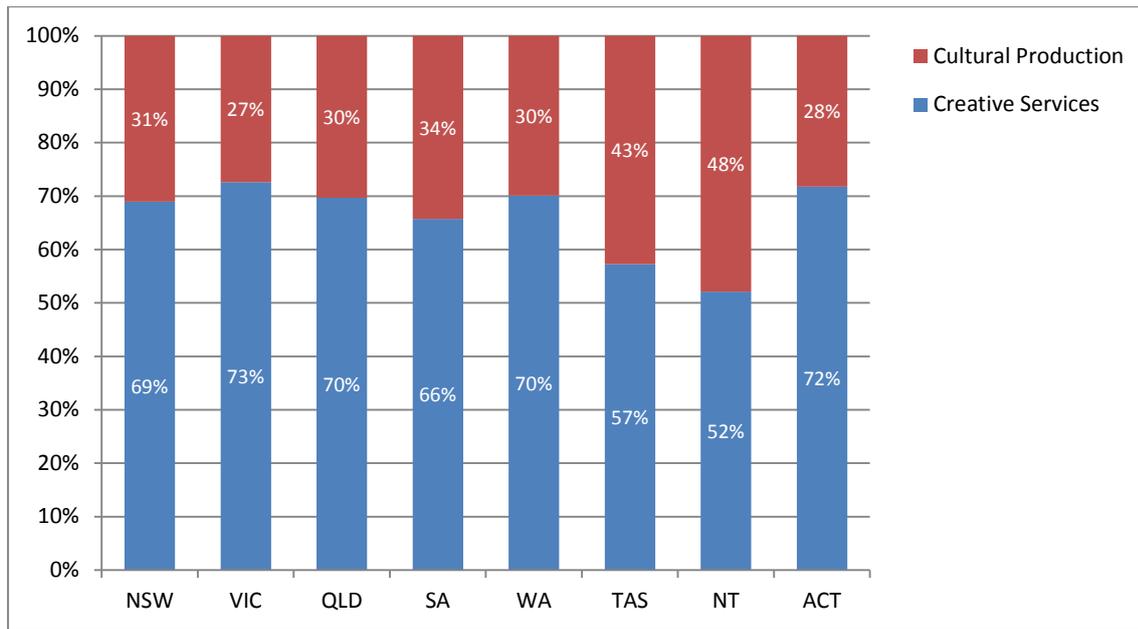
**FIGURE 12. CULTURAL PRODUCTION AND CREATIVE SERVICES SEGMENTS EMPLOYMENT BY STATE/TERRITORY, 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

Approximately 70% of all creative occupations in Western Australia are in the creative services economy with 30% in the cultural production segments. This split is typical of most of Australia’s states and territories with the exception of Tasmania and the Northern Territory, where the cultural production segments account for as much as 57% of creative occupations. This is partly a reflection of the small numbers of creative services workers in Tasmania and the Northern Territory, particularly in Advertising and marketing and Architecture and design.

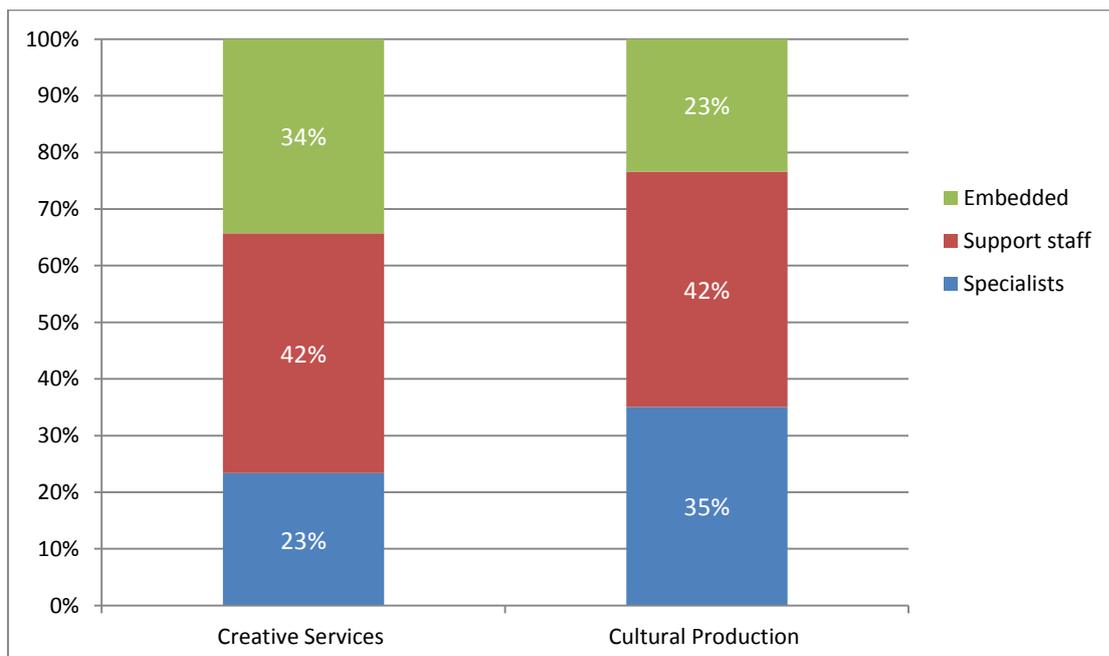
**FIGURE 13. PROPORTIONAL BREAKDOWN OF CULTURAL PRODUCTION AND CREATIVE SERVICES EMPLOYMENT BY STATE/TERRITORY, 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

Support staff account for the largest share of Western Australia’s creative industries employment, in both the cultural production and the creative services sectors, at 45% and 40% of their employment respectively and 42% of total creative employment. The cultural production segments however, employ a proportionally larger number of specialists (31% of its total employment) than the creative services sectors (23%).

**FIGURE 14. CULTURAL PRODUCTION AND CREATIVE SERVICES TRIDENT EMPLOYMENT BREAKDOWN (%), WESTERN AUSTRALIA, 2011**



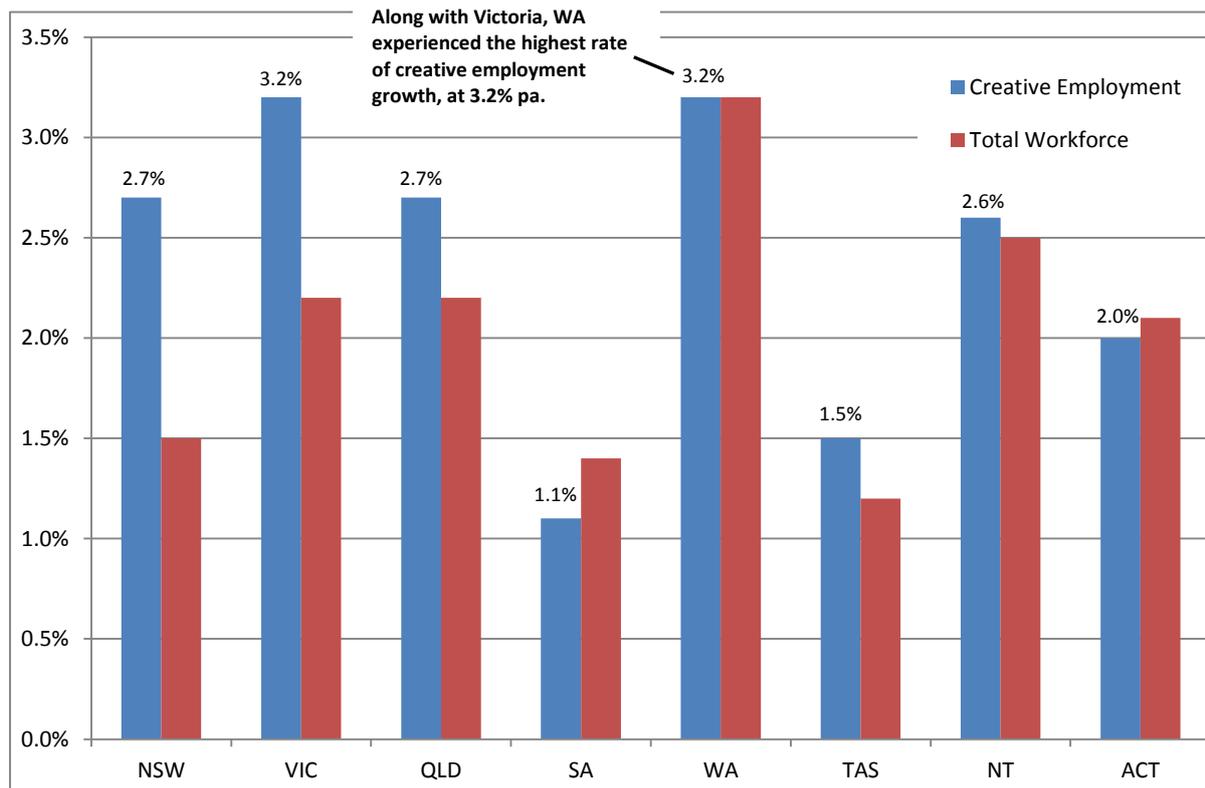
Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

## 2.5 Trends in Creative Employment

### Growth in Creative Employment by State/Territory

Between 2006 and 2011, Western Australia, along with Victoria, experienced the nation's highest average annual rate of growth in creative employment, at 3.2%. The state's creative employment growth was on par with Western Australia's total workforce growth over the same period.

FIGURE 15. AVERAGE ANNUAL GROWTH IN CREATIVE EMPLOYMENT BY STATE/TERRITORY, 2006 TO 2011



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

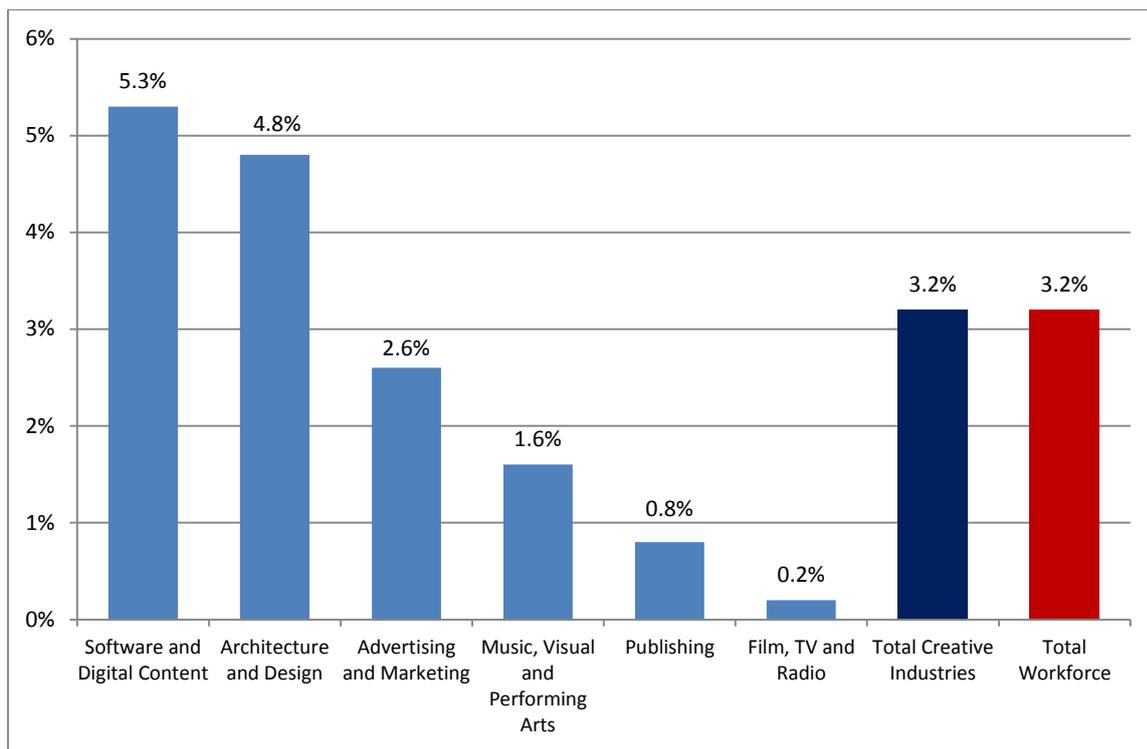
### Growth in Western Australia's Creative Employment by Segment

Western Australia's creative employment grew, on average, by 3.2% per annum between 2006 and 2011, which was on a par with the state's workforce growth over the period. However, the rates of employment growth differed between the state's creative services and cultural production segments.

The creative services experienced the strongest growth over the period, with the Software and digital content segment showing the highest average annual rate of growth, of 5.3%, followed by Architecture and design, which grew at an average annual rate of 4.8% between 2006 and 2011.

Advertising and marketing (growth of 2.6% per annum) and the three cultural production segments – Music, visual and performing arts (1.6%), Publishing (0.8%) and Film, TV and radio (0.2%) – all grew at a rate below the state's average workforce growth between 2006 and 2011.

**FIGURE 16. AVERAGE ANNUAL GROWTH IN CREATIVE EMPLOYMENT BY SEGMENT, WESTERN AUSTRALIA, 2006 TO 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

### Creative Segment Growth by State and Territory

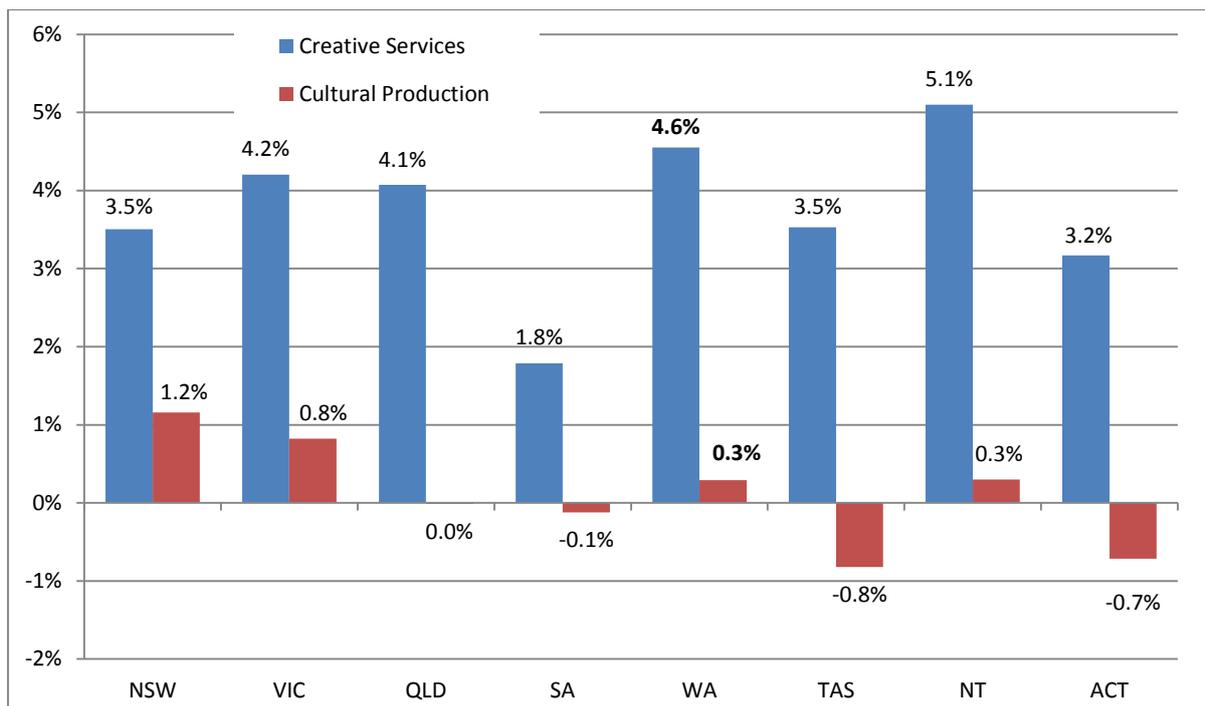
Comparing creative employment growth by state and territory shows that Western Australia experienced the highest rate of creative industries growth, at 3.2% per annum between 2006 and 2011. Like elsewhere in Australia, WA's growth was strongest in the creative services segments.

Employment in Western Australia's creative services grew at an average annual rate of 4.6%, which is higher than the rates of growth experienced in wither New South Wales, Queensland or Victoria. Western Australia's cultural production workforce remained static overall, with a slight increase of 0.3% per annum between 2006 and 2011.

Western Australia displayed notable comparative growth in employment in the Architecture and design segment, driven by specialist creatives. The Software and digital content segment displayed the highest rate of average annual growth amongst the state's creative segments, increasing by 5.3% per annum between 2006 and 2011.

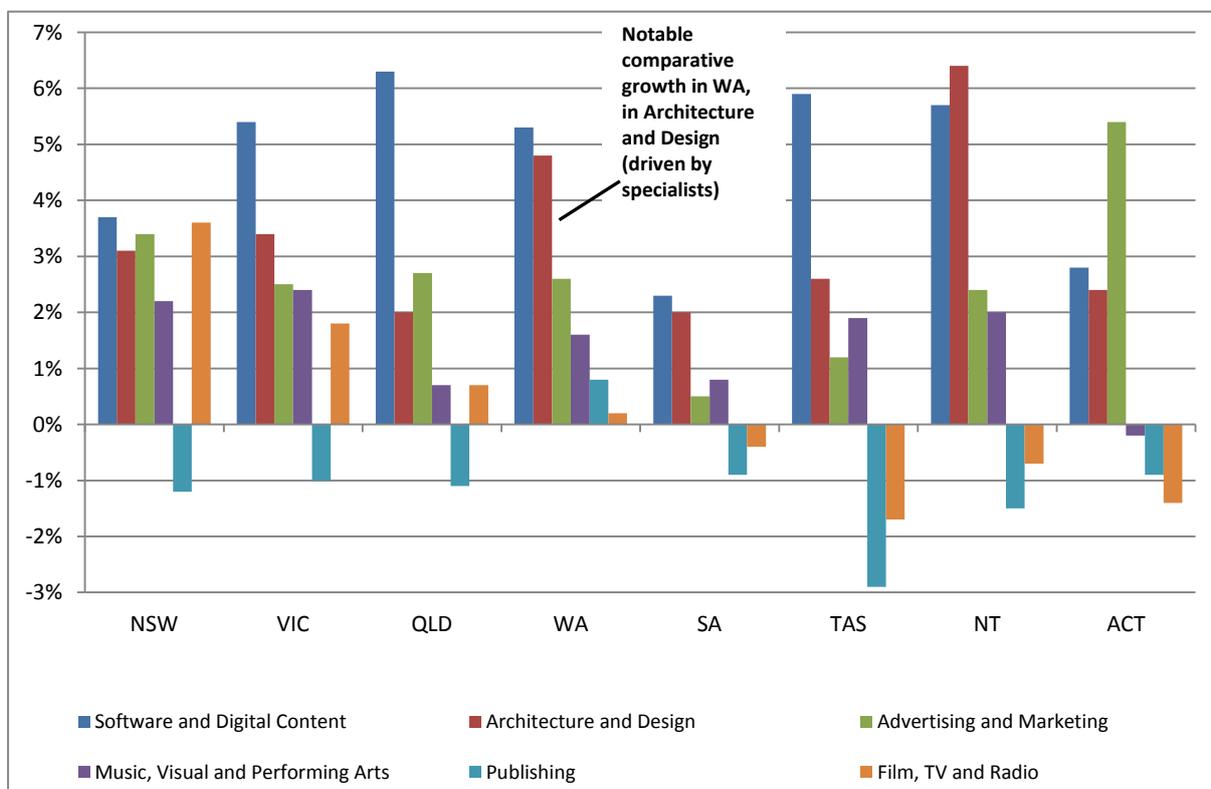
Nationally, Western Australia was the only state where creative employment growth was either static or positive across all segment totals.

**FIGURE 17. AVERAGE ANNUAL GROWTH IN CREATIVE SERVICES AND CULTURAL PRODUCTION EMPLOYMENT BY STATE/TERRITORY, 2006 TO 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

**FIGURE 18. AVERAGE ANNUAL GROWTH IN CREATIVE EMPLOYMENT BY SEGMENT BY STATE/TERRITORY, 2006 TO 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

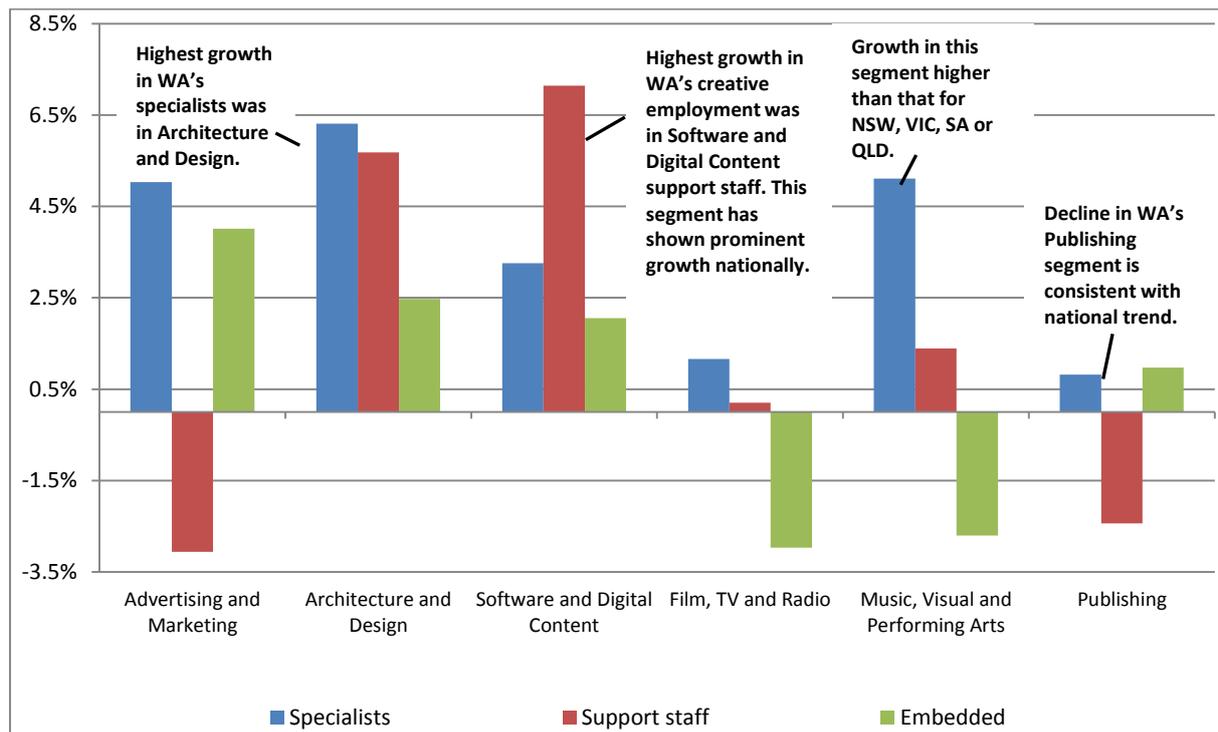
## Creative Employment Growth, Western Australia

A closer look at Western Australia's creative employment growth by segment reveals above-average growth in a number of specialist and support occupations. The highest growth in Western Australia's creative employment was in Software and digital content support staff, at 7.1% per annum. This segment has shown prominent growth nationally.

The highest growth in Western Australia's specialists was in Architecture and design (6.3% per annum) followed by the cultural production segment of Music, visual and performing arts (5.1% per annum). Interestingly, over the five year period to 2011 specialist workers in WA's Music, visual and performing arts segment displayed higher growth in Western Australia than it did for specialists in New South Wales, Victoria, South Australia or Queensland.

Notable declines were evident in support staff employment in the cultural production industry segments of Film, TV and radio (a fall of 3.0% per annum) and Music, visual and performing arts (down 2.7% per annum). The 2.7% per annum drop in support staff employment in the Publishing segment was reflective of a national trend, which saw employment in this area fall across all states and territories.

**FIGURE 19. AVERAGE ANNUAL GROWTH IN CREATIVE EMPLOYMENT BY OCCUPATION AND SEGMENT, WESTERN AUSTRALIA, 2006 TO 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

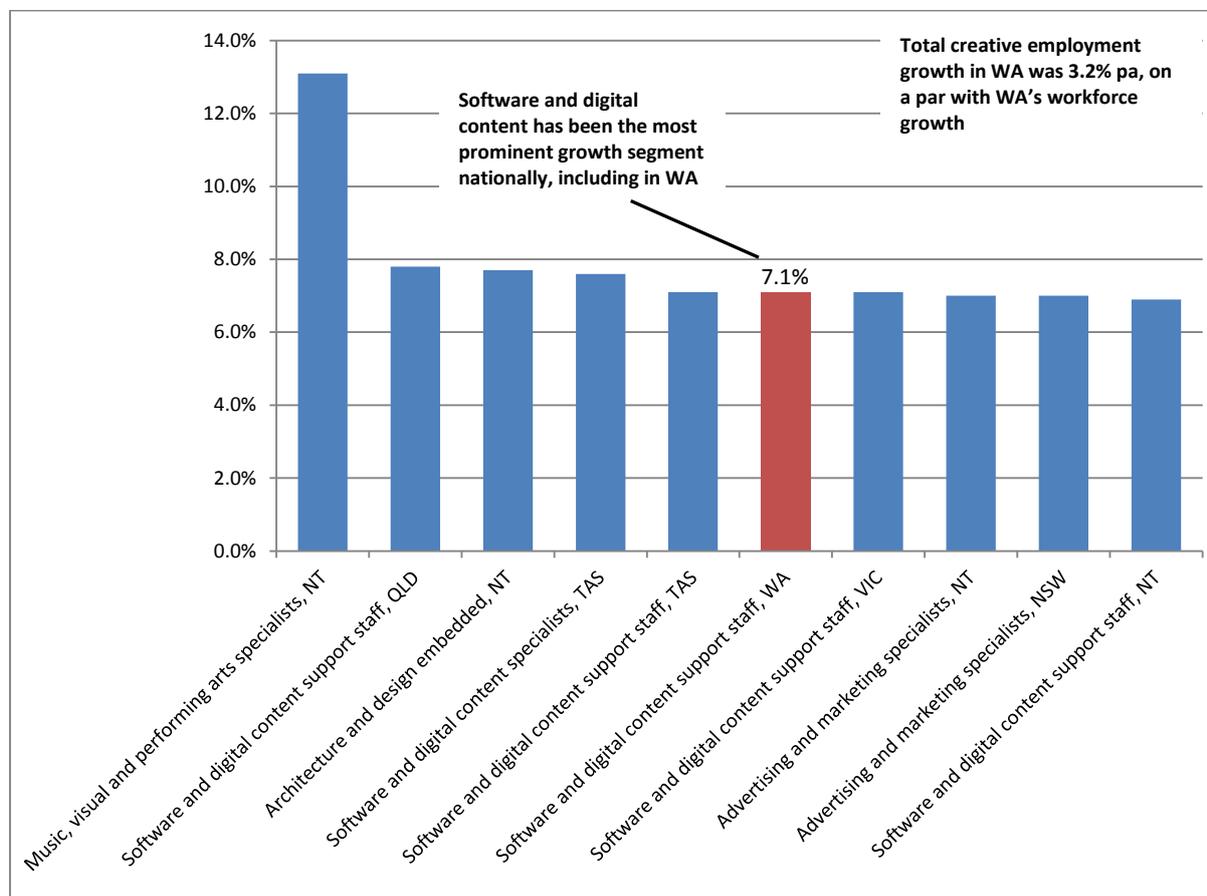
## Growth in Creative Industries Occupations: Top Ten Nationally

With the exception of specialist creatives in the Northern Territory’s Music, visual and performing arts segment, which grew from a very small base, the majority of creative occupations which displayed comparatively high employment growth throughout Australia were in the creative services economy.

The majority of the top ten performers in terms of employment growth were either support staff or specialists in the creative services.

The Software and digital content sector has been the most prominent creative industries growth segment nationally, including in Western Australia where employment of Software and digital content support staff grew by 7.1% per annum between 2006 and 2011.

**FIGURE 20. AVERAGE ANNUAL GROWTH IN CREATIVE EMPLOYMENT: TOP TEN OCCUPATIONS BY SEGMENT NATIONALLY, 2006 TO 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

## Western Australia's Creative Employment Growth and Share

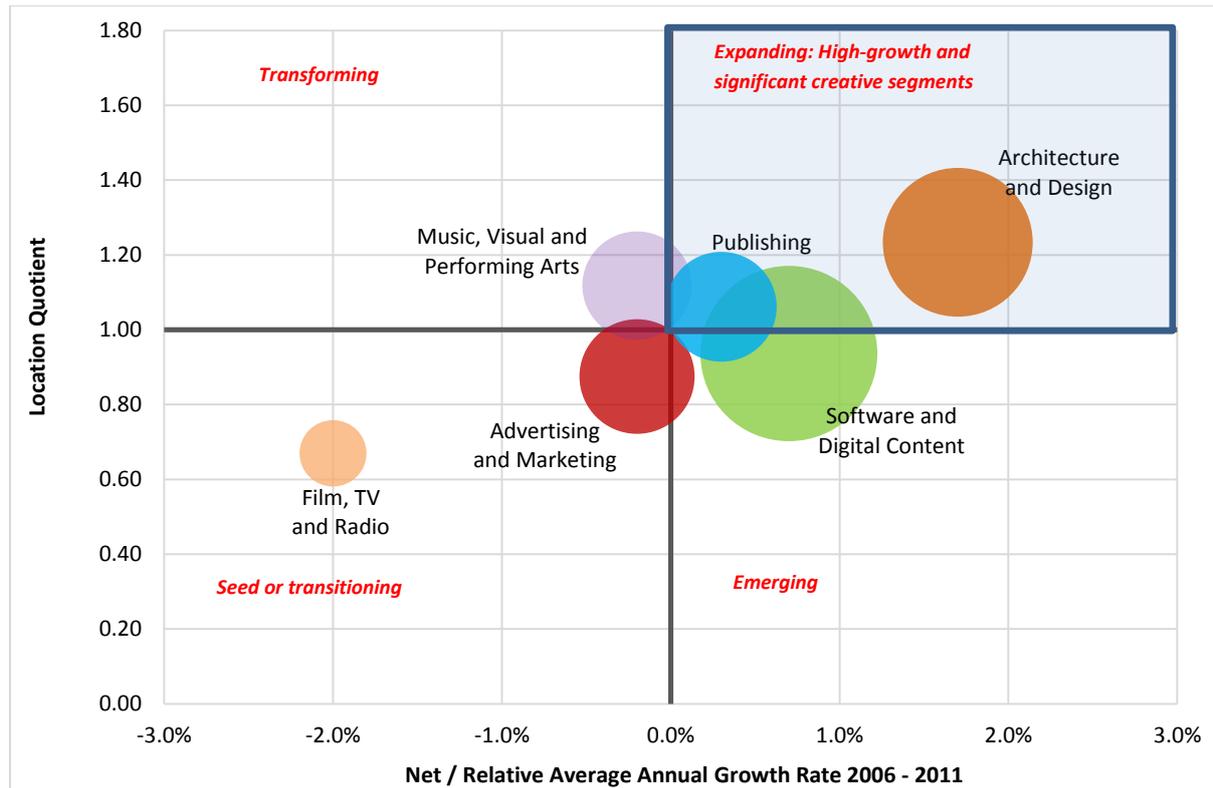
A 'growth-share matrix', highlights how each of Western Australia's creative segments (as defined by trident employment numbers) differs from Australia as a whole with respect to its relative size (or specialisation), relative (or net) growth compared to the Australian average and employment share.

Industry specialisation is measured using location quotient (LQ) analysis of industry employment data. A location quotient (LQ) is an index or ratio which derived by comparing the proportion of jobs in each creative segment in Western Australia with the proportion of jobs in the same sector for Australia as a whole.

A location quotient greater than 1.0 indicates an 'over-representation' of jobs in that segment in WA, suggesting a quantum of those jobs is generated by external inter-regional export (non-local) demand. Stages in the growth-share matrix are as follows:

- **Expanding:** If in the top right quadrant (high average annual growth/higher than average concentration – as defined by the segment's location quotient). This is excellent news, implying a strong, adaptive industry sector.
- **Emerging:** If in the lower right quadrant (high average annual growth/below average concentration), this is also good news, implying an emerging, growing creative segment that may need assistance to mature.
- **Transforming:** If in the upper left quadrant (lower than average annual growth/above average concentration), this is not good news, implying the industry is at risk (overall) and needing to increase innovation and productivity to compete with other states or regions.
- **Seed or Transitioning:** If in the lower left quadrant (lower than average annual growth/lower than average concentration), this could imply that the industry segment is neither developed nor growing in Western Australia, or it could also mean that the 'seed' creative segment has some potential for growth.

**FIGURE 21. CREATIVE SEGMENTS GROWTH AND SHARE, WESTERN AUSTRALIA, 2006 - 2011**



Source: ABS Census of Population and Housing, Time Series Profile, 2011 with interpretations by SC Lennon & Associates and CCI

Figure 21 illustrates where Western Australia’s creative segments sits with respect to its rate of relative average annual employment growth between 2006 and 2011 and their level of specialisation as indicated by their location quotient (LQ). Western Australia’s highest-performing creative segments - those that are growing and which demonstrate a high level of specialisation in WA relative to the Australian average, and which lead the state’s creative industries economic contribution - include: Architecture and design; and Software and digital content. These segments are also the state’s largest creative segments in employment terms.

Western Australia’s publishing sector is in a period of transformation with static average annual growth and above-average concentration. Advertising and marketing is a transitioning segment with static relative growth and lower than average concentration despite its relatively large share of WA’s creative employment.

Western Australia’s fledgling Film, TV and radio segment is neither developed nor growing. However, a more detailed assessment of sub-sectors within this segment may reveal some potential for growth.

Each of Western Australia’s creative segments, depending on its relative size, level of growth and specialisation, will require appropriately different policy responses to support economic growth and development.

## Architecture and Design's Growth and Share by Sub-sector

Figure 22 illustrates where each sub-sector within Western Australia's Architecture and design segment sits with respect to its rate of relative average annual employment growth between 2006 and 2011 and level of specialisation as indicated by the sector's location quotient (LQ).

The chart reveals that all of the Architecture and design segment's sub-sectors are performing well, with all sitting in either the expanding or emerging stage of development.

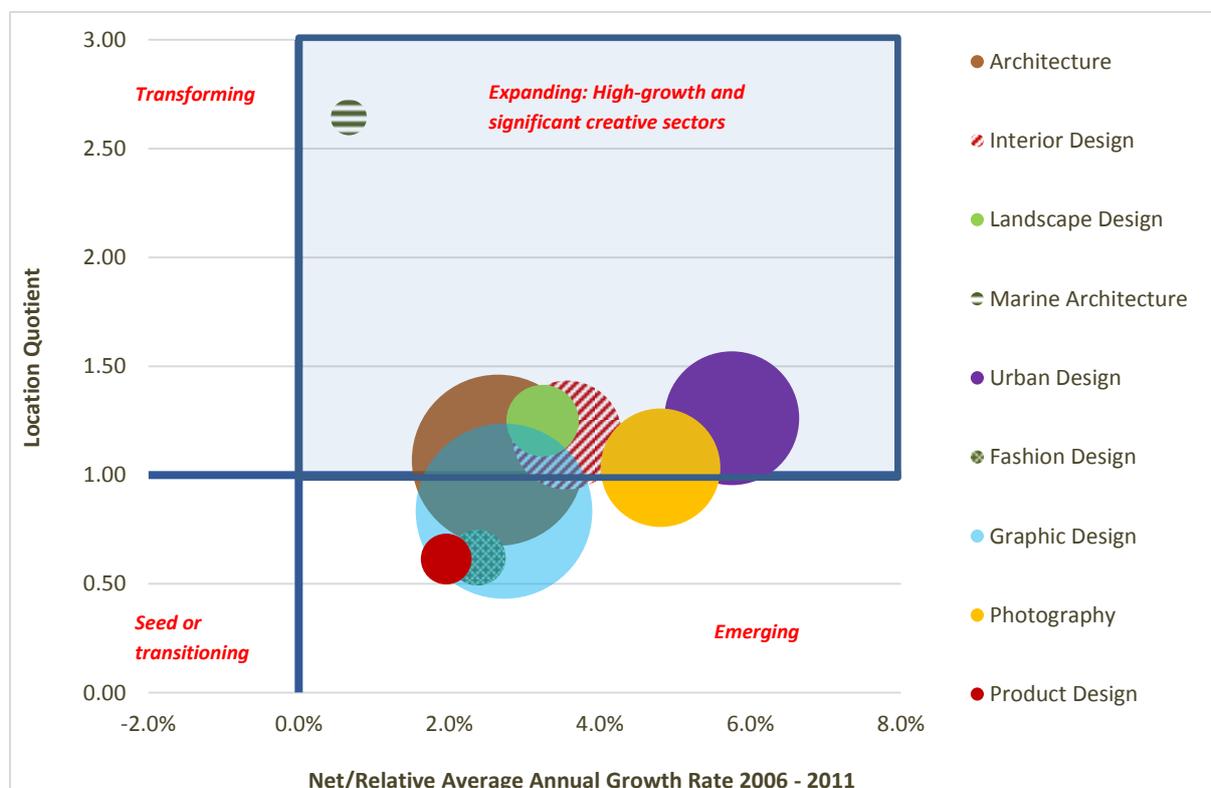
The highest-performing sub-sectors - those that are growing and which demonstrate a high level of specialisation in WA relative to the Australian average - include: Architecture, Interior Design, Landscape Design, Urban Design and Photography.

The Architecture and Graphic Design sub-sectors are the segment's largest sectors in employment terms, followed by Urban Design.

Graphic design has also displayed strong relative growth between 2006 and 2011 although it has a less than average concentration compared to Australia as a whole.

While Fashion Design, Product Design and Marine Architecture all appear to be performing well in terms of their growth and relative concentration, these are very small sectors in employment terms, each employing fewer than 200 people.

**FIGURE 22. ARCHITECTURE AND DESIGN SEGMENT'S GROWTH AND SHARE, WESTERN AUSTRALIA, 2006 - 2011**



Source: ABS Census of Population and Housing, Time Series Profile, 2011 with interpretations by SC Lennon & Associates and CCI

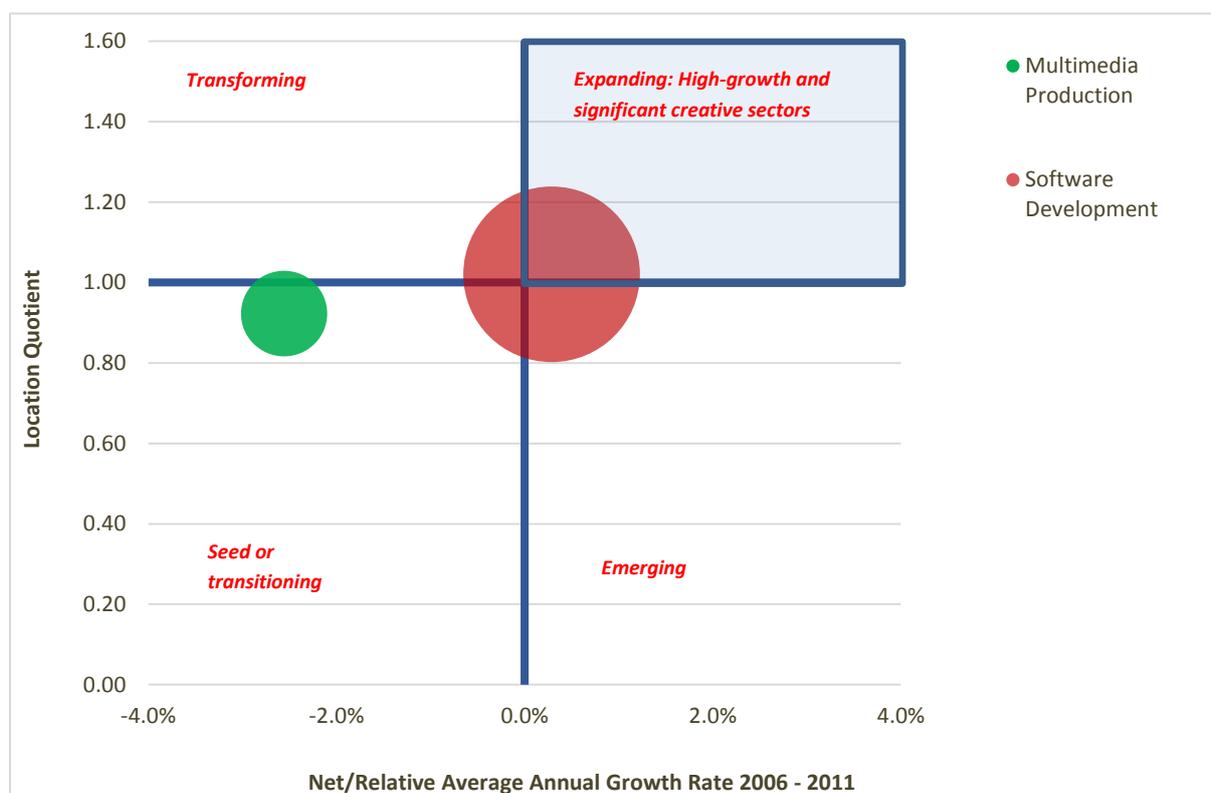
## Software and Digital Content's Growth and Share by Sub-sector

Figure 23 illustrates where each sub-sector within Western Australia's Software and digital content segment sits with respect to its rate of relative average annual employment growth between 2006 and 2011 and level of specialisation as indicated by the sector's location quotient (LQ).

The chart shows the Software Development sub-sector dominates the segment's employment share with around 80% of total employment. This sector displays a relative specialisation (a location quotient of 1.03), while growth between 2006 and 2011 has been static at 0.3% per annum.

The Multimedia Production sector, which accounts for 965 workers, has a lower than average annual net growth and lower than average concentration, suggesting the industry sector is neither developed nor growing in Western Australia.

**FIGURE 23. ARCHITECTURE AND DESIGN SEGMENT'S GROWTH AND SHARE, WESTERN AUSTRALIA, 2006 - 2011**



Source: ABS Census of Population and Housing, Time Series Profile, 2011 with interpretations by SC Lennon & Associates and CCI

## Advertising and Marketing's Growth and Share by Sub-sector

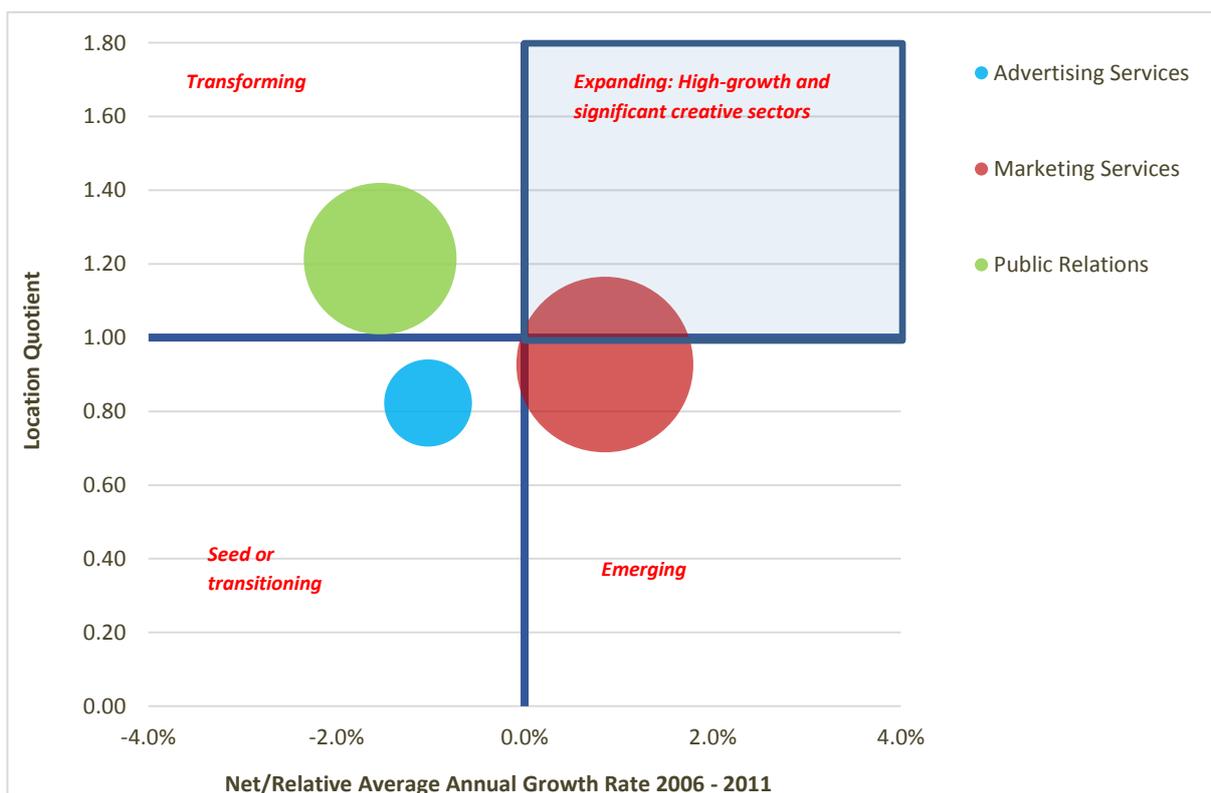
Figure 24 illustrates where each sub-sector within Western Australia's Advertising and marketing segment sits with respect to its rate of relative average annual employment growth between 2006 and 2011 and level of specialisation as indicated by the sector's location quotient (LQ).

The chart shows static or negative net growth across all three industry sub-sectors between 2006 and 2011. Marketing Services shows promise as the segment's largest sector and potential for growth.

Advertising Services, with a workforce of just 605, has a lower than average annual net growth and lower than average concentration, suggesting the industry sector is neither developed nor growing in Western Australia.

Western Australia's Public Relations sector is in a transforming stage of development with lower than average annual net growth and above average concentration). This suggests the sector could be at risk and in need of greater innovation and productivity to become competitive with other states.

**FIGURE 24. ADVERTISING AND MARKETING SEGMENT'S GROWTH AND SHARE, WESTERN AUSTRALIA, 2006 - 2011**



Source: ABS Census of Population and Housing, Time Series Profile, 2011 with interpretations by SC Lennon & Associates and CCI

## Film, TV and Radio's Growth and Share by Sub-sector

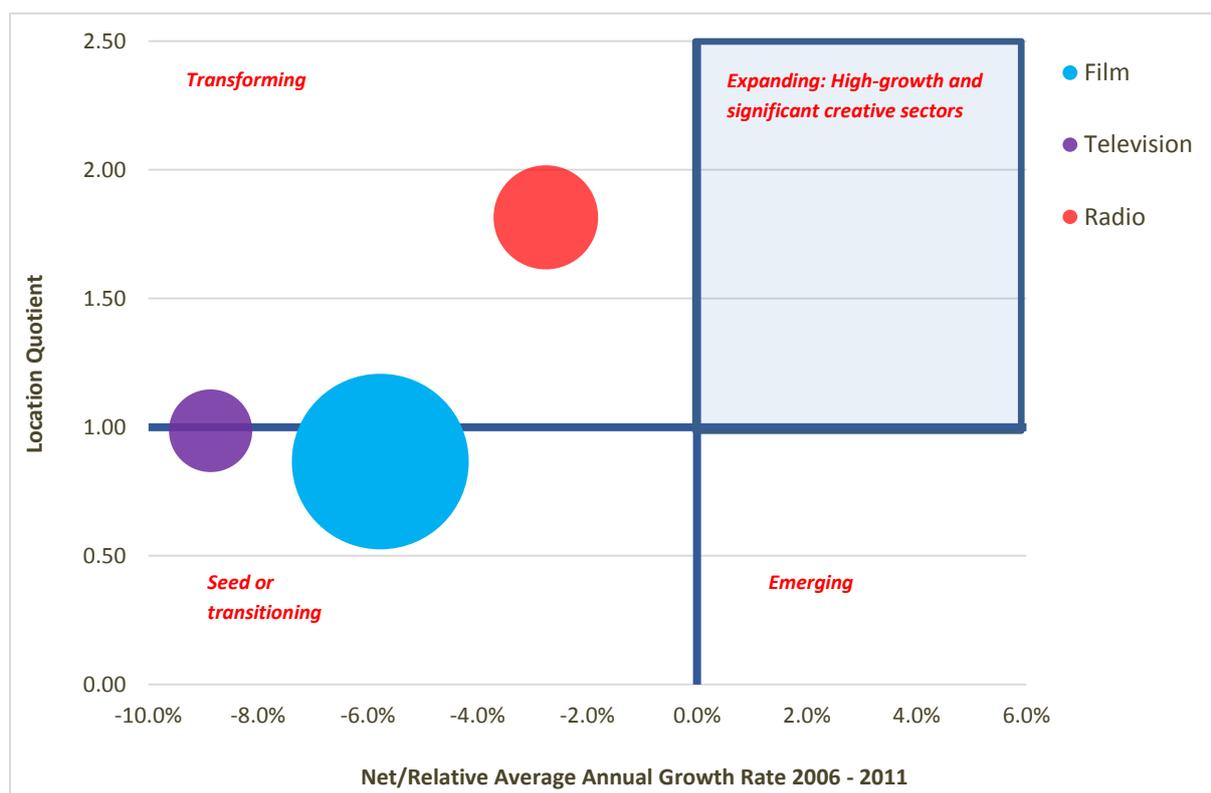
Figure 25 illustrates where each sub-sector within Western Australia's Film, TV and radio segment sits with respect to its rate of relative average annual employment growth between 2006 and 2011 and level of specialisation as indicated by the sector's location quotient (LQ).

The chart shows that all sub-sectors are either in a period of transformation or transition. The largest sector, Film, displays lower than average concentration as indicated by its LG of 0.87. This sector has also been in relative decline with employment falling (in net terms against the Australian average) by 5.8% per annum between 2006 and 2011.

The television sector has shown the greatest fall in net average annual employment, of 8.9%. This is also the segment's smallest sector in employment terms.

Western Australia's Radio sector, however, shows a greater than average industry specialisation with a location quotient of 1.82. Employment in this sector has declined a net rate of 2.8% per annum between 2006 and 2011.

**FIGURE 25. FILM, TV AND RADIO SEGMENT'S GROWTH AND SHARE, WESTERN AUSTRALIA, 2006 - 2011**



Source: ABS Census of Population and Housing, Time Series Profile, 2011 with interpretations by SC Lennon & Associates and CCI

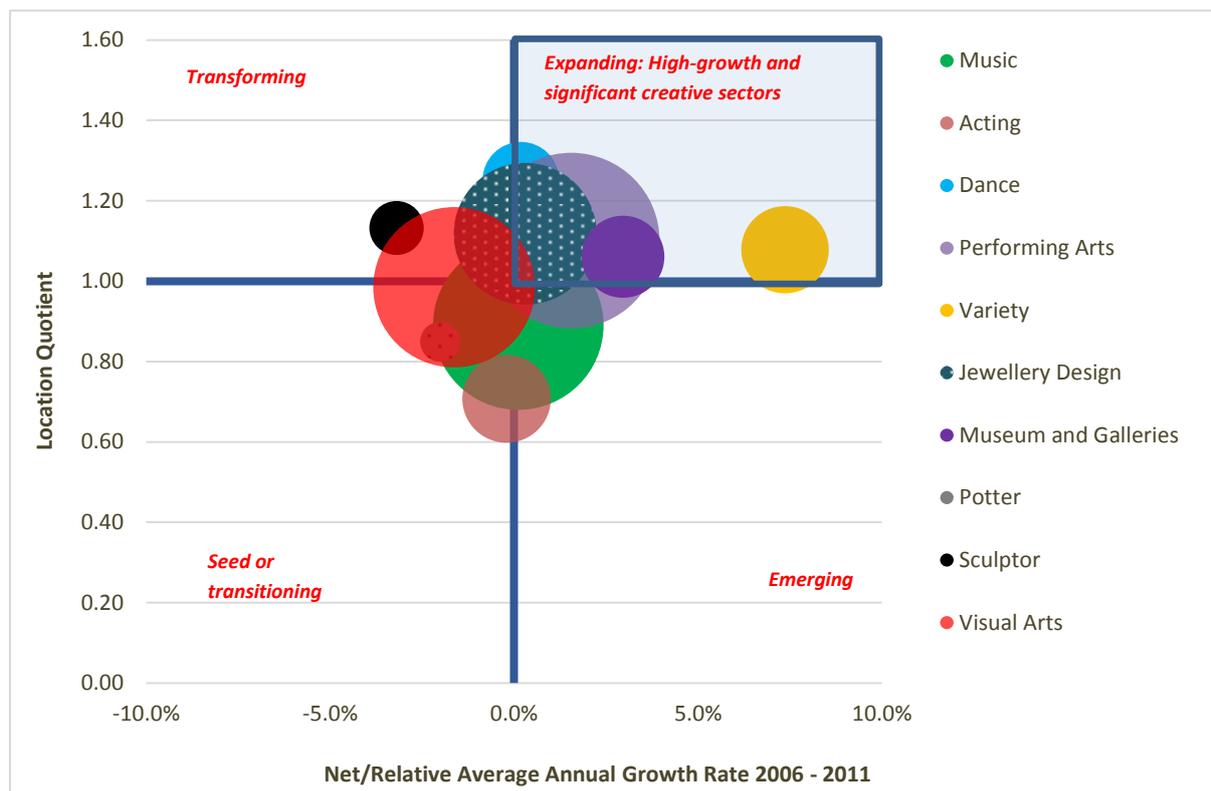
## Music, Visual and Performing Arts' Growth and Share by Sub-sector

Figure 26 illustrates where each sub-sector within Western Australia's Music, visual and performing arts segment sits with respect to its rate of relative average annual employment growth between 2006 and 2011 and level of specialisation as indicated by the sector's location quotient (LQ).

The chart shows Western Australia's Performing Arts, Dance, Variety and Museums and Galleries sectors as performing well, with above-average concentrations and positive net employment growth between 2006 and 2011.

Performing Arts, Visual Arts and Music are the three largest sectors in employment terms. Despite its relative size, Visual Arts is in a period of transition with lower than relative average annual growth and below average concentration (as indicated by a location quotient of 0.98). This suggests the industry is at risk (overall) and needing to increase innovation and productivity to be competitive. The same could be said for the state's Music sector which has shown static growth coupled with below average concentration.

**FIGURE 26. MUSIC, VISUAL AND PERFORMING ARTS SEGMENT'S GROWTH AND SHARE, WESTERN AUSTRALIA, 2006 - 2011**



Source: ABS Census of Population and Housing, Time Series Profile, 2011 with interpretations by SC Lennon & Associates and CCI

## Publishing's Growth and Share by Sub-sector

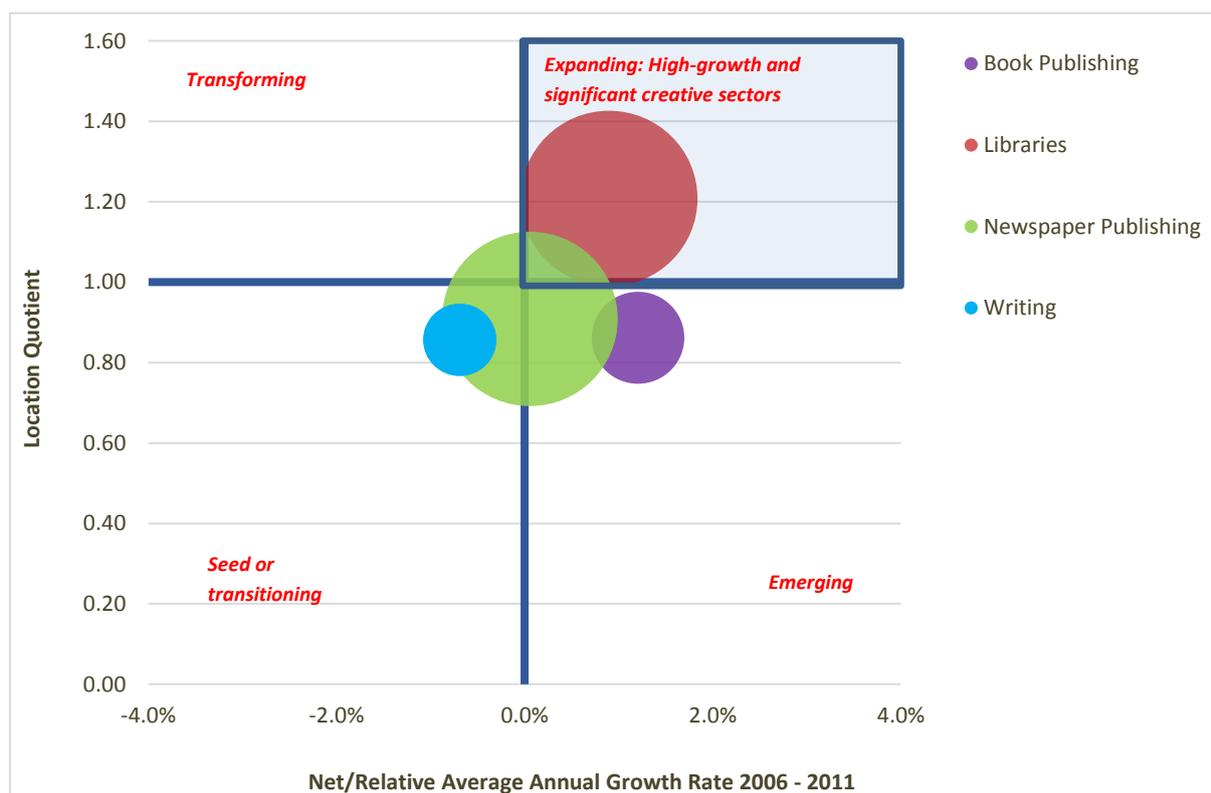
Figure 27 illustrates where each sub-sector within Western Australia's Publishing segment sits with respect to its rate of relative average annual employment growth between 2006 and 2011 and level of specialisation as indicated by the sector's location quotient (LQ).

The chart shows that WA's Libraries sector is the segment's strongest performer with higher than average specialisation and positive net employment growth. This sector is also the Publishing segment's largest employer in Western Australia.

Like elsewhere in Australia, the state's Newspaper Publishing sector, which accounts for a large share of the segment's employment, is in a period of transition. Relative employment growth remained static between 2006 and 2011, reflecting the national trend.

The state's small Writing sector is neither developed nor growing. However, Western Australia's Book Publishing sector shows promise as an emerging industry with a healthy net rate of employment growth of 1.2% per annum over the five years to 2011.

**FIGURE 27. PUBLISHING SEGMENT'S GROWTH AND SHARE, WESTERN AUSTRALIA, 2006 - 2011**



Source: ABS Census of Population and Housing, Time Series Profile, 2011 with interpretations by SC Lennon & Associates and CCI

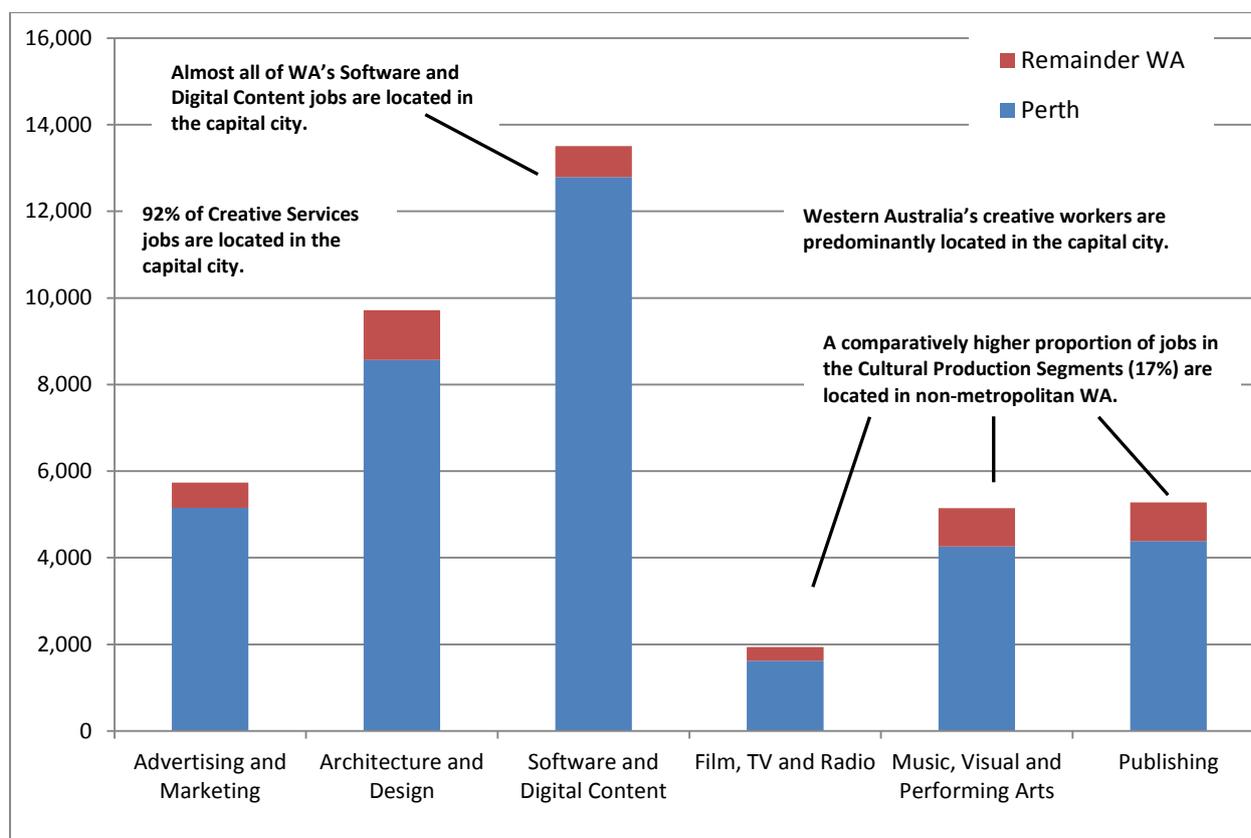
## 2.6 Perth and Capital City Comparisons

### Western Australia's Creative Employment Concentration in Perth

The majority (89%) of Western Australia's creative workforce is located in the Perth metropolitan area. Of the total 41,317 Western Australians employed in creative occupations, 36,873 of those are located in Perth.

Approximately 92% of Western Australia's creative services jobs are located in the capital city. A comparatively higher proportion of the state's jobs in the cultural production segments (17%) are located in non-metropolitan Western Australia.

**FIGURE 28. CREATIVE EMPLOYMENT BY SEGMENT, PERTH AND REMAINDER WESTERN AUSTRALIA, 2011**



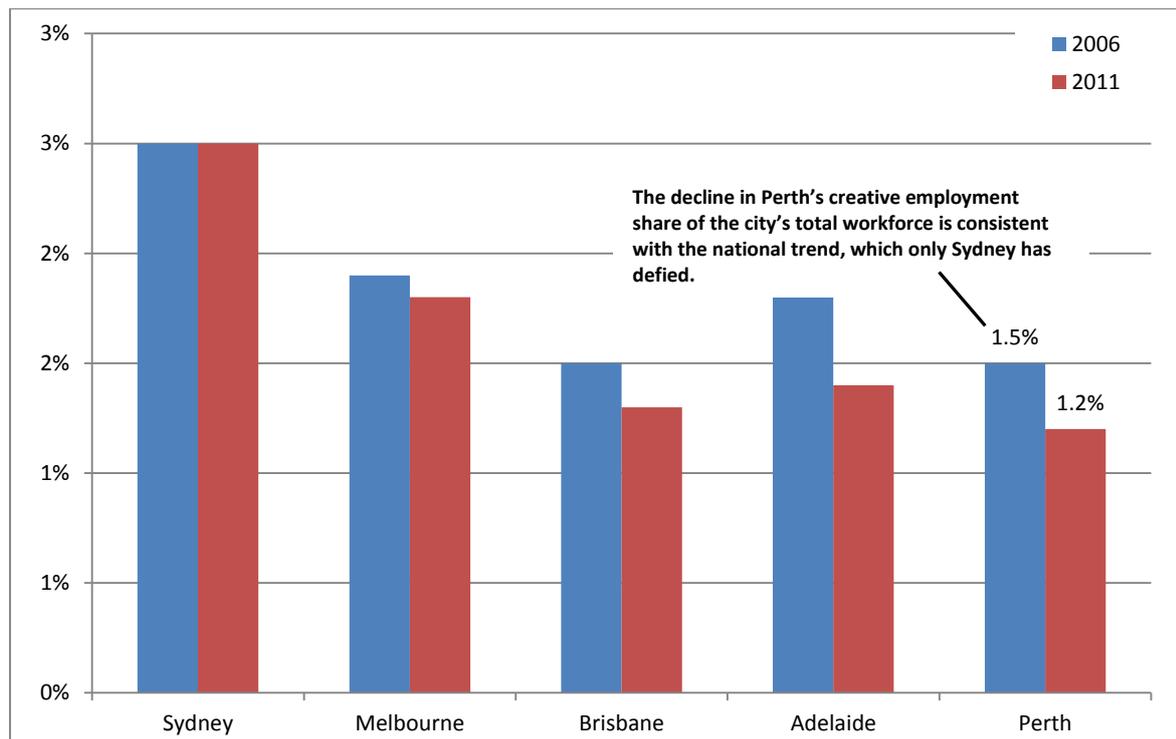
Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

## Perth's Creative Employment as a Proportion of the Workforce

Using the trident method of analysis, according to the 2011 Census of Population and Housing, 1.2% of Perth's workforce is employed in creative occupations. This is below the comparable proportions for all other capital cities considered, where a higher proportion of the workforce is accounted for by 'creatives'.

With the exception of Sydney, between 2006 and 2011, creative employment declined as a proportion of the total workforce in all capital cities considered, including Perth.

**FIGURE 29. CREATIVE OCCUPATIONS AS A PROPORTION OF THE WORKFORCE, SELECTED CAPITAL CITIES, 2006 AND 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

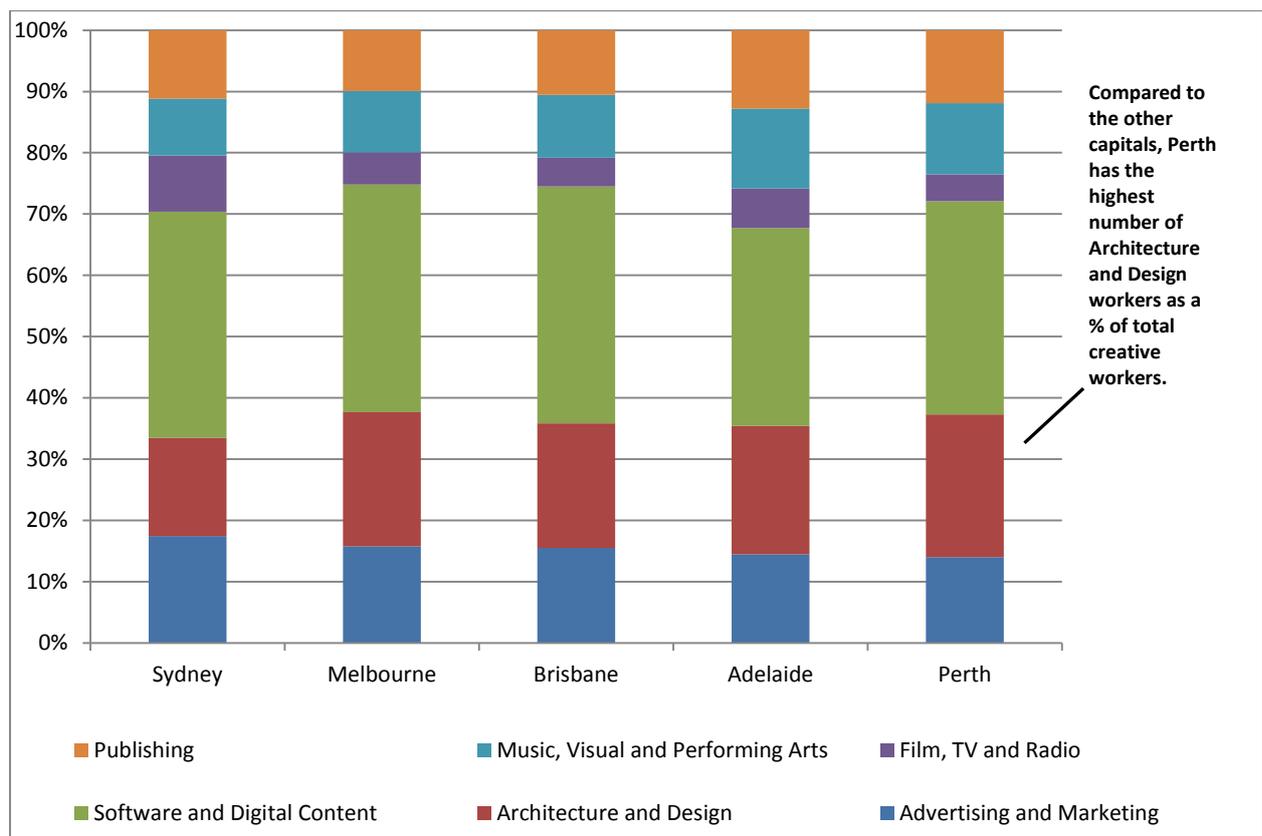
## Perth's Creative Segment Profile

As shown below, the breakdown of creative employment between segments is fairly similar across selected capital cities.

In Sydney, a notably higher proportion of the creative workforce is employed in Film, TV and radio.

Compared to the other capitals, Perth has the highest number of Architecture and Design workers as a proportion of the city's total creative industries workforce.

**FIGURE 30. CREATIVE TRIDENT EMPLOYMENT BREAKDOWN (%), PERTH AND SELECTED OTHER CAPITAL CITIES, 2011**



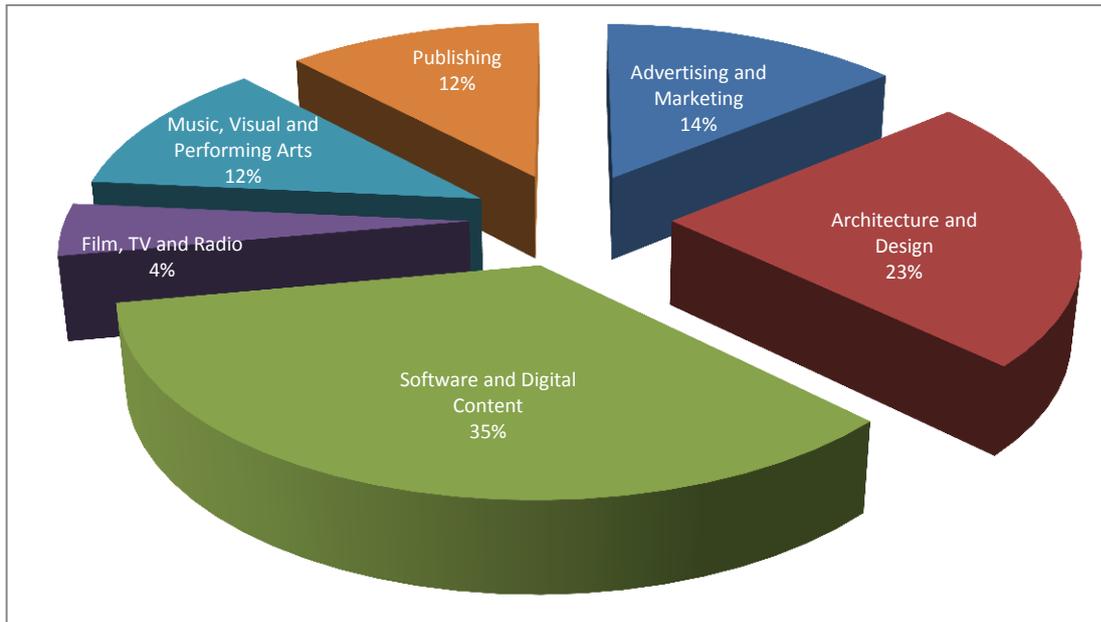
Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

## Perth's Creative Services and Cultural Production Segments

The creative employment breakdown by segment in Perth mirrors that of the state as a whole. The largest share of Perth's creative employment is accounted for by the Software and digital content segment, which represents 35% of total creative employment or approximately 12,800 workers. This is followed by Architecture and design (23%) and Advertising and marketing (14%).

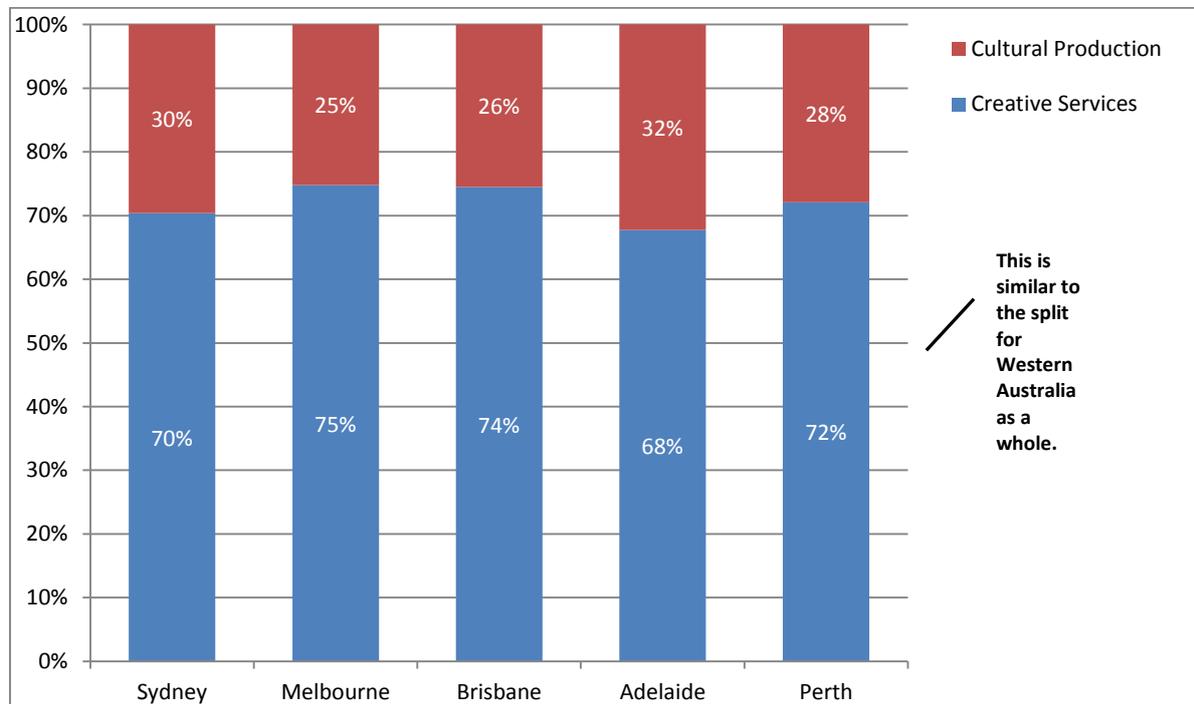
As is the case for the state as a whole, the cultural production segments account for a smaller share of creative employment in Perth (28%), with the creative services accounting for 72% of Perth's creative workforce. As shown below, the split between Perth's creative services and cultural production segments is similar to that for other capital cities.

**FIGURE 31. CREATIVE EMPLOYMENT BY SEGMENT (%), PERTH, 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

**FIGURE 32. PROPORTIONAL BREAKDOWN OF CULTURAL PRODUCTION AND CREATIVE SERVICES EMPLOYMENT BY CAPITAL CITY, 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

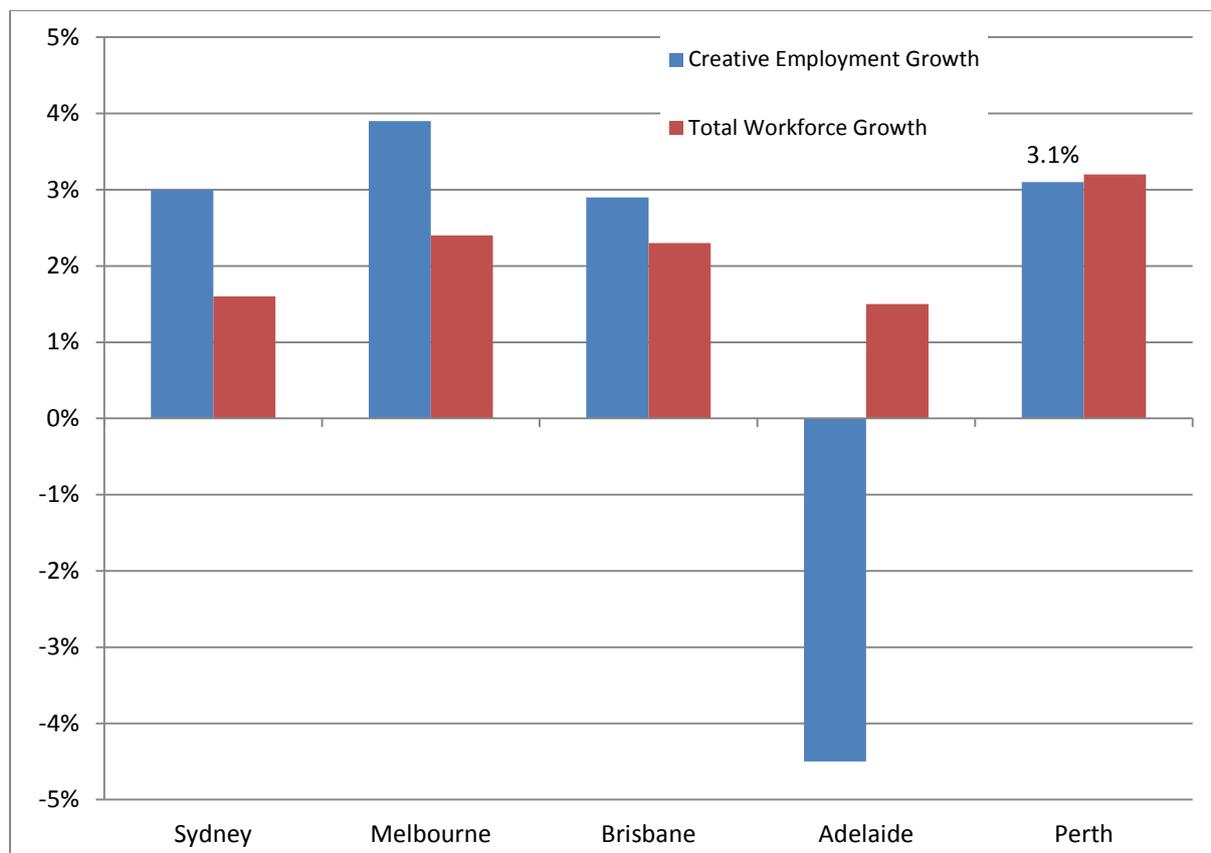
## Growth in Perth's Creative Employment

Between 2006 and 2011, Perth's average annual rate of creative employment growth of 3.1% was second to that of only Melbourne, at 3.9%.

Perth's creative workforce growth was notably higher than that in Sydney or Brisbane. Adelaide was the only capital city to experience negative creative employment growth over the five years to 2011.

Perth's creative employment growth was marginally less than the city's total workforce growth over the same period, of 3.2% per annum.

**FIGURE 33. AVERAGE ANNUAL CREATIVE EMPLOYMENT GROWTH BY SELECTED CAPITAL CITY, 2006 TO 2011**



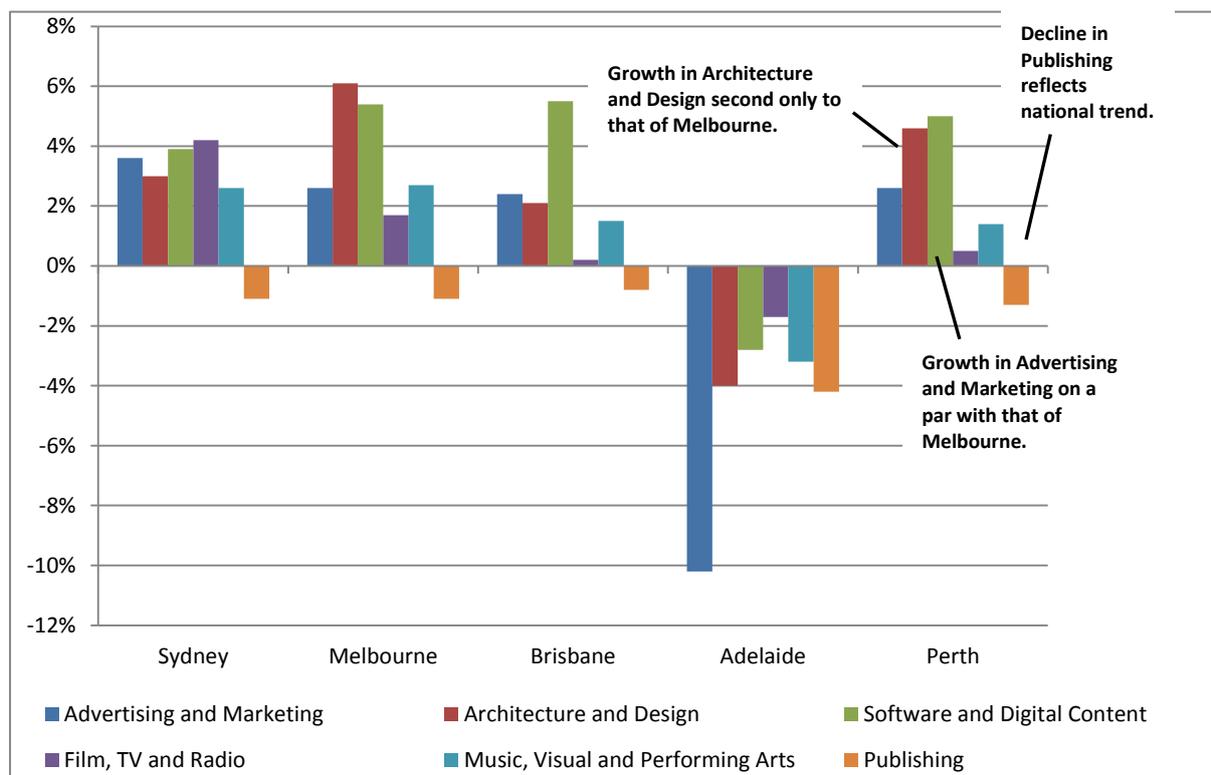
Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

## Growth in Perth's Creative Employment by Segment

As shown below, between 2006 and 2011 Perth experienced employment growth across all creative segments with the exception of Publishing, which showed a fall in employment growth in all selected capital cities.

Nationally, employment growth in Perth's Architecture and design segment (of 4.6% per annum) was second only to that of Melbourne where employment in Architecture and design increased by 6.1% per annum. Employment growth in Perth's Advertising and marketing segment (of 2.6% per annum) was on a par with that of Melbourne.

**FIGURE 34. GROWTH IN CREATIVE EMPLOYMENT BY SEGMENT (%), PERTH AND SELECTED OTHER CAPITAL CITIES, 2006 TO 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

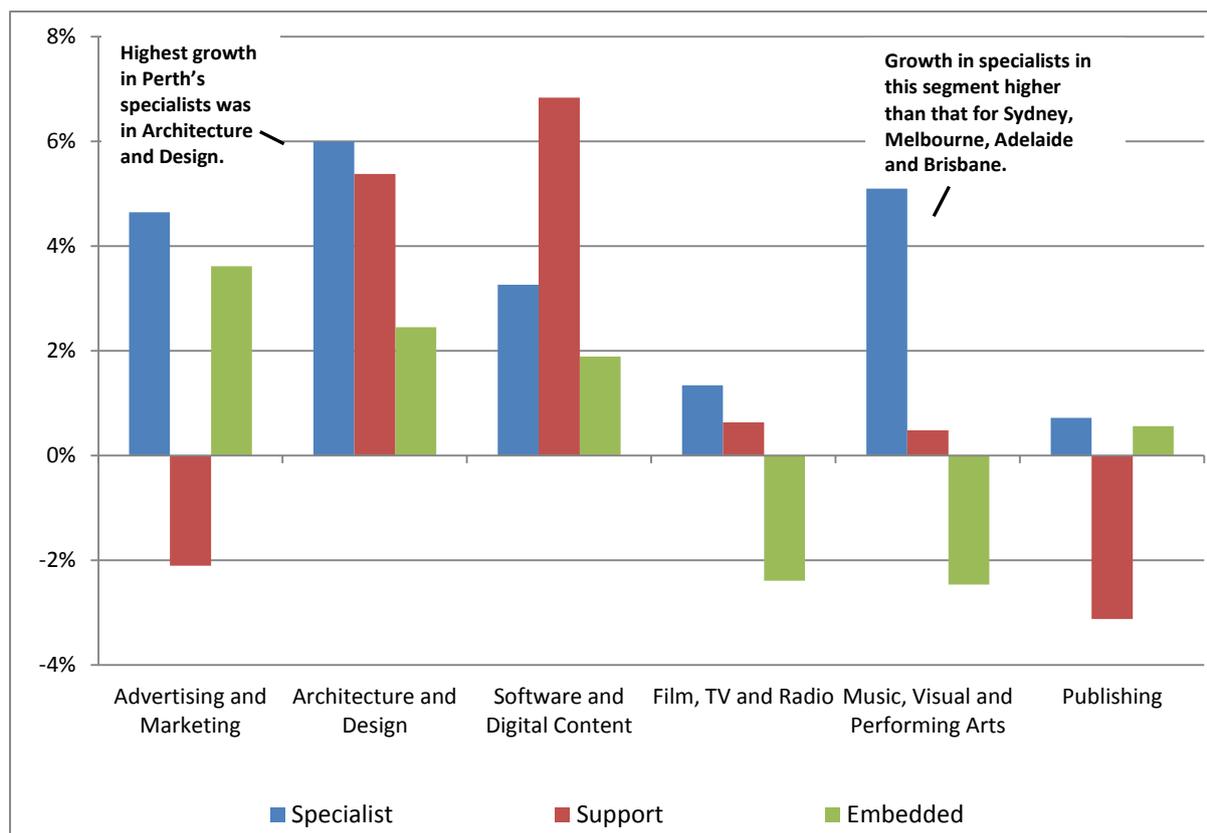
A closer look at Perth's creative employment growth by segment reveals above-average growth in a number of specialist and support occupations. The highest growth in Perth's creative employment was in Software and digital content support staff, at 6.8% per annum. This segment has shown prominent growth in Western Australia as well as nationally. Around 95% of Western Australia's Software and digital content workforce is located in Perth.

The highest growth in Perth's specialists was in Architecture and design (6.0% per annum) followed by the cultural production segment of Music, visual and performing arts (5.1% per annum). Between 2006 and 2011, specialist employment in Perth's Music, visual and performing arts segment grew by more than that in all other capital cities considered. However, a fall of 2.5% per annum in this segment's embedded workers in Perth meant that overall, employment growth in Perth's Music, visual and performing arts segment fell short of that in other capital cities.

In Perth, notable declines were also evident in Film, TV and radio workers embedded in other industries (-2.4% per annum) as well as support staff in the Architecture and design segment (-2.1% per annum).

The 3.1% per annum drop in support staff employment in the Publishing segment was reflective of a national trend, which saw employment in this area fall across all capital cities considered.

**FIGURE 35. AVERAGE ANNUAL GROWTH IN CREATIVE EMPLOYMENT BY OCCUPATION AND SEGMENT, PERTH, 2006 TO 2011**



Source: ABS Census of Population and Housing, 2011 with interpretations by SC Lennon & Associates and CCI

### 3. Summary and Conclusions

Approximately 41,300 workers are employed in creative occupations in Western Australia. Of those, 28,485 or over two-thirds (69%) are employed in the creative industries as 'specialist' creatives or support staff; 31% or approximately 12,830 are 'embedded' creatives working in other (non-creative) industry sectors such as public administration, professional services, education and manufacturing. The majority (89%) of Western Australia's creative workforce is located in the Perth metropolitan area.

The creative workforce represents 3.76% of Western Australia's total workforce (compared to 5.29% nationally). Approximately 70% of all creative occupations in Western Australia are in the 'creative services economy' with around 30% employed in the 'cultural production' segments. This 70/30 split between creative services and cultural production segments is typical of most of Australia's states and territories. Western Australia's creative workforce grew at an average annual rate of 3.2% or by 5,956 workers, from 35,361 in 2006 to 41,317 in 2011. This is comparable to the state's total workforce growth over the period. Like elsewhere in Australia, WA's creative industries growth has been strongest in the creative services.

The creative services - which include Advertising and marketing, Software and digital content and Architecture and design - are an integral component of the 'knowledge economy, that is, one which is based on the production, distribution and use of knowledge and information. Creative services enterprises and individuals provide inputs that are central to businesses across many industries, from manufacturing and construction to retailing and entertainment.

The data presented in this report highlights the notable size and growth of WA's Architecture and design segment and its Software and digital content segment, both of which employ a large share of their workforce as 'embedded' creatives in non-creative industries. This highlights the critical role these creative services play as contributors to WA's knowledge economy. As the state seeks to grow and diversify its economic base away from a heavy reliance on 'old' industries to new 'knowledge-based' industries, these segments represent strengths which can be capitalised upon.

Western Australia's cultural production segments are generally smaller in size and contribution than their creative services counterparts. However, they make further contributions to the economy (and the community) through their indirect and induced effects caused, for example, by tourism visitation and expenditure generated by cultural attractions and events (music, festivals, dance, theatre, etc.). The cultural production segments also enhance WA's community wellbeing by contributing to an active and engaging cultural life which in turn serves to attract inward investment in a range of industries seeking to locate in centres that will provide an enjoyable and stimulating environment for their employees. They embody the role of arts and cultural assets as contributors to quality of life and community well-being and as important contributors to economic activity and economic development in their own right.

A comparatively high proportion of the state's jobs in the cultural production segments (17%) are located in non-metropolitan Western Australia, their more dispersed nature emphasising the importance of the cultural activities to local community wellbeing and economic development.

In this sense, industries like Music, visual and performing arts, despite their relatively small size in employment terms, are critical for promoting a vibrant culture and engaging lifestyle, helping define Western Australia as a place where people want to live. For this reason, the arts – at the grassroots level – need to be supported and encouraged to develop as a critical component of WA's 'enabling infrastructure', in support of economic and community development.

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## Appendix A: Definition of Creative Employment Explained

How does the new definition of creative employment differ from the one used in the 2007 Perth/WA Report? Firstly, the new approach to selecting creative occupations includes two classifications being added:

225311 Public Relations Professional; and  
131114 Public Relations Manager.

Secondly, the updated definition excludes many technician roles from being defined as 'creative occupations'. These include:

399516 Sound Technician;  
399513 Light Technician;  
399500 Performing Arts Technicians;  
312111 Architectural Draftsperson;  
399599 Performing Arts Technicians n.e.c;  
599913 Proof Reader;  
261313 Software Engineer;  
313113 Web Administrator;  
399512 Camera Operator (Film, Television or Video);  
399311 Gallery or Museum Technician;  
399915 Photographer's Assistant;  
599711 Library Assistant;  
399312 Library Technician;  
399300 Gallery, Library and Museum Technicians;  
399517 Television Equipment Operator;  
399511 Broadcast Transmitter Operator;  
263211 ICT Quality Assurance Engineer;  
263213 ICT Systems Test Engineer;  
225211 ICT Account Manager; and  
261314 Software Tester.

The application of creative intensity resulted in the identification of four industries that were previously not thought to be creative although three of these are supplemental codes (o\_J000 Information Media and Telecommunications nfd, o\_5600 Broadcasting (except Internet) and o\_R000 Arts and Recreation Services nfd) that are used to process responses which do not provide sufficient information to be coded to any level of the structure. The fourth, 1612 Printing Support Services, includes a significant number of graphic designers and illustrators but was previously thought to be too strongly in the production end of publishing to be a creative industry.

The exclusion of the technician roles from creative occupations has seen a shift in employment of 1,934 people previously categorised as employed in creative specialists to being now categorised as in support occupations. In addition a further 3,881 people employed in these occupations in other industries are now not categorised as being in embedded employment.

As a result of these changes in the way creative employment is defined and measured overall there is an 8% reduction in the estimate of Western Australia's creative employment.

<b>Creative Employment in WA in 2006 under ANZSIC06 and ANZSCO</b>	<b>2008 Report definition</b>	<b>2013 Report definition</b>	<b>Per cent difference</b>
Creative Specialist	10,583	9,057	-14%
Support	13,133	14,647	12%
Embedded	14,654	11,657	-20%
Creative employment	38,370	35,361	-8%

However, perhaps indicative that the new approach is correct, the growth rate is higher as shown in the following table.

<b>Average annual growth rate in Creative Employment in WA in between 2006 and 2011 under ANZSIC06 and ANZSCO</b>	<b>2008 Report definition</b>	<b>2013 Report definition</b>
Creative Specialist	4.5%	4.1%
Support	1.2%	1.9%
Embedded	3.3%	3.5%
Creative employment	2.9%	3.2%

In addition to a change in the way creative occupations and industries are selected, improvements were made in the way the segments are defined. CCI's research had indicated that there were natural similarities in creative segment's characteristics, such as income distribution patterns and the degree of attraction or repulsion to larger population centres.

When analysed to the most detailed level available, the creative segments clustered to two groupings which CCI termed 'creative services' and 'cultural production'. Only one segment in the 2008 report was affected by this change, with Architecture, Design and Visual Arts being split into Architecture and Design (a creative service) and Visual Arts becoming a member of cultural production.





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