Regional chapter from the Creative Industries Environmental Scan

Developed by the GRLLEN & Creative Geelong Inc.

The 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.

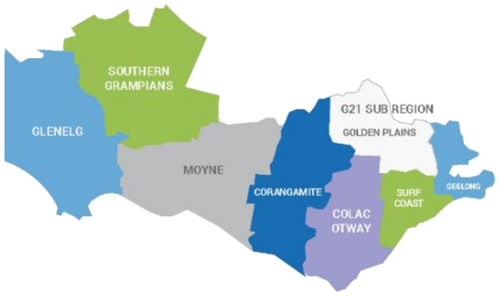

Figure 1 - Barwon South West Region

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"[1].

In 2013, Essential Economics Pty. Ltd. was contracted by Jennifer Cromarty, Socom Pty Ltd via funding from 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 is not included in the report, so the Barwon South West data presented here excludes the Geelong information.

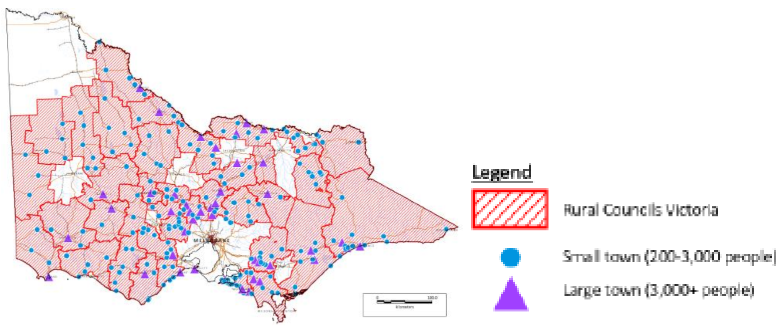

Figure 2 - Rural locations covered by Essential Economics[2]

[1] http://www.rdv.vic.gov.au/victorian-regions/barwon-south-west
[2] 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 (eg 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)"[3].

The definition used by Essential Economics identifies 54 occupations which they classify as "creative" occupations. The definition used in this report aligns with international and Australian descriptions, and only includes 40 occupations, excluding some of the scientific categories, as well as occupations such as town planners and civil engineers. The occupations which are identified as "creative" in this report can be found later in this chapter.

The data provided by Essential Economics 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 has been calculated.

[3] ibid, p. 1

Location	Number of creative businesses[4]	Share of total businesses	Highest proportion of residents working in Creative industries[5]	Deficit of creative jobs[6]	Surplus of creative jobs[7]	Highest proportions of creative workers[8]	Surplus of employment in creative occupations[9]
Queenscliffe	78	18.1%	3.5%				
Torquay	261	17.6%	3.9%			4.8%	
Lorne-Anglesea	65	10.5%	2.7%			3.2%	
Winchelsea	85	9.8%		-70%		2.7%	
Bannockburn				-83% (-64 jobs)		2.2%	
Colac					+24% (+27 jobs)		
Corangamite North					+24%		
Otway						2.4%	
Camperdown							+78% (+31 jobs)
Hamilton							+46% (+75 jobs)
Portland							+40% (+37 jobs)

Table 1 - Barwon South West data on creative industries

[4] Ibid, p. 23
[5] Ibid, p. 24
[6] Ibid, p. 30
[7] Ibid, p. 30
[8] Ibid, p. 32
[9] Ibid, p. 35

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.

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

Surf Coast	**28**	**352**	**49**	**429**
Colac	3	41	11	**55**
Colac Region	3	22	5	**30**
Colac Otway	**6**	**63**	**16**	**85**
Total	**284**	**4,410**	**558**	**5,252**

Table 2 - ABS Business Count by location of business registration[10]

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 and this has enabled analysis to determine the overall data for the G21 Region, as well as the individual data for each of the five municipalities which make up the region.

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 Census Journey To Work Employment
- ABS 2012 / 2013 National Input Output Tables
- ABS June 2014 Gross State Product

As can be seen, much of the REMPLAN data used in this report is now getting dated, particularly that information based on the 2011 Census. The intent is to update these Scans after the 2016 Census data is released in mid-2017.

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 in the Appendices.

Economic data

According to REMPLAN, the total output estimate for the G21 Region is $29.609,251 billion[11]. 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 regional economy. Data relating to Professional, Scientific & Technical Services; Art, Sports, Adult, Community & Other Education; and Library & Other Information Services will be particularly problematic due

[10] 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

[11] 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'.

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.

The Creative Industries sectors contribute $1.631,215 billion or 5.5% to the overall regional output as follows:

Professional, Scientific & Technical Services	$1,033.529	3.5%
Publishing (except Internet & Music Publishing)	$169.695	0.6%
Computer Systems Design & Related Services	$150.993	0.5%
Motion Picture & Sound Recording	$60.632	0.2%
Arts, Sports, Adult, Community & Other Education	$53.458	0.2%
Broadcasting (except Internet)	$44.720	0.2%
Heritage, Creative & Performing Arts	$42.159	0.1%
Printing (inc. reproduction of recorded media)	$39.818	0.1%
Internet Publishing, Broadcast, Websearch & Data Services	$21.688	0.1%
Library & Other Information Services	$14.523	0.0%

Table 3 - Output estimate for the G21 Region

The total regional export estimate for G21 Region is $8.811,436 billion[12]. The Creative Industries sectors contributes $150,579,000 (or $150.579 Million) or 1.7% to the overall regional export estimate as follows:

Professional, Scientific & Technical Services	$83.735	1.0%
Publishing (except Internet & Music Publishing)	$40.149	0.5%

[12] 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.

Motion Picture & Sound Recording	$8.781	0.1%
Computer Systems Design & Related Services	$5.734	0.1%
Arts, Sports, Adult, Community & Other Education	$3.355	0.0%
Library & Other Information Services	$2.922	0.0%
Printing (inc. reproduction of recorded media)	$2.610	0.0%
Internet Publishing, Broadcast, Websearch & Data Services	$1.869	0.0%
Heritage, Creative & Performing Arts	$0.804	0.0%
Broadcasting (except Internet)	$0.620	0.0%

Table 4 - Export estimate for the G21 Region (in $ million?)

The total employment estimate for G21 Region is 98,003 jobs[13]. The Creative Industries sectors contribute 7,839 jobs, or 8% of employment, to the overall regional employment as follows:

Professional, Scientific & Technical Services	4,253	4.3%
Arts, Sports, Adult, Community & Other Education	840	0.9%
Computer Systems Design & Related Services	523	0.5%
Heritage, Creative & Performing Arts	382	0.4%
Publishing (except Internet & Music Publishing)	369	0.4%
Printing (inc. reproduction of recorded media)	222	0.2%
Motion Picture & Sound Recording	175	0.2%

[13] 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.

Library & Other Information Services	125	0.0%
Broadcasting (except Internet)	97	0.1%
Internet Publishing, Broadcast, Websearch & Data Services	33	0.0%

Table 5 - Employment estimate for the G21 Region

The total wages and salaries estimate for G21 Region is $6.551,054 billion. The Creative Industries sectors contribute $488,419,000 (or $488.419 million) or 7.5% to overall regional wages and salaries as follows:

Professional, Scientific & Technical Services	$329.286	5.0%
Computer Systems Design & Related Services	$57.279	0.9%
Publishing (except Internet & Music Publishing)	$34.448	0.5%
Arts, Sports, Adult, Community & Other Education	$21.072	0.3%
Motion Picture & Sound Recording	$11.851	0.2%
Printing (inc. reproduction of recorded media)	$10.925	0.2%
Heritage, Creative & Performing Arts	$8.663	0.1%
Broadcasting (except Internet)	$7.106	0.1%
Library & Other Information Services	$4.250	0.1%
Internet Publishing, Broadcast, Websearch & Data Services	$3.539	0.1%

Table 6 - Wages & salaries estimate for the G21 Region

REMPLAN 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, the Arts and Recreation sector is a propulsive industry due to its backwards linkages. REMPLAN defines "backward linkages" as "Per dollar of output, the value of intermediate goods and services purchased by an industry sector from other local industry sectors. i.e. per dollar earned, how many cents were spent buying goods and services from other local industry sectors?".

Labour force data

As stated earlier, the REMPLAN labour force data is taken from the 2011 Census. As a result, this section will take data directly from the 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.

Since the 2011 Census, there have been significant changes to some parts of the regional labour market, with 3,196 individuals indicating that they worked in the Creative Industries. The intent is to provide data here which can be used for comparative purposes after the 2016 Census data is released in mid-2017.

The chart below shows the various sectors of the industry in which males and females work. The industry is dominated by males (2,082 males vs. 1,114 females). By far the largest number of males work in the Computer Systems Design & Related Services and Engineering Design and Engineering Consulting Services sector. 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 well as being influenced by strategies and actions designed to positively encourage more females into technology roles and pathways to work.

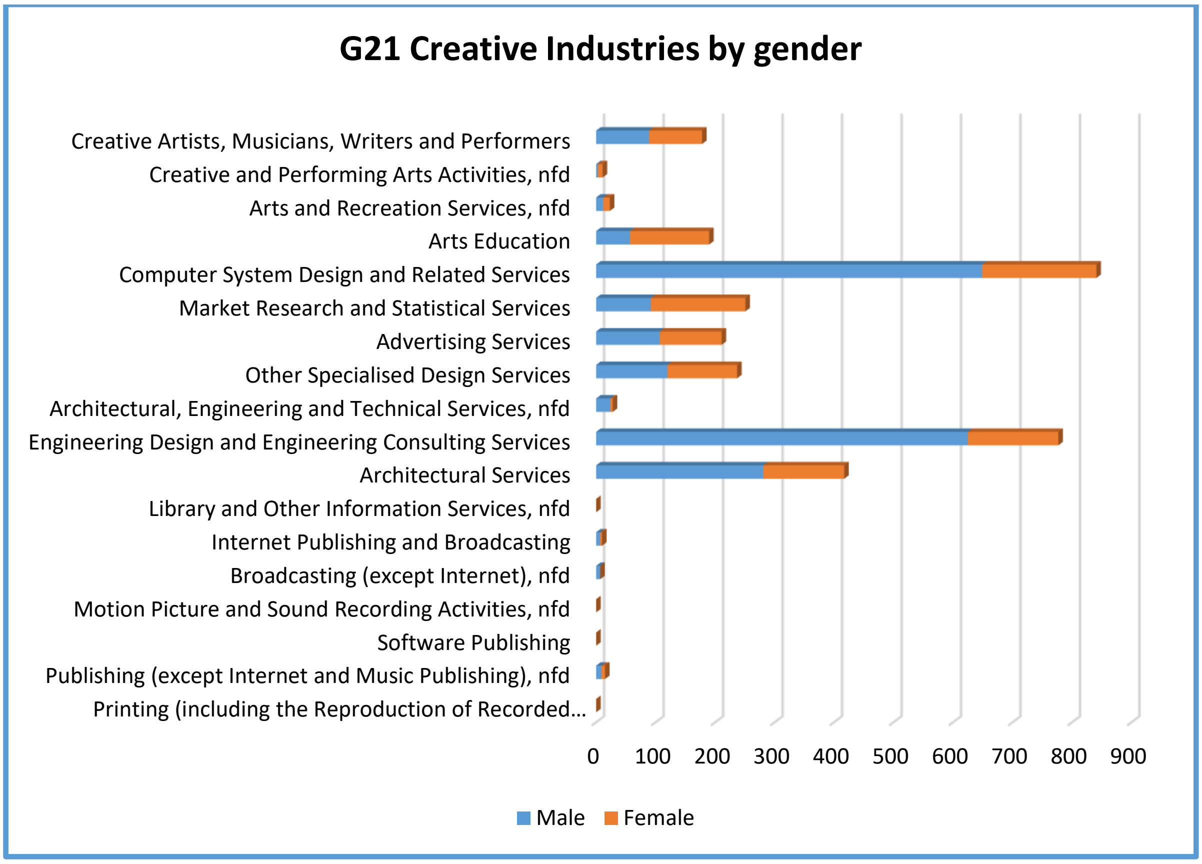

Chart 1 – Creative Industry sectors by gender

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

Age

The chart 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. As would be expected, the computer systems design sector is dominated by younger people.

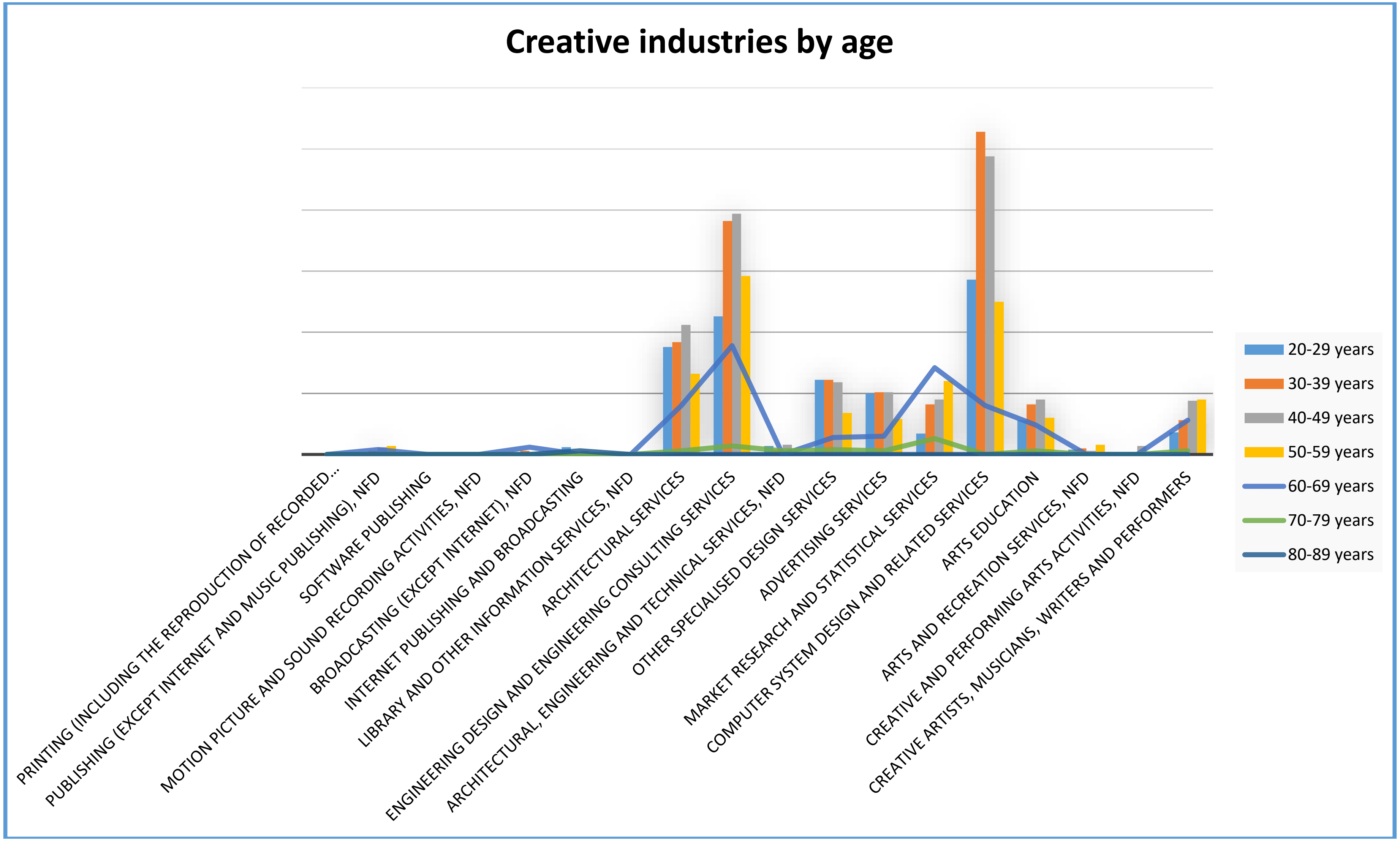

Chart 2 - Creative Industries sectors by age

Occupation

With regard to the occupational areas in which those people work, the chart 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.

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. 210 creative workers reside on Colac-Otway Shire, 289 in Golden Plains, 4,314 in the City of Greater Geelong, 59 in the Borough of Queenscliffe, and 818 in Surf Coast Shire.

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.

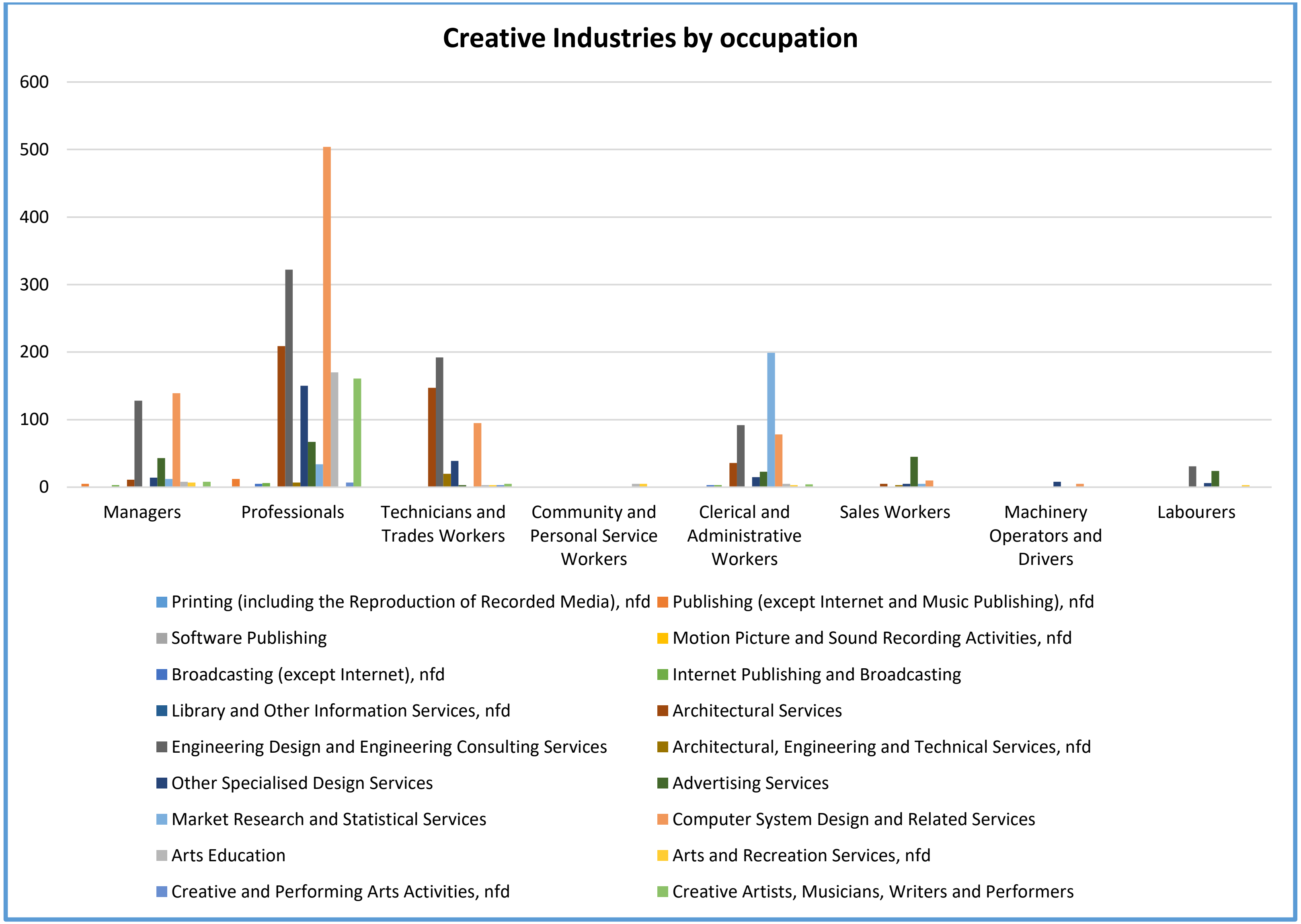

Chart 3 - Males and females living and working in the G21 Region by occupation

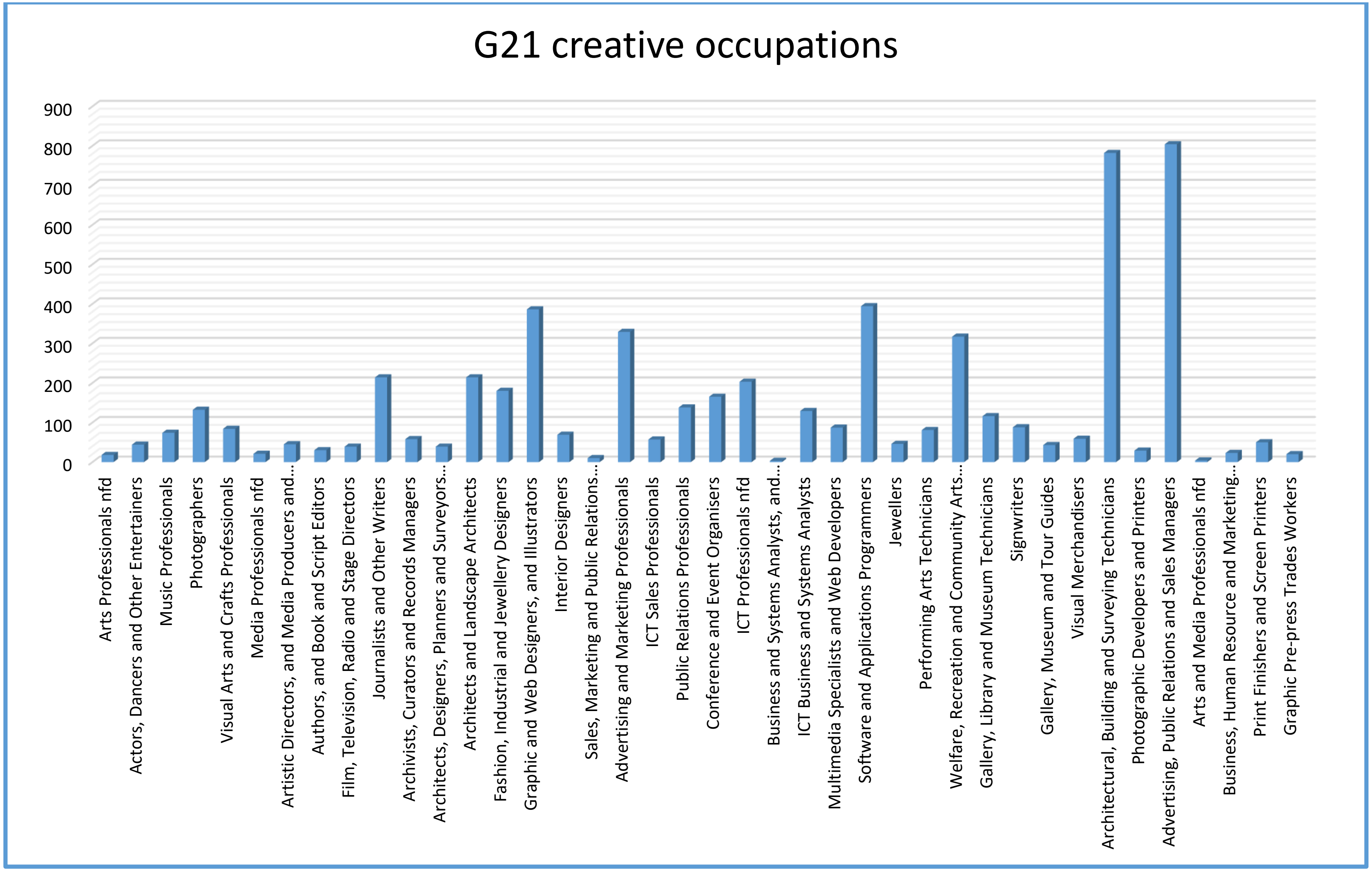

Chart 4 - G21 creative occupations

Education

Of the3,196 respondents who indicated that they work in the Creative Industries in the G21 Region, 2,344 stated that they hold some form of post-secondary qualification. The table below shows the spread of qualifications.

Doctoral degree	30
Master degree	168
Graduate Diploma	68
Graduate Certificate	8
Bachelor degree	1,113
Advanced Diploma	272
Diploma	286
Certificate IV	112
Certificate III	271
Certificate II	16

Table 7 - Numbers with post-secondary qualifications

As can be seen from the chart below, 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. The spread of actual qualifications is shown in the chart on the following page.

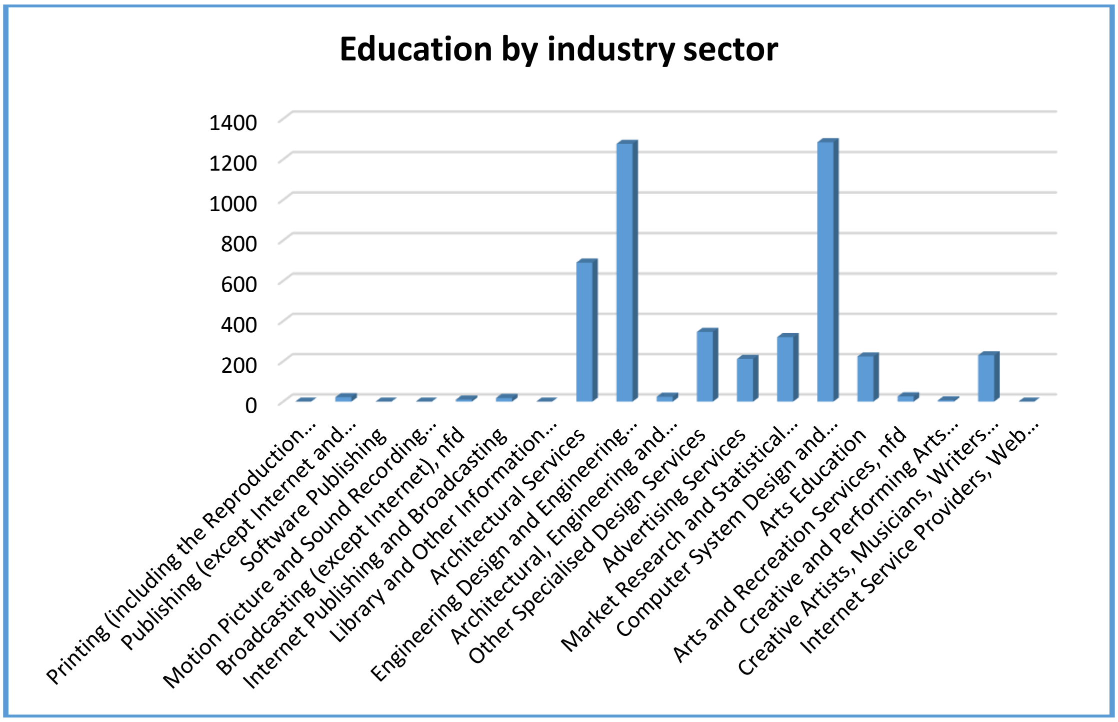

Chart 5 - Post-secondary qualifications by industry sector

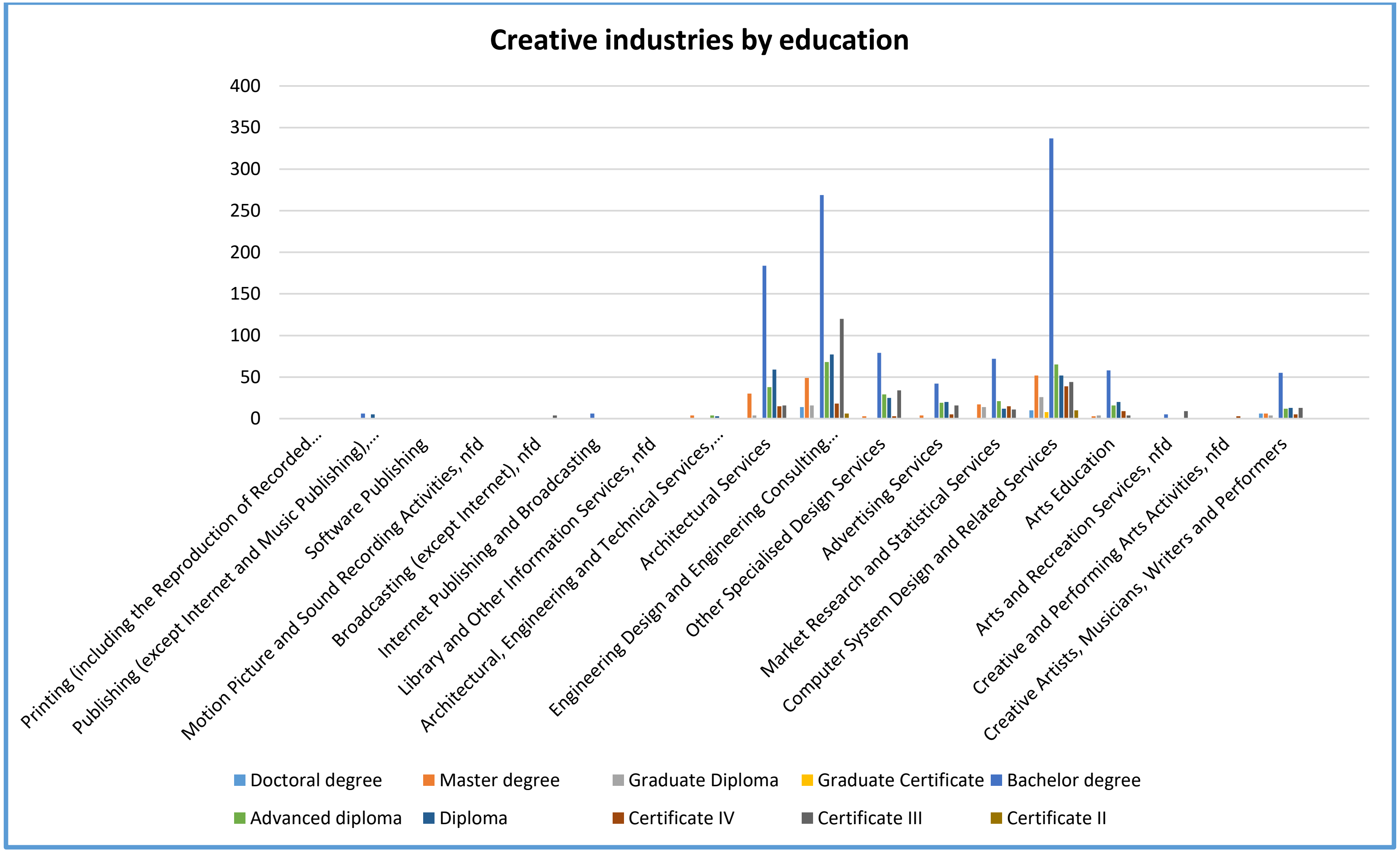

Chart 6 - Creative industries by education

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; 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.

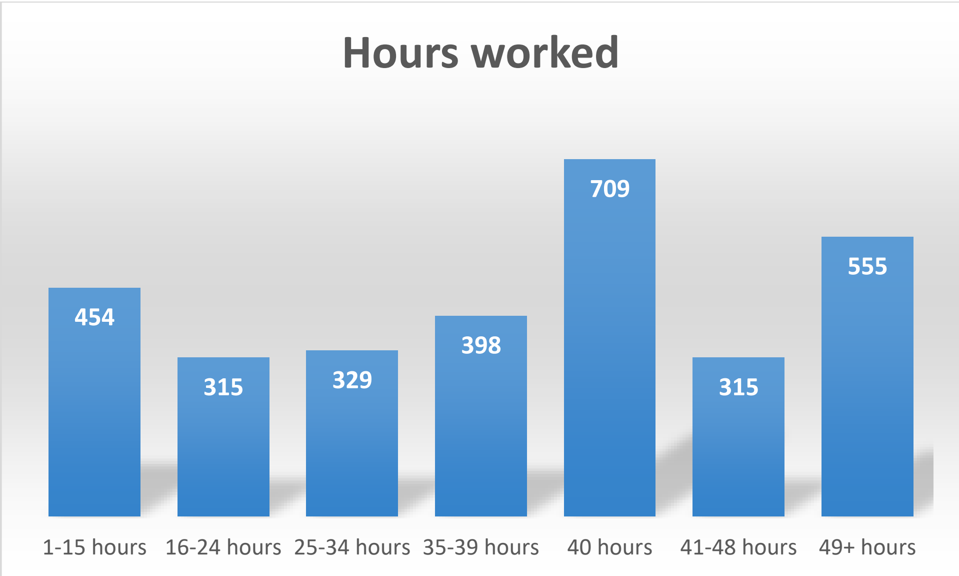

Chart 7 - Hours worked

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.

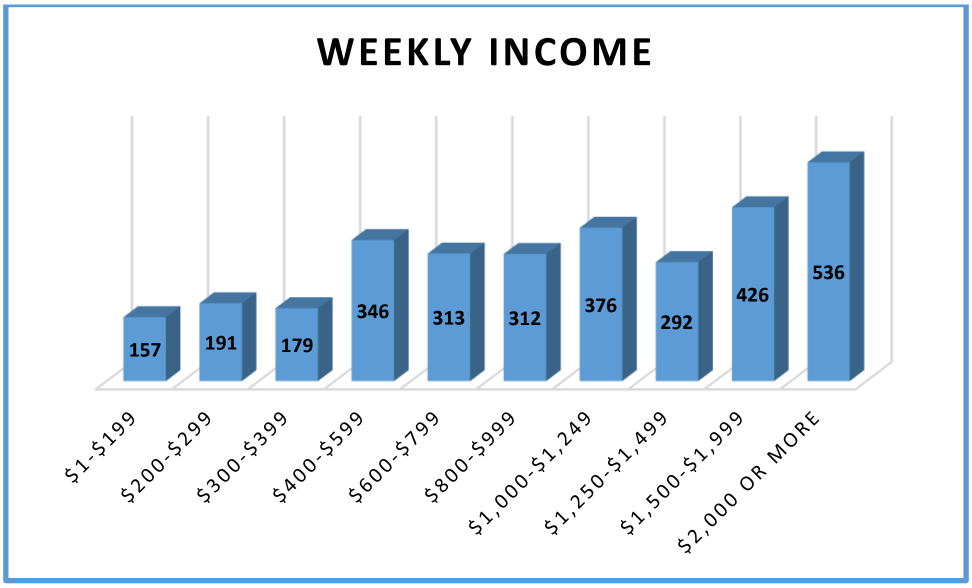

Chart 8 – Weekly income levels

Job creation

REMPLAN 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[14]
2. Impact on employment
3. Impact on wages and salaries
4. 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 of 10 jobs in the creative industries sector, 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 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.

[14] 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.

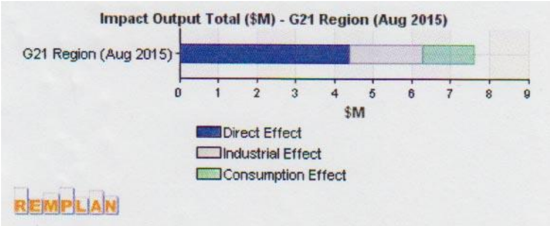

Chart 9 - 10 jobs - impact output total

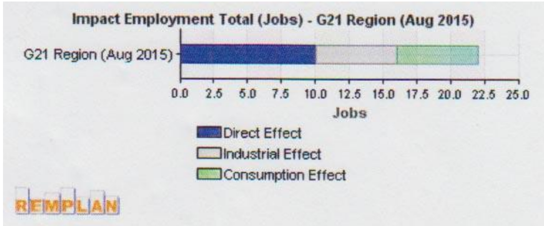

Chart 10 - 10 jobs - impact employment

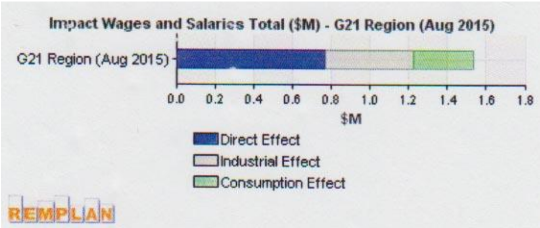

Chart 11 - 10 jobs - impact wages & salaries

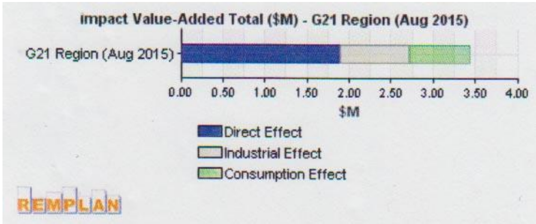

Chart 12 - 10 jobs - impact value-added

As can be seen, the impact of new jobs can be quite significant. In this case, the creation of ten new direct jobs brings a total of $3.429 million and an overall increase of 22 jobs.

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 thirteen jobs, whilst ten extra jobs are expected to be created to service the increased consumption. The total estimated value-added is $6.859 million.

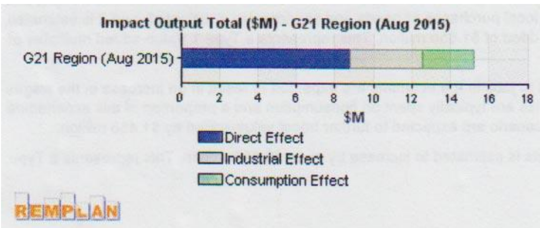

Chart 13 - 20 jobs - impact output total

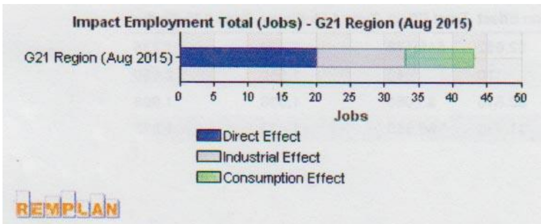

Chart 14 - 20 jobs - impact employment

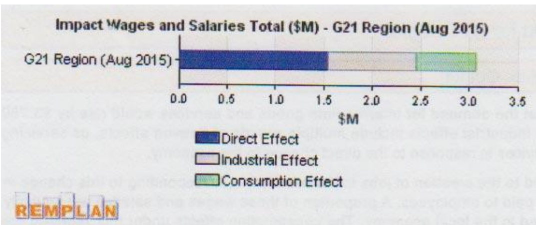

Chart 15 - 20 jobs - impact wages & salaries

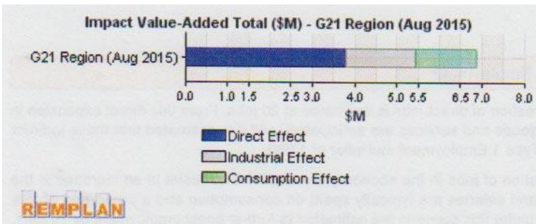

Chart 16 - 20 jobs - impact value-added

In this scenario, the creation of twenty new direct jobs brings a total of $6.859 million and an overall increase of 43 jobs.

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.

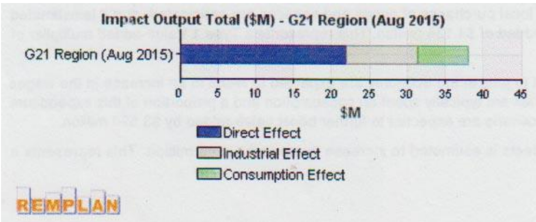

Chart 17 - 50 jobs - impact output total

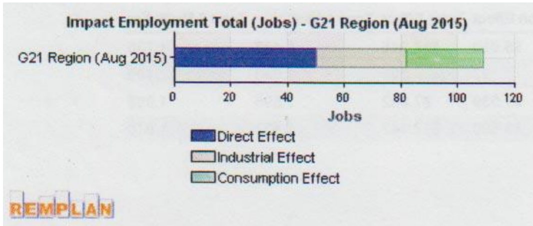

Chart 18 - 50 jobs - impact employment

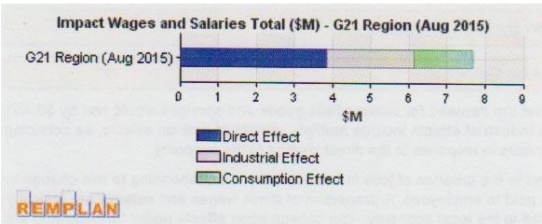

Chart 19 - 50 jobs - impact wages & salaries

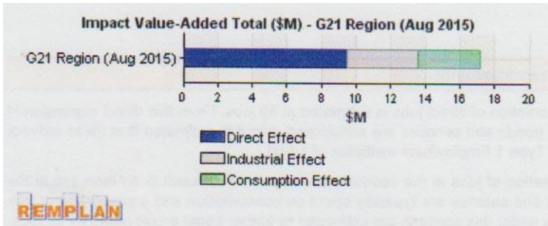

Chart 20 - 50 jobs - impact value-added

In this case, the creation of fifty new direct jobs brings a total of $17.147 million and an overall increase of 109 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.

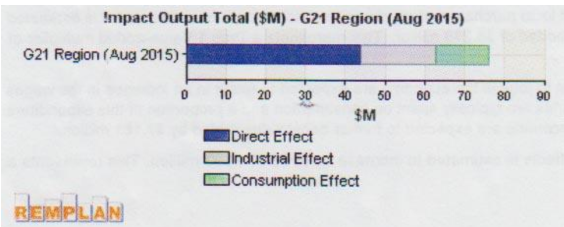

Chart 21 - 100 jobs - impact output total

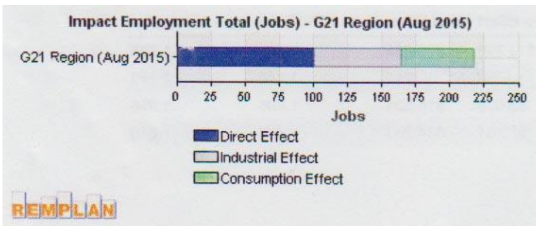

Chart 22 - 100 jobs - impact employment

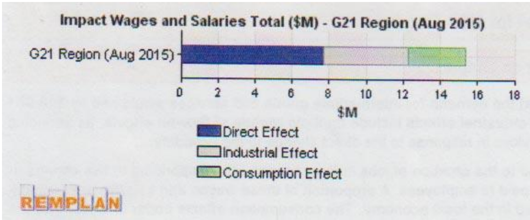

Chart 23 - 100 jobs - impact wages & salaries

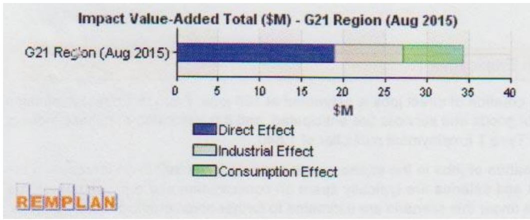

Chart 24 - 100 jobs - impact value-added

In this case, the creation of 100 new direct jobs brings a total of $34.293 million and an overall increase of 217 jobs.

Number of direct jobs created	Total Value Add	Number of indirect jobs created	Total jobs created
10	$3.429 million	12	22
20	$6.859 million	23	43
50	$17.147 million	59	109
100	$34.293 million	117	217

Table 8 - Impact of new job creation - REMPLAN

As can be seen from these charts, 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.