

Creative Industries Environmental Scan 2018



Acknowledgements

This report has been produced by Dr Jude Walker from the Geelong Region Local Learning and Employment Network in conjunction with Jennifer Cromarty, President of Creative Geelong Inc with funding provided by the City of Greater Geelong.

The Geelong Region LLEN wishes to acknowledge the contributions from the various individuals and agencies across the G21 Region who provided data and other information, and who participated in the consultations which contributed so much richness and depth to these reports. All gave freely of their time to take part.



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Executive Summary

The Creative Industries Environmental Scan is a joint project between the Geelong Region Local Learning and Employment Network (GRLEN) and Creative Geelong Inc., with funding assistance from the City of Greater Geelong. The research undertaken as part of this project examines the role and impact of the creative industries at a global, national, state and regional level and concludes that the sector provides growing economic benefits to the region.

The Scan relates to the Creative industries and occupations located within the G21 Region, which is comprised of the City of Greater Geelong, Surf Coast Shire, Colac Otway Shire, the Borough of Queenscliffe and the South-West portion of Golden Plains Shire. Using the definitions of different regional types created by the Regional Australia Institute, the City of Greater Geelong is classified as a Regional City with a population of over 50,000 persons. Regional Cities have diverse economies and the chance to use their size and diversity to shape their own future. The remaining four municipalities are defined as Connected Lifestyle Regions, which do not have city population size but are close to major metropolitan regions and are influenced by their connection with these cities.

UNESCO describes the creative industries as comprising eleven Cultural and Creative Industries (CCI) sectors: advertising, architecture, books, gaming, movies, music, newspapers/

magazines, performing arts, radio, television and visual arts. Their research estimates that, in 2013, the sector generated US\$2,250b of revenues (3% of world GDP) and 29.5 million jobs. Consulting firm EY has concluded that the sector is important because cultural and creative content drives the digital economy; CCI industries are represented in all large areas of the world and are growing across the globe; cultural production is young, inclusive and entrepreneurial; and culture boosts cities' attractiveness.

In 2016, the U.K.'s Department for Culture, Media and Sport found that total jobs in the Creative Economy across the UK had increased by 5.1 per cent between 2014 and 2015 (2.8 million to 2.9 million jobs) and by 19.6 per cent since 2011. They identified that only 37.2% of Creative Industry jobs were filled by women compared to 47.1% of the UK workforce, mainly due to the low numbers of women working in IT, Software and Computer Services (21.4%). In 2014, the UK's creative industries exported services worth £19.8bn, a 10.9% increase from 2013. This accounts for 9% of UK services exports. The majority (57.3%, £11.4bn) of UK Creative Industries exports of services were to the European Union. The USA was the country that received the largest of UK Creative Industry service exports accounting for 25.3% (£5bn) of the total services exports.

Both Edinburgh and Dundee have been active in developing their creative industries. Like Geelong,



Dundee has been recognised as a UNESCO Creative City of Design and, along with Edinburgh, belongs to the European Creative Hubs Network.

In the U.S., the creative industries are defined as including film and television production, broadcasting, publishing, performing arts, advertising and retail sales; and are estimated to contribute \$698 billion to the nation's economy – about 4.32% of U.S. goods and services. As in the U.K., cities in the U.S. are also recognising the social and economic opportunities presented by the Creative Industries sector. Detroit, once famous for its automotive industry, has now re-invented itself and was the first U.S. city to be recognised as a UNESCO Creative City of Design.

New Zealand is also experiencing a growing focus on the creative industries which, in 2015, were estimated to contribute more than \$3.5 billion to New Zealand's GDP. This is impressive data as they define the creative industries as only including books, music, television and film, and games. It is estimated that these sectors

employ up to 15,000 full-time writers, publishers, musicians and actors; and that this figure could rise to more than 30,000 when those employed as suppliers and support businesses are included.

At the Australian national level, the creative industries are defined as including writing, visual arts, music, dance, performance, screen production, fashion and design. At the 2011 Census almost 370,000 people worked in a cultural industry and a further 161,000 were employed in cultural occupations throughout the rest of the economy for a total of 531,000 directly employed. However, when the scope of the sector is expanded to include education, manufacturing, accommodation and construction, it is possible to say that culture is an important element in the jobs of more than 3.7 million Australians. In the same year, more than 400,000 people volunteered for arts and heritage organisations.

If the broader definition used by Creative Geelong Inc. is used, the national creative industries employ 611,307 people (6.2% of Australian employment). Nine per cent of those are employed in architecture, ten per cent in design and visual arts, eight per cent in music and performing arts, thirteen per cent in writing, publishing and print media, ten per cent in film, TV and radio, nine per cent in advertising and marketing, and forty-one per cent in software development and interactive media.

The Victorian Government subscribes to this wider definition of the creative industries, which is an evolving mix of sectors spanning arts, culture, screen, design, publishing and advertising. They cover disciplines as diverse as game development and graphic design, fashion and filmmaking, performing arts and publishing,



architecture and advertising, media and music, comedy and craft.

In developing its Creative State strategy, Creative Victoria has identified that the creative sector contributes \$23 billion in gross value added, equating to 8% of the Victorian economy; Melbourne hosts 62,000 live concerts each year and has more songwriters than anywhere else in the country; the screen industry contributed \$1.4 billion to the State economy in 2015; 50% of national television drama production and almost 50% of Australia's digital games sector are located in Victoria; State owned cultural institutions host over ten million visitors each year and hold collections valued at over \$5 billion.

The Victorian Government has developed five major areas of focus, and forty specific action areas, and has allocated \$114.95 million to addressing these. The expectation is that achievement of these action areas will contribute to the economic, cultural and social wellbeing of the State.

Research undertaken in rural Victoria (excluding regional cities like Geelong) shows that approximately 5,500 creative businesses are located in rural Victoria, representing approximately 7% of all businesses (compared to 10% in regional cities and 17% in Melbourne); approximately 11,030 residents located in Rural Council areas are employed in the Creative Sector and this represents 3.5% of all Rural Council workers. However, only 6,860 or 62% of these jobs are provided in rural areas, indicating that many workers in the sector commute to other locations for employment; compared to Metropolitan Melbourne, Rural Council areas have significantly lower proportions of jobs associated with IT, computer, telecommunications, engineering design and advertising, but higher proportion of jobs provided

in more traditional cultural and creative sectors such as newspaper publishing, printing, libraries, archives, arts education, photographic services, and employment for creative artists, musicians, writers and performers. A similar trend is observed with regard to creative workers, with 12,360 rural workers occupied in creative activities, but only 8,470 or 69% undertaking these activities in rural locations; and an estimated \$640 million pa in Gross Value Added is generated by the rural Creative Sector, representing 3.3% of total state GVA of \$19 billion for the sector.

The regional data used in this Environmental Scan comes from two sources: REMPLAN, which is the economic modelling software used by most municipalities in the G21 Region, and Australian Bureau of Statistics (ABS) Census data. With regard to REMPLAN, the fact that there is no specific ANZSIC category for the creative industries makes it difficult to gain access to truly accurate data in many cases. For example, the creative industries sit within the ANZSIC categories of Information Media and Telecommunications; Professional, Scientific and Technical Services; and Arts and Recreation Services. However, there are components of these sectors which do not classify as "creative". For example, the hardware installation and maintenance aspects of the ICT industry are not creative, nor is much of the scientific and technical components of the Professional group. As well, the Arts and Recreation category also includes sport and gambling. Much of the REMPLAN data should therefore be considered indicative rather than specifically accurate, as it does not allow analysis at the lower levels of the ANZSIC groupings. This means that data relating to Professional, Scientific & Technical Services; Art, Sports, Adult, Community & Other Education; and Library &

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Other Information Services will be particularly problematic due to the fact that these sectors contain a number of sub-industries that are not classified as “creative.” However, the descriptor “Creative Industries” will be used despite the discrepancies in accurate data.

In 2017, the Creative Industries sectors in the G21 region contributed:

- **\$2.085,393 billion, or 5.9% (compared to 5.0% in 2015) to the overall regional output;**
- **\$213,406 million or 2.7% (up from \$150.579 million or 1.7% in 2015) to the overall regional export estimate;**
- **9,127 jobs (a 16.4% increase from 2015), or 7.3% of total employment;**
- **\$629,364 million or 7.5% (up from \$488.419 million) to overall regional wages and salaries.**

REMPAN also identifies “propulsive” regional industry sectors; that is, those sectors which positively affect the regional economy. Of the sectors covered by the Creative Industries, in 2015 the Arts and Recreation sector was identified as the only propulsive industry due to its backwards linkages. In 2017, Motion Picture and Sound Recording is the only propulsive industry, again due to its backward linkages.

The ABS Census allows a much more accurate dissection of the industry categories than REMPLAN to truly reflect the composition of the creative industries within the G21 Region.

Overall, 3,730 individuals indicated that they live in the G21 Region and work in a Creative industry sector. A number of these people may work outside the region. The industry is dominated by males (2,447 males vs. 1,283 females). This compares to 2,082 males vs. 1,114 females in 2011, showing an

overall growth of 16.7%. By far the largest number of males work in the Computer Systems Design & Related Services and Engineering Design and Engineering Consulting Services sectors, with Architectural Services in third place.

Due to the varied nature of sectors within the Creative Industries, it is not surprising that almost all age cohorts are represented, with a wide spread of ages working in Architectural and Engineering sectors, as well as in design, market research and computer design areas. Numbers in all cohorts have increased since 2011.

With regard to the occupational areas in which those people work, not all people working within the Creative Industries are necessarily working in creative occupations. Rather, the data demonstrates the diverse nature of work within these sectors, including occupations which would not normally be associated with creative work, such as labouring, sales, and trades work. Conversely, not all creative occupations sit within the creative industries sectors. Many medium to large organisations, regardless of industry sector, have ICT employees; and unlikely sectors, such as the automotive industry employ designers. Between the 2011 and 2016 Census collections, numbers of employees in creative occupations increased in all G21 municipalities, with an overall regional increase of 1,341.

Of the 3,196 respondents who indicated that they work in the Creative Industries in the G21 Region, 2,878 stated that they hold some form of post-secondary qualification (up from 2,344 in 2011). The highest number of post-secondary qualifications are held by those working in the Engineering Design and Engineering Consulting Service; Computer System Design and Related Services; and Architectural Services sectors.

In 2017, the Creative Industries sectors in the G21 region contributed \$2.085,393 billion, or 5.9% (compared to 5.0% in 2015) to the overall regional output.

Those who indicated that they worked more than 49 hours per week worked mainly in the Engineering Design and Engineering Consulting Service; Architectural Services and Computer System Design and Related Services. These people may quite likely be owner/operators. Those who worked 1–15 hours per week were most highly represented in the Arts Education; Creative Artists, Musicians, Writers and Performers; and Advertising Services sectors. These people may be freelancing or only interested in part-time work.

Not surprisingly, those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Services are most represented at the highest income

levels, whilst those working in Market Research and Statistical Services and Arts Education are at the lowest levels. This may be in part due to the part-time nature of some of this work.

The REMPLAN software also has the capacity to analyse the impact of job creation on the regional economy. This is done in relation to four different indicators:

- 1. Impact on output**
- 2. Impact on employment**
- 3. Impact on wages and salaries**
- 4. Impact on value-added**

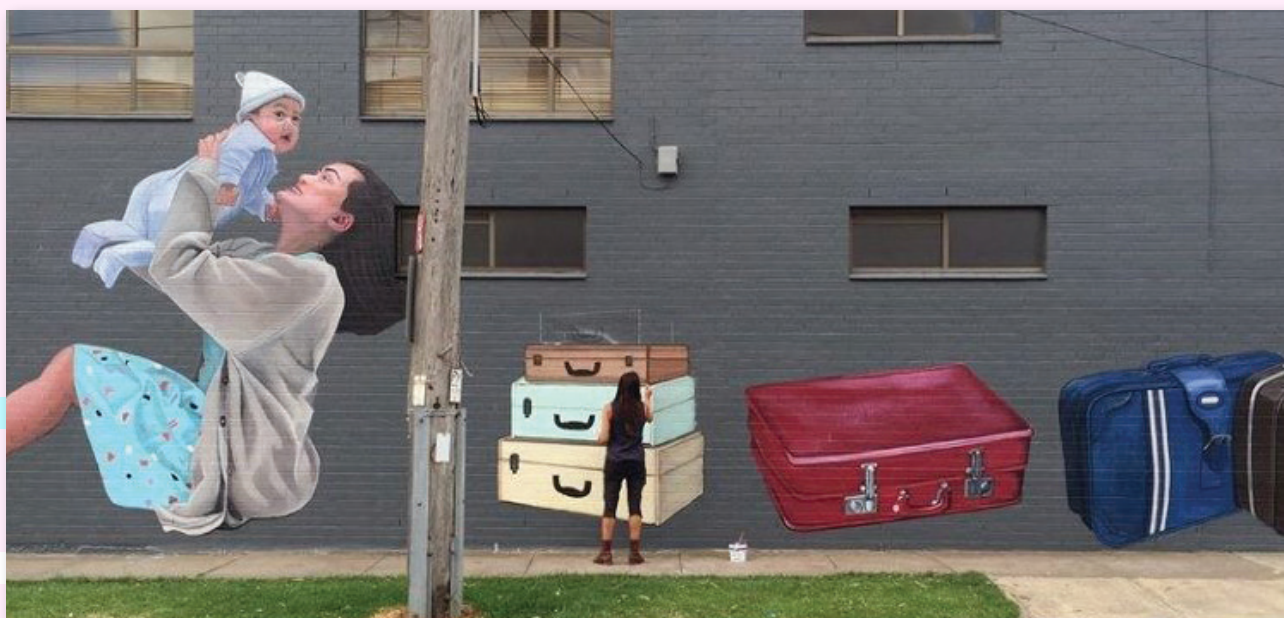


Photo By Kareen Fletcher

REMPPLAN estimates that, if ten additional jobs were created in the Creative Industries sector, demand for intermediate goods and services would rise by \$1.890 million, this would result in a rise in wages and salaries, which leads to increased consumption, estimated at \$1.326 million. The increase in purchases of goods and services is estimated to have a direct gain of an additional six jobs, whilst six extra jobs are expected to be created to service the increased consumption. The total estimated value-added is \$3.429 million. If one hundred jobs were created, REMPLAN estimates that the demand for intermediate goods and services would rise by \$18.901 million. The rise in wages and salaries would lead to increased consumption, estimated at \$13.259 million. The increase in purchases of goods and services is estimated to have a direct

gain of an additional 64 jobs, whilst 53 extra jobs are expected to be created to service the increased consumption. The total estimated value-added is \$34.293 million.

As can be seen, even a modest growth of ten jobs can have a significant impact on the regional economy and labour market. Given the projections provided by REMPLAN, the potential growth in various parts of the Creative Industries could have a profound effect on the regional economy.

According to the Victorian Department of Education's Jobs & Training Needs Report: Barwon South West, 2018, several occupations that sit within the Creative Industries are in slight shortage.

There are no specific accredited Vocational Education and Training Packages which are relevant to the Creative Industries sector as specific parts of the sector fall within different industry categories, and therefore different Training Packages. There are a large number of VET qualifications which are relevant for Creative occupations, and many of these are offered through The Gordon, which has also recognised the growing importance of the design process, and, as a result, applied for State Government funding to create a Centre for Excellence in Design. This Centre will provide the opportunity for students whose own field of study includes a design element to work together across disciplines. It will also provide a vehicle for businesses to grow their design capability. The Gordon is also hosting the new Geelong Tech School which will assist secondary students to build their technology and design skills. There are numerous private Registered Training Organisations located within the G21 Region, or which service the region, and some of these also offer courses in the Creative industries.

The G21 Region is well positioned with Deakin University located in Geelong. Deakin offers a wide range of courses which relate to the Creative Industries and which cover a number of sectors and professions. The region also has easy access to many Melbourne based universities, such as RMIT, Victoria University, Monash University, University of Melbourne and La Trobe University, all of which have CBD campuses. Regional students can also travel to Ballarat to attend Federation University. Through these institutes, students can access many additional courses, such as interior design. For those seeking even more specialised courses, students today have access to a wide variety of Australian university courses through on-line programs and through the Massive On-Line Open Courseware (MOOC) platforms, which enable students to study at universities throughout the world.

The G21 Region hosts a number of innovative projects in the Creative Industries. These include Creative Geelong's Makers' Hub that opened in 2017 which provides a focal point to support and encourage a diverse range of creative industries' skills and knowledge sharing – from science and art to tech and design. The Hubcaps to Creative Hubs project (Creative Geelong, Deakin University, University of Melbourne) is a unique film documentary, telling the story of Geelong journeying from a heritage of mills and factories, into a city of makers and creators. Each film documents the inspiration, stories and places of the people driving the creative industries of

the city while housed in old industrial buildings. Pillowfort Creative and Codeacious are two local creative technology/design firms which have collaborated to produce a digital augmented reality experience. The value of collaboration, for both Codeacious and Pillowfort Creative in producing a story told through augmented reality, shows how design and technology is working together to create new experiences and creative output in Geelong.

The intent of this Environmental Scan has been to provide a picture of the importance of the Creative Industries within the G21 Region. To do this, the project has explored the penetration of various Creative sectors into global, national and State economies and communities. At the global level, the Creative Industries contribute 3% to world GDP and 29.5 million jobs. In Australia, over 531,000 people are directly employed in the Creative Industries with creativity being an important element in the jobs of more than 3.7 million. In Victoria, the creative sector contributes \$23 billion in gross value added, equating to 8% of the Victorian economy, with 5,500 creative businesses located in rural Victoria (excluding Geelong), representing approximately 7% of all businesses. At the regional level, the Creative industries contributed \$2,085,393 million, or 5.9% (compared to 5.0% in 2015) to the overall regional output, and employed 9,127 people, 7.3% of the total regional workforce.

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Introduction

This report has been produced by the Geelong Region Local Learning and Employment Network (GRLEN), Creative Geelong Inc and in partnership with Enterprise Geelong. The report has been undertaken for the G21 Region, which comprises the Local Government municipalities of City of Greater Geelong, Surf Coast Shire, Golden Plains Shire, Colac Otway Shire and Borough of Queenscliffe, located in southern Victoria. The region covers 8,972 square kilometres and has a population of approximately 298,000 people¹.



Figure 1 – The G21 Region

The G21 Region is a city–region, with Geelong being a national and regional service centre² with health, retail, community services, arts and culture and a strong education presence through its Technical and Further Education (TAFE) Institute, The Gordon, and Deakin University. The city and its surrounds have services available at the regional and sub–regional levels; engages in partnering arrangements which work flexibly across the region rather than being limited by traditional boundaries; and has strong regional

leadership, ensuring transparency of processes and building accountability into those processes³. In doing this, the G21 region has developed a strong coalition of a variety of public and private sector organisations which are ‘important in the mobilization of resources, people and in the creation of mutual empowerment.’⁴

¹ www.g21.com.au

² Mouawad, DC 2009, ‘A governance blueprint for the “federalist” Manchester City Region’, *International Journal of Public Sector Management*, vol. 22, no. 3, pp. 203–209.

³ Ibid

⁴ Sotarauta, M & Viljamaa, K 2002, ‘Leadership and management in the development of regional innovation environments’, *ERSA 2002 Conference – From Industry to Advanced Services: Perspectives of European Metropolitan Regions*.

In undertaking this Environmental Scan, there is an awareness that the various municipalities in the G21 Region have quite different characteristics. The Regional Australia Institute defines regional communities in terms of three different categories. The first is the size of the population; the second is the industry mix; and the final driver is proximity to a major metropolitan area or regional city. These three factors have been used to identify four different types of regions:

1. **Regional Cities, which have populations of over 50,000 persons. They have diverse economies and the chance to use their size and diversity to shape their own future.**
2. **Connected Lifestyle Regions do not have city population size but are close to our major metropolitan regions. They will be influenced by their connection with these cities.**
3. **Industry and Service Hubs are regional centres with between 15,000 – 50,000 residents, located further from major metropolitan areas. Their performance is linked to industry outcomes, but their population size means they could be resilient to change**
4. **Heartland Regions are smaller regional areas that are not close to other major metropolitan or Regional Cities. Industry trends and local ingenuity will shape their future⁵**

Using these definitions, the City of Greater Geelong is a Regional City with a large, complex and diverse labour market, whilst the four surrounding municipalities are Connected Lifestyle Regions which have their own discrete labour markets but which are also dependent on access to the Geelong labour market, with Golden Plains also having access to the Regional City of Ballarat.

Although the four municipalities surrounding Geelong are all categorised as Connected Lifestyle Regions and have some factors in common, in fact they each have their own unique identity. Colac Otway Shire is predominantly built around an agricultural economy, with the city of Colac being ‘the key industrial, commercial and service centre for the Shire and surrounding region with a population of 12,000⁶’. Tourism also plays a major part in contributing to the local economy, with ‘Apollo Bay [being] the other major urban centre with a permanent population of 1,000 that swells to over 15,000 during the summer season.⁷’ The Borough of Queenscliffe economy is based mainly around tourism, public administration, education and retail. Many local residents commute out of the area for work. Like Colac Otway Shire, the Golden Plains Shire is highly focused on agriculture. However, there is also growth occurring in commercial and industrial developments. Like the Borough of Queenscliffe, many Golden Plains residents commute to Geelong, Ballarat and Melbourne for work. Finally, the Surf Coast Shire has an extremely strong tourism economy, with retail also being very important. Agriculture, construction and health care are also strong sectors within the municipality.



⁵ Foundations of Regional Australia, 2014. www.regionalaustralia.org.au

⁶ http://www.colacotway.vic.gov.au/Page/Page.asp?Page_Id=1&h=1&p=1

⁷ ibid

In examining the regional labour market, it is important to understand the factors which contribute to people's decisions to live in particular areas. Despite the predictions that a digital economy would negate the importance of 'place', in actual fact, place has become more important to many people. As described by Deloitte:

'[P]roximity fosters economies of agglomeration, [but] also unleashes the diseconomies of congestion and disamenity, that is, the ugliness of crowds and crowded places... [P]eople want places to do more than just meet their material needs. They want somewhere to belong, where their human need for community can be nourished, and where they feel a measure of control over the things that matter to them. People want places where they can flourish.'⁸

In considering the structure and operations of the regional labour market, we must keep these issues in our minds.



⁸ Deloitte Australia, 2015, Building the Lucky Country: The purpose of place Reconsidered, pp. 8–9

Project Methodology

Labour Market Understanding

In trying to identify how best to respond in times of both high and low unemployment, it is important to articulate how we define and understand the labour market. There are a number of different schools of thought in the labour economics field. As this project deals with the 'human' side of the labour market, the institutional model of the labour market will be applied, rather than the more widely used neo-classical model which reduces labour market understanding to a purely supply/demand economic basis. As stated by Ross and Whitfield (2009, p. 18), 'The approach of the traditional institutional school of labour economics is based on a belief that the essential features of the labour market cannot be understood by the straight-forward application of orthodox economic principles.'⁹

This is an important distinction as one of the areas which is gaining in prominence is the need for ongoing career and skill development to better match industry and client needs which are constantly changing at a faster pace in today's society. This occurs in economic boom times (i.e. skill shortages) and downturns (i.e. retrenchments). This industry-based environmental scan plays an important role in facilitating understanding of the changing regional labour market and communicating these changing needs at a local level.

The institutional school also draws on a range of disciplines aside from economics, including psychology, sociology, geography and politics. All of these perspectives are

important in understanding how best to build appropriate labour market interventions for the G21 Region.

Ross and Whitfield (2009, p. 19) go on to state that 'One of the features of institutional labour economics ... is that it concentrates on the nature of jobs rather than on people'. In identifying how best to address the growing imbalance between the needs of employers and the capabilities of the workforce, and to offer appropriate careers and skills related interventions, the primary determinant is the nature of the jobs which are available, the capabilities required to perform those jobs and the best ways of preparing individuals to build the required skills in order to take up the jobs. This is particularly important in today's changing labour market which is tending to move away from the domination of the traditional full and part time job structure and moving towards a 'gig' or 'portfolio' based structure, in which many individuals will build their careers on concurrently working in a range of different 'gigs'.

In order to analyse and address local labour market issues, it is necessary to contextualise the local labour market in terms of what is happening on a global, national and state basis.

How the Environmental Scan has been developed

The methodology used includes both quantitative and qualitative research, involving desktop research, examination of relevant literature, reports and policy documents, as well as consultations with relevant regional stakeholders.

⁹ Ross, R & Whitfield, K 2009, The Australian Labour Market, 3rd ed, Pearson Education Australia, Frenchs Forest, NSW

This Environmental Scan report includes the following structure:

- An Executive Summary
- Introduction and Methodology chapters
- The global labour market: this chapter will identify global data which is relevant to the industry (this data will be mainly sourced through desktop research).
- The national labour market: this chapter will identify national data which is relevant to the industry (this data will be mainly sourced through desktop research).
- The Victorian labour market: this chapter will identify state-based data which is relevant to the industry (this data will be mainly sourced through desktop research).
- The regional labour market: this chapter will include REMPLAN® data¹⁰ and other relevant local information (this data will be sourced through desktop research and through local consultations).
- Education and training data relevant to this particular industry sector.
- Innovative case studies of new products, practices of ways of working, from organisations, both within and outside the region. The intent is to provide insights which may be useful for regional industry and its support services.
- Finally, a conclusion which will include the identification of relevant issues and, where appropriate, recommendations for the future.

¹⁰ REMPLAN is an economic modelling software package used by many municipalities including those in the G21 Region.



Global Creative Industries

One of the difficulties in trying to estimate the contribution which is made by the creative industries to global labour markets and the potential for future growth of this sector, is the differing definitions of what comprises the creative industries and the differing coding systems used to categorise industry sectors. The approach taken by Creative Geelong Inc. and the Geelong Region LLEN is to align the definition used with that of Creative Victoria which will be described in the State chapter. This definition fits well with the G21 Region.

The Global Picture

According to the International Confederation of Societies of Authors and Composers and UNESCO, the global creative industries comprise eleven Cultural and Creative Industries (CCI) sectors: advertising, architecture, books, gaming,

movies, music, newspapers/magazines, performing arts, radio, television and visual arts. Their research estimates that, “In 2013, [the CCI industries] generated US\$2,250b of revenues (3% of world GDP) and 29.5 million jobs.”¹¹

The top three employers are visual arts (6.73 million jobs), books (3.67 million jobs) and music (3.98 million jobs)¹². The global contribution made by CCI industries is shown in the following map and chart.

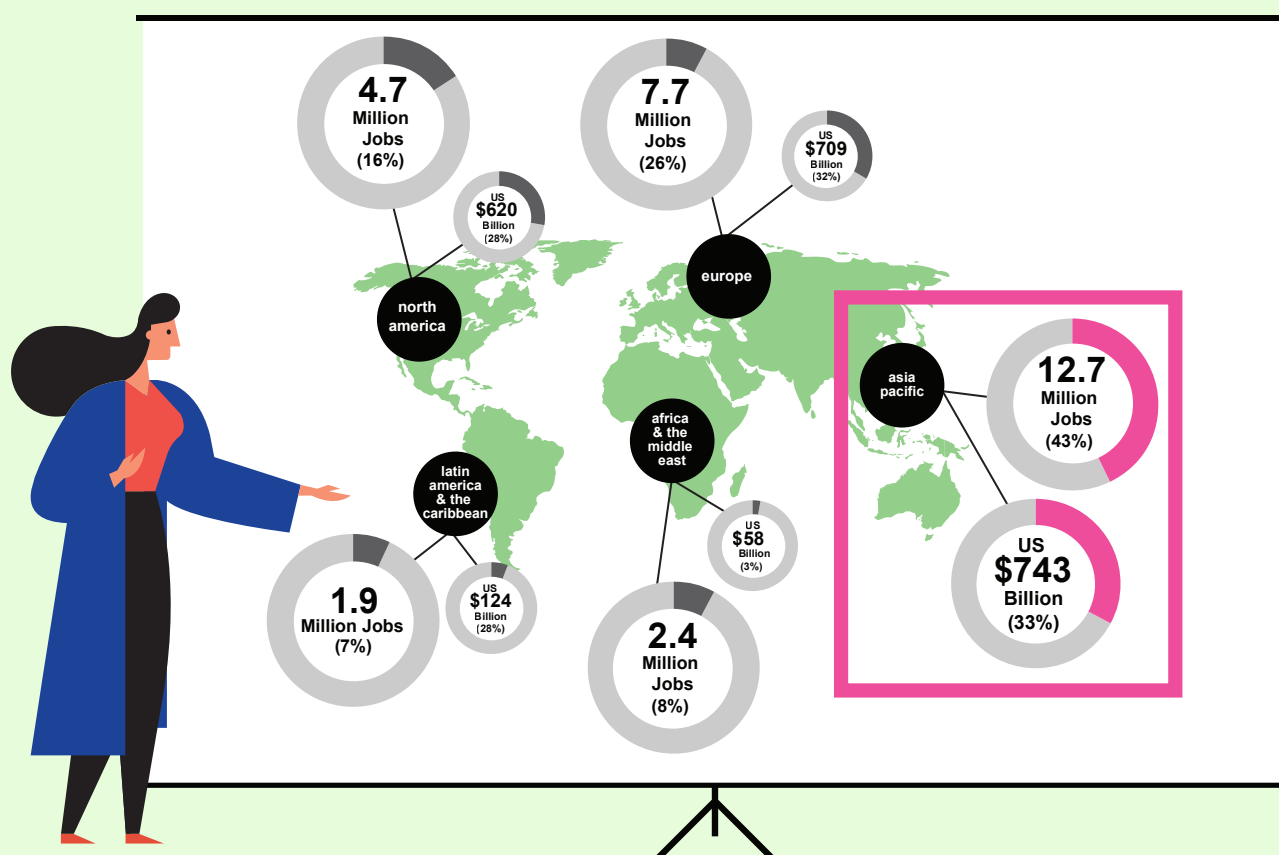


Figure 2 – Global contribution of CCI industries

¹¹ EY 2015, Cultural times: The first global map of cultural and creative industries, http://www.worldcreative.org/wp-content/uploads/2015/12/EY-CulturalTimes2015_Download.pdf, p. 15

¹² <http://www.worldcreative.org/#overview>

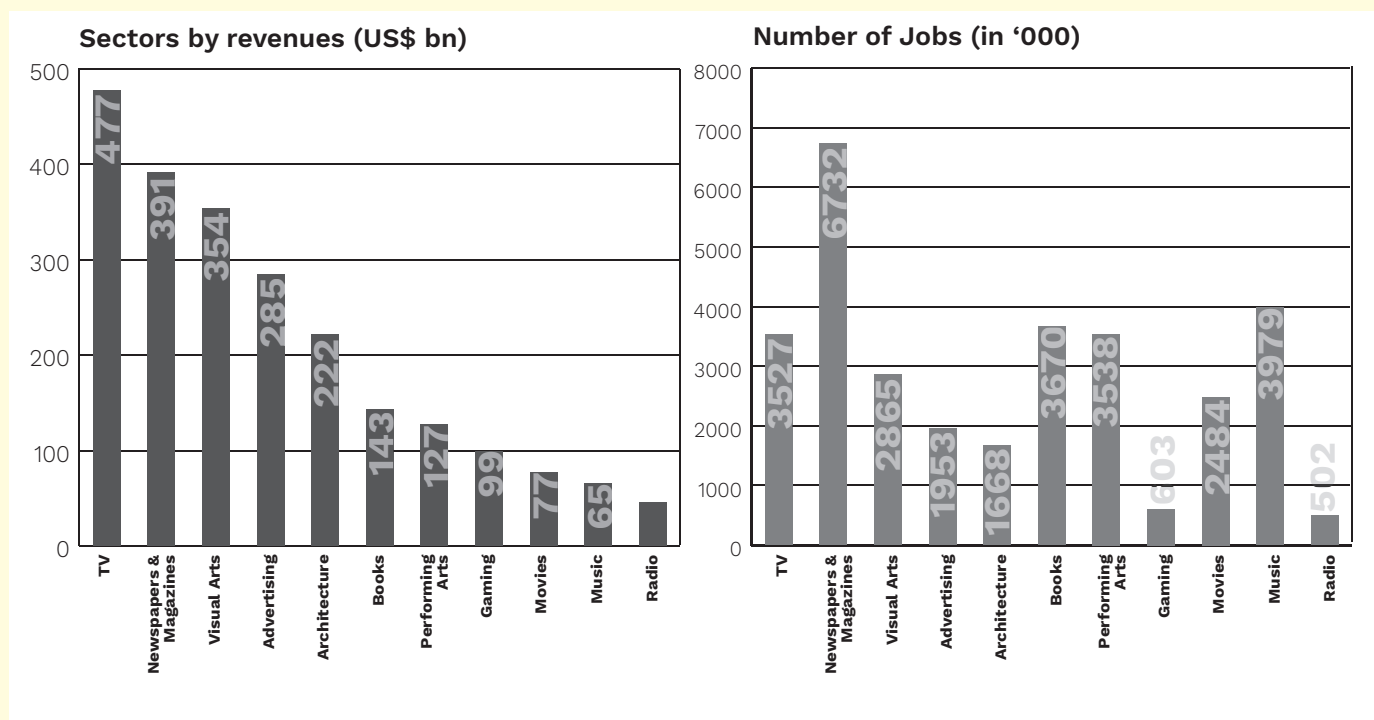


Chart 1 – Global Contribution made by CCI industries

In a report produced by consulting firm EY, the following points were made:

- Cultural and creative industries (CCI) generate US\$2,250 billion of revenues and 29.5 million jobs worldwide
- Cultural and creative content drives the digital economy
- CCI industries are represented in all large areas of the world, so form a “multipolar” representation in which “(t)hrough symbiotic, each world region is developing a momentum of its own.”¹³
- Cultural production is young, inclusive and entrepreneurial
- Culture boosts cities’ attractiveness
- The informal economy is a vast reservoir of jobs¹⁴

EY estimates that the “Asia–Pacific accounts for US\$743b in revenue (33% of global CCI sales) and 12.7m jobs (43% of CCI jobs worldwide).

The Asian market is driven by a large population, and the region is home to CCI leaders, such as Tencent, CCTV and Yomiuri Shimbun.”¹⁵

The United Kingdom and the European Union

In the U.K. and the European Union, the creative industries and occupations are defined by the categories in the following table.

As can be seen, there is significant correlation between this definition and that used by Creative Geelong Inc.

¹³ op cit, p 8

¹⁴ op cit, p8–9

¹⁵ op cit, p8

Creative Industry Sectors	Creative Occupations
Manufacture of jewellery & related articles	Marketing & sales directors
Book Publishing	Advertising & public relations directors
Publishing of directories & mailing lists	Information technology & telecommunications directors
Publishing of newspapers	IT business analysts, architects & system designers
Publishing of journals & periodicals	Programmers & software development professionals
Other publishing activities	Web Design & Development Professionals
Publishing of computer games	Architects
Other software publishing	Town Planning Officers
Motion picture, video & television programme distribution	Chartered architectural technologies
Motion picture projection activities	Librarians
Sound recording & music publishing activities	Archivists & curators
Radio broadcasting	Journalists, newspaper & periodical editors
Television programming & broadcasting activities	Public relations professionals
Computer programming activities	Advertising accounts managers & creative directors
Computer consultancy activities	Architectural & town planning technicians
Public relations & communication activities	Artists
Architectural activities	Authors, writers & translators
Advertising agencies	Actors, entertainers & presenters
Media representation	Dancers & Choreographers
Specialised design activities	Musicians
Photographic activities	Arts officers, producers & directors
Translation & interpretation activities	Photographers, audio-visual & broadcasting equipment operators
Cultural education	Graphic designers
Performing arts	Product, clothing & related designers
Support activities to performing arts	Marketing associate professionals
Artistic creation	Smiths & forge workers
Operation of arts facilities	Weavers & knitters
Library & archive activities	Glass & ceramic makers, decorators & finishers
Museum activities	Furniture makers & other craft woodworkers
	Other skilled trades not elsewhere classified

Table 1 – UK creative industries & occupations¹⁶

¹⁶ Nathan, M, Pratt, A & Rincon-Aznar, A, 2015, Creative Economy Employment in the EU and the UK: A comparative analysis, NESTA, pp. 34–35

UK based research organisation NESTA reports that employment in the creative sector has grown consistently between 2011 and 2013 (see the table below). Data on each of the specific industry sectors above can be found in the NESTA report at pages 16–18

Year	Creative Industries EU–28		Creative Industries UK	
	Total	% all employment	Total	% all employment
2011	11,005,00	5.10%	2,081,000	7.17%
2012	11,252,000	5.23%	2,240,000	7.65%
2013	11,398,000	5.31%	2,343,000	7.91%
2011–13 Average	11,218,000	5.21%	2,221,000	7.58%

Table 2 – Growth of creative employment in UK & EU 2011–2013¹⁷

In 2016, the U.K.'s Department for Culture, Media and Sport updated its data and identified some key findings from its research. These included:

1. Total jobs in the Creative Economy across the UK has increased by 5.1 per cent between 2014 and 2015 (2.8 million to 2.9 million jobs) and by 19.6 per cent since 2011.
2. The fastest growing area of creative industry employment since 2011 has been Music, Performing and Visual Arts followed by IT, software and computer services. Between 2015–2016 the fastest growing industry by employment was music, Performing and Visual Arts which grew by 34.7% followed by IT, Software and Computer Services (32.6%). The fastest growing creative industry employment between 2015–2014 was in Museums, Galleries and Libraries which grew by 14.6%.
3. 37.2% of Creative Industry jobs were filled by women compared to 47.1% of the UK workforce. One of the drivers of this is the small share of employment that women constitute of IT, Software and Computer Services (21.4%).
4. In 2014, the UK's creative industries exported services worth £19.8bn, a 10.9% increase from 2013. This accounts for 9% of UK services exports. The majority (57.3%, £11.4bn) of UK Creative Industries exports of services were to the European Union. The USA was the country that received the largest of UK Creative Industry service exports accounting for 25.3% (£5bn) of the total services exports¹⁸.

Creative Edinburgh and Creative Dundee

As is currently occurring in the G21 Region, there is work being done in the U.K. to promote the importance of the creative industries. Examples of this are the Scottish cities of Edinburgh and Dundee, both of which have built identities as Creative Cities¹⁹.

Creative Edinburgh has over 3,000 members and offers a range of assistance and resources including a Culture Counts toolkit which provides information for those seeking to advocate on behalf of the sector and to influence politicians and local councils in recognising the importance of the creative industries.

Creative Dundee has been in existence since 2008. In order to promote the city's identity, Dundee has become part of the UNESCO City of Design partnership group, making sure the creative sector is represented in the city's strategies and actions. They are also an associate partner in the European Creative Hubs Network, in which Creative Edinburgh is the lead U.K. partner.

In 2017, Geelong was successful in its application to also become a UNESCO City of Design, and the City of Greater Geelong conducted extensive community engagement regarding the 30 year vision for the city. As a result – the Geelong community voted to accept a vision to be a Clever and Creative City (May 2017). <https://www.geelongaustralia.com.au/clevercreative/default.aspx>

¹⁷ Ibid, p. 15

¹⁸ <http://www.nesta.org.uk/blog/seven-key-findings-new-creative-industry-statistics>

¹⁹ <https://www.creative-edinburgh.com/> & <http://creativedundee.com/>

The United States

In 2013, the Creative Economy Coalition conducted research into the state of the creative industries in the United States. In identifying some of the problems encountered in undertaking the study, the CEC noted that "... defining and measuring the creative economy is not straightforward. Not only does it require data to be consistently gathered over time, but the definitions must also be capable of responding to genuine structural shifts in the composition of the creative economy, such as those stemming from digitization." (Bakhski, Hargreaves, and Mateos-Garcia, 2013: 26)²⁰. This is one of the problems encountered in undertaking this research for the G21 Region.

In the U.S., the creative industries are defined as including film and television production, broadcasting, publishing, performing arts, advertising and retail sales; and are estimated to contribute "\$698 billion to the nation's economy – about 4.32% of U.S. goods and services"²¹.

As identified by the authors of the above report, this definition can be used so broadly that it can be applied to many occupations and enterprises.

The creative occupations identified in the CEC report are:

- **Actors**
- **Architects, except landscape**
- **Art directors**
- **Choreographers**
- **Commercial and industrial designers**
- **Craft artists**
- **Fashion designers**
- **Fine artists**
- **Graphic designers**
- **Interior designers**
- **Landscape architects**
- **Multi-media artists and animators**
- **Music directors and composers**
- **Producers and directors**
- **Set and exhibit designers**
- **Writers and authors**²²

The report found that many of the U.S. cities which took part in the study were keen to quantify and report on the value of their creative sectors, and to identify how best to resource the ongoing growth of the sector. In order to do this, the authors recommended that:

1. there needed to be a coordinated approach to supporting the industry,
2. Government policy needs to change to recognise and promote the sector,
3. a common brand/marketing process needs to be developed, and
4. school students need to be supported in developing their creative capabilities²³.

These factors are all highly relevant to the ongoing development of the creative industries in the G21 Region, and build on the work already being undertaken by regional stakeholders.

"The creative economy involved both individuals and entities who engage in activities that add value to society in one or more ways through the provision of goods and/or services that are inextricably linked to human creativity manifesting itself in one or more dimensions throughout the process of ideation, creation, production, distribution and use"

²⁰ ibid, p. 12

²¹ <http://www.mpa.org/nea/#.WQKb-xOGOUm>

²² Harris, C, Collins, M & Cheek, D 2013, *Americas Creative Economy: A study of recent conceptions, definitions and approaches to measurement across the USA*, The Creative Economy Coalition

²³ ibid, p. 82.

Creative Detroit

As in the U.K., cities in the U.S. are also recognising the social and economic opportunities presented by the Creative Industries sector. Detroit, once famous for its automotive industry, has now re-invented itself and was the first U.S. city to be recognised as a UNESCO City of Design. The move from an automotive to a creative identity is less puzzling than it might at first seem, with design being an integral part of motor vehicle manufacture.

In order to promote the city, Detroit has created the Detroit

Creative Corridor Centre, which is “an economic development organization that works to strengthen Detroit’s creative economy and connect people to it. DC3 provides services to creative businesses and designers, offers widespread opportunities to engage with Detroit’s creative sectors, and champions Detroit’s creative economy. DC3 is a partnership between Business Leaders for Michigan and College for Creative Studies”, and represent businesses working in the following sectors:

- **Architecture**
- **Communications/Advertising/Creative**
- **Film/Video/Entertainment Arts Design**
- **Fashion and Accessories Design**
- **Graphic/3D/Illustration Design**
- **Industrial Design**
- **Interactive/UI–UX Design**
- **Interior Design**
- **Landscape Design**
- **Transportation Design**

DC3 has three major objectives: to promote creative talent, grow creative businesses, and advocate for creative industries²⁴

New Zealand

New Zealand is also experiencing a growing focus on the creative industries which, in 2015, were estimated to contribute more than \$3.5 billion to New Zealand’s GDP, and are estimated to be “similar in size to the forestry sector, double the size of the printing sector, and half the size of sheep, beef cattle and grain farming.”²⁵ This is impressive data as they define the creative industries

as only including books, music, television and film, and games.

In a report prepared by consulting firm PwC, it is estimated that these sectors employ up to 15,000 full-time writers, publishers, musicians and actors; and that this figure could rise to more than 30,000 when those employed as suppliers and support businesses are included²⁶

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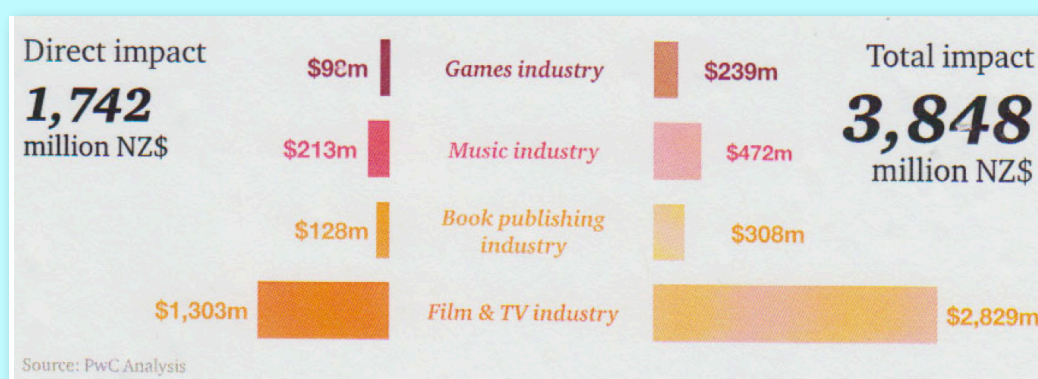


Figure 3 – Contribution of creative industries to NZ GDP

²⁴ <http://detroitdc3.com/about-dc3/>

²⁵ Ibid

²⁶ <http://wecreate.org.nz/427/>

Australian Creative Industries

Australian Federal Governments of both major parties have identified the importance of the Creative Industries sector to both the Australian economy and to society as a whole. However, unlike other global and regional governments, both the Coalition and Labor Governments have restricted their definition of the creative industries to those sectors sitting within the Arts and Culture area.

In 2013, the Gillard Labor Government released their Creative Australia National Cultural Policy, which was an update to the Creative Nation policy from two decades earlier. The National Cultural Policy, which was developed under the auspices of Minister Simon Crean, differs from many of the other policies relating to the creative industries in that it defines that sector as only including “writing, visual arts, music, dance, performance, screen production, fashion and design.”²⁷

Even with that more limited definition, the report still identifies that, at the 2011 Census:

“almost 370,000 people worked in a cultural industry and a further 161,000 were employed in cultural occupations throughout the rest of the economy for a total of 531,000 directly employed. However, when the scope of the sector is expanded to include education, manufacturing, accommodation and construction, it is possible to say that culture is an important element in the jobs of more than 3.7 million Australians. In the same year, more than 400,000 people volunteered for arts and heritage organisations.”²⁸

A more broadly defined sector, as shown in the figure below, demonstrates an even larger Creative Industries workforce.

According to the current Coalition Government:

“Contemporary Australia is home to a wide range of creative arts and industries, from world-class films, visual and performing arts, to publishing and the games industry. Australia has a vibrant arts, culture and entertainment community which is known internationally for its unique cultural style and enriched Indigenous history. Australia also plays a key role in the education, training and development of future leaders across all arts and creative industries. The Australian government recognises that a creative economy contributes to cultural diversity, social inclusion, environmental sustainability and technological advancement. Creativity is key to innovation, driving sustainability and prosperity. Creativity and innovation play an important role in Australia’s resilience to recent global economic challenges, helping Australia to register 22 years of uninterrupted economic growth. The arts and creative industries are integral to contemporary Australian values, self-expression, confidence and engagement with the world.”²⁹



Figure 4 – The Australian creative workforce²⁹

²⁷ Australian Government, 2013, Creative Australia: National Cultural Policy, p.28

²⁸ ibid, p. 90

²⁹ <https://thecopycollective.com/wp-content/uploads/Infographic.jpeg>

³⁰ <https://www.austrade.gov.au/International/Buy/Australian-industry-capabilities/Creative-Industries>

Cultural precincts

Australia is well known for its striking cultural precincts. It is also internationally recognised for:

- “international leaders who have created, managed and redeveloped cultural precincts and venues.
- Australian cultural venues and precincts that attract international visitors.
- international projects that demonstrate experience across the entire value chain.”³¹

The figure below shows the contribution to the Australian economy provided by the cultural sector.



Figure 5 – Contribution of the cultural sector³²

The Australian Trade Commission indicates that Australia can supply global expertise in the following areas:

1. infrastructure, sustainable design and engineering (Australia currently has four of the top 40 largest architectural practices in the world. Only the US and the UK have a higher number of top 40 firms)³³.
2. programming, curation and research.
3. venue, facilities and production management.
4. audience engagement, education and public relations.
5. technology and telecommunications³⁴.

³¹ Australian Trade Commission, 2013, Australia Unlimited: Cultural Precincts, p. 6

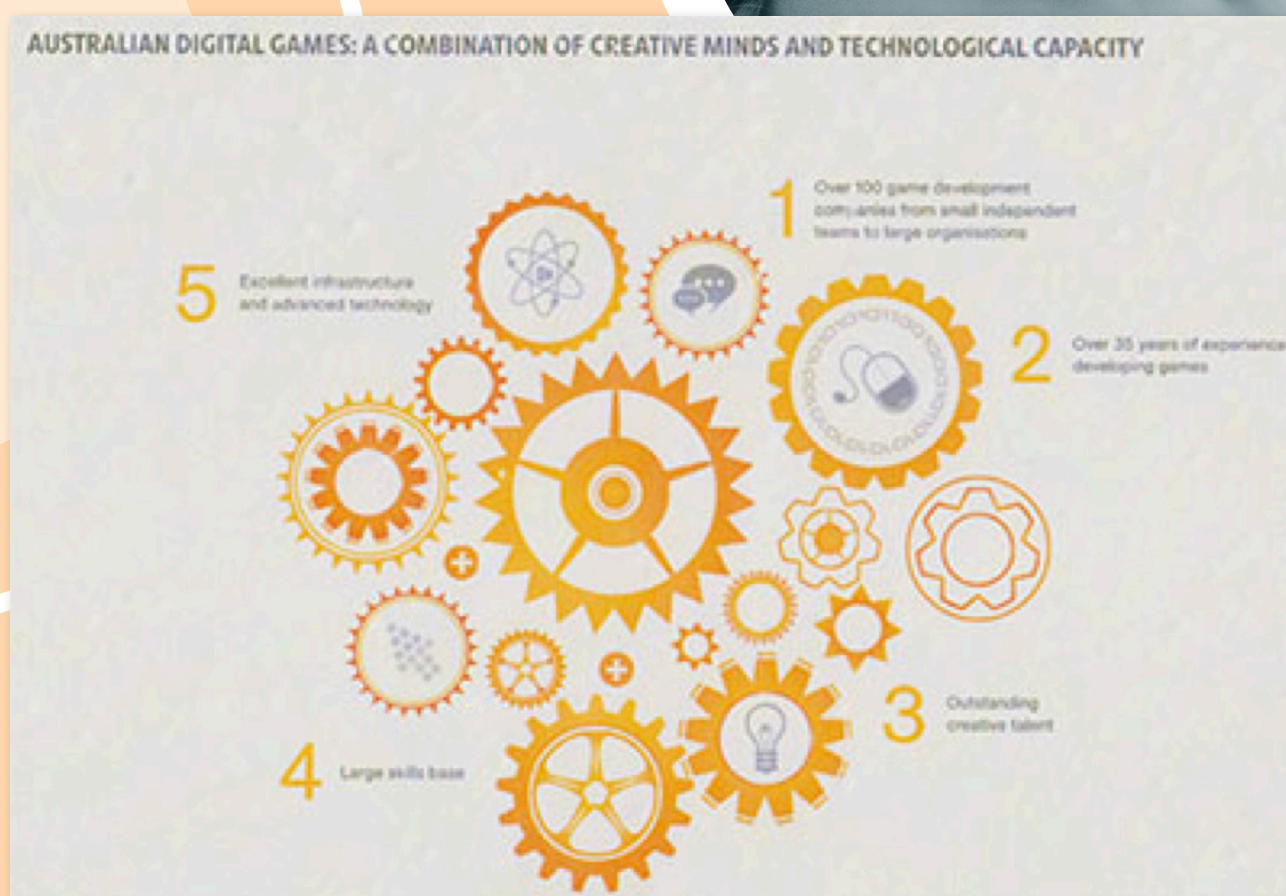
³²⁻³⁴ ibid, p. 7, 16, 14

Digital games

According to Austrade:

“Australia also has a strong base of complementary creative industries, including film and television, design, advertising and new media. Our education and training courses are world class, ensuring that the supply of talent continues to grow and meet future market needs.”³⁵

As at 2014, Australia had over one hundred companies involved in “creating games across mobile, console, computer, handheld and browser platforms.”³⁶ It is highly likely that this number has increased significantly over the past three years.



Above: Figure 6 – Digital games in Australia, 2014³⁷

³⁵ Australian Trade Commission, 2014, Digital Games, p. 4

³⁶⁻³⁷ *ibid.*, p. 6, 9

Visual arts

Australia has a vibrant arts scene, which includes “painters, photographers, potters, printmakers, glassblowers, sculptors, weavers, and digital and multimedia artists — working in a wide variety of genres and styles.”³⁸ The indigenous art industry is extremely successful, with many well recognised artists selling in a global market. Australia also has over thirty academic institutions offering a range of arts-based courses.

Austrade has identified that “Australia regularly hosts exhibitions of local and international artists. Australia’s museums hold an estimated 54.9 million artworks and objects displaying a wide variety of genres and representing thousands of domestic and international artists.”³⁹



Screen production

Australia is internationally renowned for its capabilities in both film and television screen production, not only for the many awards its actors have received, but also for the quality of its behind the scenes production. The Australian Government estimates that there are approximately 2,500 businesses “working across a range of content: feature films, television drama, children’s programming, documentary, light entertainment, news, sport and advertising.”⁴⁰

They go on to provide the following data:

- around fifty feature films are produced in Australia each year, including seventeen international productions;
- total production spend is approximately \$390 million annually;
- there are currently about 300 film producers active in Australia, as well as 190 directors and 250 writers;
- more than 450 hours of local Australian television drama are made each year for primetime viewing;
- average annual television production costs approximately \$274 million⁴¹;
- 360 hours of documentaries are produced each year, with approximately 72% made by independent production companies⁴².

Australia is also becoming very well regarded for the web content being produced in this country, with one program being seen on YouTube by 60 million viewers⁴⁴.

³⁸ <https://www.austrade.gov.au/International/Buy/Australian-industry-capabilities/Creative-Industries>

³⁹ ibid

⁴⁰ Australian Trade & Investment Commission, 2016, Screen Production, p. 8

⁴¹⁻⁴⁴ ibid p. 10, 12

Creative Enterprise Australia

Creative Enterprise Australia (CEA) is a national organisation nested within Queensland University of Technology and works to promote the creative–tech ecosystem.

According to their CEO, Anna Rooke, “creative industries currently contribute \$90 billion annually to the economy – with CEA arguing that Federal Government support could drive that contribution much higher as it has in the UK and other international economies.”⁴⁵ They also estimate that the sector contributes 6.2% of national employment. The article goes on to state that, in her presentation at the annual Creative summit, Ms. Rooke also called on the Federal Government to appoint a Federal Minister for the Creative Industries.

Inquiry into innovation and creativity: workforce for the new economy

In November 2016, the Federal Minister for Employment, Education and Training, the Hon. Simon Birmingham, called on the Standing Committee for Employment, Education and Training to “inquire into and report on matters that ensure Australia’s tertiary system – including universities and public and private providers of vocational education and training – can meet the needs of a future labour force focused on innovation and creativity.”⁴⁶

Interested parties were given the opportunity to respond by 1 February 2017, to the Terms of Reference below:

1. the extent to which students are graduating with the skills needed for the jobs of today and of the future;
2. matters relating to laws and regulations that may act as a barrier to education providers being able to offer qualifications that meet the needs of the new economy and fastest growing sectors;
3. factors that discourage closer partnerships between industry; in particular small and medium enterprises, the research sector and education providers; including but not limited to: intellectual property; technology transfer; doctoral training practices; and rapid commercialisation;
4. opportunities for generating increased economic activity, including further investment and jobs, through greater synergies among publicly funded research agencies, universities and other Australian research institutions with businesses and industry; including but not limited to: co-location, cluster formation and development of precincts between universities and industry;

5. relationships between tertiary education entrepreneurship programs and public, private, and not-for-profit incubators and accelerators; and
6. other related matters that the Committee considers relevant.⁴⁷

In May 2017, the report from the Inquiry was released. The recommendations can be found in the report. There is some confusion about the difference between creativity and innovation:

“The main difference between creativity and innovation is the focus. Creativity is about unleashing the potential of the mind to conceive new ideas. Those concepts could manifest themselves in any number of ways, but most often, they become something we can see, hear, smell, touch, or taste. However, creative ideas can also be thought experiments within one person’s mind. Creativity is subjective, making it hard to measure

Innovation, on the other hand, is completely measurable. Innovation is about introducing change into relatively stable systems. It’s also concerned with the work required to make an idea viable. By identifying an unrecognised and unmet need, an organisation can use innovation to apply its creative resources to design an appropriate solution and reap a return on its investment.”⁴⁸

Unfortunately, without creativity, innovation can’t exist. It is vital, therefore, to ensure that systems are in place that foster and encourage creativity to occur.

⁴⁵ <http://anthillonline.com/australias-90-billion-creative-industries-identified-key-growth-sector/>

⁴⁶ http://www.aph.gov.au/Parliamentary_Business/Committees/House/Employment_Education_and_Training/Innovationandcreativity

⁴⁷ http://www.aph.gov.au/Parliamentary_Business/Committees/House/Employment_Education_and_Training/Innovationandcreativity/Terms_of_Reference

⁴⁸ http://parlinfo.aph.gov.au/parlInfo/download/committees/reportrep/024036/toc_pdf/Innovationandcreativity.pdf;fileType=application%2Fpdf

⁴⁹ <https://www.businessinsider.com.au/difference-between-creativity-and-innovation-2013-4>

The only recommendation which is relevant to this Scan was:

Recommendation 10

2.94 The Committee recommends that the National Innovation and Science Agenda explicitly recognise the importance of STEAM, creative digital skills, the creative industries and the arts more generally.⁵⁰

As a response to this, the Australian Government has released its Australia 2030: Prosperity Through Innovation Strategy which is designed to meet the following challenges:

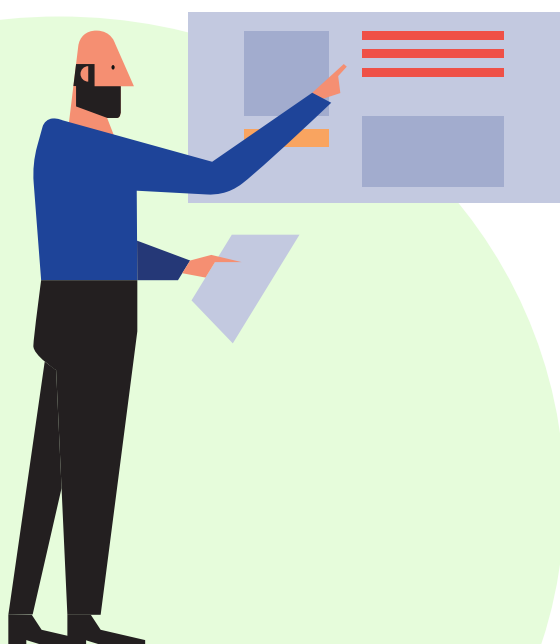
- **Education:** Respond to the changing nature of work by equipping all Australians with skills relevant to 2030
- **Industry:** Ensure Australia 's ongoing prosperity by stimulating high-growth firms and raising productivity
- **Government:** Become a catalyst for innovation and be recognised as a global leader in innovative service delivery
- **Research & Development:** Improve R&D effectiveness by increasing translation and commercialisation of research
- **Culture & Ambition:** Enhance the national culture of innovation by launching ambitious National Missions⁵¹

Creative Industries Innovation Centre

The Creative Industries Innovation Centre (CIIC) was closed in 2015. The Centre, which was a partnership between the Department of Industry and the University of Technology Sydney, was designed to provide specialist advice to small and medium sized businesses operating in the creative sector. According to the Australian Design Alliance:

“Since 2009, the Creative Industries Innovation Centre has supported the business development of 1500 Australian creative industry businesses. They have delivered 630 in-depth business reviews with established companies, 1179 hours of free, expert business advice for start-ups, eight national training programs, and published industry intelligence on the creative industries.”⁵²

The closure of the Centre means that there is now no national Centre offering assistance specifically to these businesses. Instead, they need to try to “fit” themselves into other programs of assistance.



⁵⁰ *ibid*, p. xix

⁵¹ <https://industry.gov.au/Innovation-and-Science-Australia/publications/Documents/Australia-2030-Prosperity-through-innovation/index.html>

⁵² <http://australiandesignalliance.com/creative-industries-innovation-centre-to-close/>

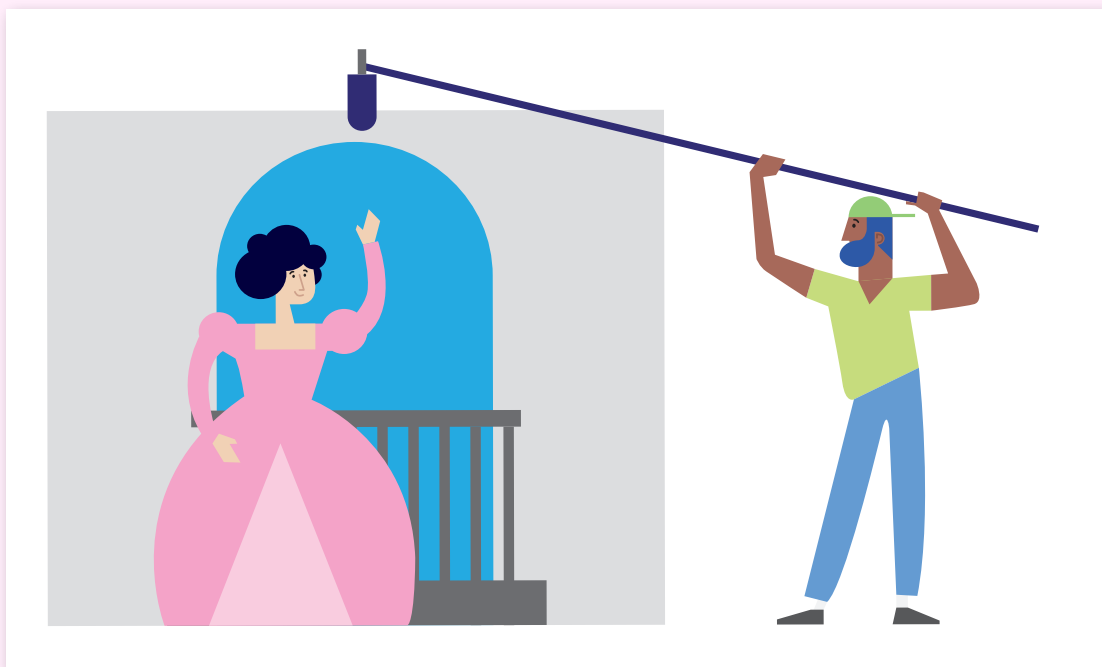
Victorian Creative Industries

Like most other jurisdictions, except for the national level, the Victorian Government subscribes to the wider definition of the creative industries, that is:

“an evolving mix of sectors spanning arts, culture, screen, design, publishing and advertising. They cover disciplines as diverse as game development and graphic design, fashion and filmmaking, performing arts and publishing, architecture and advertising, media and music, comedy and craft.”⁵³

In developing the Creative State strategy, Creative Victoria has identified the following:

1. The creative sector contributes \$23 billion in gross value added, equating to 8% of the Victorian economy ;⁵⁴
2. Melbourne hosts 62,000 live concerts each year and has more songwriters than anywhere else in the country;
3. Melbourne has been designated as a UNESCO City of Literature;
4. The screen industry contributed \$1.4 billion to the State economy in 2015;
5. 50% of national television drama production and almost 50% of Australia’s digital games sector are located in Victoria;
6. State owned cultural institutions host over ten million visitors each year and hold collections valued at over \$5 billion.⁵⁵



⁵³ Dept. of Economic Development, Jobs, Transport & Resources, Creative Victoria, 2016 Creative State: Victoria's first creative industries strategy 2016–2020, p. 10

⁵⁴⁻⁵⁵ *ibid.*, p. 11,

To rectify this, the Victorian Government has developed five major areas of focus, and forty specific action areas, as shown in the Figure below. The expectation is that achievement of these action areas will contribute to the economic, cultural and social wellbeing of the State. The following table identifies what the actions are designed to achieve and how they will be measured.

In developing these five areas of focus, over the next four years, the State Government has allocated \$6.35 million to Action 1⁵⁶, \$57.35 million to Action 2⁵⁷ \$14.05 million to Action 3,⁵⁸ \$32.15 million to Action 4 ⁵⁹ and \$5.05 million to Action 5.⁶⁰



Figure 7 – Five Victorian action areas⁶¹



⁵⁶⁻⁶¹ ibid, p. 17, 19, 23, 27, 31, 9,

Action Area	What the actions will do	Measures
1. Backing creative talent Creating more opportunities to produce and present great work	<ul style="list-style-type: none"> · Develop professional and creative practice · Enable the creation of landmark new works · Encourage collaboration and innovation 	<ul style="list-style-type: none"> · People employed in creative occupations · New works supported · Professional development opportunities provided
2. Strengthening the creative industries ecosystem Building capability and conditions for growth	<ul style="list-style-type: none"> · Increase output and employment in the creative industries · Accelerate the development of creative industry businesses and organisations · Increase spaces for creative practice 	<ul style="list-style-type: none"> · Employment in the creative industries · Creative industries share of gross value added · Organisations supported with business development assistance
3. Delivering wider economic and social impacts Stimulating innovation and wider creative impact	<ul style="list-style-type: none"> · Expand the application of creative services, products and content: <ul style="list-style-type: none"> – to contribute to productivity and economic growth – to achieve positive social outcomes 	<ul style="list-style-type: none"> · Victorian organisations applying design · Major government projects applying creative industries products and services · Students participating in education programs
4. Increasing participation and access Engaging more Victorians in cultural and creative endeavour	<ul style="list-style-type: none"> · Increase participation in creative industries activities and experiences across the State · Increase diversity in creative industries production and consumption · Reduce barriers to creative industries employment and experience 	<ul style="list-style-type: none"> · Attendances · Number of Victorians participating in a cultural event · Attendance at regional cultural events
5. Building international engagement Extending Victoria's impact and profile for global audiences, visitors and markets	<ul style="list-style-type: none"> · Enhance Victoria's creative industries reputation and brand · Strengthen global connections, export and trade · Boost Melbourne's status as a global cultural destination 	<ul style="list-style-type: none"> · Value of creative industries exports and investment · Value of cultural tourism · Projects involving international collaboration · Creative industries practitioners participating in international events

Table 3 – Action areas and measures⁶²⁶² ibid, p. 34

To further emphasise the importance placed on the creative industries by the State, the Andrews Government, through the Creative State initiative, has launched the inaugural annual Creative Industries Summit, which was held on 29–30 June 2017. Over one hundred speakers from all around the world presented to participants on the various parts of the sector and the benefits it brings to the State. In reporting on the Summit, Age reporter Ray Edgar states that “Creativity is the elixir of city life; it rejuvenates economies and stimulates culture⁶³.” He goes on to quote Summit curator Peter Cullin, who believes that “cities that will succeed in the next 15 to 20 years are those that have both an incredible liveability factor – which is what creative industries bring to a place – and the ability to join the dots between those different creative communities to allow new thinking and innovation to happen⁶⁴.”

In late 2017, Creative Victoria embarked on a process to develop a Regional Creative Industries’ Strategy. Creative Geelong was part of this process and made a submission. The key elements in that submission will be outlined in Creative Geelong’s response to this Environmental Scan.

Creative industry in rural Victoria

In 2013, Essential Economics Pty. Ltd. was contracted by Jennifer Cromarty (now President, Creative Geelong Inc) as part of her work with Rural Councils Victoria to undertake an analysis of the contribution made to the Victorian economy by the creative industries located in the rural parts of the state covered by Rural Councils Victoria. It should be noted that the City of Greater Geelong (as a regional city) was not included in the report, so the Barwon South West data presented in the next chapter excludes the Geelong information.

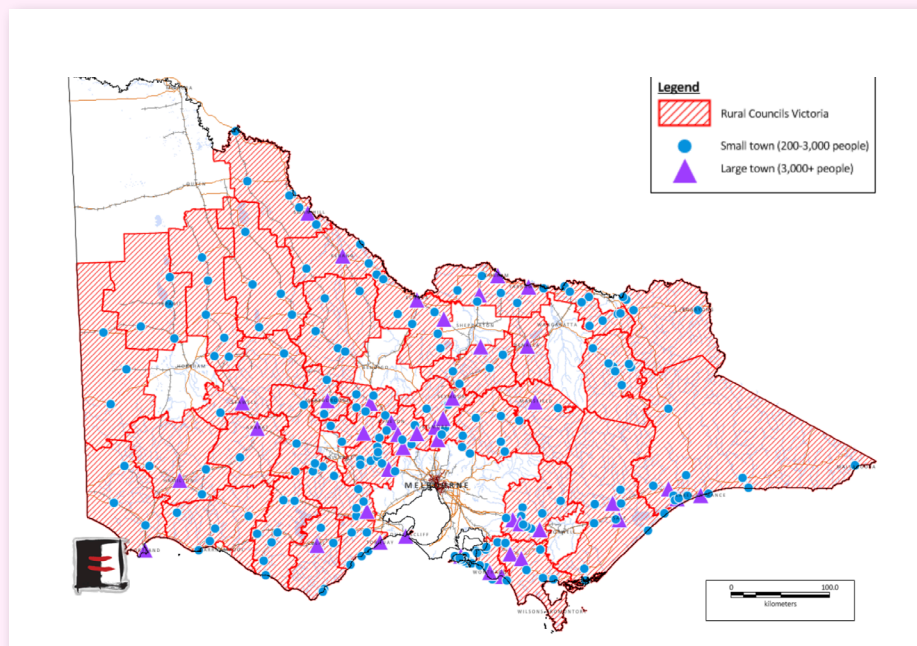


Figure 8 – Rural locations covered by Essential Economics⁶⁵

⁶³ Edgar, R. 17 June 2017. The creative economy, The Age, p. 15

⁶⁴ *ibid* pg. 1, 72

⁶⁵ Essential Economics Pty. Ltd., 2013, Creative Industry in Rural Victoria, p. 7

According to Essential Economics:

“No standard definition of the Creative Sector exists, either domestically or internationally, although a number of components are common across most definitions. In general, descriptions reflect the purpose of the particular exercise (e.g. research, policy development, action planning). In view of the rural focus of this study, the following broad definitions (which are based on Australian and New Zealand Standard Industrial Classification (ANZSIC) categories) have been used:

- Creative Sector: professional, scientific and technical Services (selected sub-sectors), tertiary, adult and community education (limited to arts education), heritage, creative and performing arts, information, media and telecommunications (selected sub-sectors), printing (selected sub-sectors)
- Creative Occupations: artists and performers, journalist and writers, IT professionals (selected), advertising, media and public relations professionals, scientists and researchers (selected), town planners, civil engineers, cultural workers (selected).⁶⁶

The definition used by Essential Economics differs somewhat from that used by Creative Geelong Inc. and which has been used in this report. Whereas the Essential Economics research identifies 54 occupations which they classify as “creative” occupations, only 40 occupations are identified using the definition determined by Creative Geelong Inc. As stated earlier in this report, this definition aligns with that used by global and Victorian State Governments. The local definition does not include some of the scientific categories, nor occupations such as town planners and civil engineers.

The key findings of the report are:

1. “Approximately 5,500 creative businesses are located in rural Victoria, representing approximately 7% of all businesses (compared to 10% in regional cities and 17% in Melbourne).
2. Approximately 11,030 residents located in Rural Council areas are employed in the Creative Sector and this represents 3.5% of all Rural Council workers. However, only 6,860 or 62% of these jobs are provided in rural areas, indicating that many workers in the sector commute to other locations for employment.
3. Compared to Metropolitan Melbourne, Rural Council areas have significantly lower proportions of jobs associated with IT, computer, telecommunications, engineering design and advertising, but higher proportion of jobs provided in more traditional cultural and creative sectors such as newspaper publishing, printing, libraries, archives, arts education, photographic services, and employment for creative artists, musicians, writers and performers. A similar trend is observed with regard to creative workers, with 12,360 rural workers occupied in creative activities, but only 8,470 or 69% undertaking these activities in rural locations.
4. An estimated \$640 million pa in Gross Value Added is generated by the rural Creative Sector and this represents 3.3% of total state GVA of \$19 billion for the sector.⁶⁷

Approximately 11,030 residents located in Rural Council areas are employed in the Creative Sector and this represents 3.5% of all Rural Council workers.

⁶⁶ ibid pg. 1,
⁶⁷ ibid pg. 72

G21 Region Creative Industries

Barwon South West Region

The G21 Region, which is the subject of this report, sits within the larger Barwon South West Region, which also includes the Great South Coast.

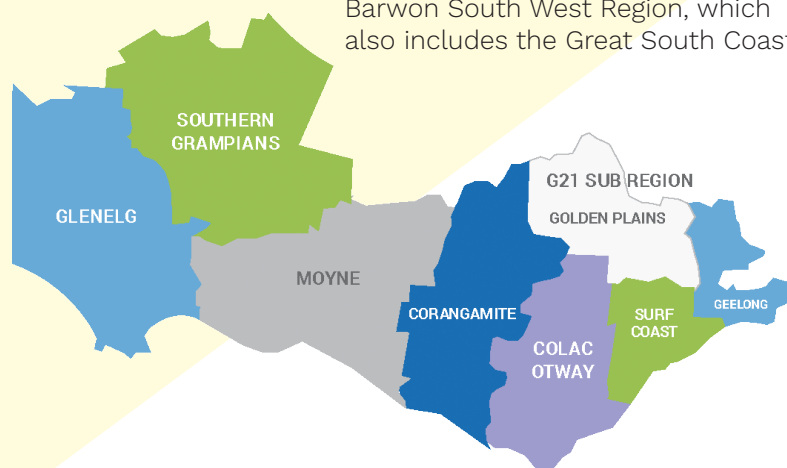


Figure 9 – Barwon South West Region

Regional Development Victoria describes the Barwon South West region as:

*“stretch[ing] from the tip of the Queenscliff Heads to the border of South Australia. It is home to Victoria’s largest regional city, Geelong. The region has access to a deep-water port at Portland, an established rail network with interstate connections and several commercial airports. The picturesque Great Ocean Road is a feature of the region. With its inviting coastal towns, spectacular rainforests and iconic farming districts the Barwon South West region is an ideal location to live, work and invest.”*⁶⁸

The following data provided by the Essential Economics report on the creative industries in rural Victoria, which was mentioned in the previous chapter, does not include the City of Greater Geelong. The available data regarding the rural municipalities

within the Barwon South West Region are summarised in the table below. The full report should be read for details of how the data on the creative industries have been determined.

The G21 Region

As stated earlier in this report, the fact that there is no specific ANZSIC category for the creative industries makes it difficult to gain access to truly accurate data in many cases. For example, the creative industries sit within the ANZSIC categories of Information Media and Telecommunications; Professional, Scientific and Technical Services; and Arts and Recreation Services. However, there are components of these sectors which do not classify as “creative”. For example, the hardware installation and maintenance aspects of the ICT industry are not creative, nor is much of the scientific and technical components of the Professional group. As well, the Arts and Recreation category also includes sport and gambling. Much of the data in this section of the report should therefore be considered indicative rather than specifically accurate, as it does not allow analysis at the lower levels of the ANZSIC groupings.

The table below shows the ABS Business Count data on businesses in the above three ANZSIC groupings in the G21 Region with regard to their location of business registration. This data shows that, in 2015, there were 5,252 businesses in the G21 Region which were associated with the industry. Whilst recognising that some of these businesses sit within the “non-creative” parts of the sectors, this figure nevertheless indicates the importance of the creative industries to the region.

⁶⁸ <http://www.rdv.vic.gov.au/victorian-regions/barwon-south-west>

	Arts & Recreation Services	Information Media and Telecommunications	Professional, Scientific & Technical Services	Total
Bannockburn	6	6	30	42
Golden Plains – South	5	3	38	46
Southern Golden Plains	11	9	68	88
Belmont	10	3	77	90
Corio – Norlane	7	3	47	57
Geelong	31	25	336	392
Geelong West – Hamlyn Heights	17	7	145	169
Grovedale	7	3	90	100
Highton	15	11	212	238
Lara	17	6	113	136
Leopold	9	4	42	55
Newcomb – Moolap	8	3	50	61
Newtown (Vic.)	16	4	136	156
North Geelong – Bell Park	11	0	96	107
Clifton Springs	8	0	76	84
Ocean Grove – Barwon Heads	28	17	202	247
Portarlington	3	7	47	57
CoGG	187	93	1,669	1,949
Queenscliff	16	6	53	75
Queenscliff	16	6	53	75
Winchelsea	23	21	245	289
Lorne – Anglesea	14	0	47	61
Torquay	12	7	60	79
Surf Coast	49	28	352	429
Colac	11	3	41	55
Colac Region	5	3	22	30
Colac Otway	16	6	63	85
Total	558	284	4,410	5,252

Table 4 – ABS Business Count by location of business registration⁶⁹

⁶⁹ ABS, 2015, 81650 Counts of Australian Businesses, including Entries and Exits, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/8165.0Jun%202011%20to%20Jun%202015?OpenDocument>

REMPLAN

This section of the Environmental Scan provides quantitative data taken from the economic modelling software used by Councils in the G21 Region – REMPLAN. Whilst the Borough of Queenscliffe does not subscribe to REMPLAN, the G21 Alliance does. However, whilst this does enable analysis to determine the overall data for the G21 Region, as well as the individual data for each of the four municipalities which use REMPLAN, it does not enable the data for Queenscliffe to be extrapolated. Appendix 8 therefore only provides the 2016 Census data for the Borough. The data provided by REMPLAN includes economic and labour force information which, at the time of this research, REMPLAN extracted from the following sources:

- ABS 2011 and 2016 Census Journey To Work Employment
- ABS 2012/2013 and 2014/2015 National Input Output Tables
- ABS June 2014 and June 2017 Gross State Product

As can be seen, the data available covers a sufficient timeframe to enable a comparative analysis of the growth or decline of particular sub-sectors.

The data provided in this section of the report relates to the overall G21 Region. Data for each of the municipalities within the region can be found at Appendices 4–8.

Economic Data

According to REMPLAN, the total output estimate for the G21 Region in 2017 is \$35.051,041 billion (up from \$29.609,251 billion in 2015, an increase of 18.4%).⁷⁰

As with the data in the previous section, REMPLAN does not allow analysis at the lowest level of the ANZSIC categories to enable truly accurate representation of the contribution made by the Creative Industries to the region economy. Data relating to Professional, Scientific & Technical Services; Art, Sports, Adult, Community & Other Education; and Library & Other Information Services will be particularly problematic due to the fact that these sectors contain a number of sub-industries that are not classified as “creative.” However, this data is somewhat more detailed than the previous section, and the descriptor “Creative Industries” will be used despite the discrepancies in accurate data.



⁷⁰ REMPLAN defines “Output data” as ‘the gross revenue generated by businesses/organisations in each of the industry sectors in a defined region. Gross revenue is also referred to as total sales or total income’.

In 2017, the Creative Industries sectors contributed **\$2.085,393 billion**, or **5.9%** (compared to 5.0% in 2015) to the overall regional output as follows:

Industry Sector	Value 2015	% of Overall Regional Output	Value 2017	% of Overall Regional Output	% change 2015–2017
Professional, Scientific & Technical Services	\$1,033,529	3.5%	\$1,368,212	3.9%	+0.4%
Publishing (except Internet & Music Publishing)	\$169,695	0.6%	\$130,155	0.4%	–0.2%
Motion Picture & Sound Recording	\$60,632	0.2%	\$73,796	0.2%	+0.0%
Arts, Sports, Adult, Community & Other Education	\$53,458	0.2%	\$60,951	0.2%	+0.0%
Broadcasting (except Internet)	\$44,720	0.2%	\$35,807	0.1%	–0.1%
Heritage, Creative & Performing Arts	\$42,159	0.1%	\$74,353	0.2%	+0.1%
Printing (inc. reproduction of recorded media)	\$39,818	0.1%	\$35,209	0.1%	+0.0%
Internet Publishing, Broadcast, Websearch & Data Services	\$21,688	0.1%	\$43,364	0.1%	+0.0%
Library & Other Information Services	\$14,523	0.0%	\$27,611	0.1%	+0.1%

Table 5 – Output estimate for the G21 Region



The total regional export estimate for G21 Region in 2017 is \$7.924,037 billion⁷¹. It should be noted that export estimates relate to those goods and services produced within the region and sold outside the region. It does not include those goods and services which are sold to other parts of the

region, for instance between municipalities. This means that the export totals for the individual LGA's within the G21 Region exceed, in total, the export estimate for the overall region, as these individual LGA's include those goods and services sold to other municipalities within the region.

As a result, it is not possible to provide export estimate data for the Borough of Queenscliffe which does not subscribe to REMPLAN. The Creative Industries sectors contributes \$213,406 million or 2.7% (up from \$150.579 million or 1.7% in 2015) to the overall regional export estimate as follows:

Industry Sector	Value 2015	% of Overall Regional Output	Value 2017	% of Overall Regional Output	% change 2015–2017
Professional, Scientific & Technical Services	\$83,735	1.0%	\$138,730	1.8%	+0.8%
Internet Publishing, Broadcast, Websearch & Data Services	\$1,869	0.0%	\$19,278	0.2%	+0.2%
Library & Other Information Services	\$2,922	0.0%	\$12,709	0.2%	+0.2%
Motion Picture & Sound Recording	\$8,781	0.1%	\$15,624	0.2%	+0.1%
Printing (inc. reproduction of recorded media)	\$2,610	0.0%	\$8,196	0.1%	+0.1%
Heritage, Creative & Performing Arts	\$804	0.0%	\$4,007	0.1%	+0.1%
Arts, Sports, Adult, Community & Other Education	\$3,355	0.0%	\$3,918	0.0%	+0.0%
Broadcasting (except Internet)	\$620	0.0%	\$554	0.0%	+0.0%
Publishing (except Internet & Music Publishing)	\$40,149	0.5%	\$10,389	0.1%	–0.4%

Table 6 – Export estimate for the G21 Region

⁷¹ Regional export is defined as the goods and services produced by industry sectors in G21 Region which are sold to consumers, businesses, and governments based outside the region's boundaries.

In 2015, the total employment estimate for G21 Region was 98,003 jobs.⁷² The Creative Industries sectors contributed 7,839 jobs, or 8% of employment. In 2017, the total employment estimate for G21 Region is 124,645 jobs, with the Creative Industries sectors contributing 9,127 jobs (a 16.4% increase from 2015), or 7.3% of

total employment. Although this is a percentage decrease, this is because the overall employment numbers in the region have increased so significantly. The contribution of the Creative Industries employment to the overall regional employment is as follows:

Industry Sector	Value 2015	% of Overall Regional Output	Value 2017	% of Overall Regional Output	% change 2015–2017
Professional, Scientific & Technical Services	4,253	4.3%	6428	5.2%	+09%
Publishing (except Internet & Music Publishing)	369	0.4%	272	0.2%	–0.2%
Library & Other Information Services	125	0.0%	211	0.2%	+0.2%
Heritage, Creative & Performing Arts	382	0.4%	655	0.5%	+0.1%
Printing (inc. reproduction of recorded media)	222	0.2%	226	0.2%	+0.0%
Motion Picture & Sound Recording	175	0.2%	200	0.2%	+0.0%
Broadcasting (except Internet)	97	0.1%	77	0.1%	+0.0%
Internet Publishing, Broadcast, Websearch & Data Services	33	0.0%	43	0.0%	+0.0%
Arts, Sports, Adult, Community & Other Education	840	0.9%	1015	0.8%	–0.1%

Table 7 – Employment estimate for the G21 Region

⁷² Employment data represents the number of people employed by businesses / organisations in each of the industry sectors in a defined region. Employment data presented by REMPLAN Economy is destination of work data. That is, no inference is made as to where people in a defined region reside. This employment represents total numbers of employees without any conversions to full-time equivalence. Retail jobs for instance represent typical employment profiles for that sector, i.e. some full time, some part time and some casual.

The total wages and salaries estimate for G21 Region in 2017 is **\$8.430,010 billion**. The Creative Industries sectors contribute **\$629,364 million** or 7.5% (up from \$488.419 million) to overall regional wages and salaries as follows:

Industry Sector	Value 2015	% of Overall Regional Output	Value 2017	% of Overall Regional Output	% change 2015–2017
Professional, Scientific & Technical Services	\$329,286	5.0%	\$521,392	6.2%	+1.2%
Heritage, Creative & Performing Arts	\$8,663	0.1%	\$14,148	0.2%	+0.1%
Motion Picture & Sound Recording	\$11,851	0.2%	\$14,315	0.2%	+0.0%
Printing (inc. reproduction of recorded media)	\$10,925	0.2%	\$12,980	0.2%	+0.0%
Broadcasting (except Internet)	\$7,106	0.1%	\$5,906	0.1%	+0.0%
Library & Other Information Services	\$4,250	0.1%	\$7,363	0.1%	+0.0%
Internet Publishing, Broadcast, Websearch & Data Services	\$3,539	0.1%	\$6,980	0.1%	+0.0%
Publishing (except Internet & Music Publishing)	\$34,448	0.5%	\$25,383	0.3%	–0.2%
Arts, Sports, Adult, Community & Other Education	\$21,072	0.3%	\$20,897	0.2%	–0.1%

Table 8 – Wages & salaries estimate for the G21 Region

REMPAN also identifies “propulsive” regional industry sectors; that is, those sectors which positively affect the regional economy for a range of reasons:

- regional exports,
- employment,
- value added, and
- local expenditure on goods and services (backward linkages)

Of the sectors covered by the Creative Industries, in 2015 the Arts and Recreation sector was identified as the only propulsive industry due to its backwards linkages. In 2017, Motion Picture and Sound Recording is the only propulsive industry, again due to its backward linkages.

Labour Force Data

As stated earlier, the REMPLAN labour force data is taken from the 2016 Census and compared with data reported in the 2011 Census. As a result, this section will take data directly from the ABS Census site as this will allow a much more accurate dissection of the industry categories to truly reflect the composition of the creative industries within the G21 Region.

The chart below shows the various sectors of the industry in which males and females work. Overall, 3,730 individuals indicated that they live in the G21 Region and work in a Creative industry sector. A number of these people may work outside the region. The industry is dominated by males

(2,447 males vs. 1,283 females). This compares to 2,082 males vs. 1,114 females in 2011, showing an overall growth of 16.7%. By far the largest number of males work in the Computer Systems Design & Related Services and Engineering Design and Engineering Consulting Services sectors, with Architectural Services in third place. It will be interesting to see how the numbers employed in different sectors changes over time with the introduction of new technologies and work practices.

As one strategy to address the shortage of females in the technology areas, Creative Geelong Inc. launched its “Girls <Code 2> program in 2018.

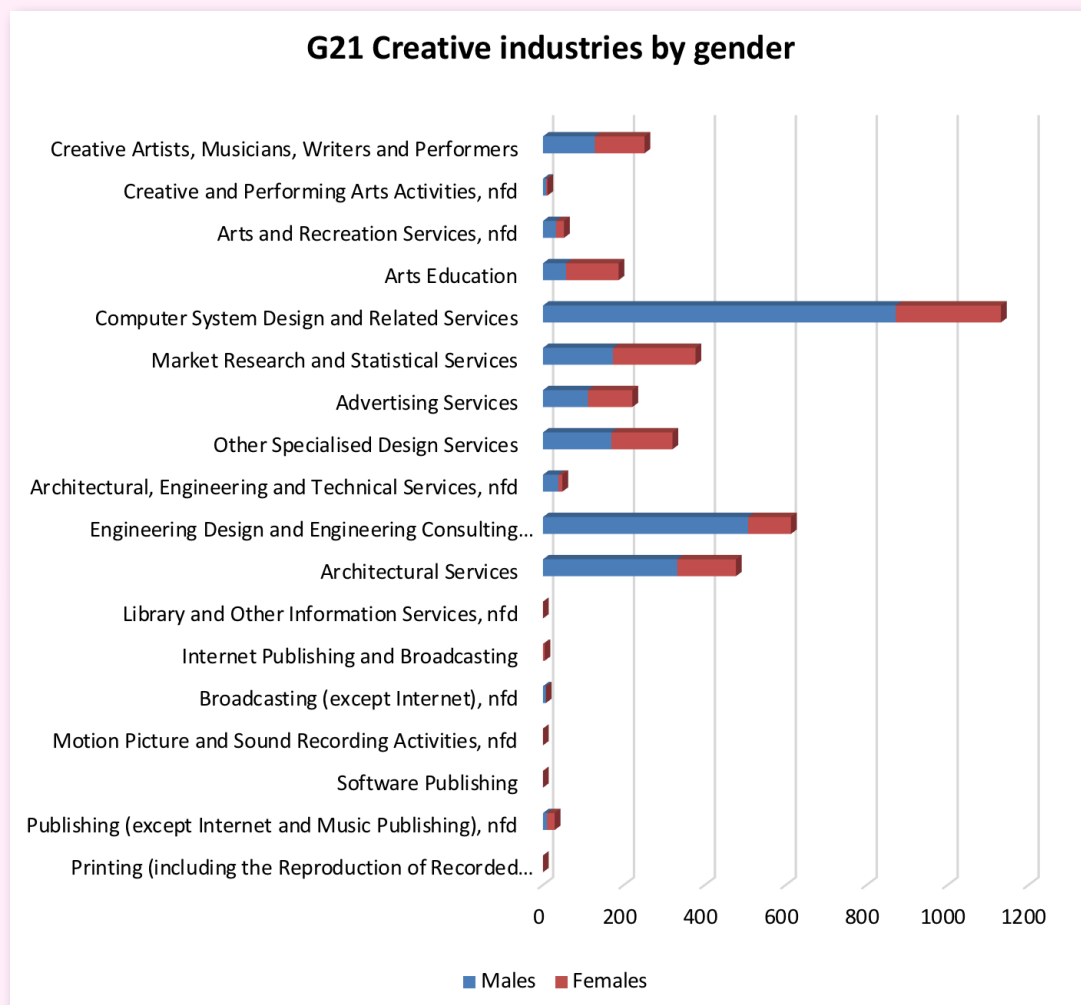


Chart 2 – Creative Industry sectors by gender

The following charts show demographic data for age, occupation, education, hours worked and income.

Age

The table below shows the breakup of those working in the Creative Industries by different age cohorts. Due to the varied nature of sectors within the Creative Industries,

it is not surprising that there is a wide spread of age cohorts represented. Surprisingly, there are no individuals in the 10–19 cohort who identify themselves as working in the Creative Artists, Musicians, Writers and Performers sector, whereas they are well represented in the Advertising Services, Market Research and Statistical Services, Computer System Design and Related Services,

and Arts Education sectors. Perhaps this indicates that, in this age cohort, many of their creative pursuits may be achieved through their hobbies whilst they are still studying. There is a wide spread of ages working in Architectural and Engineering sectors, as well as in design, market research and computer design areas. As can be seen, numbers in all cohorts have increased since 2011.

Industry sector	10–19 years	20–29 years	30–39 years	40–49 years	50–59 years	60–69 years	70–79 years	80–89 years
Printing (including the Reproduction of Recorded Media), nfd	0	0	0	0	0	0	0	0
Publishing (except Internet and Music Publishing), nfd	0	0	9	3	5	9	0	0
Software Publishing	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities, nfd	0	0	0	0	0	0	0	0
Broadcasting (except Internet), nfd	0	3	0	0	4	3	0	0
Internet Publishing and Broadcasting	0	5	0	0	0	0	0	0
Library and Other Information Services, nfd	0	0	0	0	0	0	0	0
Architectural Services	0	72	111	141	84	53	13	0
Engineering Design and Engineering Consulting Services	3	85	137	142	134	98	13	0
Architectural, Engineering and Technical Services, nfd	0	10	11	15	10	3	0	0
Other Specialised Design Services	4	67	98	94	45	13	6	0
Advertising Services	13	45	49	51	36	18	3	0
Market Research and Statistical Services	9	75	80	93	65	50	8	0
Computer System Design and Related Services	11	157	320	371	191	74	4	0
Arts Education	15	42	32	44	26	27	9	0
Arts and Recreation Services, nfd	9	15	9	8	3	5	0	0
Creative and Performing Arts Activities, nfd	3	0	3	0	3	0	0	0
Creative Artists, Musicians, Writers and Performers	0	26	50	69	45	37	8	0
Total in 2016	63	596	918	1040	651	394	71	7
Total in 2011	N/A	535	784	818	550	331	39	3

Table 9 – G21 Creative Industries by age

Occupation

With regard to the occupational areas in which those people work, the charts below shows that not all people working within the Creative Industries are necessarily working in creative occupations. Rather, the data demonstrates the diverse nature of work within these sectors, including occupations which would not normally be associated with creative work, such as labouring, sales, and trades work. The following table shows the changes in industry sector by occupation between the 2011 and 2016 Census collections.

There has been a consistent growth in those working in occupations within the Creative Industries themselves

	Managers	Professionals	Technicians and Trades Workers	Community and Personal Service Workers	Clerical & Admin Workers	Sales Workers	Machinery Operators and Drivers	Labourers
2016	450	1955	623	16	466	99	13	81
2011	378	1654	510	10	461	73	13	64

Table 10 – Changes in industry sector by occupation 2011–2016

Conversely, not all creative occupations sit within the creative industries sectors. Many medium to large organisations, regardless of industry sector, have ICT employees; and unlikely sectors, such as the automotive industry employ designers. The chart on the following page shows the spread

of creative occupations across the G21 Region. The following table shows the changes in numbers working in creative occupations within the G21 Region between the 2011 and 2016 Census collections.

	Colac–Otway (S)	Golden Plains (S)	Greater Geelong (C)	Queenscliffe (B)	Surf Coast (S)
2016	213	335	5323	79	1081
2011	210	289	4314	59	818

Table 11 – Changes in creative occupations by LGA 2011–2016

As can be seen from the two tables above, there has been a consistent growth in those working in occupations within the Creative Industries themselves, as well as those working in creative occupations which sit within both the Creative and other industry sectors. There has also been substantial growth in the LGA's which form the G21 Region. This is a very positive indicator of the increasing contribution made by creative industries and occupations to the region's economic health.

These data sets demonstrate the importance of carefully analysing the information provided to ensure that incorrect assumptions are not being made with regard to the numbers of people working in either creative industry sectors or creative occupations.

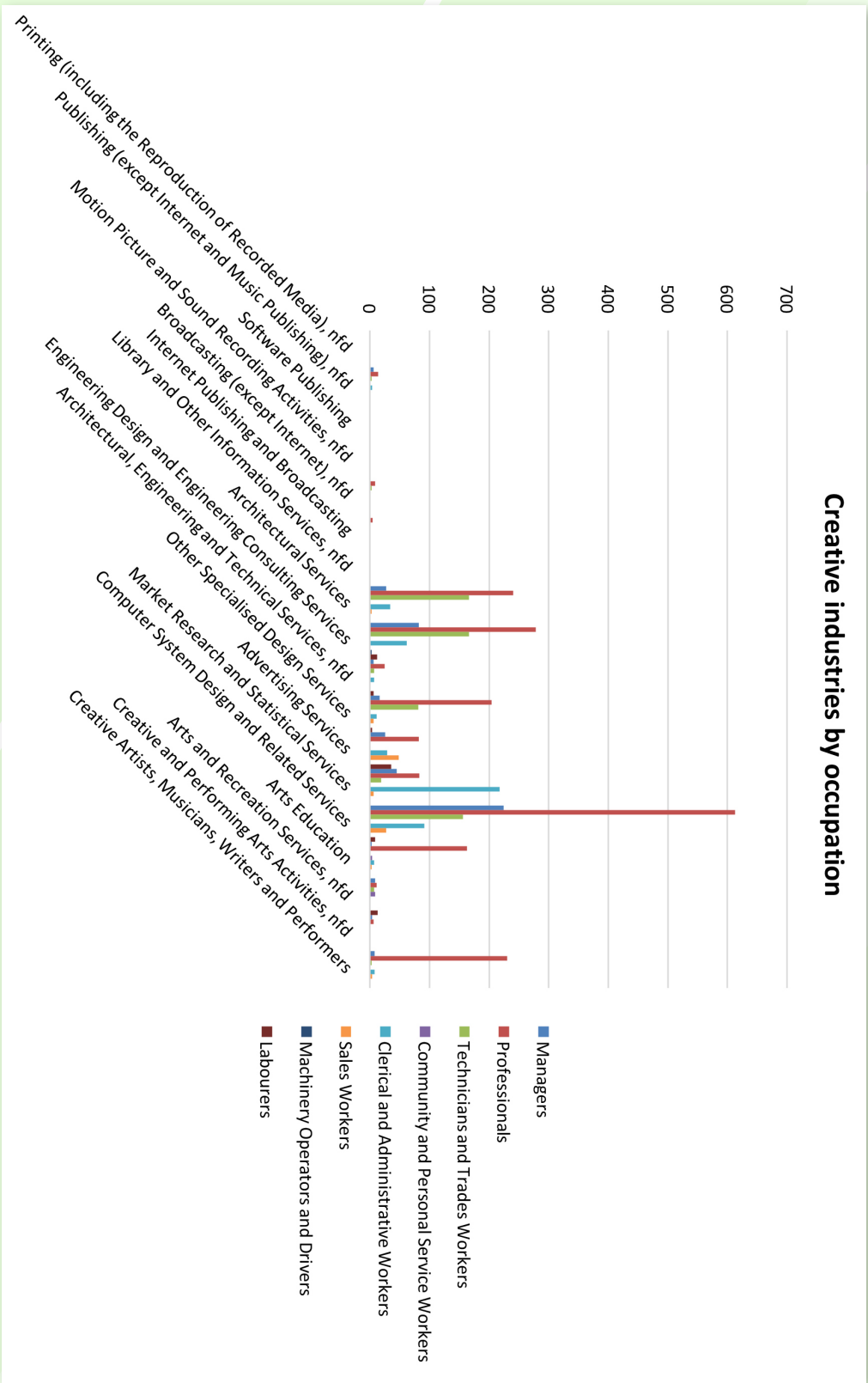
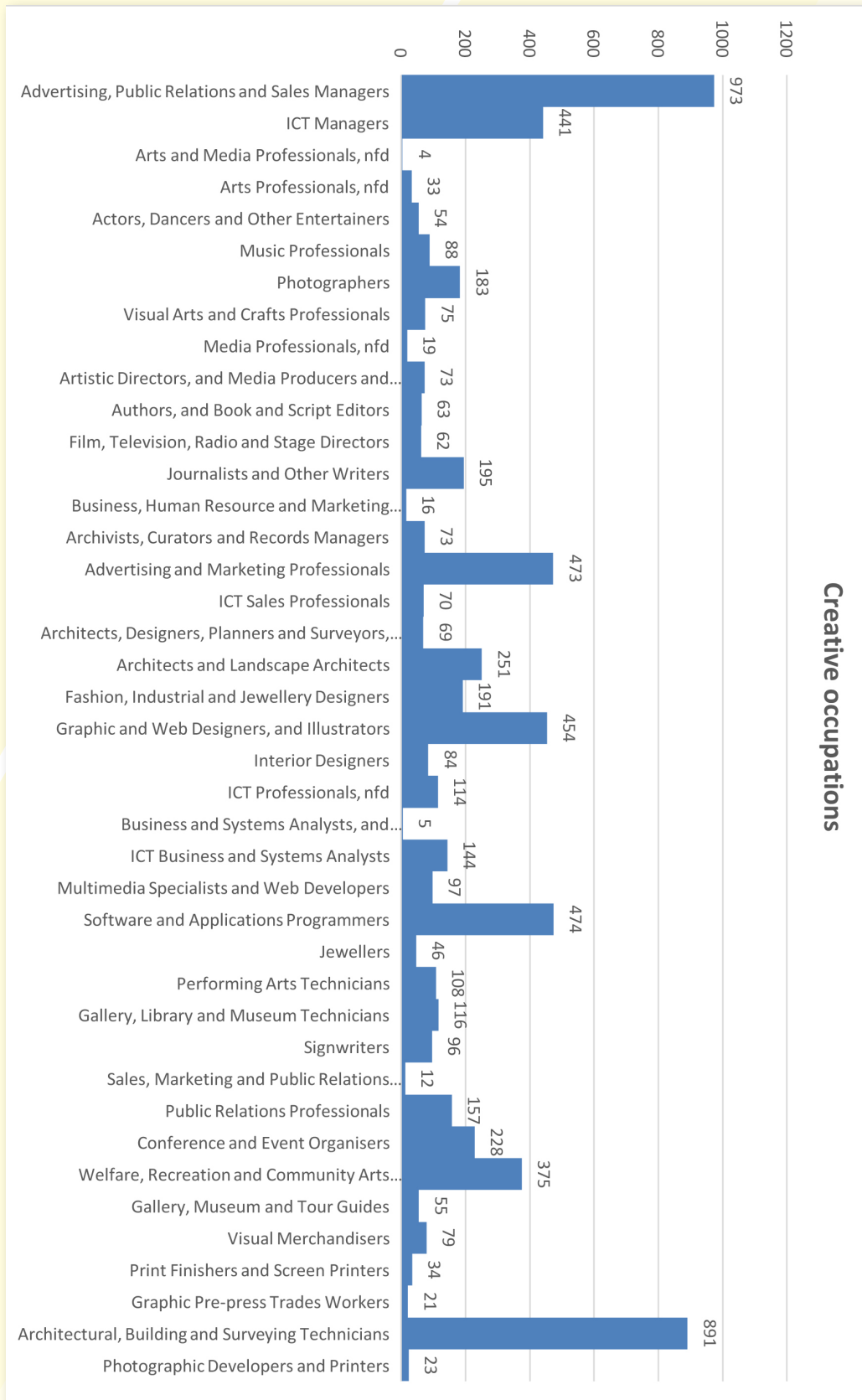


Chart 3 – Creative industries by occupation

Chart 4 – G21 creative occupations



Education

Of the 3,196 respondents who indicated that they work in the Creative Industries in the G21 Region, 2,878 stated that they hold some form of post-secondary qualification (up from 2,344 in 2011). The table below shows the spread of qualifications by industry sector.

Industry sector	Bachelor Degree	Postgrad Degree	Grad Dip & Grad	Adv Dipl & Diploma	Cert III & IV	Cert I & II
Printing (including the Reproduction of Recorded Media), nfd	0	0	0	0	0	0
Publishing (except Internet and Music Publishing), nfd	9	3	0	3	4	0
Software Publishing	0	0	0	0	0	0
Motion Picture and Sound Recording Activities, nfd	0	0	0	0	0	0
Broadcasting (except Internet), nfd	0	0	0	0	0	0
Internet Publishing and Broadcasting	5	0	0	0	0	0
Library and Other Information Services, nfd	0	0	0	0	0	0
Architectural Services	196	58	7	113	38	0
Engineering Design and Engineering Consulting Services	233	64	18	105	102	0
Architectural, Engineering and Technical Services, nfd	16	0	0	16	6	0
Other Specialised Design Services	100	4	5	72	77	0
Advertising Services	76	8	0	22	28	0
Market Research and Statistical Services	142	34	22	47	42	0
Computer System Design and Related Services	454	97	50	159	114	0
Arts Education	54	14	6	37	11	0
Arts and Recreation Services, nfd	5	0	0	8	8	0
Creative and Performing Arts Activities, nfd	0	0	0	6	4	0
Creative Artists, Musicians, Writers and Performers	70	20	17	34	30	0

Table 12 – Numbers with post-secondary qualifications

As can be seen, the highest number of post-secondary qualifications are held by those working in the Engineering Design and Engineering Consulting Service; Computer System Design and Related Services; and Architectural Services sectors.

Hours worked

There is a spread of responses with regard to the number of hours worked. Those who indicated that they worked more than 49 hours per week worked mainly in the Engineering Design and Engineering Consulting Service; Architectural Services and Computer System Design and Related Services. These people may quite likely be owner/operators. Those who worked 1–15 hours per week were most highly represented in the Arts Education; Creative Artists, Musicians, Writers and Performers; and Advertising Services sectors. Interestingly, there was also high representation in this group by those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Services. These people may be freelancing or only interested in part-time work.

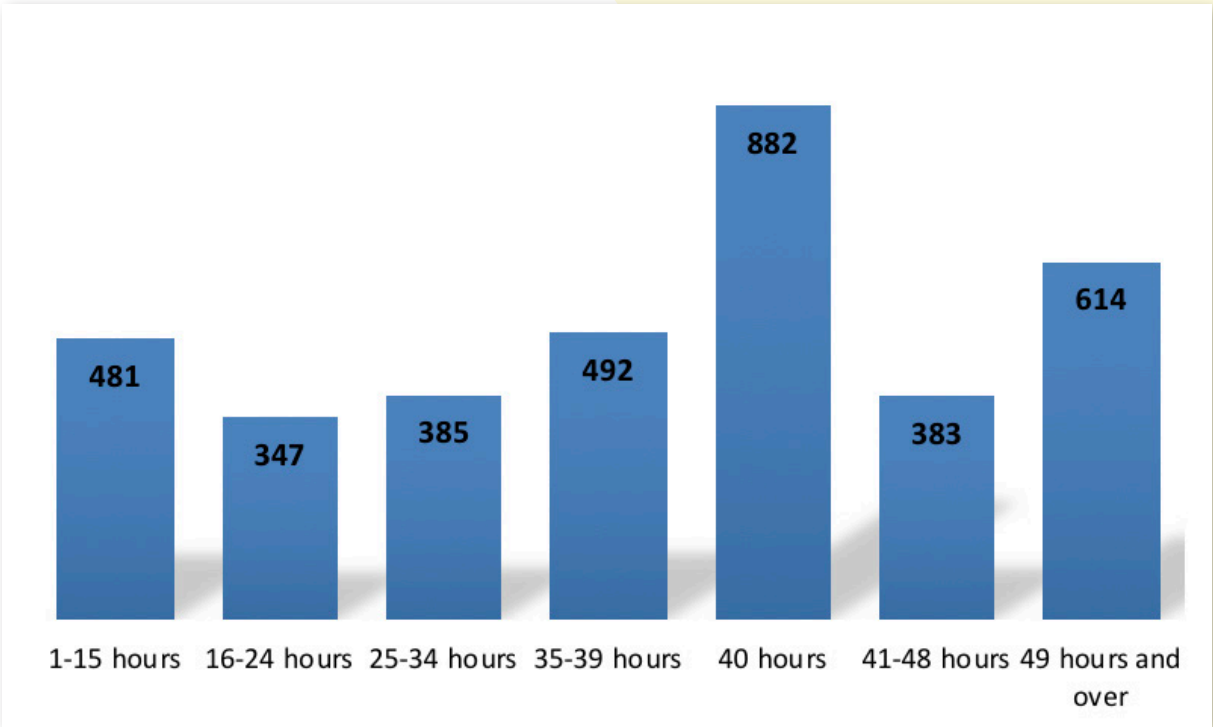


Chart 5 – Hours worked

Income

As can be seen from the chart below, there is a spread of weekly income levels. Not surprisingly, those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Services are most highly represented at the highest income levels, whilst those working in Market Research and Statistical Services and Arts Education are at the lowest levels. This may be in part due to the part-time nature of some of this work.

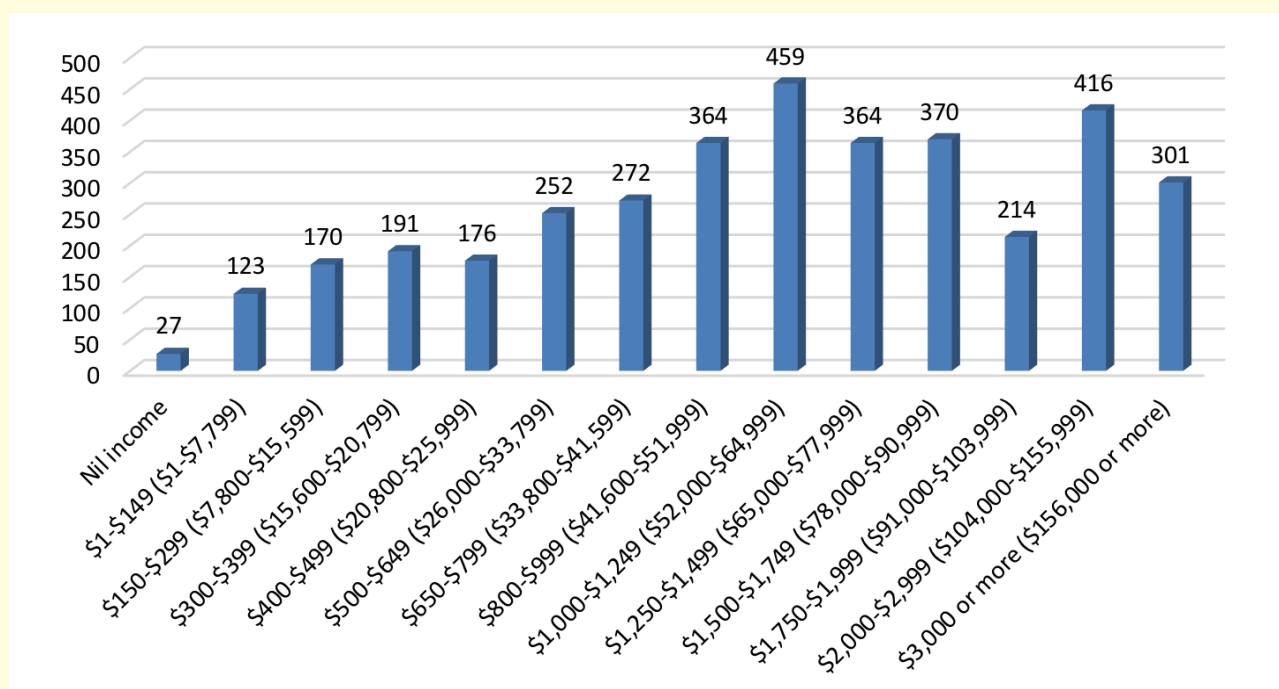


Chart 6 – Weekly income levels

Job creation

REMPPLAN also has the capacity to analyse the impact of job creation on the regional economy. This is done in relation to four different indicators:

- **Impact on output** ⁷³
- **Impact on employment**
- **Impact on wages and salaries**
- **Impact on value-added**

For the purposes of this report, REMPLAN has been used to model the impact of the creation of ten, twenty, fifty and one hundred jobs in the Information and Communications Technology sector as an example of the contribution that growth in the Creative Industries can make to the regional economy. Details are shown below.

Ten Jobs

For this scenario, REMPLAN estimates that the **demand** for intermediate goods and services would **rise by \$1.890 million**. The creation of ten additional jobs will result in a rise in wages and salaries, which leads to **increased consumption**, estimated at **\$1.326 million**. The increase in purchases of goods and services is estimated to have a direct gain of an **additional 6 jobs**, whilst **6 extra jobs** are expected to be created to service the increased consumption. **The total estimated value-added is \$3.429 million.**

10

Creative Jobs

\$1.8
MILLION

• Demand for Goods & Services Increase

\$1.3
MILLION

• Increased Consumption

6

• Additional Jobs

6

• Bonus Jobs

TOTAL EST
VALUE ADDED
\$3.4
MILLION



20

Creative Jobs

\$3.8
MILLION

• Demand for Goods & Services Increase

\$2.6
MILLION

• Increased Consumption

13

• Additional Jobs

10

• Bonus Jobs

TOTAL EST
VALUE ADDED
\$6.8
MILLION

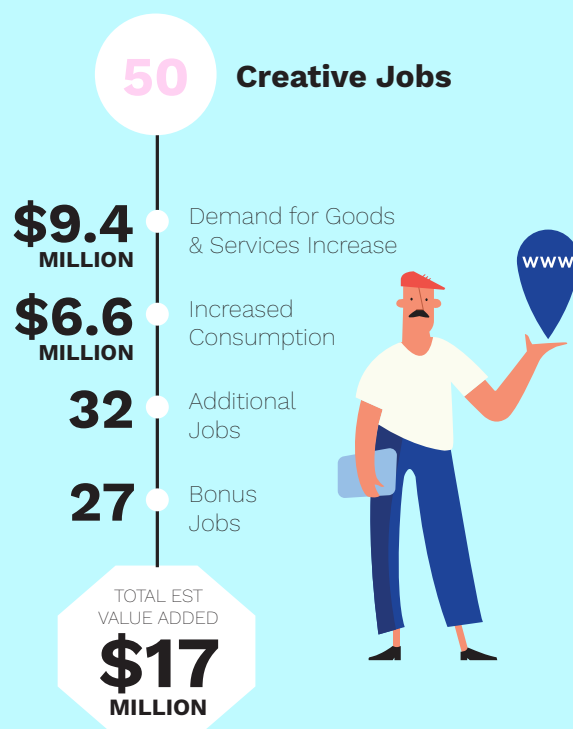


Twenty Jobs

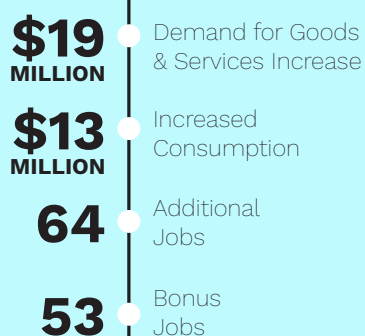
For this scenario, REMPLAN estimates that the **demand** for intermediate goods and services would **rise by \$3.780 million**. The creation of twenty additional jobs will result in a rise in wages and salaries, which leads to **increased consumption**, estimated at **\$2.652 million**. The increase in purchases of goods and services is estimated to have a direct gain of an **additional 13 jobs**, whilst **10 extra jobs** are expected to be created to service the increased consumption. **The total estimated value-added is \$6.859 million.**

Fifty Jobs

For this scenario, REMPLAN estimates that the demand for intermediate goods and services would **rise by \$9.451 million**. The creation of fifty additional jobs will result in a rise in wages and salaries, which leads to **increased consumption**, estimated at **\$6.630 million**. The increase in purchases of goods and services is estimated to have a direct gain of an **additional 32 jobs**, whilst **27 extra jobs** are expected to be **created** to service the increased consumption. **The total estimated value-added is \$17.147 million.**



100 Creative Jobs



One Hundred Jobs

For this scenario, REMPLAN estimates that the **demand** for intermediate goods and services would **rise by \$18.901 million**. The creation of one hundred additional jobs will result in a rise in wages and salaries, which leads to **increased consumption**, estimated at **\$13.259 million**. The increase in purchases of goods and services is estimated to have a direct gain of an **additional 64 jobs**, whilst **53 extra jobs** are expected to be created to service the increased consumption. **The total estimated value-added is \$34.293 million.**

Even a modest growth of ten jobs can have a significant impact on the regional economy and labour market. Given the projections provided by REMPLAN, the potential growth in various parts of the Creative Industries could have a profound effect on the regional economy.

⁷³ Output data represents the gross revenue generated by businesses and organisations in each of the industry sectors in a defined region. Output Impacts allows REMPLAN to model the flow-on economic impacts from an actual or hypothetical direct change to the local economy. Direct changes can be entered as positive or negative changes to direct jobs or to direct output for each industry sector. REMPLAN Economy automatically calculates the flow-on industrial effects and consumption effects for direct changes. The flow-on impacts for the region's economy from a direct change are summarised as Output Type 1 and Type 2 economic multipliers.

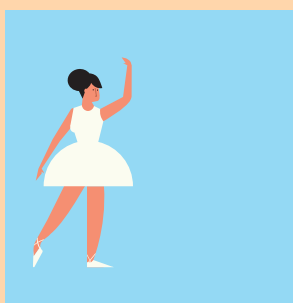
Education and Training

Vocational Education & Training

There are no specific accredited Vocational Education and Training Packages which are relevant to the Creative Industries sector as specific parts of the sector fall within different industry categories, and therefore different Training Packages.

According to the Victorian Department of Education's Jobs and Training Needs Report: Barwon South West, 2018, several occupations that sit within the Creative Industries are in slight shortage as shown by the lists below. Employment demand is indicated by:

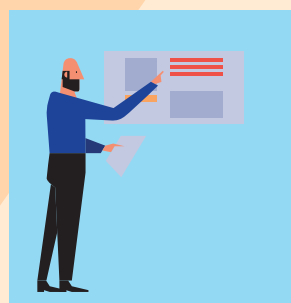
You can train for all of these creative careers right here in Geelong!



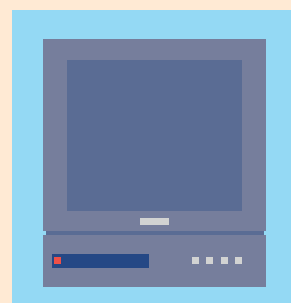
Actors, Dancers and Other Entertainers



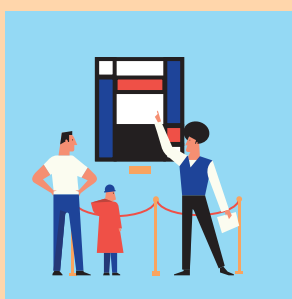
Advertising and Marketing Professionals



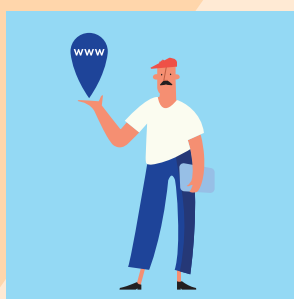
Artistic Directors, Media Producers & Presenters



Film, Television, Radio and Stage Directors



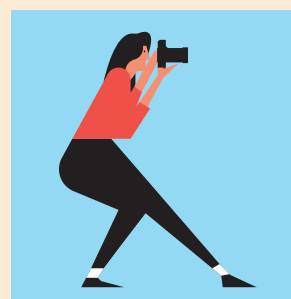
Multimedia Specialists & Web Developers



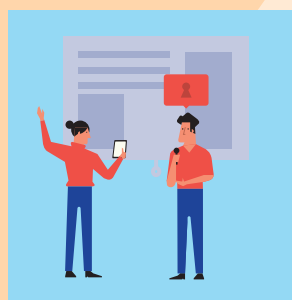
Gallery, Museum & Tour Guides



Music Professionals



Photographers



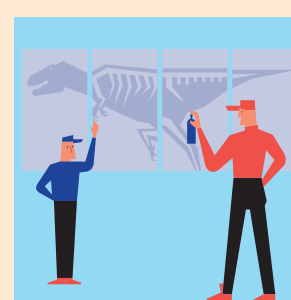
Public Relations Professionals



Visual Arts and Crafts Professionals



Software and Applications Programmers



Welfare, Recreation & Community Arts Workers

Courses that are linked directly to, associated with or in support of the Occupation Group

Diploma of Marketing and Communication

Diploma of Theatre Arts

Advanced Diploma of Applied Fashion Design and Merchandising

Advanced Diploma of Music Industry

Advanced Diploma of Textile Design and Development

Certificate II in Dance

Certificate II in Visual Arts

Certificate III in Aboriginal and Torres Strait Islander Cultural Arts

Certificate III in Circus Arts

Certificate III in Community Dance, Theatre and Events

Certificate III in Dance

Certificate III in Design Fundamentals

Certificate III in Visual Arts: C

Certificate IV in Aboriginal and Torres Strait Islander Cultural Arts: F

Certificate IV in Circus Arts

Certificate IV in Dance: C

Certificate IV in Design

Certificate IV in Musical Theatre

Certificate IV in Photography and Photo Imaging: C

Certificate IV in Professional Writing and Editing

Certificate IV in Screen and Media: C

Certificate IV in Visual Arts

Diploma of Circus Arts

Diploma of Dance (Elite Performance)

Diploma of Live Production and Technical Services

Diploma of Live Production Design

Diploma of Music Industry: C

Diploma of Musical Theatre: C

Diploma of Photography and Photo Imaging: C

Diploma of Professional Writing and Editing

Diploma of Screen and Media: C

Diploma of Visual Arts: C



Advanced Diploma of Creative Product Development
Advanced Diploma of Dance (Elite Performance)
Advanced Diploma of Live Production and Management Services
Advanced Diploma of Professional Screenwriting
Advanced Diploma of Screen and Media: C
Advanced Diploma of Visual Arts
Certificate IV in Marketing and Communication:
Diploma of Marketing and Communication
Diploma of Training Design and Development
Advanced Diploma of Business (Public Relations)
Advanced Diploma of Graphic Design
Advanced Diploma of Marketing and Communication
Certificate III in Design Fundamentals
Certificate IV in Design
Certificate III in Print Communications
Certificate IV in Applied Fashion Design and Merchandising
Certificate IV in Design of Kitchens, Bathrooms and Interior Spaces: I
Certificate IV in Digital and Interactive Games
Certificate IV in Digital Media Technologies
Certificate IV in Furniture Design and Technology
Certificate IV in Interior Decoration
Certificate IV in Landscape Design
Diploma of Applied Fashion Design and Merchandising
Diploma of Digital Media Technologies
Diploma of Fashion Styling: C
Certificate IV in Web-Based Technologies
Diploma of Furniture Design and Technology
Diploma of Graphic Design: C
Diploma of Interior Design and Decoration
Diploma of Jewellery and Object Design
Diploma of Landscape Design: C
Diploma of Printing and Graphic Arts
Diploma of Wine Technology
Diploma of Product Design



Diploma of Textile Design and Development

Diploma of Website Development

Advanced Diploma of Applied Fashion Design and Merchandising

Advanced Diploma of Building Design (Architectural): C

Advanced Diploma of Civil Construction Design: I, R

Advanced Diploma of Creative Product Development

Advanced Diploma of Graphic Design

Advanced Diploma of Interior Design

Advanced Diploma of Jewellery and Object Design

Advanced Diploma of Screen and Media: C

Advanced Diploma of Surveying: C, I, R

Advanced Diploma of Textile Design and Development

Advanced Diploma of Visual Arts

Diploma of Music Industry: C

Diploma of Training Design and Development

Diploma of Dance (Elite Performance)

Advanced Diploma of Dance (Elite Performance)

Certificate IV in Digital and Interactive Games

Certificate IV in Web-Based Technologies

Diploma of Database Design and Development

Diploma of Digital and Interactive Games

Diploma of Digital Media Technologies

Diploma of Software Development

Diploma of Systems Analysis and Design

Diploma of Website Development

Advanced Diploma of Screen and Media: C

Certificate II in Aboriginal and Torres Strait Islander Cultural Arts: F

Certificate IV in Aboriginal and Torres Strait Islander Cultural Arts: F

Certificate IV in Community Culture: F

Certificate IV in Liberal Arts: C

Diploma of Aboriginal and Torres Strait Islander Visual Arts Industry Work: F

Advanced Diploma of Therapeutic Arts in Counselling

Certificate III in Library and Information Services

Certificate IV in Library and Information Services

Certificate II in Information, Digital Media and Technology

Certificate III in Events

Certificate III in Library and Information Services

Certificate II in Retail Cosmetics

Certificate III in Beauty Services

Certificate III in Make-Up

Certificate III in Nail Technology

Diploma of Beauty Therapy

Diploma of Circus Arts



Courses offered by The Gordon include:

Advanced Design & Building

Building Design & Construction

- 22268VIC Advanced Diploma of Building Design (Architectural)
- 25G01338 AutoCAD for Building – Level 1
- 25G01456 Revit Architecture – Level 1 – BOOK NOW
- CPC50210 Diploma of Building and Construction (Building)

Interior Design

- MSF40113 Certificate IV in Interior Decoration
- MSF50213 Diploma of Interior Design and Decoration

Art & Design

Digital Media

- CUA31015 Certificate III in Screen and Media

Fashion Design

- MST50116 Diploma of Applied Fashion Design and Merchandising
- MST60116 Advanced Diploma of Applied Fashion Design and Merchandising

Floristry Design

- 25G00201 Introduction to Floristry – BOOK NOW
- 25G01423 Classic and Contemporary Floral Design Workshops
- 25G01512 Festive Florals
- 25G01562 Terrariums Workshop – BOOK NOW
- 25G01705 Floral Cake Decorating – BOOK NOW
- 25G01706 Spring Racing – Flower Crowns
- SFL30115 Certificate III in Floristry

Graphic Design

- 25G01658 Digital Imaging Introduction using Adobe Photoshop
- 25G01659 Digital Imaging – Working with Adobe Lightroom
- CUA50715 Diploma of Graphic Design
- CUA60315 Advanced Diploma of Graphic Design

Interior Design

- MSF40113 Certificate IV in Interior Decoration
- MSF50213 Diploma of Interior Design and Decoration

Visual Arts

- 25G00733 Jewellery Making – Intermediate
- 25G01224 Jewellery Making – Introduction
- 25G01339 Welding – Hobby (Sculpture) – BOOK NOW
- CUA41315 Certificate IV in Visual Arts

Beauty Therapy

- SHB30115 Certificate III in Beauty Services
- SHB30315 Certificate III in Nail Technology
- SHB40115 Certificate IV in Beauty Therapy
- SHB50115 Diploma of Beauty Therapy

Information & Communication Technology

Computer & Network Systems

- ICT30115 Certificate III in Information, Digital Media and Technology
- ICT30115 Certificate III in Information, Digital Media and Technology
- ICT40115 Certificate IV in Information Technology
- ICT50115 Diploma of Information Technology
- ICT60115 Advanced Diploma of Information Technology

In response to their recognition of the growing importance of the design process, The Gordon has recently applied for State Government funding to create a Centre for Excellence in Design. This Centre will provide the opportunity for students whose own field of study includes a design element to work together across disciplines. It will also provide a vehicle for businesses to grow their design capability.

The Gordon is also hosting the new Geelong Technical College which will assist secondary students to build their technology and design skills.

There are numerous private Registered Training Organisations located within the G21 Region, or which service the region. Some of these also offer courses in the Creative industries. For example, Oxygen College offers courses in:

- music performance
- sound production
- electronic music
- digital content creation
- photography, and
- visual arts

Diversitat, through its Pulse Radio station is also providing training in radio programming.

For information on other courses, the reader should go to <http://www.education.vic.gov.au/training/providers/rto/Pages/courses.aspx>



Higher Education

The G21 Region is well positioned with Deakin University located in Geelong. Deakin offers a wide range of courses which relate to the Creative Industries. Areas of study which can be undertaken at Deakin include:

- Architecture
- Advertising
- Drama
- Film, television and animation
- Journalism
- Literary studies
- Media
- Photography
- Professional and creative writing
- Public relations
- Visual arts
- Engineering, including software engineering
- Creative technologies
- Data analytics
- Games and application development
- Information systems
- Information technology
- 3D animation design
- Digital technologies design
- Visual communication design

The region also has easy access to many Melbourne based universities, such as RMIT, Victoria University, Monash University, University of Melbourne and La Trobe University, all of which have CBD campuses. Regional students can also travel to Ballarat to attend Federation University. Through these institutes, students can access many additional courses, such as interior design. For those seeking even more specialised courses, students today have access to a wide variety of Australian university courses through on-line programs and through the Massive On-Line Open Courseware (MOOC) platforms, which enable students to study at universities throughout the world.

Conclusion

As can be seen from this chapter, despite the reputation of the Creative Industries as being “fringe” work, these sectors and occupations are well serviced by the education and training sector, and local residents have an excellent selection of educational options from which to choose.



Photo By Caryn Bourke

Innovative Case Studies

This chapter is designed to showcase just a few of the exciting and innovative things which are being done within the G21 Region and to demonstrate the breadth of the Creative Industries within the Region.

Case Study 1: Creative Geelong Makers' Hub

Opened in 2017, the Creative Geelong Makers' Hub, is a focal point which supports and encourages a diverse range of creative industries' skills and knowledge sharing – from science and art to tech and design.

Re-activating Centrepoint Arcade, a well-known but little used arcade in the Geelong CBD, the Makers' Hub provides commercial and not for profit organisations and individual makers/creators with a shared aim: to cultivate an emerging creative industries ecosystem in the region.

With the view to supporting a pipeline for new ideas and collaborations, the Makers' Hub encompasses a variety of spaces. These include co-working, art studio, makerspace, workshop areas with shop front windows and arcade displays available for a variety of creative projects or individual art exhibits.

Currently, a number of emerging businesses are using the Makers' Hub to work on enterprise development, with others offering specialised technical and creative workshops. The activation of shop-front and arcade windows has been a joint effort in collaboration with local artists, highlighting the Makers' Hub as a practical and creative focal point for Geelong.

As Geelong begins to discover a new view of future work for our community, the Makers' Hub will continue to support and strengthen the emergence of creative industries in the G21 Region.

Creative Geelong's Makers Hub project has received \$200,000 funding via City of Greater Geelong and Creative Victoria for two years (2017–2019). Creative Geelong has also received smaller project funding for this Environmental Scan via Enterprise Geelong and for a series of podcasts on the Clever and Creative community vision via the Strategy Department of the City of Greater Geelong.

Case Study 2: Hubcaps to Creative Hubs

The Hubcaps to Creative Hubs project is a unique film documentary, telling the story of Geelong journeying from a heritage of mills and factories, into a city of makers and creators.

The project was led by Dr Fiona Gray, who was both a researcher at Deakin University and a founding board member of Creative Geelong. Dr Gray is now working for the City of Greater Geelong. Hubcaps was developed in collaboration with Dr Cristina Garduno Freeman, from the University of Melbourne and Jennifer Cromarty, founder of Creative Geelong. Each film documents the inspiration, stories and places of the people driving the creative industries of the city.

The Geelong community strongly supported the project, through a successful crowdfunding campaign via Deakin's Research My World program in partnership with Pozible. Local grants were provided from the City of Greater Geelong, Geelong Connected Communities and others supporting the goal of raising \$20,000 to make the project a reality.

Shot and produced by Nicholas Searle, a leading documentary television producer, three high quality, short documentary films were completed in December of 2017.

The films focus on three of Geelong's former industrial sites – The Old Paper Mills in Fyansford, The Federal Woollen Mills in North Geelong and the Returned Soldiers and Sailors Woollen and Worsted Mills in Newtown – which are currently undergoing a creative transformation.

In March 2018, the Hubcaps to Creative Hubs films had their world premiere in Geelong at the iconic domed Geelong Regional Library building in the heart of the city's cultural precinct. All films are able to be viewed on YouTube or the project's dedicated web presence www.hc2ch.com

As a completed project, the films aim to encourage ongoing investment in the local economy and provide broadcast-quality material to help promote the region and strengthen the local creative industries sector. All things which point to a new maker culture and a clever, creative future for the Geelong region.

Case Study 3: Pillowfort Creative & Codeacious Collaboration

Pillowfort Creative and Codeacious are two local creative technology/design firms which have collaborated to produce a digital augmented reality experience.

As part of the City of Greater Geelong's Arts and Culture Trail, Codeacious engineered the smart phone App and Pillowfort Creative created the digital animation – bringing to life a mural of Geelong rock legend Chrissy Amphlett just off Little Malop Street.

When Codeacious was initially approached to be involved with the augmented reality project, the concept was narrowed down to 'bringing street art to life'. Through a process of research and understanding of what might be possible, a clear idea of telling stories in new ways with digital technology emerged. Assessing the suitability of various street art available in the Geelong region, working with Ian

Lowe's tribute to Chrissy Amphlett soon became the ideal fit.

From there, Codeacious and 3D artists Pillowfort Creative collaborated on the idea of a fan's bedroom from the 1980's, with Universal Music and Chrissy Amphlett's family allowing the inclusion of one of her music videos, which added another creative element to the storytelling.

The value of collaboration, for both Codeacious and Pillowfort Creative in producing a story told through augmented reality, shows how design and technology is working together to create new experiences and creative output in Geelong.

Conclusion

The three case studies described in this report are simply examples of the explosion of creative work occurring in the region, building on the long history of music festivals, the growing awareness and interest in art trails, the revival of live theatre and the numbers of individuals now working in the design space. For more stories see www.creativegeelong.com.au



Conclusion

The intent of this report has been to provide a picture of the importance of the Creative Industries within the G21 Region. To do this, the project has explored the penetration of various Creative sectors into global, national and State economies and communities.

At the global level, the Creative industries contribute 3% to world GDP and 29.5 million jobs. In Australia, over 531,000 people are directly employed in the Creative industries with creativity being an important element in the jobs of more than 3.7 million. In Victoria, the creative sector contributes \$23 billion in gross value added, equating to 8% of the Victorian economy, with 5,500 creative businesses located in rural Victoria (excluding Geelong), representing approximately 7% of all businesses. At the regional level, the Creative industries contributed \$2,085,393 million, or 5.9% (compared to 5.0% in 2015) to the overall regional output, and employed 9,127 people, 7.3% of the total regional workforce.

Appendices

Appendix 1 – Background

The Geelong Region Local Learning and Employment Network

These Environmental Scans form part of the core business of the Geelong Region LLEN which is to facilitate the development of a regional integrated education and employment ecosystem that supports the community to make informed careers decisions leading to appropriate training and skills development into sustainable employment in the regional economy. The Geelong Region LLEN has an additional mandate to support young people and community members living in disadvantaged areas.

The work of the Geelong Region LLEN is carried out through the following types of activity:

- Environmental Scanning
- Labour market analysis and data diagnostics
- Strategic foresight
- Research capability
- Cross sectoral stakeholder engagement and partnership facilitation
- Workforce development
- Provision of careers information through its on-line portal Geelong Careers
- Action Research using a ‘Proof of concept’ methodology through its research arm Researching Futures
- Delivery of forums and conferences through its Expansive Learning Network
- Entrepreneurship development⁷⁴

Much of the Geelong Region LLEN’s recent work has been focused around assisting stakeholders to gain a deeper understanding of the regional labour market and the role it plays in the health and wellbeing, and economic development, of its residents. In doing this, the Geelong Region LLEN

has developed a number of visual guides to assist in gaining that understanding. These guides are designed around two regional ecosystems (see end of this Appendix for examples).

The Geelong Employment Ecosystem has been developed by the Geelong Region LLEN in response to comments from a number of stakeholders with regard to the complexity of the service system for jobseekers.

Initially a variety of jobseeker cohorts were identified and a separate diagram created for each. Stakeholders familiar with each particular cohort were engaged in developing the diagrams. The jobseeker cohort sits at the centre of the ecosystem as they constitute the prime focus. The Geelong Region LLEN recognised the fact that education and training must be integrated with health and wellbeing, as well as with economic development and employment in order to provide a holistic service to jobseekers.

The Network Partners shown in the black circles comprise the service system providers. The red pie identifies those particular services and interventions being provided to that jobseeker cohort (these are likely to change over time). The green rectangles show the various entry points into the service system for that jobseeker cohort and these are also likely to change over time.

Finally, the yellow section identifies the on-line “one-stop-shop” virtual careers hub, Geelong Careers, which can be used by all jobseekers to find information on the growth industries in the region, as well as a live jobs feed.

The Geelong Employment Ecosystem is a companion diagram to the Geelong Job Creation ecosystem, which identifies growth opportunities in various industry sectors. Whereas the Employment Ecosystem diagram has been tested extensively with a large number of stakeholders, the Job Creation Ecosystem is still in the early stages of development. Stakeholders are encouraged to provide feedback to the GRLEN with regard to both diagrams.

⁷⁴ www.grllen.com.au

Creative Geelong Inc.

WHO IS CREATIVE GEELONG INC?

Geelong is currently undergoing an economic transformation. Ensuring the local community is aware of the opportunities for economic and social growth in creative industries is a key purpose for the newly established Creative Geelong Inc. Creative Geelong is essentially a collaborative forum to support the awareness and sustainability of the creative industries sector.

“We want a Geelong where everyone actively values and engages with creativity and innovation as a key part of our future social and economic wellbeing. We want a local creative industries community that is connected, collaborative and inspiring.”

History

Jennifer Cromarty founded a ‘Creative Geelong’ Facebook page in November 2014 (www.facebook.com/creativegeelong). The aim was to give voice to stories and ideas of Geelong’s creative industries community – art, culture, digital, writing, food, fashion, ICT and design – and try to address the negativity surrounding the perception of Geelong after Ford and Alcoa closures.

STATED PURPOSE (why we exist)

The purposes of Creative Geelong Inc are:

- To be the voice of the creative industries community in the greater (G21) Geelong region.
- To demonstrate the value of creative industries as a sector of growth and opportunity for Geelong’s economic and social wellbeing.
- To provide a forum for creative industries organisations and workers to share, collaborate and innovate for the betterment of the Geelong community.

THEMES (everything we do will be informed through these themes)

- Creativity
- Inclusion
- Learning
- Sustainability

PRIORITY AREAS (our current areas of interest)

Priority areas of interest to Creative Geelong Inc are:

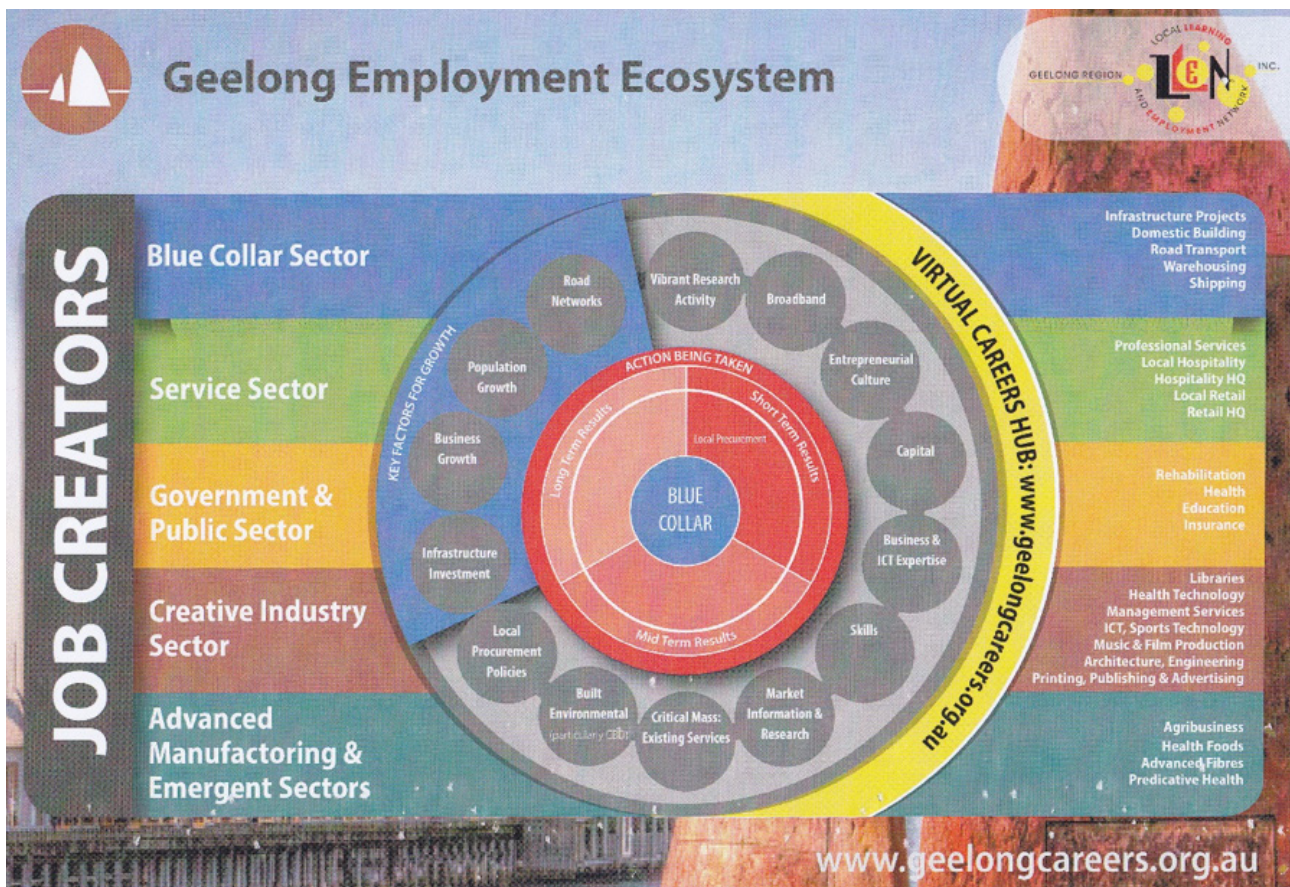
- Solving problems in our community
- Understanding work of the future
- Telling stories of Geelong’s creative industries
- Creating a forum for local creative collaboration

Creative Geelong Inc. Committee of Management

In late 2015, a group of interested people met to formalise the incorporation of Creative Geelong Inc. The following people are members of the Creative Geelong Inc Board:

President:	Jennifer Cromarty (tandemVox)
Vice President:	Ian Priddle (Codeacious)
Secretary:	Helen Kostiuk (WRPHN)
Treasurer:	Adam Lloyd (I.T. Evolved)
Committee Members:	Wayne Elliott (NetGain)
	Simon Finch (GLRC)
	Sarah Auld (Auld Planning and Projects)
	Anne-Marie Ryan (GRLEN)





Appendix 2 – The ANZSIC codes

Purpose of the ANZSIC

“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).

1.2 An individual business entity is assigned to an industry based on its predominant activity. The term ‘business entity’ is used in its widest sense to include any organisation undertaking productive activities, including companies, non-profit organisations, government departments and enterprises.

1.3 Arranging the large amount of data available about businesses into groupings that are both analytically useful and which users can understand, can be done in a number of ways. In economic statistics, this is usually achieved by either classifying the information relating to the operations of businesses (e.g. grouping all income items together); or by classifying the business units about which the data have been collected (e.g. grouping all the data about businesses operating in Tasmania).

1.4 An industrial classification is one way to organise data about business units. It provides a standard framework under which business units carrying out similar productive activities can be grouped together, with each resultant group referred to as an industry.

1.5 The ANZSIC provides a basis for the standardised collection, analysis and dissemination of economic data on an industry basis for Australia and New Zealand. Use of the ANZSIC results in improved comparability of industry statistics produced by the two countries. Prior to the development of ANZSIC 1993, separate national industrial classifications were used in Australia and New Zealand.

1.6 As well as being the standard industrial classification that underpins ABS and Statistics NZ industry statistics, the ANZSIC is widely used by government agencies, industry organisations and researchers for various administrative, regulatory, taxation and research purposes throughout Australia and New Zealand.

1.7 ANZSIC 2006 has been developed to provide a more contemporary industrial classification system. Changes in the structure and composition of the economy, changing user requirements and comparability with international standards have been taken into account. The 2006 edition of the ANZSIC replaces the 1993 edition.”⁷⁶

ANZSIC Structure

1.21 The ANZSIC is a hierarchical classification with four levels, namely Divisions (the broadest level), Subdivisions, Groups and Classes (the finest level). At the Divisional level, the main purpose is to provide a limited number of categories which provide a broad overall picture of the economy and are suitable for the publication of summary tables in official statistics. The Subdivision, Group and Class levels provide increasingly detailed dissections of these categories for the compilation of more specific and detailed statistics.

1.22 The hierarchical structure of the ANZSIC is illustrated below.

Division C – Manufacturing

Subdivision 11 – Food Product Manufacturing

Group 111 – Meat and Meat Product Manufacturing

Class 1111 – Meat Processing”⁷⁷

⁷⁶ Australian Bureau of Statistics, ANZSIC Dictionary, 2006, p.7

⁷⁷ Ibid, p. 9

The Creative Industries

As can be seen from the above description, the ANZSIC Dictionary has not been updated since 2006, as this is an extremely costly exercise. This means that many of the new jobs which are being created as a result of new technologies, and which often contain a creative element, are not included in the codes.

There is no one ANZSIC code for the Creative industries. Instead they are represented in a range of code hierarchies. These include:

- manufacturing;
- information media and telecommunications;
- professional, scientific and technical services;
- education and training; and
- arts and recreation services.

The Creative occupations are spread even more widely, appearing in almost every ANZSIC category. This demonstrates both the difficulty in measuring creative activity, and the importance of this sector to the local economic and social health of the region.



Appendix 3 – List of Creative Occupations⁷⁸

- Arts Professionals nfd
- Actors, Dancers and Other Entertainers
- Music Professionals
- Photographers
- Visual Arts and Crafts Professionals
- Media Professionals nfd
- Artistic Directors, and Media Producers and Presenters
- Authors, and Book and Script Editors
- Film, Television, Radio and Stage Directors
- Journalists and Other Writers
- Archivists, Curators and Records Managers
- Architects, Designers, Planners and Surveyors nfd
- Architects and Landscape Architects
- Fashion, Industrial and Jewellery Designers
- Graphic and Web Designers, and Illustrators
- Interior Designers
- Sales, Marketing and Public Relations Professionals nfd
- Advertising and Marketing Professionals
- ICT Sales Professionals
- Public Relations Professionals
- Conference and Event Organisers
- ICT Professionals nfd
- Business and Systems Analysts, and Programmers nfd
- ICT Business and Systems Analysts
- Multimedia Specialists and Web Developers
- Software and Applications Programmers
- Jewellers
- Performing Arts Technicians
- Welfare, Recreation and Community Arts Workers
- Gallery, Library and Museum Technicians
- Signwriters
- Gallery, Museum and Tour Guides
- Visual Merchandisers
- Architectural, Building and Surveying Technicians
- Photographic Developers and Printers
- Advertising, Public Relations and Sales Managers
- Arts and Media Professionals nfd
- Business, Human Resource and Marketing Professionals nfd
- Print Finishers and Screen Printers
- Graphic Pre-press Trades Workers

⁷⁸ Australian Bureau of Statistics ANZSCO categories

Appendix 4 – REMPLAN and Census data for City of Greater Geelong

Economic Data

According to REMPLAN, the total output estimate for the City of Greater Geelong in 2017 is **\$28,403,960 million**⁷⁹. In 2017, the Creative Industries sectors **contributed \$1,721,488 million**, or 6.1% (compared to 5.9% for the whole G21 Region) to the overall LGA output as follows:

Industry Sector	Value 2017 \$m	% of overall output
Professional, Scientific & Technical Services	\$1,332,981	4.7%
Internet Publishing, Broadcast, Websearch & Data Services	\$97,617	0.3%
Library & Other Information Services	\$61,251	0.2%
Motion Picture & Sound Recording	\$50,563	0.2%
Printing (inc. reproduction of recorded media)	\$49,493	0.2%
Publishing (except Internet & Music)	\$31,622	0.1%
Heritage, Creative & Performing Arts	\$35,209	0.1%
Arts, Sports, Adult, Community & Other Education	\$39,330	0.1%
Broadcasting (except internet)	\$23,423	0.1%

Table 13 – Output estimate for the City of Greater Geelong

⁷⁹ REMPLAN defines "Output data" as 'the gross revenue generated by businesses/organisations in each of the industry sectors in a defined region. Gross revenue is also referred to as total sales or total income'.

The total regional export estimate for the City of Greater Geelong in 2017 is \$7,427,898 million⁸⁰. The Creative Industries sectors contributes \$179,322 million or 2.4% (compared to 2.7% for the region) to the overall LGA export estimate as follows:

Industry Sector	Value 2017 \$m	% of overall exports
Professional, Scientific & Technical Services	\$115,917	1.6%
Internet Publishing, Broadcast, Websearch & Data Services	\$17,485	0.2%
Library & Other Information Services	\$11,842	0.2%
Motion Picture & Sound Recording	\$12,814	0.2%
Printing (inc. reproduction of recorded media)	\$8,196	0.1%
Publishing (except Internet & Music Publishing)	\$7,792	0.1%
Heritage, Creative & Performing Arts	\$1,536	0.0%
Arts, Sports, Adult, Community & Other Education	\$3,250	0.0%
Broadcasting (except Internet)	\$0,489	0.0%

Table 14 – Export estimate for the City of Greater Geelong

The total employment estimate for City of Greater Geelong in 2017 is 100,666 jobs⁸¹. The Creative Industries sectors contribute 7,495 jobs, or 7.4% (compared to 7.3% for the region) of employment, to the overall employment as follows:

Industry sector	Value 2017	% of overall employment
Professional, Scientific & Technical Services	5,335	5.3%
Arts, Sports, Adult, Community & Other Education	842	0.8%
Heritage, Creative & Performing Arts	436	0.4%
Publishing (except Internet & Music Publishing)	204	0.2%
Library & Other Information Services	179	0.2%
Printing (inc. reproduction of recorded media)	226	0.2%
Motion Picture & Sound Recording	166	0.2%
Broadcasting (except Internet)	68	0.1%
Internet Publishing, Broadcast, Websearch & Data Services	39	0.0%

Table 15 – Employment estimate for the City of Greater Geelong

⁸⁰ Regional export is defined as the goods and services produced by industry sectors in G21 Region which are sold to consumers, businesses, and governments based outside the region's boundaries.

⁸¹ Employment data represents the number of people employed by businesses / organisations in each of the industry sectors in a defined region. Employment data presented by REMPLAN Economy is destination of work data. That is, no inference is made as to where people in a defined region reside. This employment represents total numbers of employees without any conversions to full-time equivalence. Retail jobs for instance represent typical employment profiles for that sector, i.e. some full time, some part time and some casual.

The total wages and salaries estimate for the City of Greater Geelong in 2017 is \$6,953,782 million. The Creative Industries sectors contribute \$522,618 million or 7.5% (the same as the overall region) to overall regional wages and salaries as follows:

Industry sector	Value 2017 \$m	% of overall wages & salaries
Professional, Scientific & Technical Services	\$434,174	6.20%
Publishing (except Internet & Music Publishing)	\$19,037	0.5%
Motion Picture & Sound Recording	\$11,882	0.2%
Printing (inc. reproduction of recorded media)	\$12,980	0.2%
Arts, Sports, Adult, Community & Other Education	\$17,335	0.2%
Heritage, Creative & Performing Arts	\$9,418	0.1%
Broadcasting (except Internet)	\$5,216	0.1%
Library & Other Information Services	\$6,246	0.1%
Internet Publishing, Broadcast, Websearch & Data Services	\$6,331	0.1%

Table 16 – Wages & salaries estimate for the City of Greater Geelong

Labour Force Data

As stated earlier, the REMPLAN labour force data is taken from the 2016 Census and compared with data reported in the 2011 Census. As a result, this section will take data directly from the ABS Census site as this will allow a much more accurate dissection of the industry categories to truly reflect the composition of the creative industries within the City of Greater Geelong.

The chart on the following page shows the various sectors of the industry in which males and females work. Overall, 2,873 individuals indicated that they live in the G21 Region and work in a Creative industry sector (compared to 2,430 in 2011), showing an overall growth of 18.2%. A number of these people may work outside the region. The industry is dominated by males (1,929

males vs. 944 females), compared to 1,605 males vs. 825 females in 2011. By far the largest number of males work in the Computer Systems Design & Related Services and Engineering Design and Engineering Consulting Services sectors, with Architectural Services in third place. It will be interesting to see how the numbers employed in different sectors change over time with the introduction of new technologies and work practices.

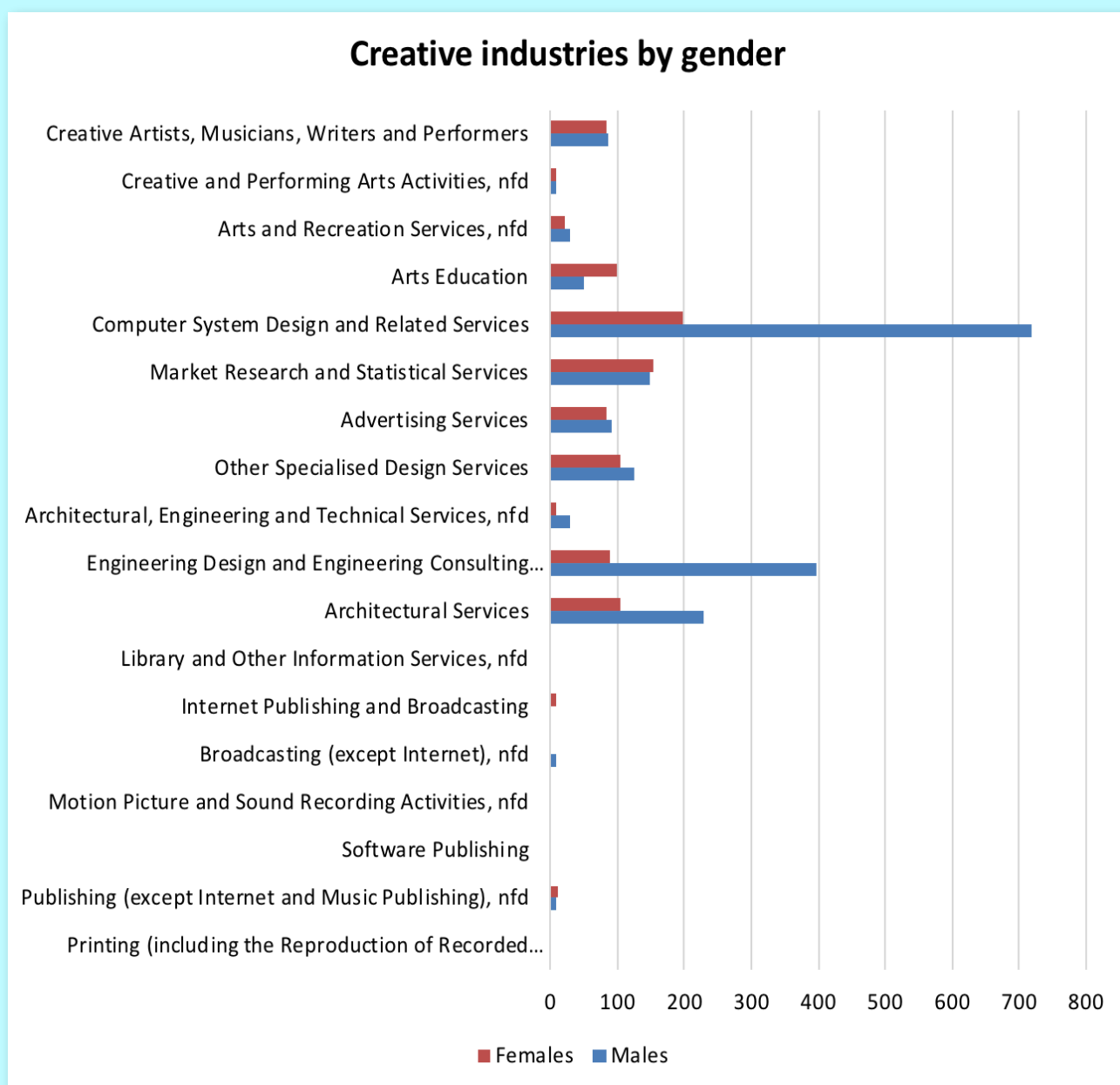


Chart 23 – Creative Industry sectors by gender City of Greater Geelong 2016

The following charts show demographic data for age, occupation, education, hours worked and income.

Age

The table below shows the breakup of those working in the Creative Industries by different age cohorts. Due to the varied nature of sectors within the Creative Industries, it is not surprising that there is a wide spread of age cohorts represented. Surprisingly, there are no individuals in the 10–19 cohort who identify themselves as

working in the Creative Artists, Musicians, Writers and Performers sector, whereas they are well represented in the Advertising Services, Market Research and Statistical Services, Computer System Design and Related Services, and Arts Education sectors. Perhaps this indicates that, in this age cohort, many of their creative pursuits may be achieved through their hobbies whilst they are still studying. There is a wide spread of ages working in Architectural and Engineering sectors, as well as in design, market research and computer design areas. Numbers in all cohorts have increased since 2011.

Industry sector	10-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-79 years	80-89 years	90-99 years
Printing (including the Reproduction of Recorded Media), nfd	0	0	0	0	0	0	0	0	0
Publishing (except Internet and Music Publishing), nfd	0	0	10	3	5	3	0	0	0
Software Publishing	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities, nfd	0	0	0	0	0	0	0	0	0
Broadcasting (except Internet), nfd	0	3	0	0	4	0	0	0	0
Internet Publishing and Broadcasting	0	5	0	0	0	0	0	0	0
Library and Other Information Services, nfd	0	0	0	0	0	0	0	0	0
Architectural Services	0	65	87	94	53	31	5	0	0
Engineering Design and Engineering Consulting Services	0	70	112	106	115	78	3	0	0
Architectural, Engineering and Technical Services, nfd	0	10	10	11	3	4	0	0	0
Other Specialised Design Services	3	54	70	59	24	9	0	0	0
Advertising Services	8	41	38	38	27	11	3	0	0
Market Research and Statistical Services	7	69	70	69	47	38	4	0	0
Computer System Design and Related Services	4	133	277	287	146	57	3	0	0
Arts Education	7	40	19	34	17	21	4	0	0
Arts and Recreation Services, nfd	9	15	12	9	9	4	0	0	0
Creative and Performing Arts Activities, nfd	3	0	3	0	3	0	0	0	0
Creative Artists, Musicians, Writers and Performers	0	21	31	43	31	23	6	0	0
Total	48	522	734	763	476	288	49	4	0

Table 17 – City of Greater Geelong Creative Industries by age

Occupation

With regard to the occupational areas in which those people work, the table below shows that not all people working within the Creative Industries are necessarily working in creative occupations. Rather, the data demonstrates the diverse nature of work within these sectors, including occupations which would not normally be associated with creative work, such as labouring, sales, and trades work. The following table shows the changes in industry sector by occupation between the 2011 and 2016 Census collections.

Conversely, not all creative occupations sit within the creative industries sectors. Many medium to large organisations, regardless of industry sector, have ICT employees; and unlikely sectors, such as the automotive industry employ designers. In the City of Greater Geelong, the numbers working in creative occupations, in any industry, between the 2011 and 2016 Census collections have risen from 4,314 to 5,323, an increase of 23.4%.

Managers	Professionals	Technicians and Trades Workers	Community and Personal Service Workers	Clerical and Administrative Workers	Sales Workers	Machinery Operators and Drivers	Labourers
2016: 353	1499	476	13	345	80	14	72
2011: 279	1253	385	5	64	335	13	49

Table 18 – Changes in industry sector by occupation City of Greater Geelong 2011–2016



Education

Of the 2,873 respondents who indicated that they work in the Creative Industries in the City of Greater Geelong, 2,198, or 76.5% stated that they hold some form of post-secondary qualification (up from 1,760 in 2011). It is not surprising that the percentage is so high as many of the Creative industry sectors sit within the Professional, Scientific and Technical, Computer Systems Design, marketing, advertising and education areas. The table below shows the spread of qualifications by industry sector.

Industry sector	Doctoral Degree	Master Degree	Grad Dip	Grad Cert	Bach Degree	Adv Dip & Assoc Degree	Dip	Cert III & IV	Cert I & II
Printing (including the Reproduction of Recorded Media), nfd	0	0	0	0	0	0	0	0	0
Publishing (except Internet and Music Publishing), nfd	0	0	0	0	6	0	0	4	0
Software Publishing	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities, nfd	0	0	0	0	0	0	0	0	0
Broadcasting (except Internet), nfd	0	0	0	0	0	0	0	0	0
Internet Publishing and Broadcasting	0	0	0	0	5	0	0	0	0
Library and Other Information Services, nfd	0	0	0	0	0	0	0	0	0
Architectural Services	0	49	6	0	137	43	34	23	0
Engineering Design and Engineering Consulting Services	7	44	6	3	184	41	38	81	0
Architectural, Engineering and Technical Services, nfd	0	0	0	0	14	0	5	4	0
Other Specialised Design Services	0	3	4	0	70	30	20	55	0
Advertising Services	0	5	0	0	56	9	8	25	0
Market Research and Statistical Services	0	25	8	7	114	21	23	34	0
Computer System Design and Related Services	11	61	21	4	372	74	63	97	0
Arts Education	0	6	0	0	43	16	13	6	0
Arts and Recreation Services, nfd	0	0	0	0	5	0	3	8	0
Creative and Performing Arts Activities, nfd	0	0	0	0	0	0	0	4	0
Creative Artists, Musicians, Writers and Performers	0	12	5	5	44	12	11	22	0
Total	30	202	59	17	1052	256	223	355	4

Table 19 - Numbers with post-secondary qualifications City of Greater Geelong 2016

Hours Worked

There is a spread of responses with regard to the number of hours worked. Those who indicated that they worked more than 49 hours per week worked mainly in the Engineering Design and Engineering Consulting Service; Architectural Services and Computer System Design and Related Services. These people may quite likely be owner/operators. Those who worked 1–15 hours per week were most highly represented in the Arts Education; Creative Artists, Musicians, Writers and Performers; and Advertising Services sectors. Interestingly, there was also high representation in this group by those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Services. These people may be freelancing or only interested in part-time work.

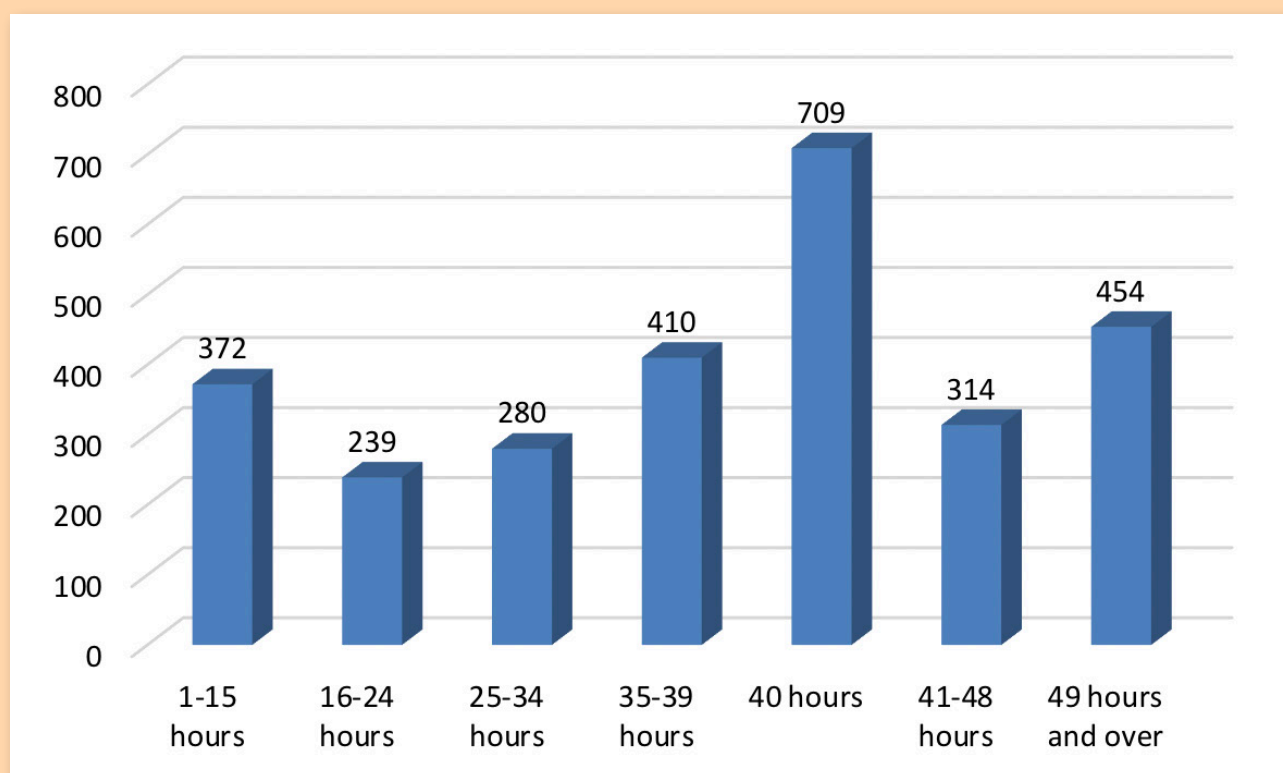


Chart 24 – Hours worked City of Greater Geelong 2016

Income

As can be seen from the chart below, there is a spread of weekly income levels. Not surprisingly, those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Services are most

highly represented at the highest income levels, whilst those working in Market Research and Statistical Services and Arts Education are at the lowest levels. This may be in part due to the part-time nature of some of this work.

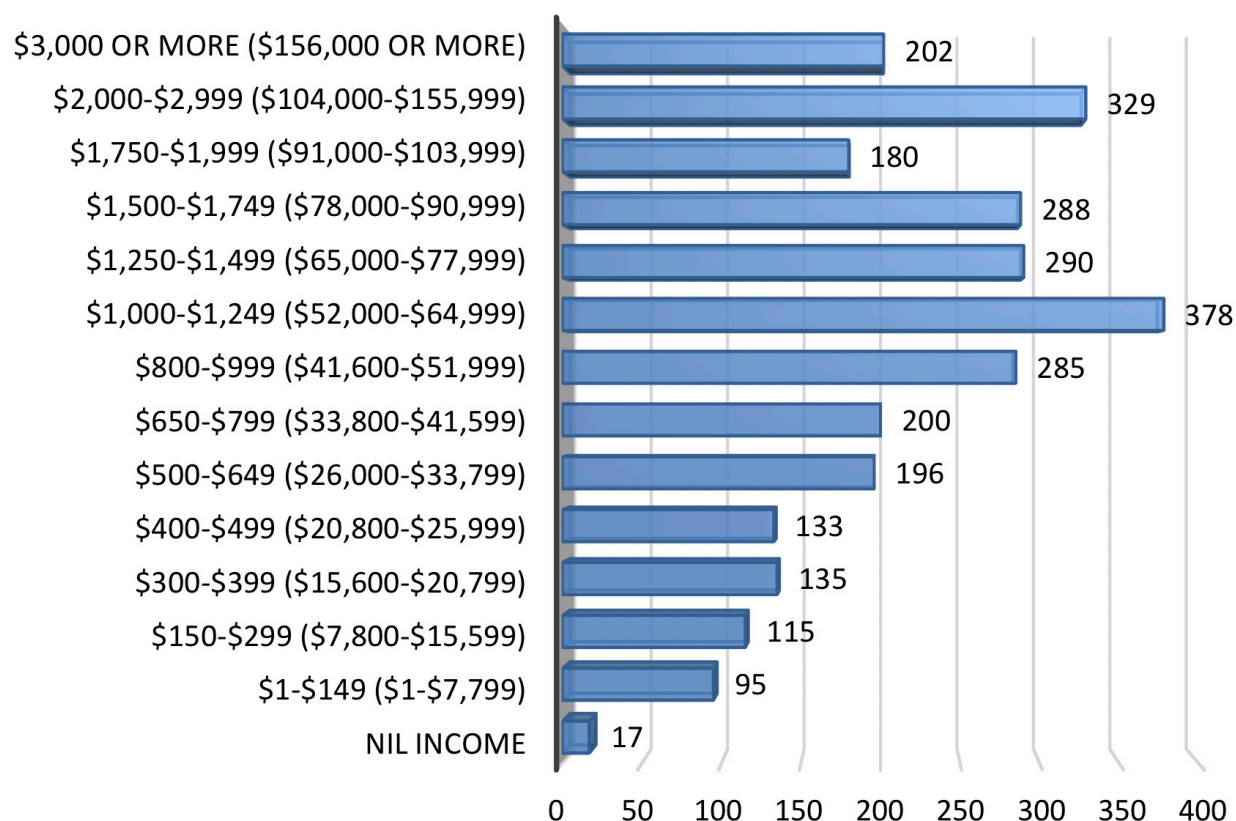


Chart 25 – Weekly income levels City of Greater Geelong 2016

Appendix 5 – REMPLAN and Census data for Colac Otway Shire

Economic Data

According to REMPLAN, the total output estimate for the Colac Otway Shire in 2017 is \$2,802,629 million⁸². In 2017, the Creative Industries sectors **contributed \$106,298 million**, or 3.8% (compared to 5.9% for the region) to the overall LGA output as follows:

Industry sector	Value 2017 \$m	% of overall output
Professional, Scientific & Technical Services	\$71,714	2.6%
Publishing (except Internet & Music Publishing)	\$13,398	0.5%
Heritage, Creative & Performing Arts	\$5,903	0.2%
Motion Picture & Sound Recording	\$2,214	0.1%
Arts, Sports, Adult, Community & Other Education	\$2,102	0.1%
Broadcasting (except Internet)	\$4,185	0.1%
Internet Publishing, Broadcast, Websearch & Data Services	\$4,034	0.1%
Library & Other Information Services	\$2,748	0.1%
Printing (inc. reproduction of recorded media)	\$0.000	0.0%

Table 20 – Output estimate for the Colac Otway Shire

The total export estimate for Colac Otway Shire in 2017 is \$1,024,048 million⁸³. The Creative Industries sectors **contributes \$14,405 million** or 1.4% (compared to 2.7% for the region) to the overall LGA export estimate as follows:

Industry sector	Value 2017 \$m	% of overall exports
Professional, Scientific & Technical Services	\$5,940	0.6%
Publishing (except Internet & Music Publishing)	\$3,516	0.3%
Internet Publishing, Broadcast, Websearch & Data Services	\$1,793	0.2%
Library & Other Information Services	\$1,691	0.2%
Heritage, Creative & Performing Arts	\$0.883	0.1%
Motion Picture & Sound Recording	\$0.382	0.0%
Printing (inc. reproduction of recorded media)	\$0.000	0.0%
Arts, Sports, Adult, Community & Other Education	\$0.135	0.0%
Broadcasting (except Internet)	\$0.065	0.0%

Table 21 – Export estimate for the Colac Otway Shire

⁸² REMPLAN defines "Output data" as "the gross revenue generated by businesses/organisations in each of the industry sectors in a defined region. Gross revenue is also referred to as total sales or total income".

⁸³ Regional export is defined as the goods and services produced by industry sectors in G21 Region which are sold to consumers, businesses, and governments based outside the region's boundaries.

The total employment estimate for the Colac Otway Shire in 2017 is 9,857 jobs⁸⁴. The Creative Industries sectors contribute 445 jobs, or 4.5% (compared to 7.3% for the region) of employment, to the overall LGA employment as follows:

Industry Sector	Value 2017 \$m	% of overall employment
Professional, Scientific & Technical Services	290	2.9%
Heritage, Creative & Performing Arts	52	0.5%
Arts, Sports, Adult, Community & Other Education	35	0.4%
Publishing (except Internet & Music Publishing)	28	0.3%
Library & Other Information Services	21	0.2%
Motion Picture & Sound Recording	6	0.1%
Broadcasting (except Internet)	9	0.1%
Printing (inc. reproduction of recorded media)	0	0.0%
Internet Publishing, Broadcast, Websearch & Data Services	4	0.0%

Table 22 – Employment estimate for the Colac Otway Shire

The total wages and salaries estimate for Colac Otway Shire in 2017 is \$609,683 million. The Creative Industries sectors contribute \$29,890 million or 4.9% (compared to 7.5% for the region) to overall LGA wages and salaries as follows:

Industry sector	Value 2017 \$m	% of overall wages & salaries
Professional, Scientific & Technical Services	\$22,932	3.8%
Publishing (except Internet & Music Publishing)	\$2,613	0.4%
Heritage, Creative & Performing Arts	\$1,123	0.2%
Motion Picture & Sound Recording	\$0.429	0.1%
Broadcasting (except Internet)	\$0.690	0.1%
Library & Other Information Services	\$0.733	0.1%
Internet Publishing, Broadcast, Websearch & Data Services	\$0.649	0.1%
Arts, Sports, Adult, Community & Other Education	\$0.721	0.1%
Printing (inc. reproduction of recorded media)	\$0.000	0.0%

Table 23 – Wages & salaries estimate for the Colac Otway Shire

⁸⁴ Employment data represents the number of people employed by businesses / organisations in each of the industry sectors in a defined region. Employment data presented by REMPLAN Economy is destination of work data. That is, no inference is made as to where people in a defined region reside. This employment represents total numbers of employees without any conversions to full-time equivalence. Retail jobs for instance represent typical employment profiles for that sector, i.e. some full time, some part time and some casual.

Labour Force Data

As stated earlier, the REMPLAN labour force data is taken from the 2016 Census and compared with data reported in the 2011 Census. As a result, this section will take data directly from the ABS Census site as this will allow a much more accurate dissection of the industry categories to truly reflect the composition of the creative industries within the municipality.

The chart below shows the various sectors of the industry in which males and females work. Overall, 98 (down from 114 in 2011) individuals indicated that they live in the Colac Otway Shire

and work in a Creative industry sector. A number of these people may work outside the LGA. The industry is dominated by males (58 males vs. 40 females). The numbers compare to 54 males vs. 60 females in 2011, showing an overall reduction of 14%. By far the largest number of males work in the Computer Systems Design & Related Services and Engineering Design and Architectural Services sectors, with Engineering Consulting Services in third place. It will be interesting to see how the numbers employed in different sectors change over time with the introduction of new technologies and work practices.

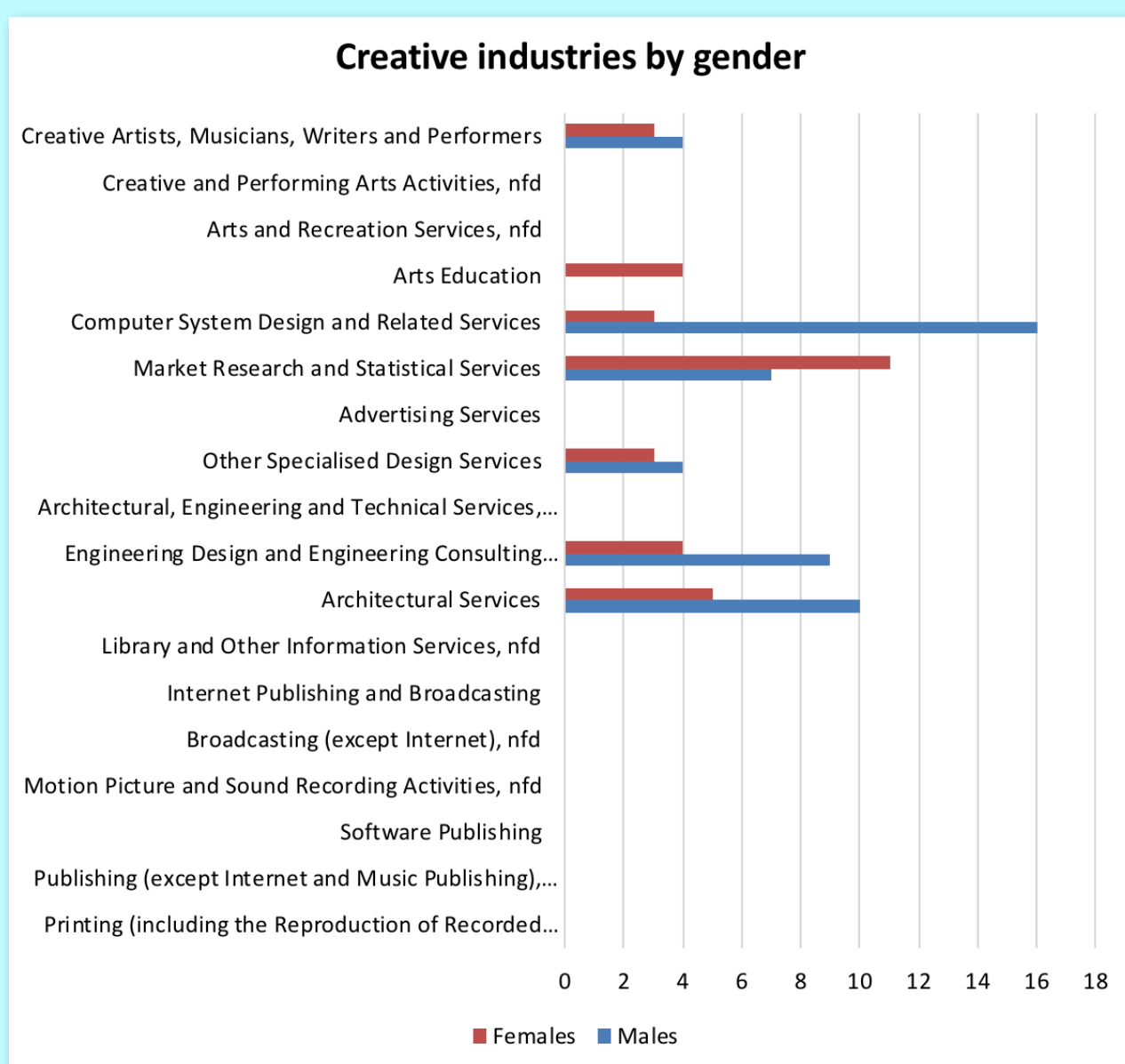


Chart 26 – Creative Industry sectors by gender Colac Otway Shire 2016

The following charts show demographic data for age, occupation, education, hours worked and income.

Age

The table below shows the breakup of those working in the Creative Industries by different age cohorts. Due to the varied nature of sectors within the Creative Industries, it is not surprising that there is a wide spread of age cohorts

represented. Surprisingly, there are no individuals in the 10–19 cohort who identify themselves as working in the Creative Artists, Musicians, Writers and Performers sector. In fact, the only sector in which they are represented is the Computer System Design and Related Services sector. Perhaps this indicates that, in this age cohort, many of their creative pursuits may be achieved through their hobbies whilst they are still studying.

Industry sector	10–19 years	20– 29 years	30–39 years	40– 49 years	50– 59 years	60– 69 years	70– 79 years	80– 89 years	90– 99 years
Printing (including the Reproduction of Recorded Media), nfd	0	0	0	0	0	0	0	0	0
Publishing (except Internet and Music Publishing), nfd	0	0	0	0	0	0	0	0	0
Software Publishing	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities, nfd	0	0	0	0	0	0	0	0	0
Broadcasting (except Internet), nfd	0	0	0	0	0	0	0	0	0
Internet Publishing and Broadcasting	0	0	0	0	0	0	0	0	0
Library and Other Information Services, nfd	0	0	0	0	0	0	0	0	0
Architectural Services	0	0	0	7	5	3	0	0	0
Engineering Design and Engineering Consulting Services	0	5	3	0	5	0	0	0	0
Architectural, Engineering and Technical Services, nfd	0	0	0	0	0	0	0	0	0
Other Specialised Design Services	0	0	0	0	0	5	0	0	0
Advertising Services	0	0	0	0	0	0	0	0	0
Market Research and Statistical Services	0	0	0	7	0	4	3	0	0
Computer System Design and Related Services	3	3	8	6	4	0	0	0	0
Arts Education	0	0	0	4	0	0	0	0	0
Arts and Recreation Services, nfd	0	0	0	0	0	0	0	0	0
Creative and Performing Arts Activities, nfd	0	0	0	0	0	0	0	0	0
Creative Artists, Musicians, Writers and Performers	0	0	0	9	0	4	0	0	0
Total	4	12	14	26	21	23	7	0	0

Table 24 – G21 Creative Industries by age Colac Otway Shire 2016

Occupation

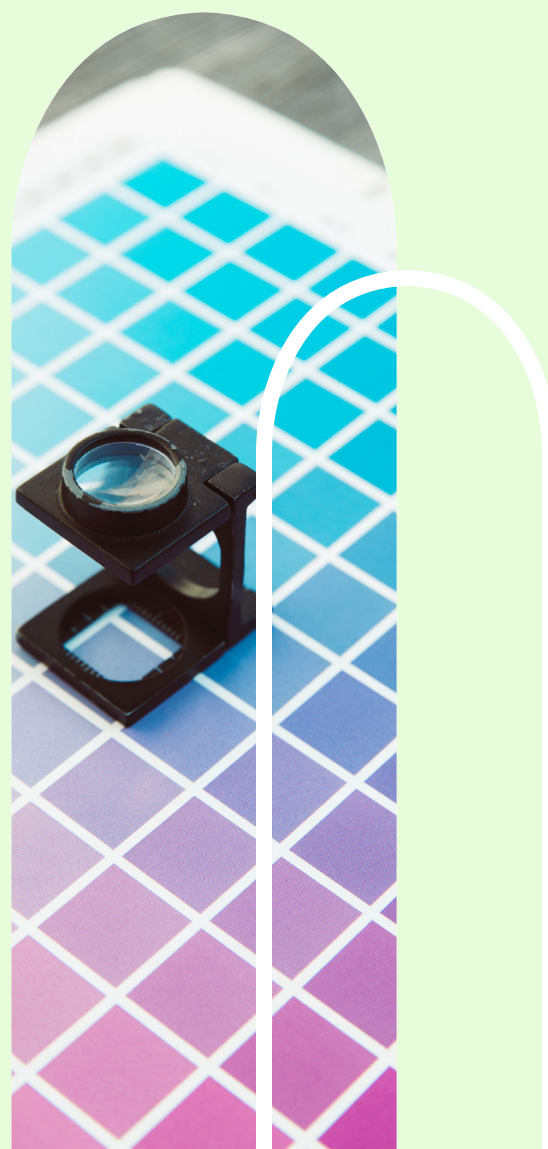
With regard to the occupational areas in which those people work, the table below shows that not all people working within the Creative Industries are necessarily working in creative occupations. Rather, the data demonstrates the diverse nature of work within these sectors, including occupations which would not normally be associated with creative work, such as labouring, sales, and trades work. The following table shows the changes in industry sector by occupation between the 2011 and 2016 Census collections.

Managers	Professionals	Technicians and Trades Workers	Community and Personal Service Workers	Clerical and Administrative Workers	Sales Workers	Machinery Operators and Drivers	Labourers
2016: 0	57	24	0	18	3	0	0
2011: 4	56	18	3	0	28	0	3

Table 25 – Changes in industry sector by occupation Colac Otway Shire 2011–2016

Conversely, not all creative occupations sit within the creative industries sectors. Many medium to large organisations, regardless of industry sector, have ICT employees; and unlikely sectors, such as the automotive industry employ designers. In the Colac Otway Shire, the numbers working in creative occupations, in any industry, between the 2011 and 2016 Census collections have risen slightly from 210 to 213, an increase of 1.4%.

Photo By Markus Spiske



Education

Of the 98 respondents who indicated that they work in the Creative Industries in Colac Otway Shire, 69, or 70.4%, stated that they hold some form of post-secondary qualification (down from 79 in 2011). It is not surprising that the percentage is so high as many of the Creative industry sectors sit within the Professional, Scientific and Technical, Computer Systems Design, marketing, advertising and education areas. The table below shows the spread of qualifications by industry sector.

Industry sector	Doctoral Degree	Master Degree	Grad Dip	Grad Cert	Bach Degree	Adv Dip & Assoc Degree Level	Dip	Cert III & IV	Cert I & II
Printing (including the Reproduction of Recorded Media), nfd	0	0	0	0	0	0	0	0	0
Publishing (except Internet and Music Publishing), nfd	0	0	0	0	0	0	0	0	0
Software Publishing	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities, nfd	0	0	0	0	0	0	0	0	0
Broadcasting (except Internet), nfd	0	0	0	0	0	0	0	0	0
Internet Publishing and Broadcasting	0	0	0	0	0	0	0	0	0
Library and Other Information Services, nfd	0	0	0	0	0	0	0	0	0
Architectural Services	0	0	0	0	4	0	4	0	0
Engineering Design and Engineering Consulting Services	0	0	0	0	3	0	0	0	0
Architectural, Engineering and Technical Services, nfd	0	0	0	0	0	0	0	0	0
Other Specialised Design Services	0	0	0	0	5	0	0	0	0
Advertising Services	0	0	0	0	0	0	0	0	0
Market Research and Statistical Services	0	0	5	0	3	0	0	5	0
Computer System Design and Related Services	0	0	0	0	0	3	0	6	0
Arts Education	0	0	0	0	0	3	0	0	0
Arts and Recreation Services, nfd	0	0	0	0	0	0	0	0	0
Creative and Performing Arts Activities, nfd	0	0	0	0	0	0	0	0	0
Creative Artists, Musicians, Writers and Performers	0	0	0	0	4	0	0	0	0
Total	0	9	8	0	28	6	0	18	0

Table 26 – Numbers with post-secondary qualifications Colac Otway Shire 2016

Hours Worked

There is a spread of responses with regard to the number of hours worked. Those who indicated that they worked more than 49 hours per week worked mainly in the Engineering Design and Engineering Consulting Service; Architectural Services and Computer System Design and Related Services. These people may quite likely be owner/operators. Those who worked 1–15 hours per week were most highly represented in

the Arts Education; Creative Artists, Musicians, Writers and Performers; and Advertising Services sectors. Interestingly, there was also high representation in this group by those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Services. These people may be freelancing or only interested in part-time work.

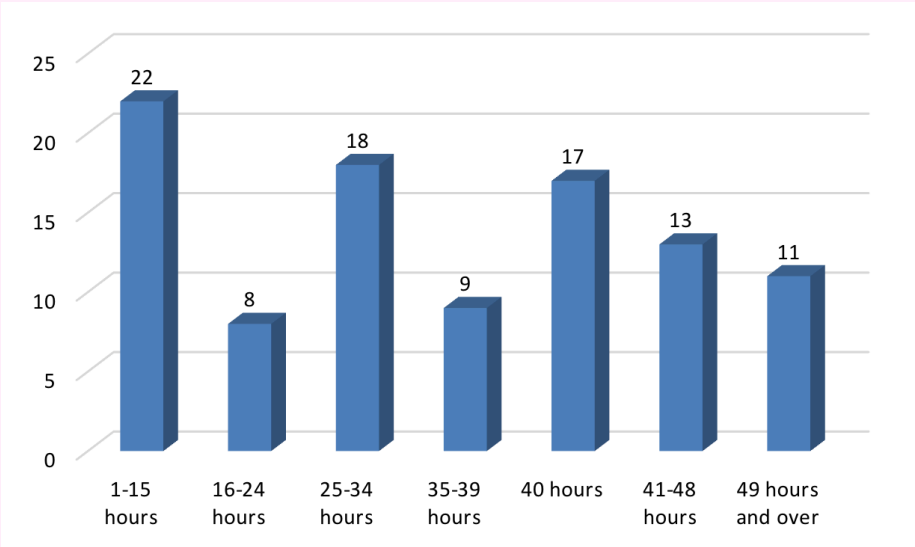


Chart 27 – Hours worked Colac Otway Shire 2016



Income

As can be seen from the chart below, there is a spread of weekly income levels. Not surprisingly, those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Services are most highly represented at the highest income levels, whilst those working in Market Research and Statistical Services and Arts Education are at the lowest levels. This may be in part due to the part-time nature of some of this work.

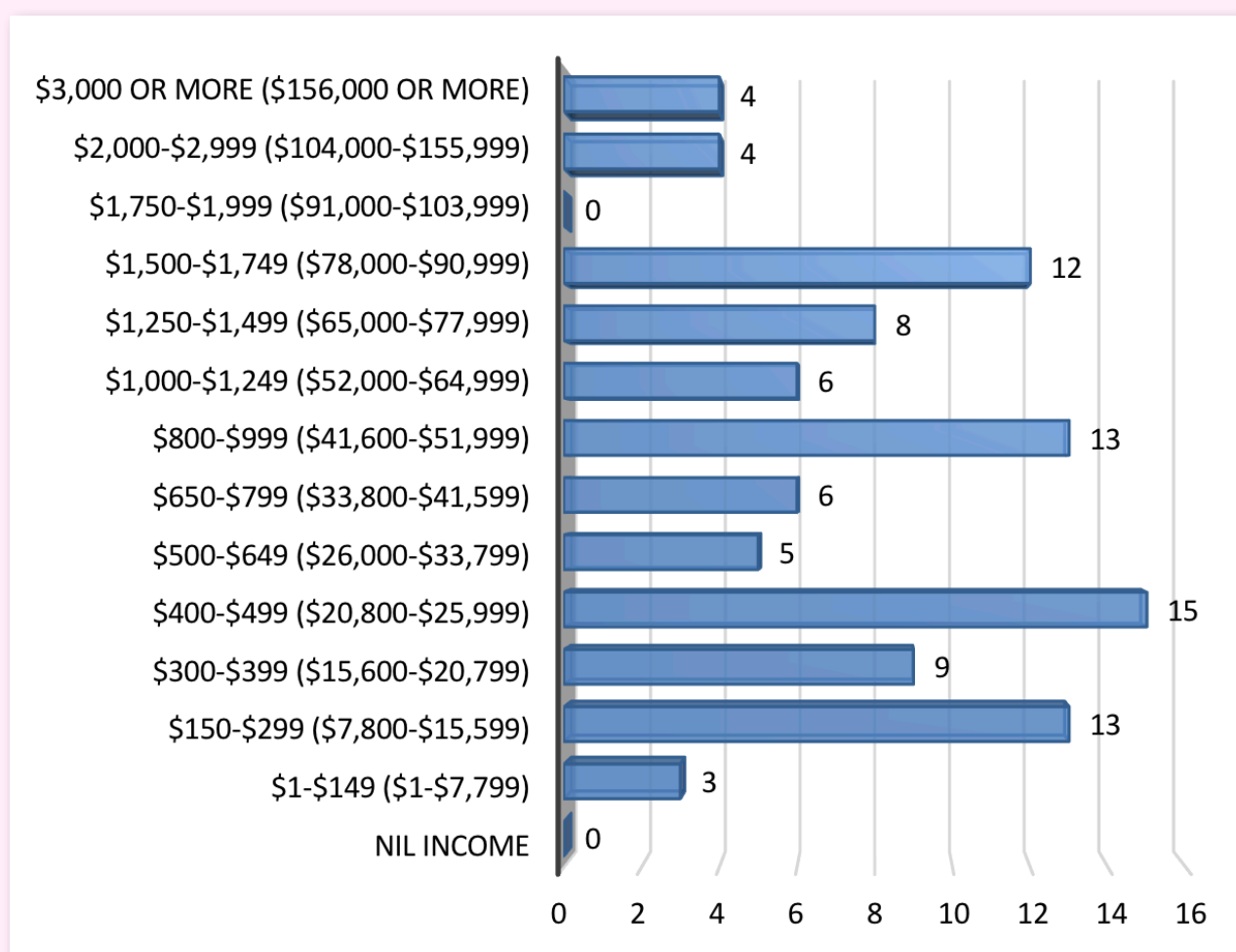


Chart 28 – Weekly income levels Colac Otway Shire 2016

Appendix 6 – REMPLAN and Census data for Golden Plains Shire

Economic data

According to REMPLAN, the total output estimate for the Golden Plains Shire in 2017 is \$1,107,065 million⁸⁵. In 2017, the Creative Industries sectors contributed \$46,032 million, or 4.2% (compared to 5.9% for the region) to the overall LGA output as follows:

Industry sector	Value 2017 \$m	% of overall output
Professional, Scientific & Technical Services	\$37,736	3.4%
Publishing (except Internet & Music Publishing)	\$2,871	0.3%
Heritage, Creative & Performing Arts	\$2,724	0.2%
Motion Picture & Sound Recording	\$1,107	0.1%
Arts, Sports, Adult, Community & Other Education	\$1,201	0.1%
Broadcasting (except Internet)	\$0.000	0.0%
Internet Publishing, Broadcast, Websearch & Data Services	\$0.000	0.0%
Library & Other Information Services	\$0.000	0.0%
Printing (inc. reproduction of recorded media)	\$0,393	0.0%

Table 27 - Output estimate for the Golden Plains Shire

The total export estimate for Golden Plains Shire in 2017 is \$369,301 million⁸⁶. The Creative Industries sectors contributes \$4,262 million or 1.2% (compared to 2.7% for the region) to the overall LGA export estimate as follows:

Industry sector	Value 2017 \$m	% of overall exports
Professional, Scientific & Technical Services	\$3,185	0.9%
Publishing (except Internet & Music Publishing)	\$9.229	0.1%
Internet Publishing, Broadcast, Websearch & Data Services	\$0.529	0.1%
Library & Other Information Services	\$0.222	0.1%
Heritage, Creative & Performing Arts	\$0.000	0.0%
Motion Picture & Sound Recording	\$0.020	0.0%
Printing (inc. reproduction of recorded media)	\$0.000	0.0%
Arts, Sports, Adult, Community & Other Education	\$0.077	0.0%
Broadcasting (except Internet)	\$0.000	0.0%

Table 28 - Export estimate for the Golden Plains Shire

⁸⁵ REMPLAN defines "Output data" as 'the gross revenue generated by businesses/organisations in each of the industry sectors in a defined region. Gross revenue is also referred to as total sales or total income'.

⁸⁶ Regional export is defined as the goods and services produced by industry sectors in G21 Region which are sold to consumers, businesses, and governments based outside the region's boundaries.

The total employment estimate for Golden Plains Shire in 2017 is 3,494 jobs⁸⁷. The Creative Industries sectors contribute 208 jobs, or 6.0% (compared to 7.3% for the region) of employment, to the overall LGA employment as follows:

Industry sector	Value 2017 \$m	% of overall employment
Professional, Scientific & Technical Services	152	4.4%
Heritage, Creative & Performing Arts	24	0.7%
Arts, Sports, Adult, Community & Other Education	20	0.6%
Publishing (except Internet & Music Publishing)	6	0.2%
Library & Other Information Services	3	0.1%
Motion Picture & Sound Recording	3	0.1%
Broadcasting (except Internet)	0	0.0%
Printing (inc. reproduction of recorded media)	0	0.0%
Internet Publishing, Broadcast, Websearch & Data Services	0	0.0%

Table 29 - Employment estimate for the Golden Plains Shire

The total wages and salaries estimate for Golden Plains Shire in 2017 is \$204,751 million. The Creative Industries sectors contribute \$13,962 million or 6.8% (compared to 7.5% for the region) to overall LGA wages and salaries as follows:

Industry sector	Value 2017 \$m	% of overall wages & salaries
Professional, Scientific & Technical Services	\$12,152	5.9%
Publishing (except Internet & Music Publishing)	\$0.560	0.3%
Internet Publishing, Broadcast, Websearch & Data Services	\$0.412	0.2%
Library & Other Information Services	\$0.518	0.1%
Heritage, Creative & Performing Arts	\$0.215	0.1%
Motion Picture & Sound Recording	\$0.105	0.1%
Printing (inc. reproduction of recorded media)	\$0.000	0.0%
Arts, Sports, Adult, Community & Other Education	\$0.000	0.0%
Broadcasting (except Internet)	\$0.000	0.0%

Table 30 - Wages & salaries estimate for the Golden Plains Shire

⁸⁷ Employment data represents the number of people employed by businesses / organisations in each of the industry sectors in a defined region. Employment data presented by REMPLAN Economy is destination of work data. That is, no inference is made as to where people in a defined region reside. This employment represents total numbers of employees without any conversions to full-time equivalence. Retail jobs for instance represent typical employment profiles for that sector, i.e. some full time, some part time and some casual.

Labour Force Data

As stated earlier, the REMPLAN labour force data is taken from the 2016 Census and compared with data reported in the 2011 Census. As a result, this section will take data directly from the ABS Census site as this will allow a much more accurate dissection of the industry categories to truly reflect the composition of the creative industries within the G21 Region.

The chart below shows the various sectors of the industry in which males and females work. Overall, 179 individuals indicated that they live in the municipality and work in a Creative industry

sector. A number of these people may work outside the region. The industry is dominated by males (114 males vs. 65 females). This compares to 115 males vs. 63 females in 2011, showing an overall growth of 0.6%. By far the largest number of males work in the Computer Systems Design & Related Services and Engineering Design and Engineering Consulting Services sectors, with Architectural Services in third place. It will be interesting to see how the numbers employed in different sectors changes over time with the introduction of new technologies and work practices

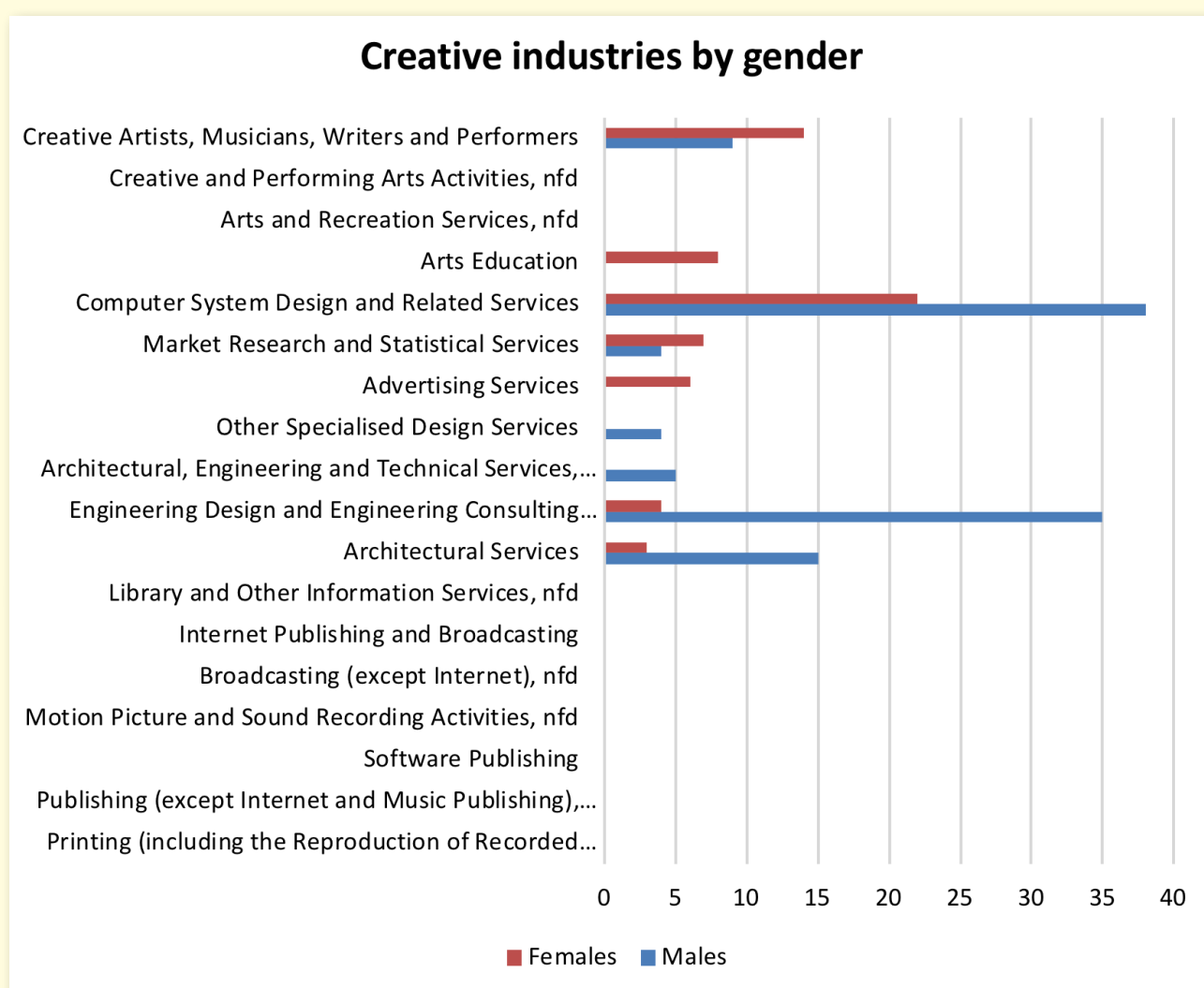


Chart 29 – Creative Industry sectors by gender Golden Plains Shire 2016

The following charts show demographic data for age, occupation, education, hours worked and income.

Age

The table below shows the breakup of those working in the Creative Industries by different age cohorts. Due to the varied nature of sectors within the Creative Industries, it is not surprising that there is a wide spread of age cohorts

represented. Surprisingly, the only individuals in the 10–19 cohort who identify themselves as working in the Creative industries are represented in the Computer System Design and Related Services sector. Perhaps this indicates that, in this age cohort, many of their creative pursuits may be achieved through their hobbies whilst they are still studying.

Industry sector	10–19 years	20– 29 years	30–39 years	40– 49 years	50– 59 years	60– 69 years	70– 79 years	80– 89 years	90– 99 years
Printing (including the Reproduction of Recorded Media), nfd	0	0	0	0	0	0	0	0	0
Publishing (except Internet and Music Publishing), nfd	0	0	0	0	0	0	0	0	0
Software Publishing	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities, nfd	0	0	0	0	0	0	0	0	0
Broadcasting (except Internet), nfd	0	0	0	0	0	0	0	0	0
Internet Publishing and Broadcasting	0	0	0	0	0	0	0	0	0
Library and Other Information Services, nfd	0	0	0	0	0	0	0	0	0
Architectural Services	0	0	3	11	0	4	0	0	0
Engineering Design and Engineering Consulting Services	0	3	14	7	11	3	0	0	0
Architectural, Engineering and Technical Services, nfd	0	0	0	0	5	0	0	0	0
Other Specialised Design Services	0	0	0	7	0	0	0	0	0
Advertising Services	0	0	7	4	3	0	0	0	0
Market Research and Statistical Services	0	0	0	3	5	5	0	0	0
Computer System Design and Related Services	3	14	14	26	13	3	0	0	0
Arts Education	0	0	0	3	3	0	0	0	0
Arts and Recreation Services, nfd	0	0	0	0	0	0	0	0	0
Creative and Performing Arts Activities, nfd	0	0	0	0	0	0	0	0	0
Creative Artists, Musicians, Writers and Performers	0	0	5	6	0	7	0	0	0
Total	4	12	14	26	21	23	7	0	0

Table 31 – G21 Creative Industries by age Golden Plains Shire 2016

Occupation

With regard to the occupational areas in which those people work, the charts below show that not all people working within the Creative Industries are necessarily working in creative occupations. Rather, the data demonstrates the diverse nature of work within these sectors, including occupations which would not normally be associated with creative work, such as labouring, sales, and trades work. The following table shows the changes in industry sector by occupation between the 2011 and 2016 Census collections.

Managers	Professionals	Technicians and Trades Workers	Community and Personal Service Workers	Clerical and Administrative Workers	Sales Workers	Machinery Operators and Drivers	Labourers
2016: 14	78	36	6	32	4	0	3
2011: 22	84	33	0	0	28	0	6

Table 32 – Changes in industry sector by occupation Golden Plains 2011–2016

Conversely, not all creative occupations sit within the creative industries sectors. Many medium to large organisations, regardless of industry sector, have ICT employees; and unlikely sectors, such as the automotive industry employ designers. In the Golden Plains Shire, the numbers working in creative occupations, in any industry, between the 2011 and 2016 Census collections have risen from 289 to 335, an increase of 15.9%.



Photo By Jason Rosewell

Education

Of the 179 respondents who indicated that they work in the Creative Industries in Golden Plains Shire, 113, or 63.1% stated that they hold some form of post-secondary qualification (down from 127 in 2011). It is not surprising that the percentage is so high as many of the Creative industry sectors sit within the Professional, Scientific and Technical, Computer Systems Design, marketing, advertising and education areas. The table below shows the spread of qualifications by industry sector.

Industry sector	Doctor	Master Degree	Grad Dip	Grad Cert	Bach Degree	Adv Dip & Assoc Degree	Dip	Cert III & IV	Cert I & II
Printing (including the Reproduction of Recorded Media), nfd	0	0	0	0	0	0	0	0	0
Publishing (except Internet and Music Publishing), nfd	0	0	0	0	0	0	0	0	0
Software Publishing	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities, nfd	0	0	0	0	0	0	0	0	0
Broadcasting (except Internet), nfd	0	0	0	0	0	0	0	0	0
Internet Publishing and Broadcasting	0	0	0	0	0	0	0	0	0
Library and Other Information Services, nfd	0	0	0	0	0	0	0	0	0
Architectural Services	0	0	0	0	4	0	4	0	0
Engineering Design and Engineering Consulting Services	0	0	0	0	3	0	0	0	0
Architectural, Engineering and Technical Services, nfd	0	0	0	0	0	0	0	0	0
Other Specialised Design Services	0	0	0	0	5	0	0	0	0
Advertising Services	0	0	0	0	0	0	0	0	0
Market Research and Statistical Services	0	0	5	0	3	0	0	5	0
Computer System Design and Related Services	0	0	0	0	0	3	0	6	0
Arts Education	0	0	0	0	0	3	0	0	0
Arts and Recreation Services, nfd	0	0	0	0	0	0	0	0	0
Creative and Performing Arts Activities, nfd	0	0	0	0	0	0	0	0	0
Creative Artists, Musicians, Writers and Performers	0	0	0	0	4	0	0	0	0
Total	0	9	8	0	28	6	0	18	0

Table 33 – Numbers with post-secondary qualifications Golden Plains Shire 2016

Hours Worked

There is a spread of responses with regard to the number of hours worked. Those who indicated that they worked more than 49 hours per week worked mainly in the Engineering Design and Engineering Consulting Service; Architectural Services and Computer System Design and Related Services. These people may quite likely be owner/operators. Those who worked 1–15 hours per week were most highly represented in the Arts Education; Creative Artists, Musicians, Writers and Performers; and Advertising Services sectors. Interestingly, there was also high representation in this group by those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Services. These people may be freelancing or only interested in part-time work. The largest representation of 47 people working 40 hours were in the Computer System Design and Related Services area.

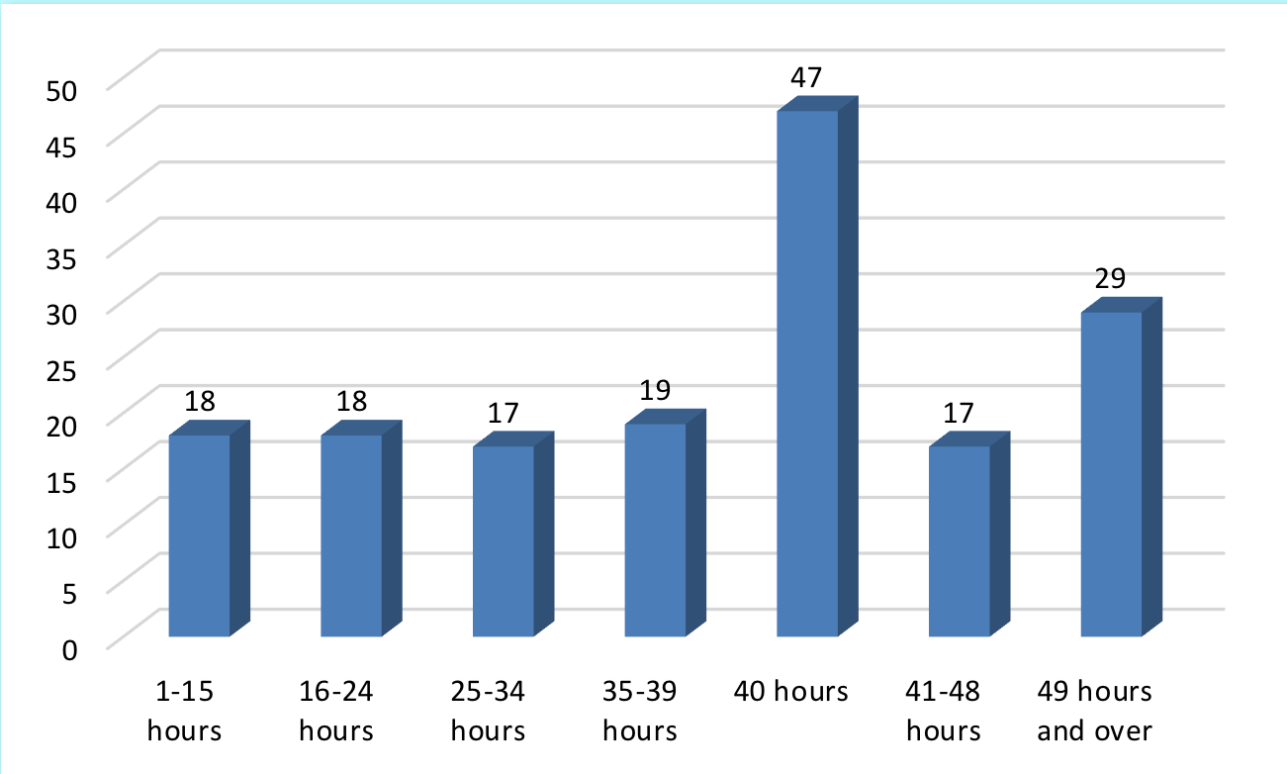


Chart 30 – Hours worked Golden Plains Shire 2016

Income

As can be seen from the chart below, there is a spread of weekly income levels. Not surprisingly, those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Services are most highly represented at the highest income levels, whilst those working in Market Research and Statistical Services and Arts Education are at the lowest levels. This may be in part due to the part-time nature of some of this work.

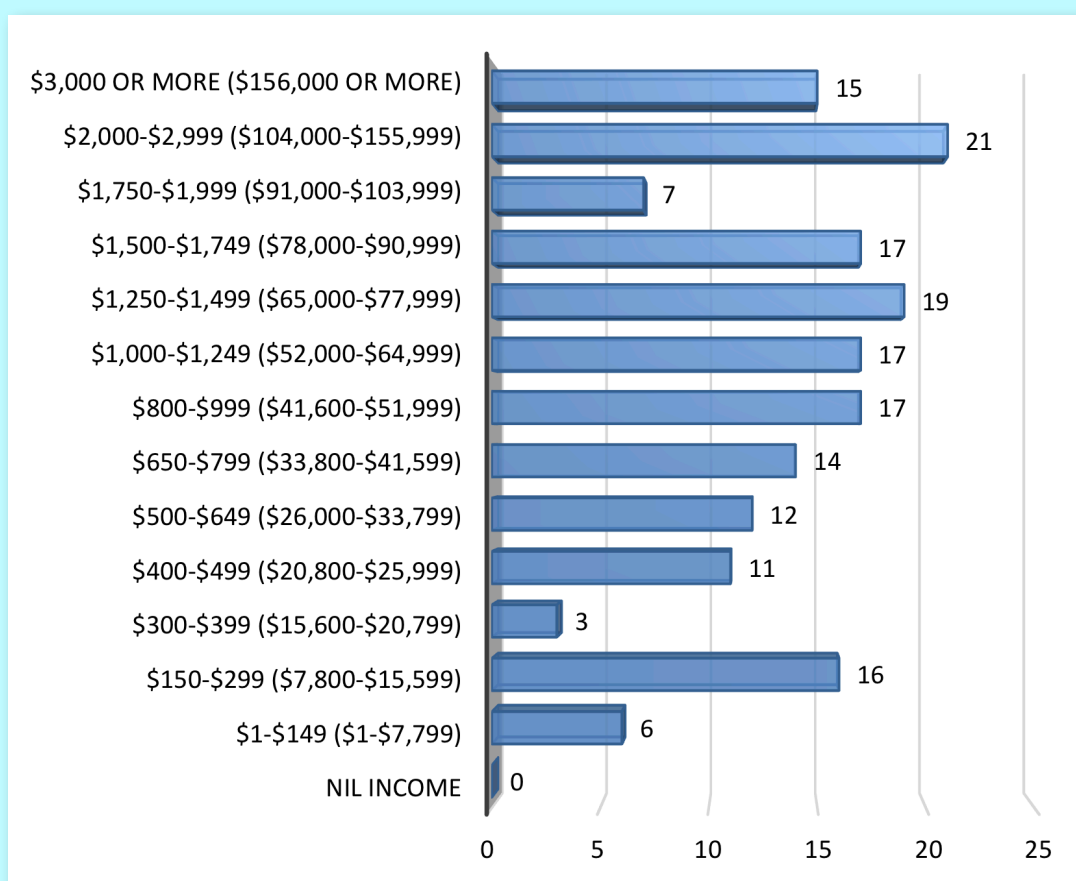


Chart 31 – Weekly income levels Golden Plains Shire 2016

Appendix 7 – REMPLAN and Census data for Surf Coast Shire

Economic data

According to REMPLAN, the total output estimate for the Surf Coast Shire in 2017 is \$2,394,203 million⁸⁸. In 2017, the Creative Industries sectors contributed \$188,281 million, or 7.9% (compared to 5.9% for the region) to the overall LGA output as follows:

Industry sector	Value 2017 \$m	% of overall output
Professional, Scientific & Technical Services	\$147,980	6.2%
Publishing (except Internet & Music Publishing)	\$12,020	0.5%
Heritage, Creative & Performing Arts	\$12,146	0.5%
Motion Picture & Sound Recording	\$8,118	0.3%
Arts, Sports, Adult, Community & Other Education	\$6,726	0.3%
Library & Other Information Services	\$0,393	0.0%
Broadcasting (except Internet)	\$0.000	0.0%
Printing (inc. reproduction of recorded media)	\$0.000	0.0%
Internet Publishing, Broadcast, Websearch & Data Services	\$0.000	0.0%

Table 34 – Output estimate for the Surf Coast Shire

The total regional export estimate for the Surf Coast Shire in 2017 is \$654,551 million⁸⁹. The Creative Industries sectors contributes \$30,802 million or 4.7% (compared to 2.7% for the region) to the overall LGA export estimate as follows:

Industry sector	Value 2017 \$m	% of overall exports
Professional, Scientific & Technical Services	\$20,360	3.1%
Heritage, Creative & Performing Arts	\$5,027	0.8%
Motion Picture & Sound Recording	\$2,480	0.4%
Publishing (except Internet & Music Publishing)	\$2,311	0.4%
Arts, Sports, Adult, Community & Other Education	\$0.608	0.1%
Library & Other Information Services	\$0.016	0.0%
Internet Publishing, Broadcast, Websearch & Data Services	\$0.000	0.0%
Printing (inc. reproduction of recorded media)	\$0.000	0.0%
Broadcasting (except Internet)	\$0.000	0.0%

Table 35 – Export estimate for the Surf Coast Shire

⁸⁸ REMPLAN defines "Output data" as 'the gross revenue generated by businesses/organisations in each of the industry sectors in a defined region. Gross revenue is also referred to as total sales or total income'.

⁸⁹ Regional export is defined as the goods and services produced by industry sectors in G21 Region which are sold to consumers, businesses, and governments based outside the region's boundaries.

The total employment estimate for Surf Coast Shire in 2017 is 9,293 jobs⁹⁰. The Creative Industries sectors contribute 866 jobs, or 9.3% (compared to 7.3% for the region) of employment, to the overall LGA employment as follows:

Industry sector	Value 2017 \$m	% of overall employment
Professional, Scientific & Technical Services	595	6.4%
Arts, Sports, Adult, Community & Other Education	112	1.2%
Heritage, Creative & Performing Arts	107	1.2%
Publishing (except Internet & Music Publishing)	27	0.3%
Motion Picture & Sound Recording	22	0.2%
Library & Other Information Services	3	0.0%
Printing (inc. reproduction of recorded media)	0	0.0%
Broadcasting (except Internet)	0	0.0%
Internet Publishing, Broadcast, Websearch & Data Services	0	0.0%

Table 36 – Employment estimate for the Surf Coast Shire

The total wages and salaries estimate for Surf Coast Shire in 2017 is \$562,814 million. The Creative Industries sectors contribute \$56,623 million or 10.1% (compared to 7.5% for the region) to overall LGA wages and salaries as follows:

Industry sector	Value 2017 \$m	% of overall wages & salaries
Professional, Scientific & Technical Services	\$47,807	8.5%
Heritage, Creative & Performing Arts	\$2,311	0.4%
Publishing (except Internet & Music Publishing)	\$2,520	0.4%
Arts, Sports, Adult, Community & Other Education	\$2,306	0.4%
Motion Picture & Sound Recording	\$1,575	0.3%
Library & Other Information Services	\$0.105	0.0%
Printing (inc. reproduction of recorded media)	\$0.000	0.0%
Broadcasting (except Internet)	\$0.000	0.0%
Internet Publishing, Broadcast, Websearch & Data Services	\$0.000	0.0%

Table 37 – Wages & salaries estimate for the Surf Coast Shire

⁹⁰ Employment data represents the number of people employed by businesses / organisations in each of the industry sectors in a defined region. Employment data presented by REMPLAN Economy is destination of work data. That is, no inference is made as to where people in a defined region reside. This employment represents total numbers of employees without any conversions to full-time equivalence. Retail jobs for instance represent typical employment profiles for that sector, i.e. some full time, some part time and some casual.

Labour Force Data

As stated earlier, the REMPLAN labour force data is taken from the 2016 Census and compared with data reported in the 2011 Census. As a result, this section will take data directly from the ABS Census site as this will allow a much more accurate dissection of the industry categories to truly reflect the composition of the creative industries within the G21 Region.

The chart below shows the various sectors of the industry in which males and females work. Overall, 539 individuals indicated that they live in the municipality and work in a Creative industry

sector. A number of these people may work outside the region. The industry is dominated by males (326 males vs. 213 females). This compares to 278 males vs. 154 females in 2011, showing an overall growth of 24.8%. By far the largest number of males work in the Computer Systems Design & Related Services and Architectural Services sectors, with Engineering Design and Engineering Consulting Services in third place. It will be interesting to see how the numbers employed in different sectors changes over time with the introduction of new technologies and work practices.

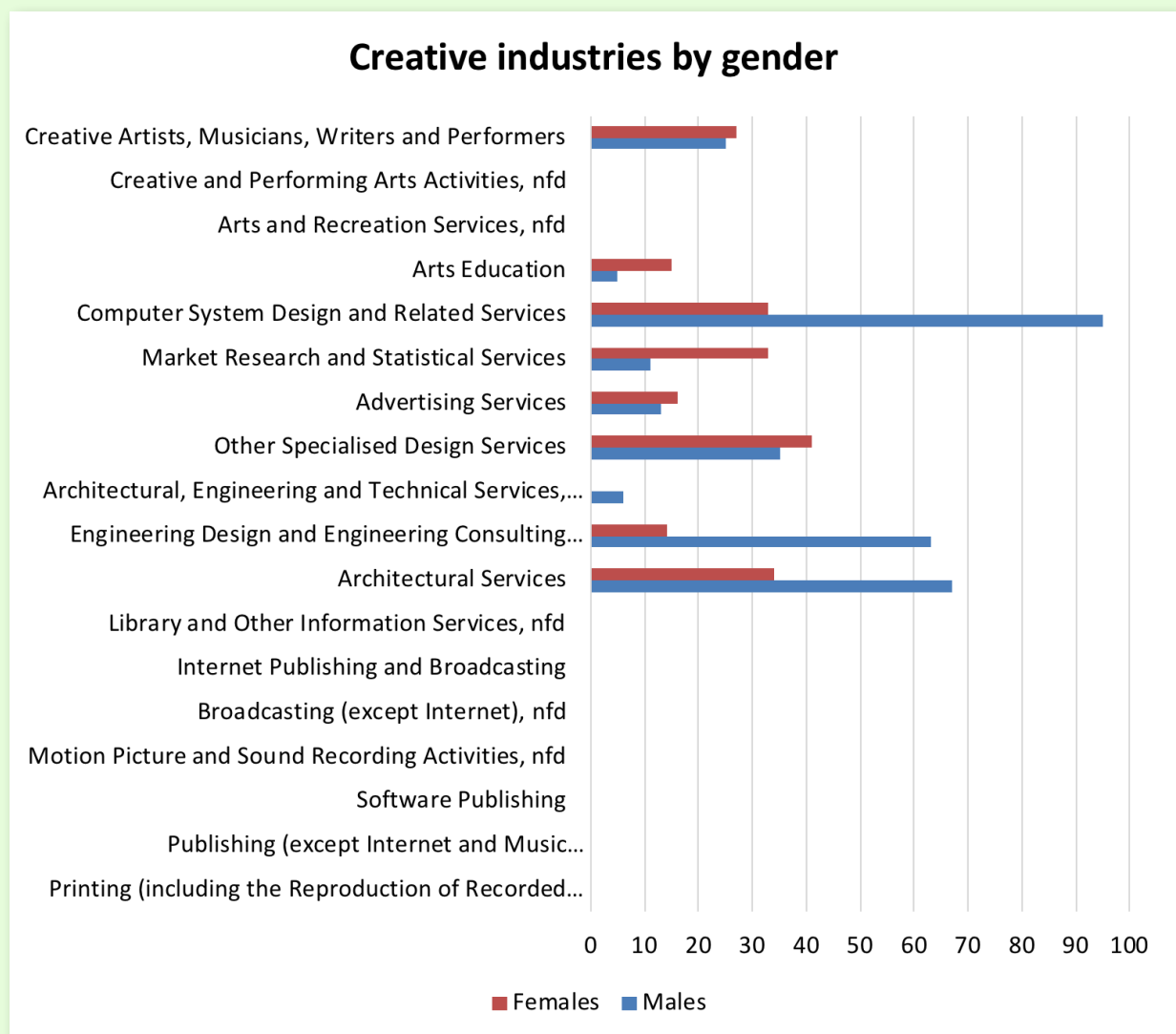


Chart 32 – Creative Industry sectors by gender Surf Coast Shire 2016

The following charts show demographic data for age, occupation, education, hours worked and income.

Age

The table below shows the breakup of those working in the Creative Industries by different age cohorts. Due to the varied nature of sectors within the Creative Industries, it is not surprising that there is a wide spread of age cohorts represented. The only representation in the 10–19

cohort work in the Creative Artists, Musicians, Writers and Performers sector, whereas they are well represented in the Advertising Services and Market Research and Statistical Services sectors. Perhaps this indicates that, in this age cohort, many of their creative pursuits may be achieved through their hobbies whilst they are still studying. There is a wide spread of ages working in Architectural and Engineering sectors, as well as in design, market research and computer design areas.

Industry sector	10–19 years	20– 29 years	30–39 years	40– 49 years	50– 59 years	60– 69 years	70– 79 years	80– 89 years	90– 99 years
Printing (including the Reproduction of Recorded Media), nfd	0	0	0	0	0	0	0	0	0
Publishing (except Internet and Music Publishing), nfd	0	0	0	0	0	0	0	0	0
Software Publishing	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities, nfd	0	0	0	0	0	0	0	0	0
Broadcasting (except Internet), nfd	0	0	0	0	0	0	0	0	0
Internet Publishing and Broadcasting	0	0	0	0	0	0	0	0	0
Library and Other Information Services, nfd	0	0	0	0	0	0	0	0	0
Architectural Services	0	6	21	35	23	7	4	0	0
Engineering Design and Engineering Consulting Services	0	7	17	18	17	9	4	0	0
Architectural, Engineering and Technical Services, nfd	0	0	0	6	4	0	0	0	0
Other Specialised Design Services	0	7	30	22	9	3	0	0	0
Advertising Services	3	3	6	14	5	0	0	0	0
Market Research and Statistical Services	3	0	10	18	12	10	0	0	0
Computer System Design and Related Services	0	3	29	57	23	13	0	0	0
Arts Education	0	4	6	3	6	5	3	0	0
Arts and Recreation Services, nfd	0	0	0	0	0	0	0	0	0
Creative and Performing Arts Activities, nfd	0	0	0	0	0	0	0	0	0
Creative Artists, Musicians, Writers and Performers	0	8	13	16	12	9	0	0	0
Total	4	12	14	26	21	23	7	0	0

Table 38 – G21 Creative Industries by age Surf Coast Shire 2016

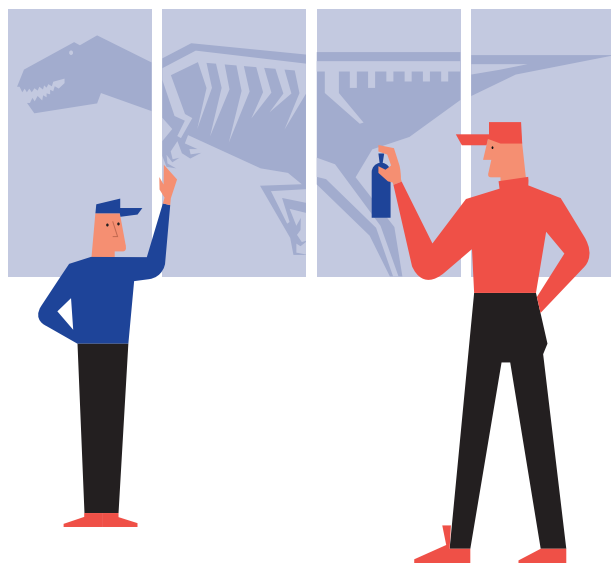
Occupation

With regard to the occupational areas in which those people work, the charts below show that not all people working within the Creative Industries are necessarily working in creative occupations. Rather, the data demonstrates the diverse nature of work within these sectors, including occupations which would not normally be associated with creative work, such as labouring, sales, and trades work. The following table shows the changes in industry sector by occupation between the 2011 and 2016 Census collections.

Managers	Professionals	Technicians and Trades Workers	Community and Personal Service Workers	Clerical and Administrative Workers	Sales Workers	Machinery Operators and Drivers	Labourers
2016: 74	289	86	0	65	15	0	5
2011: 50	230	68	0	9	56	0	10

Table 39 – Changes in industry sector by occupation Surf Coast Shire 2011–2016

Conversely, not all creative occupations sit within the creative industries sectors. Many medium to large organisations, regardless of industry sector, have ICT employees; and unlikely sectors, such as the automotive industry employ designers. In the Surf Coast Shire, the numbers working in creative occupations, in any industry, between the 2011 and 2016 Census collections have risen from 818 to 1,081, and increase of 32.2%.



Education

Of the 539 respondents who indicated that they work in the Creative Industries in the Surf Coast Shire, 426, or 79%, stated that they hold some form of post-secondary qualification (up from 328 in 2011). It is not surprising that the percentage is so high as many of the Creative industry sectors sit within the Professional, Scientific and Technical, Computer Systems Design, marketing, advertising and education areas. The table below shows the spread of qualifications by industry sector.

Industry sector	Doctor	Master Degree	Grad Dip	Grad Cert	Bach Degree	Adv Dip & Assoc Degree	Dip	Cert III & IV	Cert I & II
Printing (including the Reproduction of Recorded Media), nfd	0	0	0	0	0	0	0	0	0
Publishing (except Internet and Music Publishing), nfd	0	0	0	0	0	0	0	0	0
Software Publishing	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities, nfd	0	0	0	0	0	0	0	0	0
Broadcasting (except Internet), nfd	0	0	0	0	0	0	0	0	0
Internet Publishing and Broadcasting	0	0	0	0	0	0	0	0	0
Library and Other Information Services, nfd	0	0	0	0	0	0	0	0	0
Architectural Services	0	0	0	0	4	0	4	0	0
Engineering Design and Engineering Consulting Services	0	0	0	0	3	0	0	0	0
Architectural, Engineering and Technical Services, nfd	0	0	0	0	0	0	0	0	0
Other Specialised Design Services	0	0	0	0	5	0	0	0	0
Advertising Services	0	0	0	0	0	0	0	0	0
Market Research and Statistical Services	0	0	5	0	3	0	0	5	0
Computer System Design and Related Services	0	0	0	0	0	3	0	6	0
Arts Education	0	0	0	0	0	3	0	0	0
Arts and Recreation Services, nfd	0	0	0	0	0	0	0	0	0
Creative and Performing Arts Activities, nfd	0	0	0	0	0	0	0	0	0
Creative Artists, Musicians, Writers and Performers	0	0	0	0	4	0	0	0	0
Total	0	9	8	0	28	6	0	18	0

Table 40 – Numbers with post-secondary qualifications Surf Coast Shire 2016

Hours Worked

There is a spread of responses with regard to the number of hours worked. Those who indicated that they worked more than 49 hours per week worked mainly in the Engineering Design and Engineering Consulting Service; Architectural Services and Computer System Design and Related Services. These people may quite likely be owner/operators. Those who worked 1–15 hours per week were most highly represented in the Arts Education; Creative Artists, Musicians, Writers and Performers; and Advertising Services sectors. Interestingly, there was also high representation in this group by those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Service Services. These people may be freelancing or only interested in part-time work.

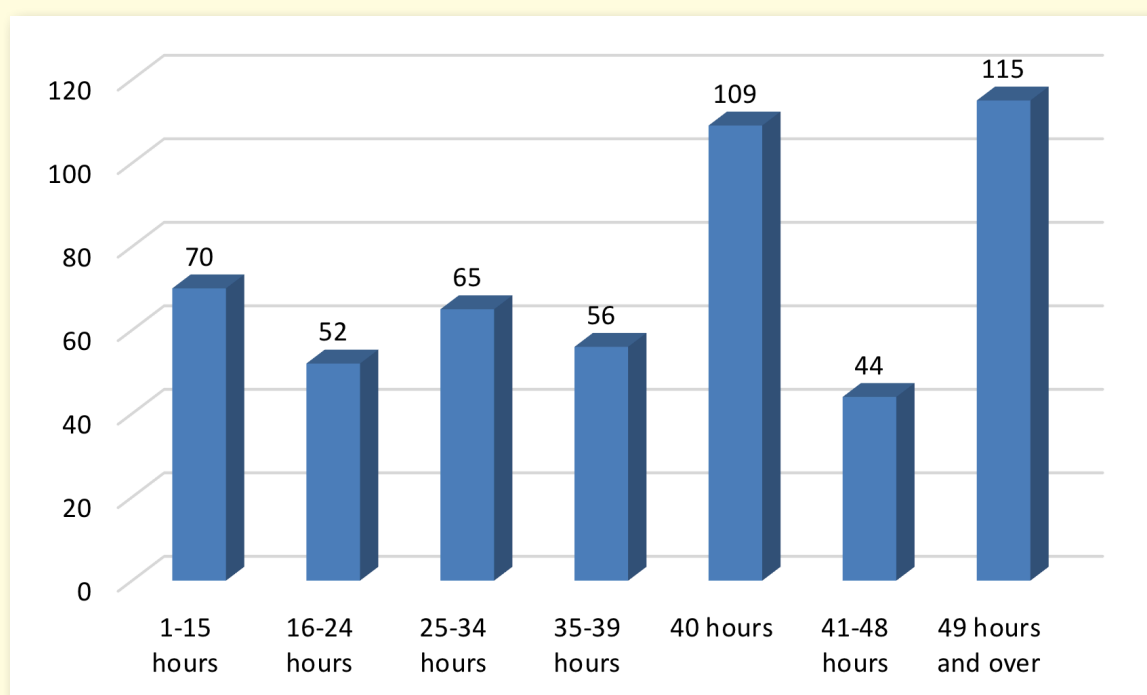


Chart 33 – Hours worked Surf Coast Shire 2016

Income

As can be seen from the chart below, there is a spread of weekly income levels. Not surprisingly, those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Services are most highly represented at the highest income levels, whilst those working in Market Research and Statistical Services and Arts Education are at the lowest levels. This may be in part due to the part-time nature of some of this work.

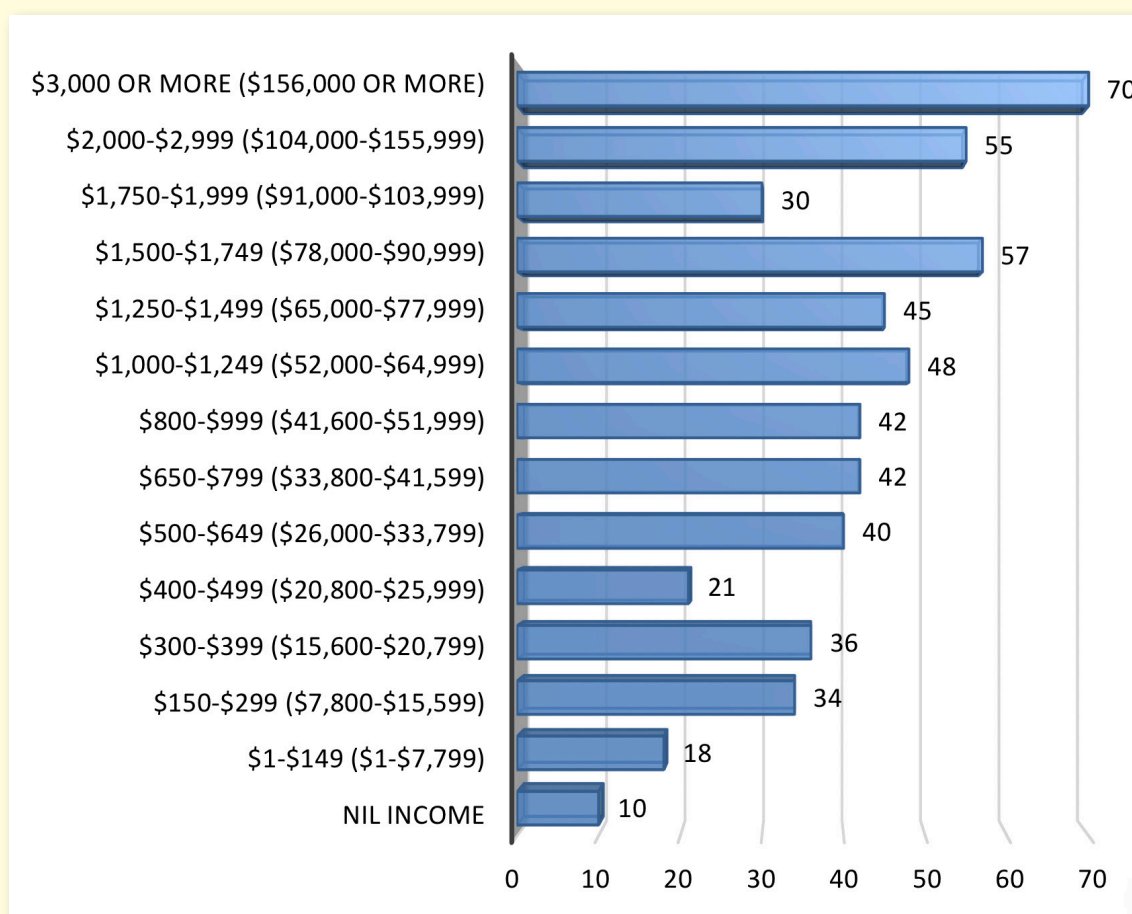


Chart 34 – Weekly income levels Surf Coast Shire 2016

Appendix 8 – REMPLAN and Census data for Borough of Queenscliffe

Economic data

Unfortunately, the Borough of Queenscliffe does not subscribe to REMPLAN. Therefore the economic data provided in this section of the report has been extrapolated by subtracting the totals of each of the other four regional municipalities from the overall G21 Region total. As a result, only the total estimates for each category are included here rather than the specific industry category tables which have been provided for the rest of the LGA's. As also mentioned previously in this report, the export estimate for the Borough

of Queenscliffe cannot be provided in this Appendix.

According to REMPLAN, the total output estimate for the Borough of Queenscliffe in 2017 is \$343,184 million⁹¹. In 2017, the Creative Industries sectors contributed \$23,294 million, or 6.8% (compared to 5.9% for the overall region) to the overall regional output.

The total employment estimate for the Borough of Queenscliffe in 2017 is 1,335 jobs⁹². The Creative Industries sectors

contribute 113 jobs, or 8.5% (compared to 7.3% for the overall region) of employment, to the overall regional employment.

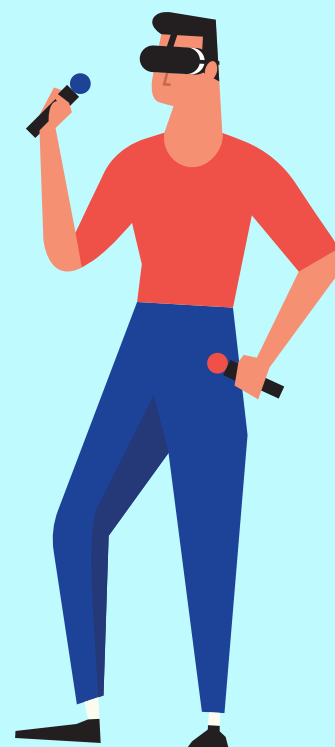
The total wages and salaries estimate for the Borough of Queenscliffe in 2017 is \$98,980 million. The Creative Industries sectors contribute \$6,271 million or 6.3% (compared to 7.5% for the overall region) to overall regional wages and salaries.

Labour Force Data

As stated earlier, the REMPLAN labour force data is taken from the 2016 Census and compared with data reported in the 2011 Census. As a result, this section will take data directly from the ABS Census site as this will allow a much more accurate dissection of the industry categories to truly reflect the composition of the creative industries within the G21 Region.

The chart below shows the various sectors of the industry in which males and females work. Overall, 39 individuals indicated that they live in the municipality and work in a

Creative industry sector. A number of these people may work outside the region. The industry is dominated by males (23 males vs. 16 females). This compares to 32 males vs. 17 females in 2011, showing an overall decline of 20.4% (the only LGA to show a decline) which may be due to the fact that the Borough contains an older demographic who may be less inclined to have a technology career. It will be interesting to see how the numbers employed in different sectors changes over time with the introduction of new technologies and work practices.



⁹¹ REMPLAN defines "Output data" as 'the gross revenue generated by businesses/organisations in each of the industry sectors in a defined region. Gross revenue is also referred to as total sales or total income'.

⁹² Employment data represents the number of people employed by businesses / organisations in each of the industry sectors in a defined region. Employment data presented by REMPLAN Economy is destination of work data. That is, no inference is made as to where people in a defined region reside. This employment represents total numbers of employees without any conversions to full-time equivalence. Retail jobs for instance represent typical employment profiles for that sector, i.e. some full time, some part time and some casual.

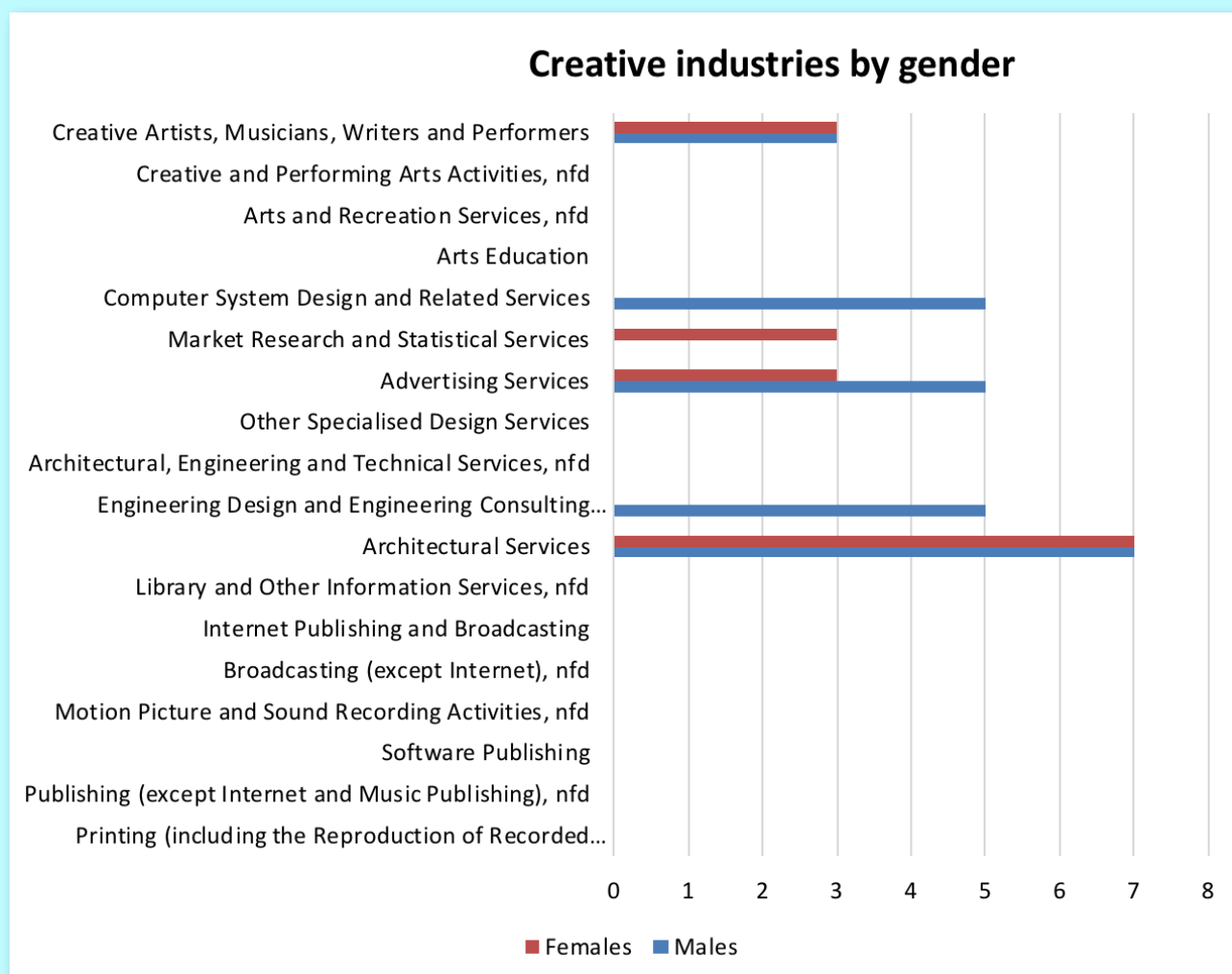


Chart 35 – Creative Industry sectors by gender
Borough of Queenscliffe 2016

The following charts show demographic data for age, occupation, education, hours worked and income.

Age

The table below shows the breakup of those working in the Creative Industries by different age cohorts. The only sectors which are represented

include Architectural Services, Other Specialised Design Services, Advertising Services, Market Research and Statistical Services, Computer System Design and Related Services and Creative Artists, Musicians, Writers and Performers.

Industry sector	10–19 years	20– 29 years	30–39 years	40– 49 years	50– 59 years	60– 69 years	70–79 years	80– 89 years	90– 99 years
Printing (including the Reproduction of Recorded Media), nfd	0	0	0	0	0	0	0	0	0
Publishing (except Internet and Music Publishing), nfd	0	0	0	0	0	0	0	0	0
Software Publishing	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities, nfd	0	0	0	0	0	0	0	0	0
Broadcasting (except Internet), nfd	0	0	0	0	0	0	0	0	0
Internet Publishing and Broadcasting	0	0	0	0	0	0	0	0	0
Library and Other Information Services, nfd	0	0	0	0	0	0	0	0	0
Architectural Services	0	0	3	0	0	0	0	0	0
Engineering Design and Engineering Consulting Services	0	0	0	0	0	0	0	0	0
Architectural, Engineering and Technical Services, nfd	0	0	0	0	0	0	0	0	0
Other Specialised Design Services	0	0	0	5	5	0	0	0	0
Advertising Services	3	0	0	0	5	0	0	0	0
Market Research and Statistical Services	3	0	0	4	0	0	0	0	0
Computer System Design and Related Services	0	0	0	4	3	0	0	0	0
Arts Education	0	0	0	0	0	0	0	0	0
Arts and Recreation Services, nfd	0	0	0	0	0	0	0	0	0
Creative and Performing Arts Activities, nfd	0	0	0	0	0	0	0	0	0
Creative Artists, Musicians, Writers and Performers	0	0	0	0	0	0	0	0	0

Table 41 – G21 Creative Industries by age Borough of Queenscliffe 2016

Occupation

With regard to the occupational areas in which those people work, the table below shows that not all people working within the Creative Industries are necessarily working in creative occupations. Rather, the data demonstrates the diverse nature of work within these sectors, including occupations which would not normally be associated with creative work, such as labouring, sales, and trades work. The following table shows the changes in industry sector by occupation between the 2011 and 2016 Census collections.



Managers	Professionals	Technicians and Trades Workers	Community and Personal Service Workers	Clerical and Administrative Workers	Sales Workers	Machinery Operators and Drivers	Labourers
2016: 3	31	5	0	5	0	0	0
2011: 5	29	7	0	0	13	0	0

Table 42 – Changes in industry sector by occupation Borough of Queenscliffe 2011–2016

Conversely, not all creative occupations sit within the creative industries sectors. Many medium to large organisations, regardless of industry sector, have ICT employees; and unlikely sectors, such as the automotive industry employ designers. In the Borough of Queenscliffe, the numbers working in creative occupations, in any industry, between the 2011 and 2016 Census collections have risen from 59 to 79, an increase of 33.9%.

Education

Of the 39 respondents who indicated that they work in the Creative Industries in the Borough of Queenscliffe, 26, or 66.7%, stated that they hold some form of post-secondary qualification (down from 40 in 2011). It is not surprising that the percentage is so high as many of the Creative

industry sectors sit within the Professional, Scientific and Technical, Computer Systems Design, marketing, advertising and education areas. The table below shows the spread of qualifications by industry sector.

Industry sector	Doctoral Degree	Master Degree	Grad Dip	Grad Cert	Bach Degree	Adv Dip & Assoc Degree	Dip	Cert III & IV	Cert I & II
Printing (including the Reproduction of Recorded Media), nfd	0	0	0	0	0	0	0	0	0
Publishing (except Internet and Music Publishing), nfd	0	0	0	0	0	0	0	0	0
Software Publishing	0	0	0	0	0	0	0	0	0
Motion Picture and Sound Recording Activities, nfd	0	0	0	0	0	0	0	0	0
Broadcasting (except Internet), nfd	0	0	0	0	0	0	0	0	0
Internet Publishing and Broadcasting	0	0	0	0	0	0	0	0	0
Library and Other Information Services, nfd	0	0	0	0	0	0	0	0	0
Architectural Services	0	0	0	0	3	6	4	0	0
Engineering Design and Engineering Consulting Services	0	0	0	0	0	0	0	0	0
Architectural, Engineering and Technical Services, nfd	0	0	0	0	0	0	0	0	0
Other Specialised Design Services	0	0	0	0	0	0	0	0	0
Advertising Services	0	0	0	0	3	0	0	0	0
Market Research and Statistical Services	0	0	0	0	4	0	0	5	0
Computer System Design and Related Services	0	0	0	0	3	0	0	6	0
Arts Education	0	0	0	0	0	0	0	0	0
Arts and Recreation Services, nfd	0	0	0	0	0	0	0	0	0
Creative and Performing Arts Activities, nfd	0	0	0	0	0	0	0	0	0
Creative Artists, Musicians, Writers and Performers	0	0	0	0	0	0	0	0	0

Table 43 – Numbers with post-secondary qualifications Borough of Queenscliffe 2016

Hours Worked

There is a spread of responses with regard to the number of hours worked. Those who indicated that they worked more than 49 hours per week worked mainly in the Engineering Design and Engineering Consulting Service; Architectural Services and Computer System Design and Related Services. These people may quite likely be owner/operators. Those who worked 1–15 hours per week were most highly represented in the Arts Education; Creative Artists, Musicians, Writers and Performers; and Advertising Services sectors. Interestingly, there was also high representation in this group by those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Services. These people may be freelancing or only interested in part-time work.

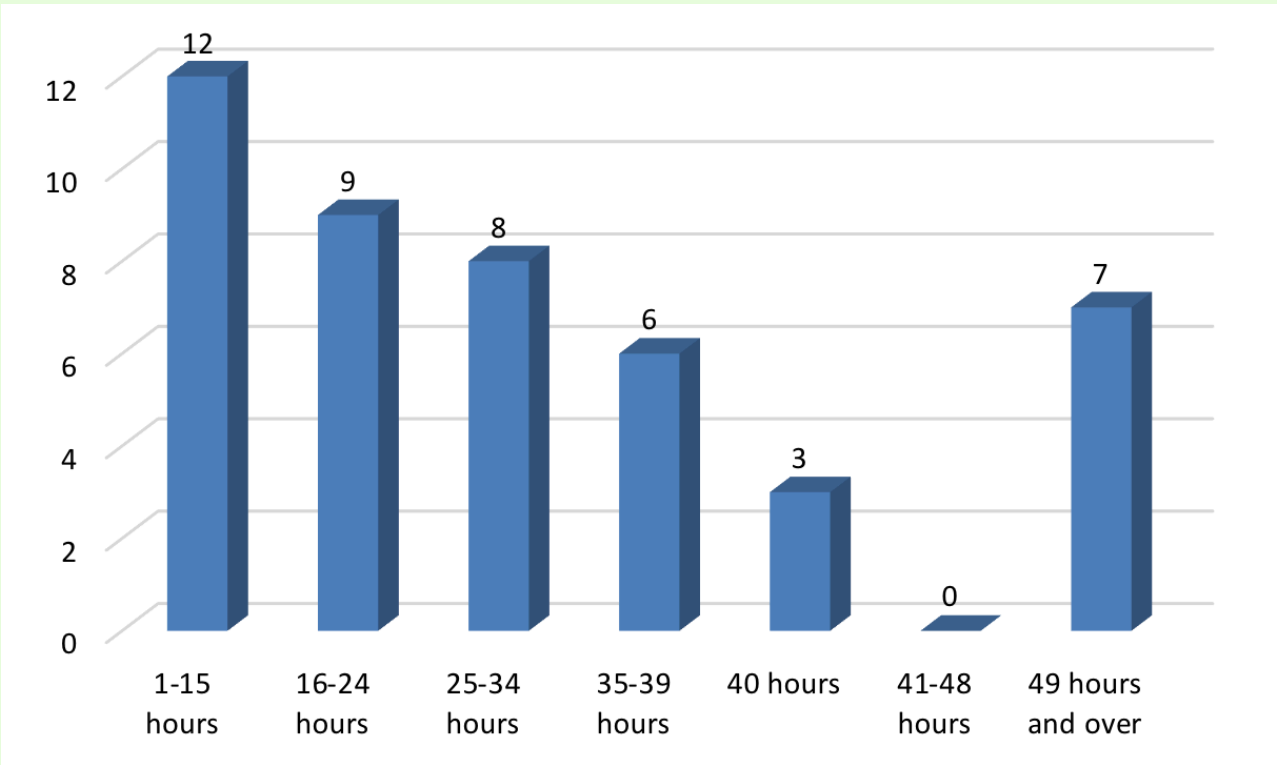


Chart 36 – Hours worked Borough of Queenscliffe 2016

Income

As can be seen from the chart below, there is a spread of weekly income levels. Not surprisingly, those working in the Engineering Design and Engineering Consulting Service; and Computer System Design and Related Services are most highly represented at the highest income levels, whilst those working in Market Research and Statistical Services and Arts Education are at the lowest levels. This may be in part due to the part-time nature of some of this work.



Chart 37 – Weekly income levels