

Industry Snapshot for Auckland: Creative Sector

November 2013

Technical Report 2013/028





Industry Snapshot for Auckland: Creative Sector

November 2013

Technical Report 2013/028

Auckland Council

Technical Report, 2013/028

ISSN 2230-4525 (Print)

ISSN 2230-4533 (Online)

ISBN 978-1-927266-52-6 (Print)

ISBN 978-1-927266-53-3 (PDF)

This report has been peer reviewed by the Peer Review Panel using the Panel's terms of reference

Submitted for review on 5 August 2013
Review completed on 22 November 2013
Reviewed by 2 reviewers

Approved for Auckland Council publication by:



Name: Greg Holland

Position: Manager, Research, Investigations and Monitoring Unit

Date: 22 November 2013

Recommended citation:

Wilson, R (2013). Industry snapshot for Auckland: creative sector. Auckland Council technical report, TR2013/028

Cover image: Friend or Foe sculpture by James Wright, Auckland Botanic Gardens.

Photograph by Luke Harvey.

© 2013 Auckland Council

This publication is provided strictly subject to Auckland Council's copyright and other intellectual property rights (if any) in the publication. Users of the publication may only access, reproduce and use the publication, in a secure digital medium or hard copy, for responsible genuine non-commercial purposes relating to personal, public service or educational purposes, provided that the publication is only ever accurately reproduced and proper attribution of its source, publication date and authorship is attached to any use or reproduction. This publication must not be used in any way for any commercial purpose without the prior written consent of Auckland Council. Auckland Council does not give any warranty whatsoever, including without limitation, as to the availability, accuracy, completeness, currency or reliability of the information or data (including third party data) made available via the publication and expressly disclaim (to the maximum extent permitted in law) all liability for any damage or loss resulting from your use of, or reliance on the publication or the information and data provided via the publication. The publication, information, and data contained within it are provided on an "as is" basis.

Industry Snapshot for Auckland: Creative Sector

Ross Wilson

Research, Investigations and Monitoring Unit

Auckland Council

Executive summary

Creative industries definition: originate in individual creativity, skill and talent, and create wealth and jobs through generating and exploiting intellectual property.

The total sector size of Auckland's creative sector (as at 2012) is as follows:

- **businesses:** 9044 geographical units- 5.6 per cent of Auckland's businesses.
- **employment:** 17,896 people – 2.8 per cent of Auckland's employees.
- **GDP¹:** \$1.8 billion a year (directly) - 2.3 per cent of Auckland's GDP.
- **share of the country's** creative sector: half (49%), by employment.

Compared to other sectors, Auckland's creative sector firms as at 2012 have:

- **smaller businesses** (2 employees each vs. 4 for Auckland all sectors average)
- **lower labour productivity** (by 40%; i.e. value added (GDP) per employee)
- **slower employment growth** (2000 to 2012) (-0.8% pa vs. +1.8% pa)
- **more non-employee workers** (37% of employee plus non-employee vs. 12%).

The employment shares of sub-sectors for Auckland's creative sector as at 2012 are:

- **design** (38%), i.e. advertising (18%), graphic design (10%) and architecture (10%)
- **publishing** (18%), including newspapers (8%), magazines (7%) and books (3%)
- **screen production** (23%), split into **TV** (14%), mostly in large businesses (100+ ECs: TVNZ, TV3, Sky TV), and **film and video** (9%), mostly in medium businesses
- **radio** (6%), which grew faster in Auckland (+3.9% pa) than nationally (+0.2% pa)
- **digital media** (4%), the fastest growing creative sub-sector (8.4% pa 2000-2012)
- **performing arts** (5%), including venue operation and performance production
- **visual arts** (4%): i.e. jewellery making, photography studios, artists and galleries; performing plus visual arts have more (but smaller) businesses (24% of the sector)
- **music** (1%), in which Auckland provides most of New Zealand's jobs (77%).

Employment growth of sub-sectors from 2000 to 2012 in Auckland has varied.

- **Publishing** (-8.0% pa) sub-sector contracted sharply.
- **Design** (+3.0% pa) had healthy growth; it provided half the sector's new jobs. (but productivity is lower (by 19%) than the sector as a whole).
- **Digital media** (+8.4% pa), had rapid growth but from a lower base.
- **TV** (+3.5% pa), **radio** (+3.9% pa) and **music** (+5.5% pa) had healthy growth.
- **Film and video** (+0.6% pa), **performing arts** (+0.9% pa) and **visual arts** (-1.7% pa) have been fairly static on average.

Employment concentrations of Auckland's creative sector are as follows.

- **CBD/fringe** is the densest; also **Mt Wellington, North Harbour, Takapuna**.
- **Waitemata local board** employs most (57%) of the sector.
- **Maungakiekie-Tamaki** (9%) has a major share of TV employment (41%)
- **Albert-Eden** (7%) has more of publishing (13%) and performing arts (13%)
- **Upper Harbour** (5%) has a disproportionate share of digital media (15%).

Business concentrations are less than employment but still significant, notably:

- **Waitemata, Albert-Eden** and **Orakei** local boards (47%; all are in the isthmus).

¹ Gross Domestic Product – see Appendix 1: Glossary and abbreviations for explanation

Table of Contents

Executive summary	4
1 Introduction and sector definition	6
2 Data sources and limitations	9
3 Relative size of the sector	10
4 Employment and businesses by sub-sector	12
5 GDP and productivity	17
6 Employment growth of the sector	21
7 Employment growth by sub-sector	23
8 Employment growth within sub-sectors	25
9 Sub-sector employment by location	39
10 Business locations of sub-sectors	43
11 Exports by sub-sector	44
12 Conclusion	46
Appendix 1: Glossary and abbreviations	47
Appendix 2: Sector definition	50
Appendix 3: Data sources and limitations	52
Appendix 4: Estimating employment	55
Appendix 5: Sub-sector locations	57
Appendix 6: Difficulties with R900200	67
Appendix 7: SWOT analysis	68

1 Introduction and sector definition

This report looks at Auckland's creative sector, and its contribution to the Auckland and New Zealand economies.

1.1 Sector definition

Creative industries have their origin in individual creativity, skill and talent, and have a potential for wealth and job creation through generating and exploiting intellectual property. The creative sector as defined in this report² is very diverse, and can be divided into the following sub-sectors³:

- **design**, comprising advertising services, architectural services and graphic design
- **publishing**, including newspaper printing or publishing, other periodical publishing, book and other publishing, and authors
- **screen production and creative digital content and radio**, covering:
 - o **film and video** production, exhibition and post production services (not distribution⁴)
 - o **TV**, including television production and broadcasting and cable/satellite TV
 - o **radio** broadcasting services
 - o **digital media**, including software publishing, internet publishing and broadcasting and other web and internet related media and applications
- **performing arts**, including services to the arts, performing arts venues, music and theatre productions, and performers
- **visual arts** including jewellery and silverware manufacturing, photographic studios, and visual arts and crafts
- **music**, including composers, sound recording studios, and recorded media manufacturing and publishing.

1.2 Importance

Council's 2013 Auckland Plan places considerable importance on the creative sector with a specific target to "Increase the number of people employed in the creative sector from 26,900 in 2007 to 45,000 by 2040"⁵. Similarly, one of its priorities for the economy is to "develop a creative, vibrant international city" in order to "attract innovative skilled people and investment, and benefit residents and visitors alike"⁶. In its economic

² Sub-sector list (ANZSIC 2006 industry codes) from Auckland City Council, 2009. *Auckland's creative industries: The numbers 2009*.

³ For the ANZSIC 2006 5-digit industry codes that correspond to the various sub-sectors, see Appendix A2: Sector definition.

⁴ Because the sector definition focuses on production, creation or performance rather than distribution or wholesaling

⁵ Auckland Council 2013. *The Auckland plan*, p114; part of "Strategic Direction 3: Integrate arts and culture into our everyday lives". Note that their definition of creative employment differs from that of this report

⁶ *Ibid.*, p168 Priority 5

development strategy, council states that “Screen and creative digital content expertise underpins film, television, animation, and publishing (and can be applied to multiple other industries, such as tourism, education, and manufacturing processes)... Building strengths in such areas will be important for attracting and retaining knowledge workers and investment in research and development (R and D) in Auckland”⁷.

1.3 Key issues for the sector

The diverse nature of the creative sector has led some commentators⁸ to query whether it can be considered a coherent sector, or is instead best treated as a collection of loosely related sub-sectors. The screen production and digital media sub-sectors appear to offer the strongest prospects for export growth⁹; the key issues affecting those sub-sectors in Auckland are considered to include¹⁰:

- **Threats and weaknesses:**
 - limited scale and capability of firms to attract investment and internationalise
 - infrastructure constraints (broadband and studio facilities).
- **Opportunities and strengths:**
 - growing reputation and capabilities that are emerging in areas such as animation and design in order to attract further work and investment from offshore
 - Auckland screen production and digital media firms’ increasing propensity towards collaboration to overcome collective problems and to take up collective opportunities.

For the detailed results of the Martin Jenkins SWOT¹¹ analysis of those sub-sectors, see Appendix 7: SWOT analysis.

In addition, it has been suggested¹² that parts of the creative sector in its broader sense may have opportunities to create economic value using cultural assets and Maori and Pacific elements.

1.4 Creative workforce

The creative sector’s definition is based on productive enterprises in creative industries, and forms a sub-set of the creative workforce which is based on occupations of workers. The creative workforce is often defined¹³ as having three components, of which only two are part of the creative sector, as follows:

- creative workers in creative industries – part of the creative sector

⁷ Auckland Council, 2013. *Auckland’s economic development strategy*, p19

⁸ For example, Martin Jenkins, 2012. *Auckland Tourism, Events and Economic Development Ltd (ATEED) sector engagement framework*.

⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ Strengths, weaknesses, opportunities and threats.

¹² ATEED, 2011. *Working with sectors* (unpublished presentation notes)

¹³ For example Auckland Regional Council, 2010. *Auckland’s creative workforce report*.

- non-creative (“support”) workers, but in creative industries - part of the creative sector
- creative workers, but in non-creative industries – not part of the creative sector.

An analysis of 2006 census data¹⁴ revealed that 34 per cent of Auckland’s creative workforce was employed in non-creative industries. In other words, for every 100 workers (both creative and non-creative) in the creative sector, there were also 50 creative workers in non-creative industries, who are not counted in the creative sector. However, suitably detailed data is available annually only for creative industries (and their sub-sectors) comprising the creative sector; suitable occupational data regarding creative workers in non-creative industries is available only from the census, namely 2006 (and 2013, but not available until 2014 or later).

¹⁴ *Ibid.* Note that their definition of the creative sector includes various digital content and software sub-sectors that are not included (or only partially) in this report’s definition of the creative sector.

2 Data sources and limitations

This report uses a range of data sources. Each source has its own merits. Where possible, the most appropriate data source has been used. Unless otherwise stated, all business demographic data is from Statistics New Zealand's Business Demographics series. See Appendix 3: Data sources and limitations for more information about data sources.

Employment and Business Geographic Units – These are taken from Statistics New Zealand's Business Demography Survey 2000 to 2012, using the latest (ANZSIC 2006) classification system. Data is taken at the 4-digit level, which provides a perfect match to the sector definition used in this report. Definitions are as follows.

- The term “business” is here used to denote a geographic business unit (“GU”), as used in Statistics New Zealand's Business Demography data. It is defined as a separate operating unit engaged predominantly in one kind of economic activity from a single physical location or base.
- Employment is based on employee counts (“ECs”), which includes both full and part time employees but not working proprietors. See Appendix 4: Estimating employment for further discussion.

Location – employment location and business location are taken from Statistics New Zealand's Business Demographics series, as per Employment and Business Geographic Units.

Gross Domestic Product (“GDP”)¹⁵ and labour productivity - This is taken from Infometrics' national and regional GDP series 2001 to 2012, and then inflated to 2012 dollars using the December 2012 GDP deflator. The GDP and productivity estimates are based on Infometrics' estimates of employment, which tend to be higher than Statistics New Zealand's Business Demographics ECs (28,204 vs 17,896) due to the former including an estimate of working proprietors and self employed.

Exports- For 2012, this is taken from a custom dataset produced by Statistics New Zealand for Auckland Council. It comprises goods exports through Auckland's airport and seaports, so it differs from goods and service exports by Auckland firms

Time series export data for 2001 and 2008 is taken from Martin Jenkins's 2012 Sector Engagement Framework (draft) for Auckland Tourism, Events and Economic Development Ltd (ATEED), using their “screen and creative (digital) content” sector as a proxy. It overlaps the definition in this report but has major differences¹⁶.

Data limitations - The sector is likely to have a high proportion of participants who are not well captured by official statistics, for example because they do not have regular paid work or income. By definition, this data is hard to capture or even estimate. Many participants are working proprietors, rather than ECs, and/or are part timers. Consistent authoritative detailed time series data on creative sector exports is not available, particularly of services. For more details on these and other data limitations, see Appendix 3: Data sources and limitations and Appendix 4: Estimating employment.

¹⁵ See Appendix 1: Glossary and abbreviations for definition of GDP.

¹⁶ See Appendix 2: Sector definition for list of differences

3 Relative size of Auckland's creative sector¹⁷

Auckland's creative sector has 17,896 employees (ECs) in 9044 businesses (GUs), making it the largest concentration in New Zealand. In 2008, the former Auckland City Council area alone had a creative sector nearly three times larger than Wellington City, the next largest¹⁸.

Table 1 shows that the creative sector is strongly over-represented in Auckland compared to other sectors. Auckland is home to 49 per cent of the New Zealand creative sector's businesses, but only 32 per cent of New Zealand's total businesses for all sectors. Similarly, Auckland provides 49 per cent of New Zealand's creative sector employment, but only 33 per cent of its total employment for all sectors.

Looked at another way, in Auckland 5.6 per cent of businesses are in the creative sector, which is much higher than the proportion for New Zealand as a whole (3.6%). Similarly, in Auckland 2.8 per cent of employment is in the creative sector, which is also much higher than the proportion for New Zealand as a whole (1.9%).

Table 1: Auckland and New Zealand creative sector businesses and employees, 2012

	Auckland	New Zealand	Auckland share of New Zealand
Creative sector businesses	9,044	18,295	49.4%
Total businesses all sectors	161,154	504,381	32.0%
Creative sector share of businesses	5.6%	3.6%	
Creative sector employees	17,896	36,740	48.7%
Total employees all sectors	642,940	1,926,580	33.4%
Creative sector share of total employment	2.8%	1.9%	
Creative sector employees/business	2.0	2.0	
Total employees/business all sectors	4.0	3.8	

Table 1 also shows that the average number of employees per business is even smaller for Auckland's creative sector (2.0) than for the total economy including all sectors (4.0). In this respect, Auckland is similar to New Zealand as a whole, where creative sector businesses also have an average of 2.0 employees as compared to the 3.8 average for New Zealand's total economy including all sectors.

Table 2 shows how the size of Auckland's creative sector compares to other sectors. It is similar in size (by employees) to the Information, Media and Telecommunications sector (which has 18,440 ECs), and has a similar number of businesses to Wholesale Trade (which has 9189 GUs).

¹⁷ As at 2012. Source: Statistics New Zealand, 2012. *Business Demographics*

¹⁸ Source: Auckland City Council, 2009. *Auckland's creative industries: The numbers 2009*.

Table 2: Auckland sector sizes by employment and business numbers, 2012

Sector (ANZSIC 1-digit, Auckland)	Employment (ECs)	Share of employment	Businesses (GUs)	Share of businesses
Manufacturing	72,250	11.2%	7,771	4.8%
Professional, Scientific and Technical Services	65,680	10.2%	23,184	14.4%
Health Care and Social Assistance	61,950	9.6%	6,696	4.2%
Retail Trade	61,020	9.5%	12,018	7.5%
Education and Training	56,330	8.8%	2,843	1.8%
Wholesale Trade	53,300	8.3%	9,189	5.7%
Accommodation and Food Services	42,310	6.6%	6,059	3.8%
Administrative and Support Services	36,860	5.7%	6,764	4.2%
Construction	33,820	5.3%	16,056	10.0%
Transport, Postal and Warehousing	31,970	5.0%	5,559	3.4%
Public Administration and Safety	29,530	4.6%	875	0.5%
Financial and Insurance Services	27,670	4.3%	12,838	8.0%
Other Services	21,270	3.3%	7,300	4.5%
Information Media and Telecommunications	18,440	2.9%	2,767	1.7%
Creative sector [1]	17,896	2.8%	9,044	5.6%
Arts and Recreation Services	10,920	1.7%	3,225	2.0%
Rental, Hiring and Real Estate Services	10,350	1.6%	32,979	20.5%
Agriculture, Forestry and Fishing	5,390	0.8%	4,615	2.9%
Electricity, Gas, Water and Waste Services	3,430	0.5%	319	0.2%
Mining	450	0.1%	97	0.1%
Total Industry [1]	642,940	100.0%	161,154	100.0%

[1] Creative sector is also captured in other sectors, so total is net of double counting.

4 Employment and businesses by sub-sector¹⁹

4.1 Employment and business shares by sub-sector

Table 3(a) shows employment shares of the sub-sectors that make up Auckland's creative sector. Auckland's largest creative sub-sector is design (comprising advertising, architecture and graphic design), which has 6840 employees or 38 per cent of the sector's total employment. The two other major employers are publishing (18%, comprising newspaper, book and periodical publishing) and screen production, both television broadcasting (free to air and cable; 14%) and film and video (production, post-production and exhibition (but not distribution); 9%). Together these four sub-sectors provide 79 per cent of the sector's employment.

Table 3(a) also shows the proportion of the Auckland sector's businesses that are in each sub-sector. In some cases, it is reasonably similar to the employment share, but in most cases they differ significantly. Publishing has only 8 per cent of the sector's businesses, and TV and radio practically zero, yet their employment shares are much higher, due to having a relatively higher proportion of larger businesses. Conversely, film and video (18%), performing arts (12%) and visual arts (12%) have much higher shares of the sector's businesses than of its employment, which suggests that these sub-sectors have primarily small businesses and may also have a higher share of working proprietors.

Table 3(a) shows that as a consequence, average business size varies hugely between sub-sectors, from 72 employees per business for TV and 23 for radio, to 1 or less for film and video, performing arts and visual arts.

Table 3(a): Employment and business shares by creative sub-sector, Auckland, 2012

Creative sub-sector	Employment (ECs)	Share of sector's employment	Businesses (GUs)	Share of sector's businesses	Average business size (EC/GU)
Design	6,840	38%	3,827	42%	1.8
Publishing	3,202	18%	725	8%	4.4
Screen Production: TV	2,530	14%	35	0%	72.3
Screen production: Film, video	1,617	9%	1,595	18%	1.0
Radio	1,000	6%	44	0%	22.7
Digital media	714	4%	319	4%	2.2
Performing Arts	954	5%	1,086	12%	0.9
Visual Arts	802	4%	1,097	12%	0.7
Music	225	1%	316	3%	0.7
Creative sector	17,884	100%	9,044	100%	2.0

¹⁹ As at 2012. Source: Statistics New Zealand, 2012. *Business Demographics*

4.2 Sub-sector business sizes and small businesses

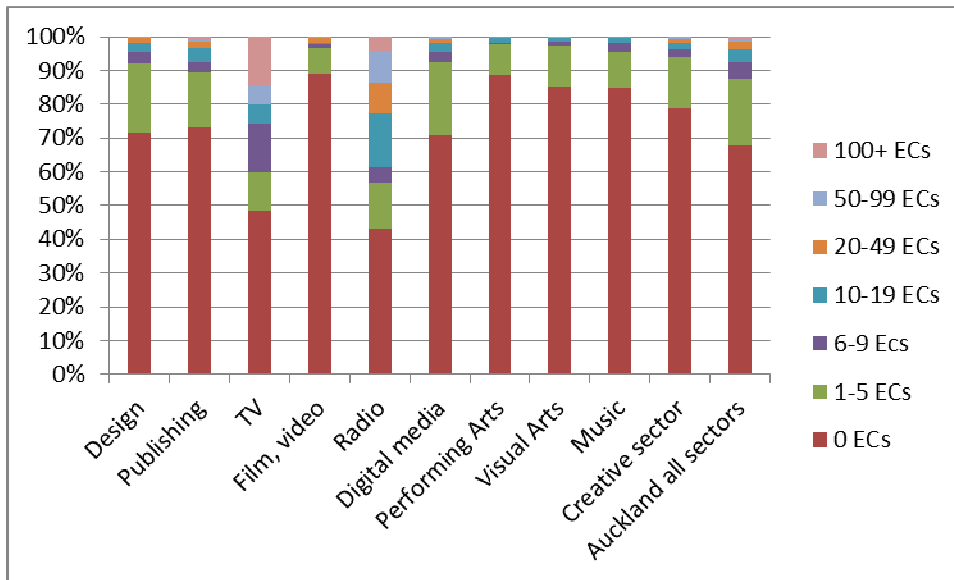
Table 3(b) and Figure 1(a) show that most creative sector businesses (7,121 which is 79% of the sector) have no employees, and the proportion is somewhat higher than for the Auckland economy as a whole (109,558 or 68%). The proportion varies between sub-sectors: lowest are radio (19 zero-employee businesses, which is “only” 43% of the radio sub-sector) and TV (17 businesses, 49%), but all other sub-sectors have higher proportions of their businesses having no employees (71% to 89%).

Of the businesses that do have employees, in the creative sector the majority (1371 GUs, which is 71% of the businesses that have at least one employee) are very small (with one to five employees), which again is somewhat higher than the proportion for all sectors (31,790 or 62%).

Table 3(b): Creative sub-sectors business numbers (GUs) by size (ECs), Auckland, 2012

	Zero ECs	1 – 5 ECs	6 – 9 ECs	10 – 19 ECs	20 – 49 ECs	50 – 99 ECs	100+ ECs	Total GUs	% with Zero ECs
Design	2,746	783	129	103	52	9	5	3,827	72%
Publishing	529	119	23	30	13	6	5	725	73%
TV	17	4	5	2	0	2	5	35	49%
Film, video	1,418	125	14	9	22	7	0	1,595	89%
Radio	19	6	2	7	4	4	2	44	43%
Digital media	225	69	10	9	4	1	1	319	71%
Performing Arts	963	97	7	14	4	0	1	1,086	89%
Visual Arts	935	136	10	12	3	1	1	1,097	85%
Music	269	33	8	5	1	0	0	316	85%
Creative sector	7,121	1,371	207	191	104	31	19	9,044	79%
Auckland all sectors	109,558	31,790	7,619	6,290	3,793	1,195	909	161,154	68%

Figure 1(a): Creative sub-sectors business shares (of GUs) by size (ECs), Auckland, 2012



4.3 Sub-sector employment by business size and large businesses²⁰

Figure 1(b) and 1(c) show, for each creative sub-sector in Auckland in 2012, the proportion of its employment provided by different sized business units, from very small (1 to 5 ECs) to large (100+ ECs). The employment distribution differs from the business distribution due to the scaling effect of business size. In particular, large businesses (100+ ECs) are significant employers for some - but not all - creative sub-sectors, as follows.

Total sector: includes 34 large business units (100+ ECs), but 14 are in Computer Systems Design, where only a small fraction (5%) is attributed to the sector; the adjusted sector total is 19.3 large business units, mostly in design (5) publishing (5), TV (5) and radio (2). They provide just under a third (31%) of the creative sector’s employment, which is somewhat lower than the proportion for the rest of the Auckland economy (36%). Conversely, the proportion of employment in very small businesses (5 ECs or fewer) is correspondingly higher for the creative sector (17%) than for the rest of the economy (12%).

Design: includes five large business units - four Advertising and one Architectural – but they provide only a small share (11%) of the sub-sector’s employment. Over half (59%) is from firms with fewer than 20 employees.

Publishing: includes five large business units - two Newspaper, two Magazine and one Book - which provide nearly half (45%) of the sub-sector’s employment.

²⁰ Note that a single “enterprise” (e.g. Sky TV) can have multiple smaller “business units”, at multiple sites

Screen production: TV: includes five large business units - three Free-to-Air (TVNZ and TV3) and two subscription (Sky TV) –which provide nearly all (91%) of the sub-sector’s employment.

Screen production: Film and video: includes no large business units, but strangely most (70%) of its official employment is provided by medium sized businesses with 20 to 99 employees.

Radio: includes two large business units, which provide nearly half (42%) of the sub-sector’s employment; a further third (32%) is provided by four “larger medium” (50 to 99 ECs) business units. Practically none (1%) is from very small firms of 5 employees or less

Digital media: includes 14 large business units, but all are in Computer Systems Design so only a small fraction (5%, or 0.7 business units) is attributed to the sector. They provide only a relatively small share (23%) of the sub-sector’s employment.

Performing arts: includes one large business unit, which is in Performing Arts Venue Operation; it provides a moderately large share (40%) of the sub-sector’s employment, and the majority (60%).of venue operation employment.

Visual arts: includes two large business units - both museums - but they are only partially (32% or 0.6 business units) included in the sector; they provide only a small share (14%) of the sub-sector’s employment, but the majority (63%) of employment in the museum component. The majority of the sub-sector’s employment (65%) is in small firms with fewer than 20 employees, and over a third (37%) is in the smallest firms (5 or fewer employees).

Music: includes no large business units, and most (84%) of its employment is from small businesses with fewer than 20 employees.

Figure 1(b) Creative sub-sectors employment shares (of ECs) by business size, Auckland, 2012

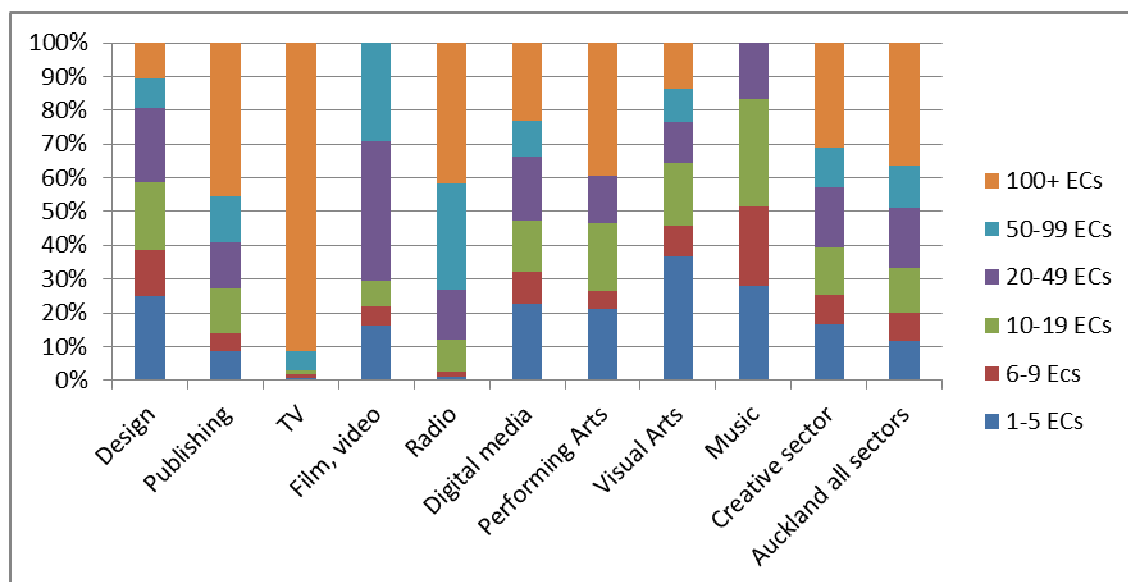
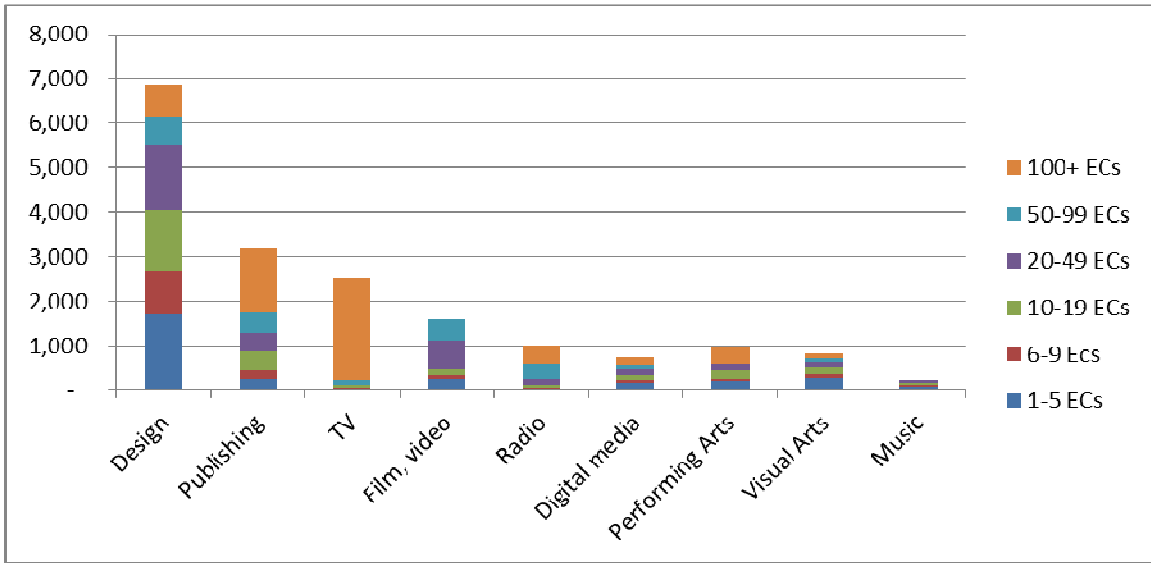


Figure 1(c) Creative sub-sectors employment (ECs) by business size, Auckland, 2012



5 GDP and productivity²¹

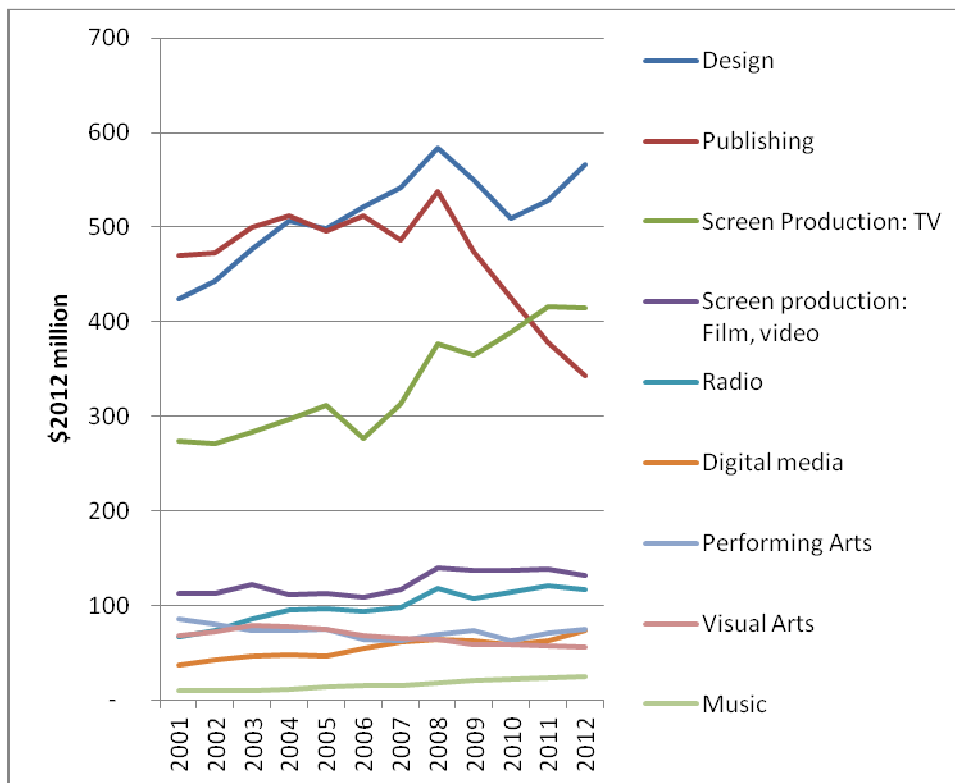
The creative sector's stand-alone contribution to Auckland's GDP is estimated at \$1.80 billion for 2012, which is 2.3 per cent of Auckland's total GDP. The creative sector is also an enabler of economic activity in other sectors.

GDP is the value added to the economy by all the goods and services provided in one year, and is a standard measure of the economic contribution of an industry sector. In addition to its stand-alone contribution, the creative sector is known to stimulate economic activity in other key GDP generating sectors. Similarly, each of the creative sub-sectors relies on other creative sub-sectors for its economic contribution (for example, film and video production relies on music for some of its content). However, this report is based solely on the sub-sectors' stand-alone contributions to GDP.

The results indicate that the creative sector contributes a lower share of the region's GDP (2.3%) than its share of employment (3.9%)²². People working in Auckland's creative sector generate on average 40 per cent less annual GDP per worker than workers in Auckland's other sectors. (But note that workers include part timers).

5.1 GDP by sub-sector

Figure 2: Contribution to Auckland's GDP by creative sub-sector, 2000 - 2012



²¹ Source: Infometrics, 2013. *Annual Economic Report for Auckland 2012*.

²² From Infometrics, so different to the Business Demographics ECs used in other sections of this report. See Appendix 4: Estimating employment for further details.

Figure 2 shows that the past and present contributions to GDP vary markedly across the creative sub-sectors, with design, publishing and TV providing much greater shares than the others. GDP growth from 2001 to 2012 was strong for design and TV in both dollar and percentage terms, while publishing's moderate GDP growth up to 2008 was followed by a major drop. Radio, digital media and music had higher rates of GDP growth, but made only modest contributions to the sector's growth in dollar terms due to their low starting points.

5.2 GDP and productivity by sub-sector

Table 4 shows the GDP contribution of each creative sub-sector relative to employment (from Infometrics) for Auckland in 2012. A ratio above one means a sub-sector has a higher share of GDP than employment, relative to the region's total creative sector, and therefore workers on average generate a higher GDP in that sub-sector than for the region's creative sector as a whole.

Table 4: Auckland creative sub-sectors employment and GDP contributions, 2012

Creative sub-sector	Employment (Infometrics)	GDP \$2012 million	GDP/Emp	Emp. share	GDP share	GDP/Emp Ratio
Design	10,907	566	51,894	38.7%	31.4%	0.81
Publishing	3,877	343	88,585	13.7%	19.1%	1.39
Screen Production: TV	2,791	414	148,530	9.9%	23.0%	2.32
Screen production: Film, video	4,413	132	29,996	15.6%	7.3%	0.47
Radio	999	117	116,838	3.5%	6.5%	1.83
Digital media	927	73	78,785	3.3%	4.1%	1.23
Performing Arts	1,989	75	37,923	7.1%	4.2%	0.59
Visual Arts	1,794	56	31,147	6.4%	3.1%	0.49
Music	507	25	48,384	1.8%	1.4%	0.76
Total creative sector	28,204	1,802	63,890	100.0%	100.0%	1.00
Total all sectors	731,774	77,433	105,816	n/a	n/a	1.66

Table 4 reflects the following.

- Auckland's total economy is 1.66 times more productive (annual GDP per worker, including part timers) than the creative sector. Therefore the creative sector is 40 per cent less productive (annual GDP per worker, including part timers) than the rest of Auckland's economy.
- Collectively the media industries of screen production TV, film and video, radio and digital media account for 41 per cent of the creative sector's GDP in Auckland, which is higher than their employment share, 32 per cent.
- TV has particularly high labour productivity (\$149,000 GDP per worker), while film and video is unusually low (\$30,000). Film and video has a high proportion of workers (per Infometrics) who are not ECs (per Statistics New Zealand) – see Appendix 4: Estimating employment for further details.

- Design at \$566 million makes the single greatest contribution to the creative sector's GDP, representing 31 per cent of Auckland's creative sector GDP. However, this is lower than design's share of employment (39%), and reflects a 19 per cent lower output per employee (\$52,000) than the overall creative sector (\$64,000).
- Music (i.e. sound recording studios, recorded media manufacturing and composers) makes the smallest contribution to GDP, accounting for only 1.4 per cent of the creative sector's GDP (\$25m).

5.3 Spotlight on Design GDP and productivity

Figure 3(a) shows that the design sub-sector's below-average productivity (and falling slightly) is primarily a mixture of above-average (but falling) productivity from Advertising Services, and lower productivity from Architectural Services (but rising) and from Other Specialised Design Services (falling).

Figure 3(a) Auckland design sub-sector productivity by component, 2001 - 2012

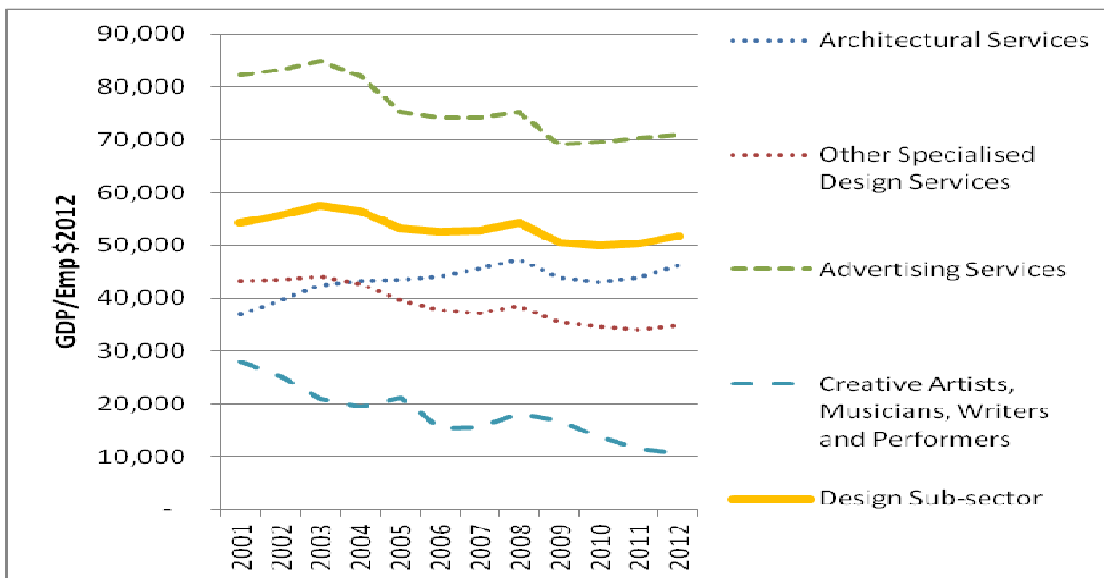
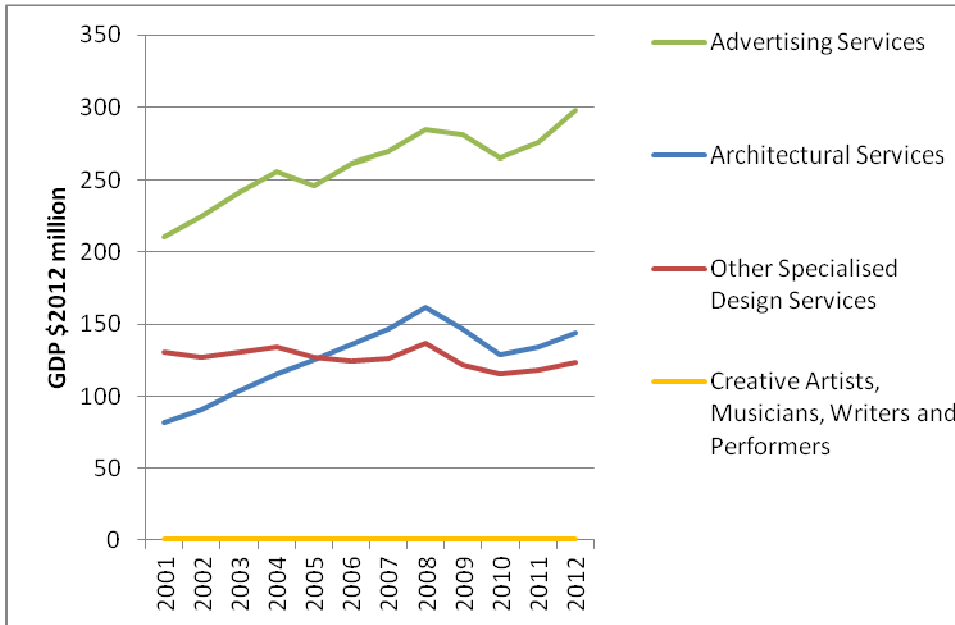


Figure 3(b) shows GDP growth for the components of design and reflects the following:

- Advertising Services provides over half the design sub-sector's GDP, and maintains a long term GDP growth trend (because rising employment more than offsets falling productivity)
- Architectural Services had strong growth pre-GFC but now appear to have plateaued for GDP (and employment) as well as for productivity
- Other Specialised Design Services have maintained steady GDP due to modest rises in employment to offset falling productivity
- Creative artists etc generate minimal GDP, due to both low productivity and low employment in design.

Figure 3(b) Auckland design sub-sector GDP by component, 2001 - 2012

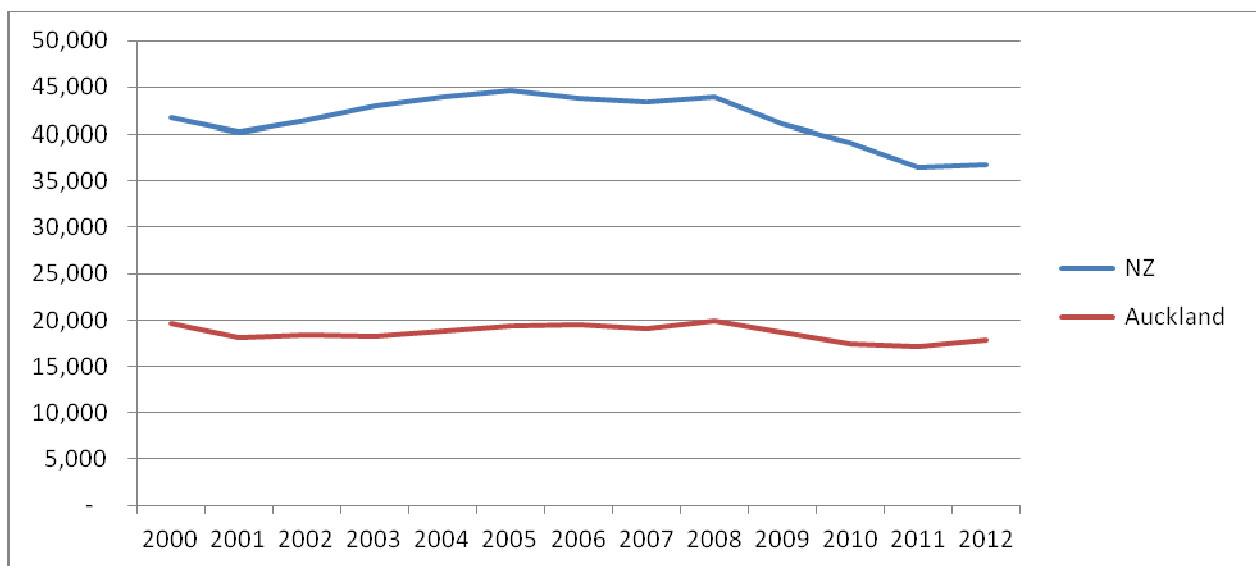


6 Employment growth of the sector²³

6.1 Auckland vs New Zealand creative sector

Growth in employment (ECs) in the creative industries between 2000 and 2012 was slightly negative on average in both Auckland (-0.8% pa) and New Zealand (-1.1% pa). Creative sector employment has been less volatile in Auckland than in New Zealand as a whole: growth from 2001 to 2005 in Auckland was much less than for the New Zealand sector, but Auckland's decline after the GFC (2008 to 2011) was also much less severe than New Zealand's. (See Figure 4).

Figure 4: Creative sector employment (ECs) Auckland and New Zealand, 2000-2012



6.2 Creative sector vs. total economy

Table 5 shows that from 2000 to 2012 the Auckland economy as a whole showed positive growth (+1.8% pa), so the creative sector's share of total employment fell substantially, from 3.8 per cent of the total in 2000, down to 2.8 per cent by 2012. This was similar to changes in share at the New Zealand level, where the creative sector's share of total employment fell from 2.6 per cent of the total, down to 1.9 per cent.

The Auckland economy as a whole grew continuously (+2.7% pa) from 2000 until the Global Financial Crisis ("GFC") in 2008, then employment fell but has since largely recovered (averaging -0.1% pa 2008-2012). Employment growth in Auckland's creative sector was affected by the GFC in exactly the same way, but with the sector's annual growth rate being 2.5 percentage points lower than the total economy both before and after the GFC. The sector showed a very small annual growth from 2000 to 2008 (+0.2% pa), then a net fall from 2008 to 2012 (averaging -2.6% pa).

²³ Source: Statistics New Zealand, 2012. *Business Demographics*

For New Zealand as a whole, from 2000 to 2008 the creative sector was growing less weakly (+0.6% pa) than Auckland, but still trailing the growth rate of the rest of the national economy (+2.7% pa) by 2.0 percentage points. Then from 2008 to 2012 the New Zealand creative sector was particularly hard hit by the GFC, with employment showing a strong net fall (averaging -4.4% pa), which is 3.8 percentage points worse than the rest of the economy (-0.7% pa).

Table 5: Creative sector relative employment growth, 2000 to 2008 and 2012

	2000	2008	2012	Change 2000- 2012	Annual growth 2000- 2012	Annual growth 2000- 2008	Annual growth 2008- 2012
Auckland creative sector employment	19,606	19,905	17,896	- 1,709	-0.8%	0.2%	-2.6%
Auckland total employment	521,340	646,550	642,940	121,600	1.8%	2.7%	-0.1%
Creative sector share of total employment	3.8%	3.1%	2.8%	-1.0%	-2.5%	-2.5%	-2.5%
NZ creative sector employment	41,743	43,953	36,740	- 5,003	-1.1%	0.6%	-4.4%
NZ total employment	1,596,300	1,977,630	1,926,580	330,280	1.6%	2.7%	-0.7%
NZ creative sector share of total employment	2.6%	2.2%	1.9%	-0.7%	-2.6%	-2.0%	-3.8%

7 Employment growth by sub-sector²⁴

Table 6 and Figure 5 show that the fall in employment in Auckland's creative sector from 2000 to 2012 (-1709 employees) consisted almost entirely of a massive fall in the **publishing** sub-sector (-5558 employees), which was already undergoing major contraction before the GFC (-7.1% pa 2000 to 2008). All but one (**visual arts**) of Auckland's other creative sub-sectors managed positive average growth over the 2000-2012 period, as follows.

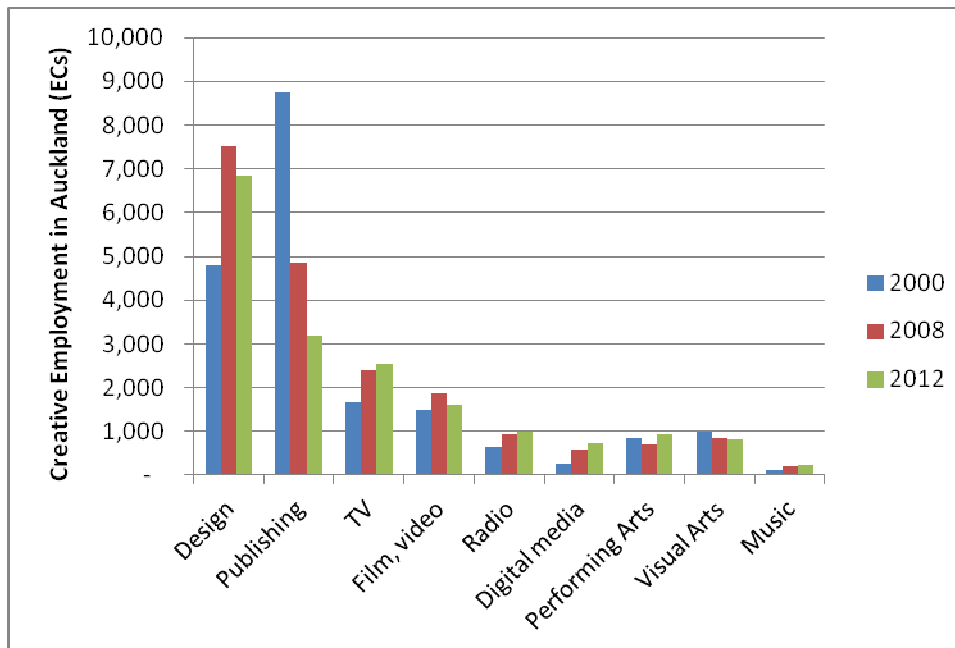
- **Design:** a healthy 3.0 per cent annual growth from a relatively high base resulting in 2,038 extra jobs. This sub-sector overtook publishing to become Auckland's largest creative sub-sector (and similarly at the New Zealand level). Auckland's design growth rate pre-GFC was even higher (5.8% pa) but the sub-sector was particularly hard hit by the GFC with an 8.1% fall in growth to -2.3 per cent for 2008 to 2012.
- **Screen production: TV:** a healthy 3.5 per cent annual growth from a fairly high base resulting in 860 extra jobs; even post-GFC, TV managed positive growth (1.2% pa).
- **Screen production: film and video,** in contrast, grew by only 0.6 per cent per annum on average (2000-2012), due to a major reversal from 2.8 per cent annual growth pre-GFC to falling employment post-GFC (-3.5% pa). (However, this sub-sector has a high proportion of non-employee workers, and Infometrics estimate that the total number of workers rose from 3000 in 2001 to 4300 in 2012.)
- **Digital media:** very strong growth of 8.4 per cent overall, with a spectacular pre-GFC annual growth rate of 10.0 percent and a very healthy growth rate even post-GFC (5.1% pa); the sub-sector is still small, so these high rates translate into "only" 444 net new jobs.
- **Radio:** similar to TV, but from a lower employment base: a healthy 3.9 per cent annual growth from a relatively low base resulting in 370 extra jobs, pushing its total employment ahead of performing arts and visual arts; even post-GFC, radio managed positive growth (1.6% pa);
- **Performing arts:** only 0.9 per cent annual growth for 95 extra jobs from 2000 to 2012, due mainly to an apparent halving (loss of 200 jobs) in Performing Arts Operation from 2000 to 2001; (but note that at this level of detail for small sub-sectors, statistical inaccuracies can become significant).
- **Music:** a strong 5.5 per cent annual growth, but from a low base resulting in 111 extra jobs; the sub-sector was virtually unaffected by the GFC (5.0% pa 2008-2012).

²⁴ Source: Statistics New Zealand, 2012. *Business Demographics*

Table 6: Employment growth of Auckland creative sub-sectors, 2000 – 2008 - 2012

Creative sub-sector	2000 employment	2008 employment	2012 employment	Change 2000-2012	Annual growth 2000-2012	Annual growth 2000-2008	Annual growth 2008-2012
Design	4,802	7,521	6,840	+ 2,038	3.0%	5.8%	-2.3%
Publishing	8,758	4,844	3,200	- 5,558	-8.0%	-7.1%	-9.8%
Screen Production: TV	1,670	2,410	2,530	+ 860	3.5%	4.7%	1.2%
Screen production: Film, video	1,500	1,865	1,616	+ 116	0.6%	2.8%	-3.5%
Radio	630	940	1,000	+ 370	3.9%	5.1%	1.6%
Digital media	274	589	718	+ 444	8.4%	10.0%	5.1%
Performing Arts	853	702	948	+ 95	0.9%	-2.4%	7.8%
Visual Arts	996	842	811	- 185	-1.7%	-2.1%	-0.9%
Music	123	193	234	+ 111	5.5%	5.8%	5.0%
Creative sector	19,606	19,905	17,896	- 1,709	-0.8%	0.2%	-2.6%

Figure 5: Auckland employment in creative industry sub-sectors, 2000/2008/2012



8 Employment growth within sub-sectors²⁵

This section contains a summary of employment growth patterns for the sector and each sub-sector, and a description of the major findings for each sub-sector and its component activities. Employment levels (ECs) between 2000 and 2012 are displayed on each chart for Auckland and New Zealand. All graphs are to the same scale except design, publishing, digital media and music.

8.1 Design sub-sector

Design is the largest of the creative sub-sectors in Auckland (38% of the sector's employment) and is dominated by advertising services and related specialised commercial design services such as graphic design. Architectural services also provide significant employment and have shown strong growth but from a lower base. The total annual employment growth in the design sub-sector in Auckland from 2000 to 2012 averaged 3.0 per cent, similar to the national rate (+2.9% pa) (see Figure 6).

Figure 6: Design employment (ECs) Auckland and New Zealand, 2000-2012

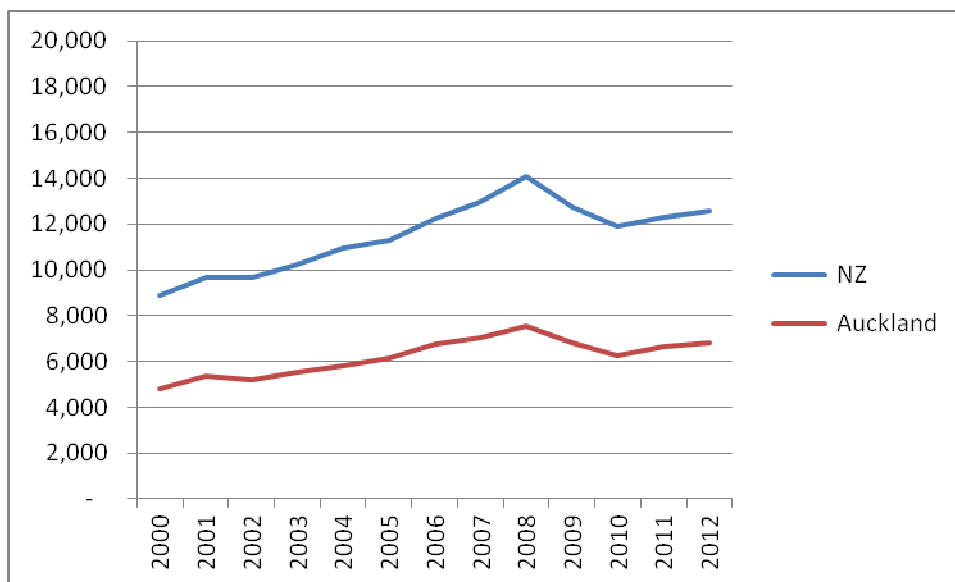


Table 7 shows the following about design employment and its component activities' growth between 2000 and 2012.

- Advertising Services provided nearly half (47%) of design sub-sector employment in Auckland in 2012. The majority (67%) of national employment in this activity is located in Auckland.
- Over half (55%) of the employment growth experienced in design, has occurred within Advertising Services, in which Auckland is growing slightly more rapidly (+3.7% pa) than the rest of New Zealand (+3.5% pa).

²⁵ Source: Statistics New Zealand, 2012. *Business Demographics*

- Employment growth in Architectural Services has been fairly high, averaging 4.3 per cent per year over the past twelve years. This is similar to the national rate (+4.5% pa).
- Other Specialised Design Services (which includes a 13% addition to allow for designers in other ANZSIC categories) have shown more modest growth at 1.0 per cent annually in keeping with the national growth picture (+1.2% pa).

Table 7: Design employment in Auckland, 2000-2012

	Auckland employment 2000	Auckland employment 2012	Auckland share of NZ 2012	Auckland growth 2000-2012	Auckland annual growth 2000-2012	NZ annual growth 2000-2012
Architectural Services	1,060	1,760	46%	700	4.3%	4.5%
Other Specialised Design Services (plus 13%)	1,650	1,853	47%	203	1.0%	1.2%
Advertising Services	2,080	3,220	67%	1,140	3.7%	3.5%
Creative Artists, Musicians, Writers and Performers (partial: 4%)	12	6	30%	-6	-5.1%	-2.6%
Total design	4,802	6,840	54%	2,038	3.0%	2.9%
Total creative	19,606	17,896	49%	-1,709	-0.8%	-1.1%

8.2 Publishing sub-sector

Publishing employment in Auckland is declining but still significant: publishing makes up 18 per cent of creative sector employment in Auckland. It includes the publication of newspapers, periodicals and books, and authors. Newspaper printing/publishing and periodical publishing together make up over 80 per cent of the publishing sub-sector in Auckland, and Auckland provides most (80%) of the country's periodical publishing employment. Publishing in Auckland has been declining fairly steadily since 2000, while at the national level there was more stability from 2001 to 2005 followed by a steeper decline (see Figure 7).

Figure 7: Publishing employment (ECs) Auckland and New Zealand, 2000-2012

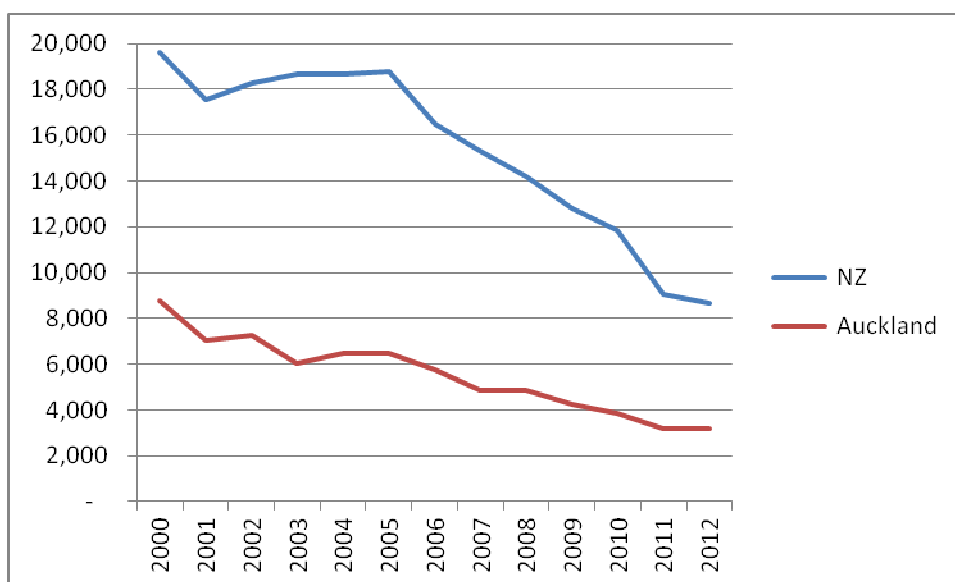


Table 8 shows the following about publishing employment and its component activities' growth between 2000 and 2012.

- The publishing sub-sector in Auckland was dominated in 2000 by Newspaper Publishing at 6260 ECs, representing 71 per cent of the sub-sector's employment. From 2000 to 2012 employment in Newspaper Publishing declined sharply (-11.7% pa), which was the main cause of the sector's decline and resulted in Newspaper Publishing's share of all publishing employment in Auckland falling to 44 per cent.
- Magazine And Other Periodical Publishing employment has remained more buoyant since 2000 although still falling by an average of 2.6 per cent per year, similar to the national growth rate (-2.8% pa). This has resulted in most (80%) of national employment in periodical publishing still being located in Auckland.
- Together, newspaper and periodical publishing make up 84 per cent of the publishing sub-sector in Auckland; Book Publishing is less than 15 per cent.

Table 8: Publishing employment in Auckland, 2000-2012

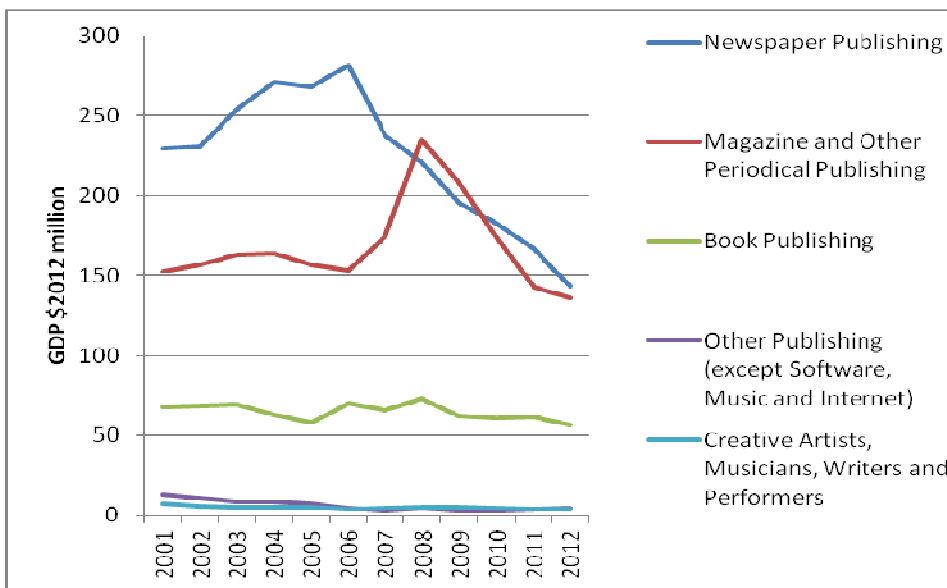
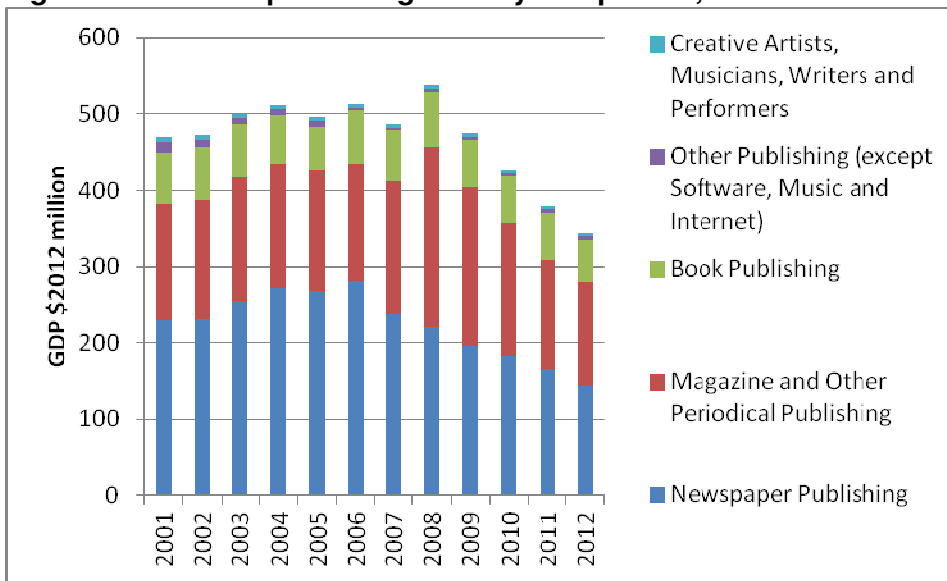
	Auckland employment 2000	Auckland employment 2012	Auckland share of NZ 2012	Auckland growth 2000-2012	Auckland annual growth 2000-2012	NZ annual growth 2000-2012
Newspaper Publishing	6,260	1,410	24%	-4,850	-11.7%	-7.8%
Magazine and Other Periodical Publishing	1,750	1,270	80%	-480	-2.6%	-2.8%
Book Publishing	570	460	57%	-110	-1.8%	-2.5%
Other Publishing (except Software, Music and Internet)	100	18	12%	-82	-13.3%	-3.5%
Creative Artists, Musicians, Writers and Performers (partial: 26%)	78	42	30%	-36	-5.1%	-2.6%
Total publishing	8,758	3,200	37%	-5,558	-8.0%	-6.6%
Total creative	19,606	17,896	49%	-1,709	-0.8%	-1.1%

Note: Newspaper Publishing's Auckland employment in 2000 may include a major company subsequently reclassified as a wholesaler and therefore no longer part of the creative sector as defined in this report

Based on Infometrics estimates of GDP and employment, the dramatic decline in publishing employment (2001 to 2012) has not been offset by productivity improvements; productivity has been largely constant, and instead GDP has declined for all component activities, but especially Newspaper Publishing (see Figure 8).

Infometrics' estimates of employment falls in publishing are largely similar to Statistics New Zealand's for all component activities except Newspaper Publishing, which using Infometrics data fell by "only" 4.1 per cent per year, from "only" 2476 in 2001 to 1502 in 2012.

Figure 8 Auckland publishing GDP by component, 2001 - 2012



8.3 Screen production: TV sub-sector

Screen production - TV consists of free-to-air, cable and other subscription TV broadcasting. Collectively these industries account for 14 per cent of employment in the creative sector in Auckland. New Zealand's TV employment is concentrated in Auckland, which has most (85%) of the national workforce as a result of the national broadcasters TVNZ, TV3 and Sky having their head offices there. There has been significant employment growth in the TV sub-sector in Auckland since 2000, mirrored at the national level after 2003 (see Figure 9).

Figure 9: TV employment (ECs) Auckland and New Zealand, 2000-2012

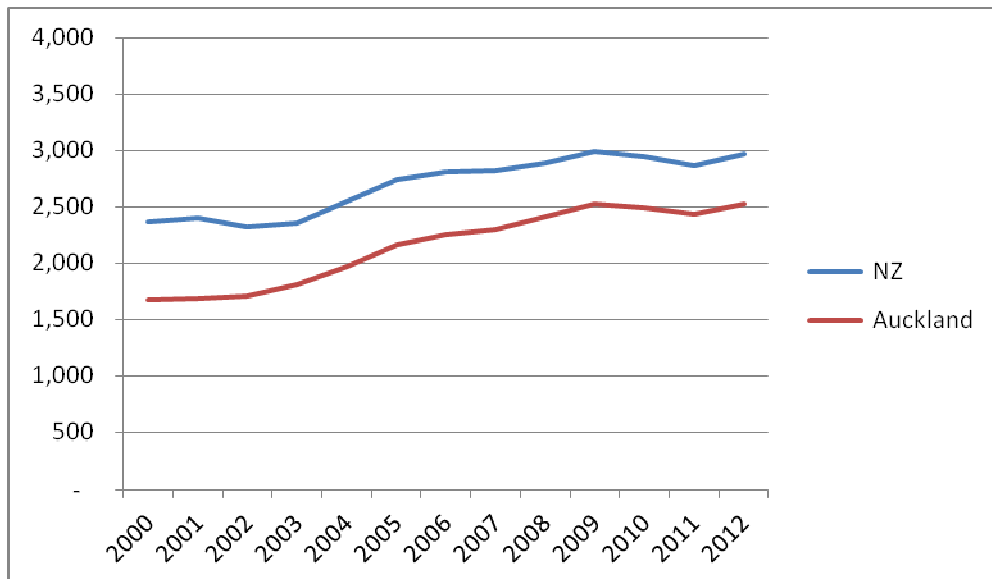


Table 9 shows the following about TV employment and its component activities' growth between 2000 and 2012.

- Total growth in TV employment in Auckland from 2000 to 2012 was 3.5 per cent annually, higher than the national growth rate of 1.9 per cent annually.
- Cable and Other Subscription Programming employment (largely Sky satellite TV) (+8.5% pa) has grown seven times faster than free-to-air employment (+1.2% pa), providing over three quarters of total TV employment growth (660 vs. 860) and accounting for nearly two fifths (38%) of total TV employment by 2012 (1060 vs. 2530).

Table 9: Screen production: TV employment in Auckland, 2000-2012

	Auckland employment 2000	Auckland employment 2012	Auckland share of NZ 2012	Auckland growth 2000-2012	Auckland annual growth 2000-2012	NZ annual growth 2000-2012
Free-to-Air Television Broadcasting	1,270	1,470	82%	200	1.2%	-0.3%
Cable and Other Subscription Programming	400	1,060	91%	660	8.5%	7.3%
Total TV	1,670	2,530	85%	860	3.5%	1.9%
Total creative	19,606	17,896	49%	-1,709	-0.8%	-1.1%

8.4 Screen production: film and video sub-sector

Screen production - film and video is dominated by motion picture exhibition (54% of the sub-sector's employment in Auckland), but motion picture production (38%) is also a substantial component; the subsector also includes ancillary post-production services and activities (but not ANZSIC J5512 Motion Picture and Video Distribution, which employs 190 people). Collectively these industries account for 9 per cent of employment in the creative sector in Auckland. Employment in Auckland accounts for half (48%) of the national employment in the sub-sector, and shows similar movements over time apart from a sharper drop from 2003 to 2004 (see Figure 10).

Figure 10: Film and video employment (ECs) Auckland and New Zealand, 2000-2012

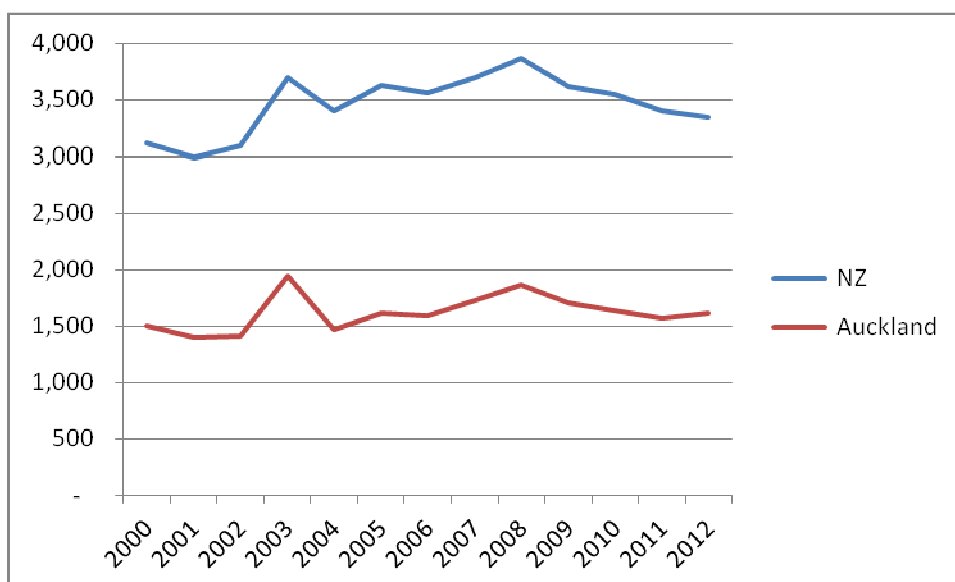


Table 10 shows the following about film and video employment and its component activities' growth between 2000 and 2012.

- Half (48%) of New Zealand's film and video workforce is based in Auckland; this sub-sector accounts for 9 per cent of Auckland's creative sector employment. Overall growth in film and video employment in Auckland averaged 0.6 per cent a year between 2000 and 2012, the same as the sector's national growth rate over the same period (+0.6% pa).

- Motion picture exhibition has grown more rapidly than all of the other components of the film and video sub-sector, averaging 2.7 per cent per annum.
- Motion picture and video production represents 38 per cent of Auckland's film and video employment and has undergone a slight contraction from 2000 to 2012 in both Auckland (-1.6% pa) and New Zealand (-1.7% pa); over half (61%) of New Zealand's motion picture and video production workforce is based in Auckland. This category has an unusually high number of businesses that have no employees (1226 GUs) relative to the number of employees (610), which suggests that the category is likely to have an unusually high proportion of working proprietors who are not captured in the employment statistics. Similarly, Infometrics estimate that there are 3175 people working in this category, which is five times higher than the Statistics New Zealand measure of its employees (610).
- Post-production activities have seen modest growth with a 1.5 per cent annual average; however, this is lower than the national growth rate of 3.8 per cent. Auckland still accounts for nearly half (48%) of national employment in these activities.

Table 10: Screen production (film and video) employment in Auckland, 2000-2012

	Auckland employment 2000	Auckland employment 2012	Auckland share of NZ 2012	Auckland growth 2000-2012	Auckland annual growth 2000-2012	NZ annual growth 2000-2012
Motion Picture and Video Production	740	610	61%	-130	-1.6%	-1.7%
Motion Picture Exhibition	630	870	43%	240	2.7%	1.8%
Creative Artists, Musicians, Writers and Performers (partial: 10%)	30	16	30%	-14	-5.1%	-2.6%
Postproduction Services and Other Motion Picture and Video Activities	100	120	48%	20	1.5%	3.8%
Total film and video	1,500	1,616	48%	116	0.6%	0.6%
Total creative	19,606	17,896	49%	-1,709	-0.8%	-1.1%

8.5 Radio sub-sector

Radio employment in Auckland accounts for 41 per cent of national employment, indicating that radio employment is less concentrated in Auckland than other creative industry sub-sectors (49%), but still above the rest of the Auckland economy (33%). Radio broadcasting provides 6 per cent of Auckland's creative sector employment. Employment growth in this sub-sector continued (slowly) in Auckland even after the GFC (2008), despite a significant fall at the national level (see Figure 11).

Figure 11: Radio employment (ECs) Auckland and New Zealand, 2000-2012

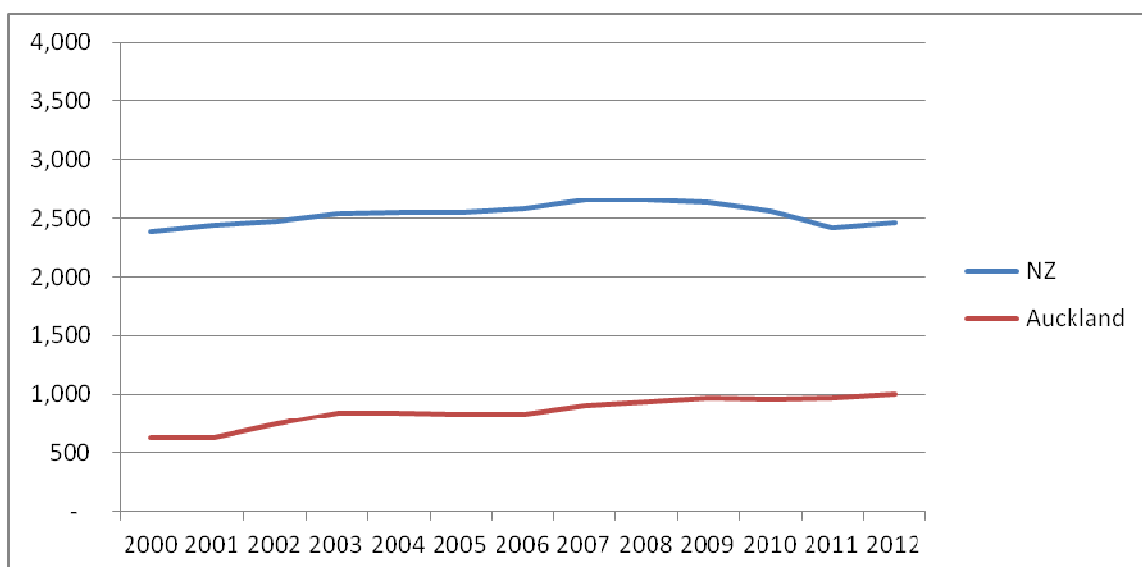


Table 11 shows the following about radio employment and its component activities' growth between 2000 and 2012.

- Auckland's share of national employment is lower for radio (41%) than the creative sector as a whole (49%), but still well above the total Auckland economy's share (33%).
- Growth in employment in radio broadcasting in Auckland (+3.9% pa) has outpaced national growth (+0.2% pa).

Table 11: Radio employment in Auckland, 2000-2012

	Auckland employment 2000	Auckland employment 2012	Auckland share of NZ 2012	Auckland growth 2000-2012	Auckland annual growth 2000-2012	NZ annual growth 2000-2012
Radio Broadcasting	630	1,000	41%	370	3.9%	0.2%
Total creative	19,606	17,896	49%	-1,709	-0.8%	-1.1%

8.6 Digital media sub-sector

Digital media represents those industries primarily involved in computer systems design focused on the internet, plus software and internet publishing and broadcasting²⁶. This creative sub-sector accounts for 4 per cent of employment in the creative sector in Auckland. Auckland accounts for 52 per cent of the national employment in digital media, similar to the creative sector as a whole (49%).

²⁶ Businesses mainly engaged in the publishing and/or broadcasting of content on the internet in the form of text, audio and video of general or specific interest. These businesses do provide traditional (non-internet) versions of their content.

Growth in Auckland has mostly been similar to the national average, but lower since 2006. Overall, growth in the sub-sector in Auckland averaged 8.4 per cent a year since 2000, slightly faster than the national growth (+8.0% pa) but much faster than Auckland's creative sector in total (see Figure 12 – note scale differs from other sub-sectors).

Figure 12: Digital media employment (ECs) Auckland and New Zealand, 2000-2012

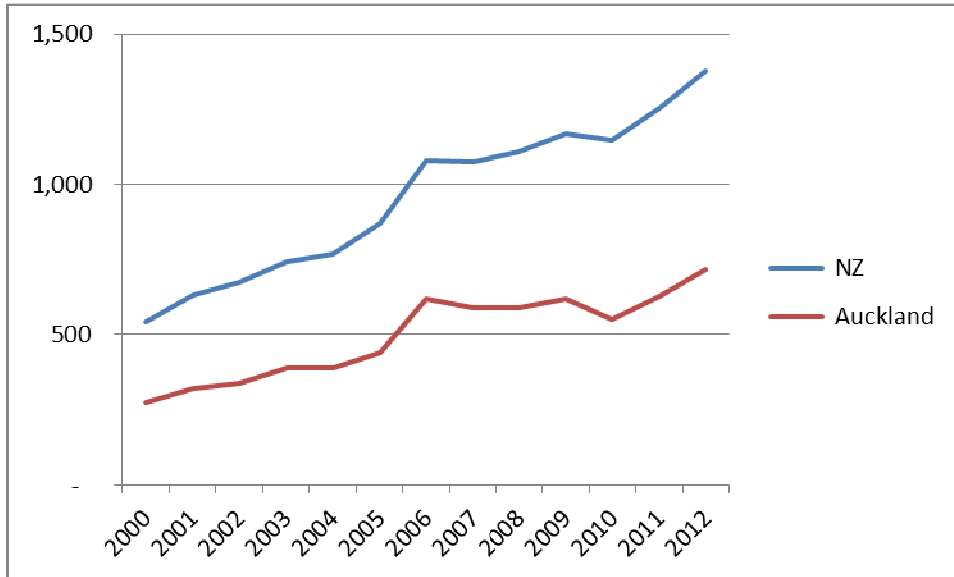


Table 12 shows the following about digital media employment and its component activities' growth between 2000 and 2012.

- Internet publishing and broadcasting is an emerging sector in Auckland, having grown from an almost zero base in 2000 to 70 ECs in 2012 and accounts for 82 per cent of the total New Zealand employment in the industry.
- Software publishing is also an emerging sector, but Auckland's share of national employment (43%) is slightly lower than for the creative sector as a whole (49%)
- Employment in Auckland in computer systems and design related to the production and dissemination of digital media²⁷ has grown on average by 6.9 per cent per year since 2000 and accounts for half (51%) of the nation's employment in that activity.

²⁷ Calculated as 5 per cent of the total Computer Systems Design and Related Services activity (ANZSIC M70000), as per Auckland City Council, 2009. *Auckland's creative industries: The numbers 2009* which used that ratio based on occupational employment data

Table 12: Digital media employment in Auckland, 2000-2012

	Auckland employment 2000	Auckland employment 2012	Auckland share of NZ 2012	Auckland growth 2000-2012	Auckland annual growth 2000-2012	NZ annual growth 2000-2012
Software Publishing	3	60	43%	57	28.4%	37.7%
Internet Publishing and Broadcasting	6	70	82%	64	22.7%	13.8%
Computer Systems Design and Related Services (partial: 5% included)	265	588	51%	323	6.9%	6.8%
Total digital media	274	718	52%	444	8.4%	8.0%
Total creative	19,606	17,896	49%	-1,709	-0.8%	-1.1%

8.7 Performing arts sub-sector

Performing arts includes music and theatre production, performing arts venues, performers and services to the arts. Performing arts makes up 5.3 per cent of employment in the creative sector in Auckland, so employment is relatively small, and growth is concentrated in performing art venues. Employment levels in the sub-sector from 2000 to 2008 were stable or falling, in contrast to the modest growth trend seen throughout New Zealand, but since then Auckland has grown similarly to the national rate (see Figure 13).

However, this sub-sector is particularly problematic for using employee counts as a proxy for total activity, as described in Appendix 4: Estimating employment; for more details on the difficulties in measuring employment numbers in this specific sub-sector, see Appendix 6: Difficulties with R900200.

Figure 13: Performing arts employment (ECs) Auckland and New Zealand, 2000-2012

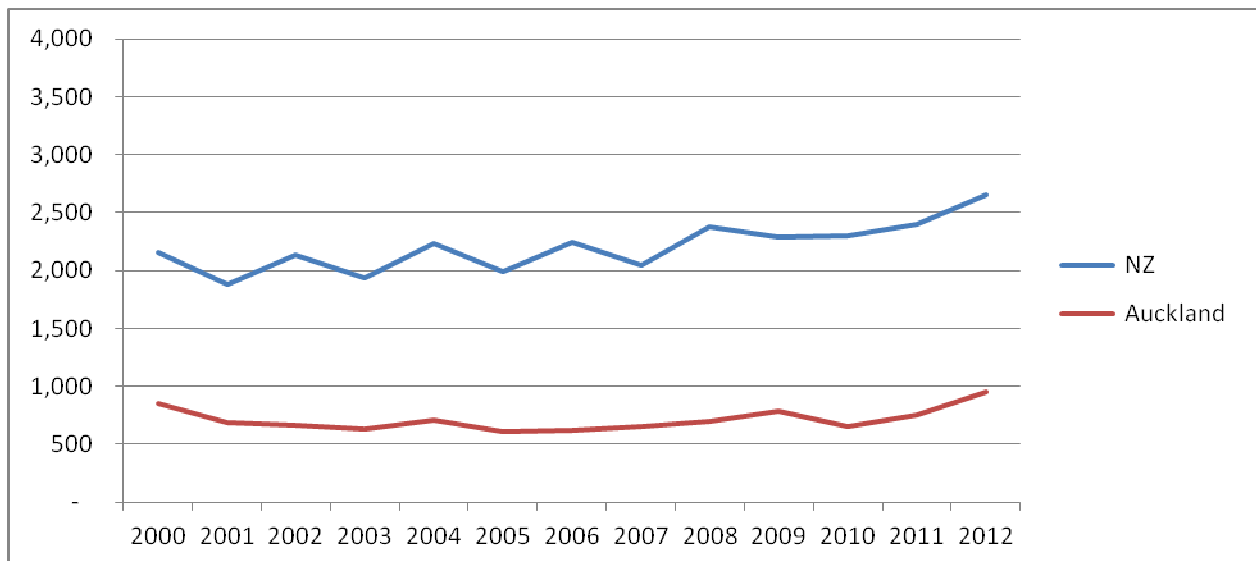


Table 13 shows the following about performing arts employment and its component activities' growth between 2000 and 2012.

- Two-thirds (66%) of employment in the Auckland performing arts sub-sector is related to venue operations (i.e. theatres, concert halls, entertainment centres) and employment in this area has grown on average by 5.8 per cent per year, somewhat higher than national growth (+4.7% pa).
- Since 2000 there has been a decline of 3.8 per cent annually in employment in performing arts operations (i.e. the production of theatrical, dance and musical performances etc.) and associated ancillary services (e.g. casting agencies), whereas at the national level this activity has been stable (+0.4% pa).
- Overall, employment in the performing arts in Auckland has grown slightly (+0.9% pa) since 2000 compared to a 1.7 per cent annual increase over the same period nationally.

Table: 13 Performing arts employment in Auckland, 2000-2012

	Auckland employment 2000	Auckland employment 2012	Auckland share of NZ 2012	Auckland growth 2000-2012	Auckland annual growth 2000-2012	NZ annual growth 2000-2012
Performing Arts Operation	350	220	22%	-130	-3.8%	0.4%
Creative Artists, Musicians, Writers and Performers (partial: 11%)	33	18	30%	-15	-5.1%	-2.6%
Services to the arts (50% of total Creative Artists, Musicians, Writers and Performers)	150	80	30%	-70	-5.1%	-2.6%
Performing Arts Venue Operation	320	630	47%	310	5.8%	4.7%
Total performing arts	853	948	36%	95	0.9%	1.7%
Total creative	19,606	17,896	49%	-1,709	-0.8%	-1.1%

8.8 Visual arts sub-sector

The visual arts sub-sector covers photographic studios, visual arts and crafts. It makes up 4.5 per cent of employment in the creative sector in Auckland. Auckland's share of the national sub-sector (34%) matches its population share.

Employment in this sub-sector has been slowly declining since 2004 in both Auckland and New Zealand, but Auckland missed out on the modest national growth from 2000 to 2004. Overall, employment in this sub-sector in Auckland declined by 185 employees (-1.7% pa) between 2000 and 2012 (see Figure 14).

Figure 14: Visual arts employment (ECs) Auckland and New Zealand, 2000-2012

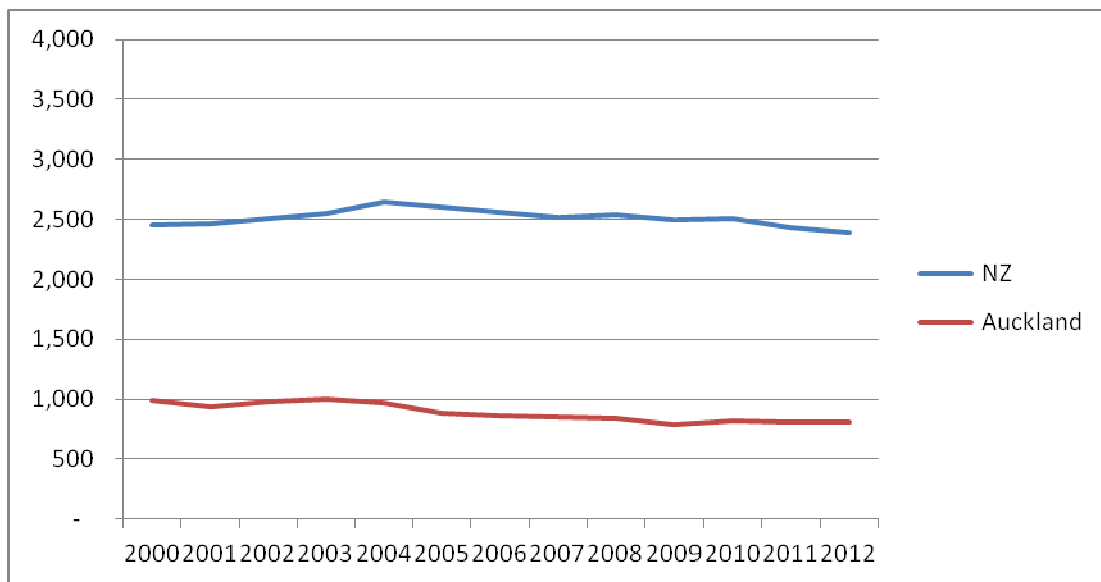


Table 14 shows the following about visual arts employment and its component activities' growth between 2000 and 2012.

- Employment in the visual arts sub-sector is predominantly in photographic studios and jewellery and silver manufacturing, followed by museums/galleries.
- Ceramic product manufacturing has a higher share of national employment in Auckland (46%) than most other visual arts activities. However, employment in this activity has been declining on average by 4.1 per cent annually since 2000 in Auckland, similar to the national employment situation (-3.9% pa).
- Photographic services also have a high share of national employment located in Auckland (47%), and also declined but at a slower rate in both Auckland (-1.6% pa) and nationally (-0.8% pa). In addition, there are 406 Auckland businesses with no employees.
- Jewellery and silver manufacturing has declined in both Auckland (-3.1% pa) and nationally (-1.0% pa).
- Museum/gallery employment in Auckland is the only visual arts activity to show net growth: on average 4.6 per cent per year, a growth rate somewhat higher than the national rate of 3.1 per cent.

Table 14: Visual arts employment in Auckland, 2000-2012

	Auckland employment 2000	Auckland employment 2012	Auckland share of NZ 2012	Auckland growth 2000-2012	Auckland annual growth 2000-2012	NZ annual growth 2000-2012
Other Ceramic Product Manufacturing (partial: 33%)	92	56	46%	-36	-4.1%	-3.9%
Jewellery and Silverware Manufacturing	350	240	35%	-110	-3.1%	-1.0%
Professional Photographic Services	340	280	47%	-60	-1.6%	-0.8%
Museum Operation (partial: 32%)	102	176	22%	74	4.6%	3.1%
Creative Artists, Musicians, Writers and Performers (partial: 37%)	111	59	30%	-52	-5.1%	-2.6%
Total visual arts	996	811	34%	-185	-1.7%	-0.2%
Total creative	19,606	17,896	49%	-1,709	-0.8%	-1.1%

8.9 Music sub-sector

Music includes sound recording studios, recorded media and publishing, and composers. Music provides 1.3 per cent of employment in Auckland’s creative sector. However, it is likely that some musicians may be classified under the performing arts sub-sector. From a very small base, music in Auckland has experienced even higher employment growth rates than the rest of New Zealand between 2000 and 2012, but with growth limited to the reproduction of recorded media (see Figure 15 – note that scale differs from preceding sub-sectors).

Figure 15: Music employment (ECs) Auckland and New Zealand, 2000-2012

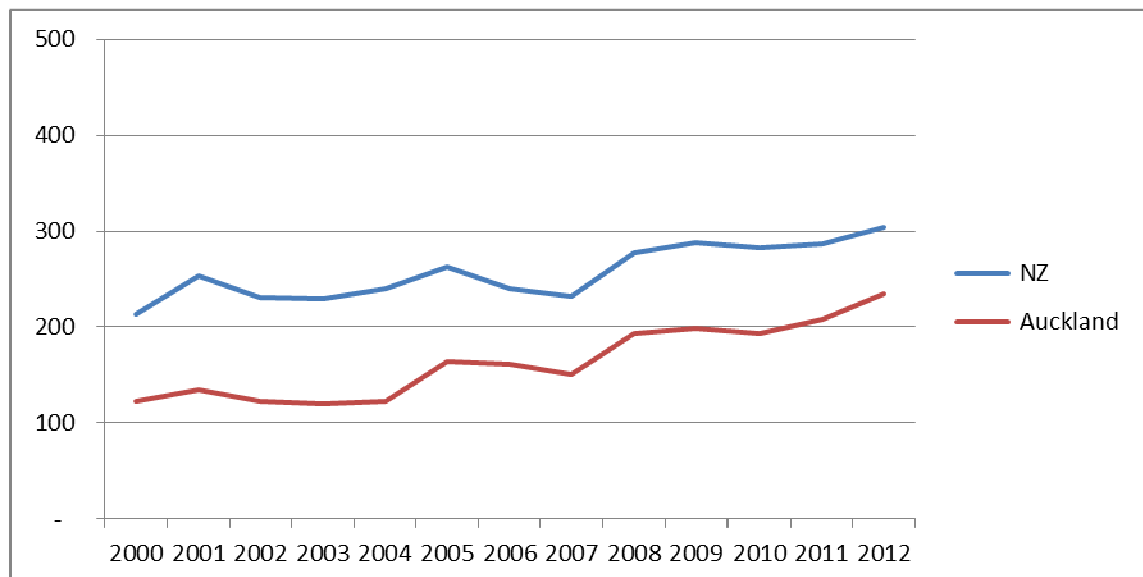


Table 15 shows the following about music employment and its component activities' growth between 2000 and 2012.

- Although it has a small employment base, music has a greater share of its national employment in Auckland (77%) than the rest of the creative sector. Music in Auckland has also experienced higher employment growth rates (+5.5% pa) than the rest of the creative sector (-0.8% pa) between 2000 and 2012, with growth concentrated solely in the reproduction of recorded media (21.2% pa – but from a very small baseline).
- Over half (60 per cent) of employment in the music sub-sector is in the reproduction of recorded media (e.g. CD, DVD and tape), which has grown rapidly from a small base to account for over 90 per cent of the national employment in this industry.
- The other sizable share of the Auckland music sub-sector is music and other sound recording activities. While accounting for 32 per cent of music employment in Auckland, there has been no change (+0.0% pa) in employment since 2000, compared to a small decline nationally (-1.7% pa).

Table 15: Music employment in Auckland, 2000-2012

	Auckland employment 2000	Auckland employment 2012	Auckland share of NZ 2012	Auckland growth 2000-2012	Auckland annual growth 2000-2012	NZ annual growth 2000-2012
Reproduction of Recorded Media	12	140	93%	128	22.7%	21.2%
Music and Other Sound Recording Activities	75	75	83%	0	0.0%	-1.7%
Creative Artists, Musicians, Writers and Performers (partial: 12%)	36	19	30%	-17	-5.1%	-2.6%
Total music	123	234	77%	111	5.5%	3.0%
Total creative	19,606	17,896	49%	-1,709	-0.8%	-1.1%

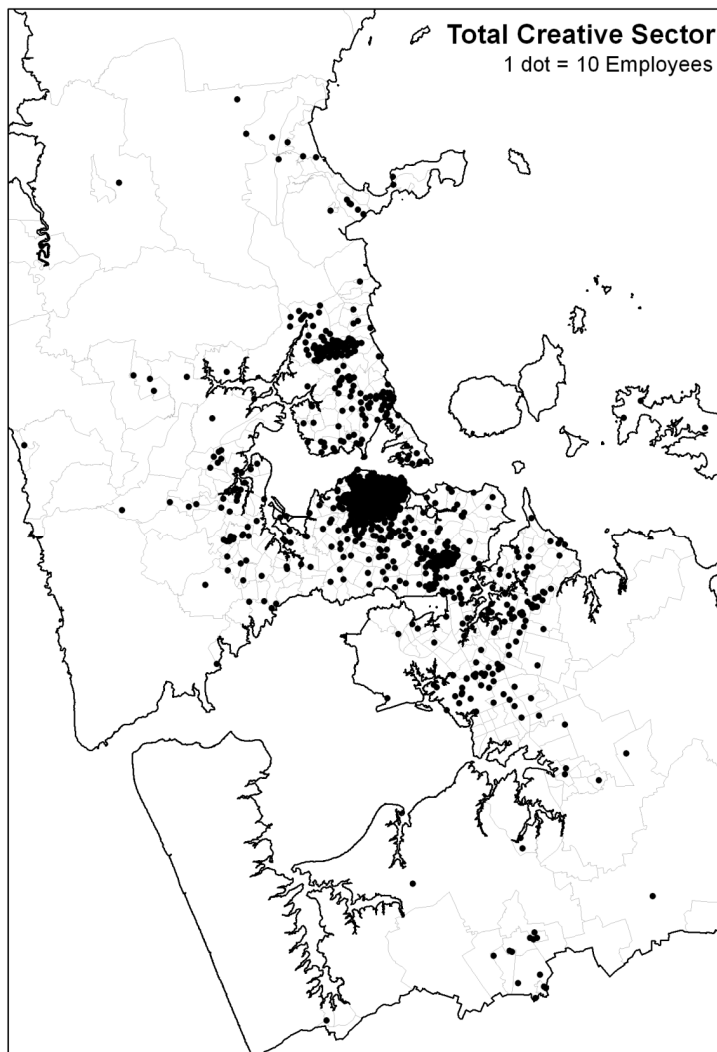
9 Sub-sector employment by location²⁸

This section contains an analysis of the distribution and concentration of creative sector employment in Auckland in 2012, at both the sector and sub-sector levels. The main changes from 2000 to 2012 are also summarised.

9.1 Concentrations of creative sector employment

The location of creative sector employment is extremely concentrated, more so than for businesses. Creative sector employment in Auckland is largely concentrated in the CBD and fringes, plus lesser concentrations around Mount Wellington/Ellerslie/Ferndale, North Harbour and Takapuna (see Figure 16).

Figure 16: Creative sector employment by census area unit, 2012



²⁸ Source: Statistics New Zealand, 2012. *Business Demographics*

Table 16 shows that creative sector employment in Auckland is located primarily in Waitemata local board (57.4%), but substantial portions of the sector are also located in Maungakiekie-Tamaki (9.4%), Albert-Eden (7.3%) and Upper Harbour (5.4%). These four local boards together provide 80 per cent of the sector's employment. Next highest is Howick, with only 3.0 per cent, and the rest have even smaller shares (including Henderson-Massey, which is home to only 2.1% of the sector).

Waitemata is not only a major employment area for all sectors of the economy, but also has a relatively high proportion of its employment devoted to the creative sector (6.6%). The other three main locations (Maungakiekie-Tamaki, Albert-Eden and Upper Harbour) have creative sector shares of their economy closer to the Auckland average (2.2%, 3.5% and 2.6%, versus 2.8%), so their high shares of the creative sector are mainly due to their sheer size of overall employment (especially Maungakiekie-Tamaki).

Table 16: Creative sector employment by local board, 2012

	Creative sector employees	Share of creative sector	Creative % of all sectors
Waitemata	10,257	57.4%	6.6%
Maungakiekie-Tamaki	1,689	9.4%	2.2%
Albert-Eden	1,311	7.3%	3.5%
Upper Harbour	967	5.4%	2.6%
Howick	543	3.0%	1.3%
Henderson-Massey	374	2.1%	1.3%
Rest of Auckland	3,117	17.4%	1.1%
Auckland Total	17,884	100.0%	2.8%

9.2 Concentrations of creative sub-sectors

Figure 17 shows the creative sub-sectors' employment distribution by location (local board); the most significant concentrations are as follows.

Waitemata is strong in all creative sub-sectors (57% on average), but more so in some than others. Auckland's radio employment is mostly in Waitemata (81%), as is most music (74%), but the local board is less strong in film and video (37%) and visual arts (39%). Waitemata's design sub-sector alone employs at least twice as many people as the entire creative sector in each of the other local boards.

Maungakiekie-Tamaki has 9 per cent of Auckland's creative sector employment, but nearly half (41%) of Auckland's TV sub-sector. Consequently, the majority (61%) of Maungakiekie-Tamaki's creative sector employment is in TV - all of it subscription i.e. Sky TV. Conversely, Maungakiekie-Tamaki has only a minimal share of Auckland's performing arts (0.6%) and music (0.0%) sub-sectors.

Albert-Eden has 7 per cent of Auckland’s creative sector employment, with higher shares for publishing (13%) and performing arts (13%). Consequently, publishing accounts for 32 per cent of Albert-Eden’s creative sector employment.

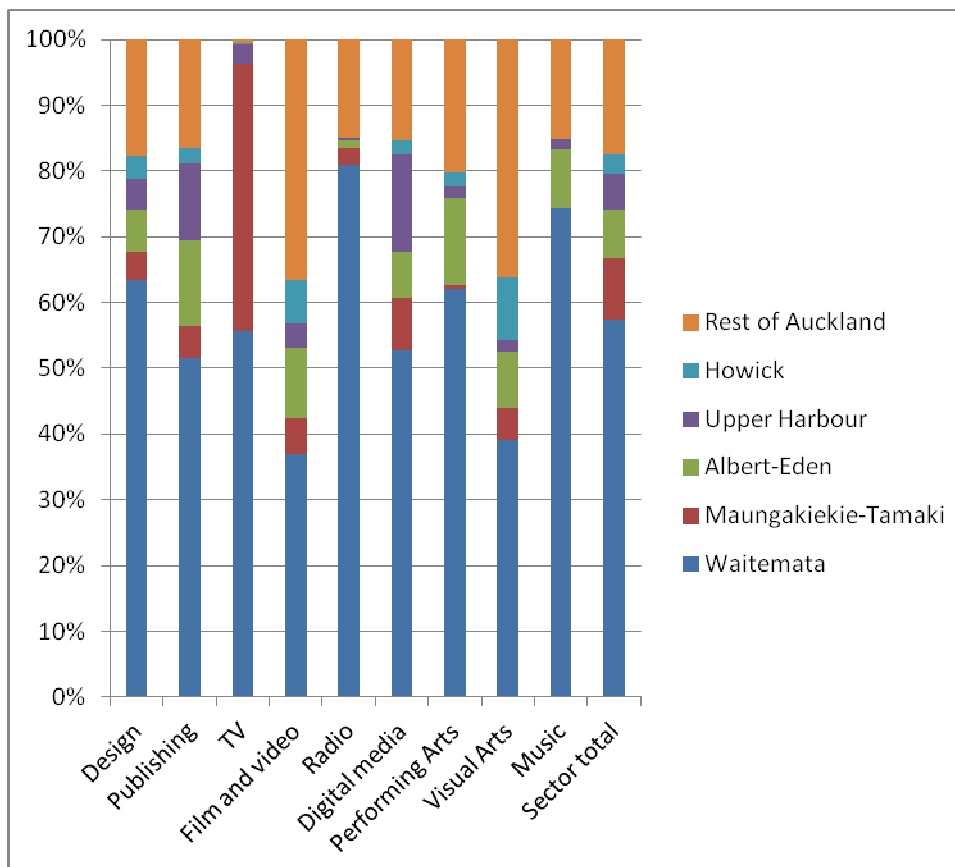
Upper Harbour has 5 per cent of Auckland’s creative sector employment, but with much higher shares for publishing (12%) and digital media (15%). Consequently, publishing accounts for 39 per cent of Upper Harbour’s creative sector employment, and digital media’s share is also relatively high here (11%). Conversely, Upper Harbour has only a minimal share of Auckland’s radio (0.3%), performing arts (1.6%), visual arts (1.8%) and music (1.7%) sub-sectors.

Howick has only 3 per cent of Auckland’s creative sector employment, but employs 9 per cent of Auckland’s visual arts and 7 per cent of its film and video sub-sectors.

Henderson-Massey (not shown) has only 2 per cent of Auckland’s creative sector employment, less than Howick, Devonport-Takapuna and Kaipatiki, but employs 10 per cent of the screen production (film and video) sub-sector. Consequently, film and video accounts for nearly half (44%) of Henderson-Massey’s creative sector employment. However, the creative sector is still only a tiny portion (1.3%) of Henderson-Massey’s total employment.

For further analysis of employment distribution by sub-sector, see Appendix 5: Sub-sector locations.

Figure 17: Employment concentrations of creative sub-sectors by location, 2012



9.3 Changes by locations of creative sub-sectors

The main changes in creative sub-sector employment between 2000 and 2012 are in the local boards that had a major reduction in publishing; in addition, Waitemata had substantial growth in design and the arts, and Maungakiekie-Tamaki in TV. Main changes in employment (ECs) by location are as follows:

Waitemata: Net fall (-400); major fall in publishing (-2500), mostly newspapers (-2200); major rises in design (+1600), mostly advertising (+900) and architects (+500); also growth in performing arts (+200); visual arts (+200).

Maungakiekie-Tamaki: Net fall (-600), from a modest base of 2200. Newspaper publishing had been half the sector but practically disappeared (-1100); partially offset by growth of Sky TV (+600)

Otara-Papatoetoe: net fall (-500), all from newspaper publishing (-500) which had provided three quarters of the location's creative employment

Orakei: Net fall (-500), mostly publishing (-400), which had provided over half the location's creative employment

Whau: net fall (-300), mostly due to disappearance of film and video (-200)

Rodney: net fall (-200), all from disappearance of magazine publishing (-200)

Henderson-Massey: No net growth (+0); near disappearance of newspaper publishing (-200) offset by motion picture exhibition (+100) and other sub-sectors

Upper Harbour: net gain (+300) on a relatively low base (700), mostly from design (+200)

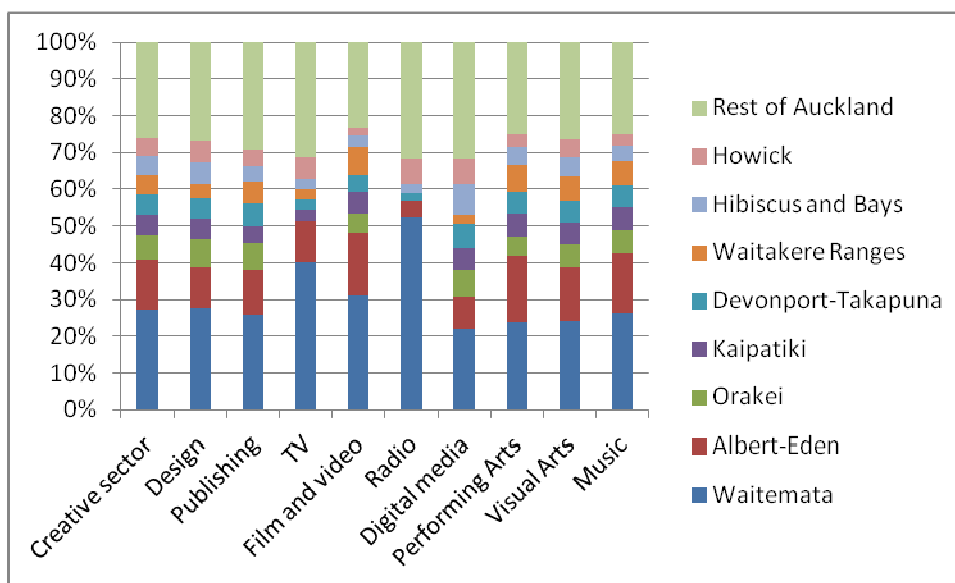
Howick: Net growth +100, driven by design (+100).

10 Business locations of sub-sectors²⁹

The location of creative sector businesses is more dispersed than for employment. Figure 18 shows, for the total creative sector and for each creative sub-sector, the share of those businesses that each local board has.

There are 9,044 creative businesses in total, of which a quarter (27%) are in the Waitemata local board. This is much lower than Waitemata's share of creative employment (57%), indicating that businesses are much less geographically concentrated than employment, because creative sector businesses tend to be larger in Waitemata than elsewhere. Consequently, several other local boards each have at least 4 per cent of the creative sector's businesses. Nevertheless, three quarters (74%) of Auckland's businesses are in just eight locations, all in the Auckland isthmus (central and east), the North Shore or Waitakere Ranges. The top three business locations (Waitemata 27%, Albert-Eden 13% and Orakei 7%) are all in the isthmus and comprise nearly half (47%) of the overall total.

Figure 18: Locations of creative sector businesses, Auckland, 2012



At the sub-sector level, Figure 18 shows the following.

- **Screen production (TV)** businesses are even more highly concentrated in Waitemata (40%), plus an unusually high proportion are in Maungakiekie-Tamaki (23%) which has much smaller shares of other sub-sectors.
- **Radio** businesses are extremely concentrated in Waitemata (52%)
- The Upper Harbour's share of **Digital media** businesses (8%, not shown) is much smaller than its share of employment (15%), implying a larger average size of businesses in the sub-sector there than in the rest of Auckland.

²⁹ Source: Statistics New Zealand, 2012. *Business Demographics*

11 Exports by sub-sector

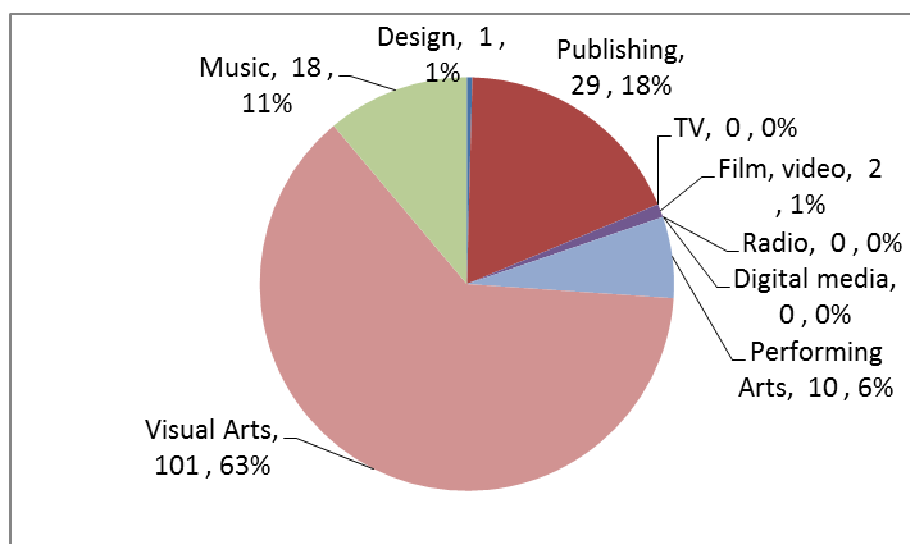
Export data for Auckland's creative sector as defined in this report is not available in official data from Statistics New Zealand; commodities exports are available for 2012, but most services are excluded (see Introduction and sector definition section). The creative sector's goods exports through Auckland airport and sea ports are relatively low compared to employment and GDP: \$161 million, which is 1.8 per cent of Auckland's total exports and 8.9 per cent of the Auckland creative sector's GDP (see Table 17).

Table 17: Creative sector and sub-sectors exports via Auckland (goods only), 2012

Creative sub-sector	Exports \$million	Share of sector
Design	1	0.4%
Publishing	29	18.3%
TV	0	0.0%
Film, video	2	1.0%
Radio	0	0.0%
Digital media	0	0.0%
Performing Arts	10	6.4%
Visual Arts	101	62.8%
Music	18	11.1%
Total creative sector	161	100.0%
Total All Sectors	8,756	n/a
Creative sector GDP	1,802	n/a

Figure 19 shows that nearly two-thirds (63%) of the sector's exports (goods only not services) are accounted for by visual arts (\$101 million), with publishing a distant second (\$29 million). Visual arts exports are more than its GDP (\$56 million), which suggests a high cost of raw materials. This is not surprising, given that the sub-sector's exports consist largely of jewellery and silverware (\$92 million).

Figure 19: Creative sub-sectors goods exports via Auckland, \$million, 2012



Time series export data is not available for the creative sector and its sub-sectors as defined in this report. However, Martin Jenkins' 2012 Auckland Tourism, Events and Economic Development Ltd (ATEED) Sector Engagement Framework has modelled estimates of 2001-2008 export data for a "screen and creative (digital) content" sector, which overlaps the definition in this report but has major differences (see Introduction and sector definition section above). For comparison, the "screen and creative (digital) content" sector had 10,896 employees in 2010, which is two-thirds (63%) as large as the creative sector as defined in this report (17,390). However, their data includes an estimate for services exports.

Screen and creative (digital) content sector exports grew from \$169 million in 2001 to \$222 million in 2008; the average growth rate was 4.8% per annum, which they describe as "below average, and export volumes are quite low".

Table 18 shows export data for 2001 – 2008 for the "top performing segments" of the screen and creative (digital) content sector. Motion Picture and Video Production reaches \$116 million, (half the sector's exports) by 2008 after rapid growth (+15.4% pa); however, the sub-sector provides less than a tenth of the sector's employment and GDP.

Table 18: Auckland screen and creative (digital) content sector exports, 2001-2008

Screen and creative (digital) content segment	Employment (2010)	Exports (NZD, million, 2008)	Export growth (CAGR 2001-2008)
Motion Picture and Video Production	780	116	15.4%
Post-production Services and Other Motion Picture and Video Activities	110	21	15.4%
Magazine and Other Periodical Publishing	1,610	17	4.0%
Other Specialised Design Services	1,500	12	3.5%
Remainder of "Screen and creative (digital) content"	6,896	56	-6.1%
Total Screen and creative (digital) content sector	10,896	222	4.8%

12 Conclusion

Although Auckland is home to a large proportion of the country's creative sector, the sector is relatively small and of below-average productivity per employee (but not necessarily per hour worked); overall growth rates have been modest, and export levels are relatively low. However, the sector has important linkages to much of the rest of Auckland's economy, especially ICT, professional services, manufacturing and construction. Also, some sub-sectors are more promising due to different driver impacts.

One of the main drivers of the creative sector is technology, which affects costs and prices and therefore competitiveness and final demand as well as productivity and demand for labour. The shifts to digital and online activity have had major impacts on many aspects of the creative sector, including how it is delivered. Another important and related driver is the global economy, which affects both the New Zealand economy and the demand for exports. The overall net impacts in Auckland of the 2001-2007 boom, global financial crisis and subsequent recovery, coupled with the trends of globalisation and increasing wealth, have varied between the creative sub-sectors as follows.

- Design services, notably architectural and advertising, have had increasing demand; they have expanded their sales even faster than their productivity and so raised their employment to become the largest creative sub-sector.
- Traditional publishing, while still substantial in Auckland, is under-going a massive decline in both employees and value added, which has been only partly balanced by an increase in the digital media sub-sector and suggests an increase in off-shoring.
- TV has seen a modest boom, thanks to the growth of "subscription programming" (SKY). The ultimate impact of online media remains to be seen.
- Film and video production remains relatively labour intensive, but with productivity improvements being associated with expanded output rather than job cuts. There appears to have been a major shift towards non-employee workers including self-employed. Film and video is a substantial generator of exports, but it is not clear to what extent its rapid export growth pre-GFC can be sustained into the future.
- Digital media is hard to measure accurately, but appears to have grown strongly from a small base (partly at the expense of traditional publishing). Increased demand appears to have been met by more employees rather than higher productivity, but this sub-sector is particularly sensitive to technology-driven cost reductions leading to price cuts that lower the measured value over time of a given volume of output.
- Performing arts, visual arts and music are all minor in terms of employment and contribution to GDP, but have much higher proportions of non-employee workers. All have the potential to stimulate increased tourism, which benefits the rest of the economy. Visual arts are also a substantial export (jewellery), but the local content is a relatively low proportion (due to the cost of materials (silver)) so the benefit is less.

The most promising sub-sectors of the creative sector appear to be design, digital media and film and video production (including post-production). The design and digital media sub-sectors in particular have strengthened their positions as potential enablers for Auckland's future economic development in terms of knowledge and innovation. Film and video production has the potential to be a substantial exporter earner, which could also support growth in visual and performing arts and music.

Appendix 1: Glossary and abbreviations

ANZSIC: Australian and New Zealand Standard Industrial Classification, as re-defined in 2006, except where explicitly stated to be the 1996 version. The usual level of detail is 1-, 2-, 3- and 4- or 5-digit categories; 4-digit is currently the same as 5- and 6-digit.

ATEED: Auckland Tourism, Events and Economic Development Limited, a council-controlled organisation.

Auckland: The Auckland region, corresponding to the current Auckland Council territory, which includes the areas covered by the various former councils of the Auckland region (not just Auckland City Council).

Business: here used mainly to denote a single geographic business unit (“GU”), but in some contexts means a “firm”.

CAGR compound annual growth rate: the annual growth rate required to generate a given total growth over a period of time, allowing for compounding each year.

Category: category refers here to standard ANZSIC groupings at the 1-, 2-, 3- or 4-digit (or 5 or 6 digit) level.

Components: the various ANZSIC categories that combine to form a particular sub-sector.

EC Employee Count: The total number of employees in a sector; includes both full and part time employees but not working proprietors. See also “Data Sources” section.

Enterprise: a business entity that owns and manages one or more business units

FDI Foreign Direct Investment: direct investment into production or business in a country by an individual or company in another country, involving a measure of ownership and control (as opposed to passive or portfolio investment in shares or financial assets).

Firm: here used mainly to denote one or more businesses owned and managed together as a single entity.

GDP Gross Domestic Product: (often referred to as “Net Output” or “value added”) the total market value of all final goods and services produced within a country in a given period of time (usually a year). This is also equal to the sum of the value added at every stage of production (the intermediate stages) of all final goods and services produced within a country in a given period of time. The term is also applied to particular sectors of the economy and also at the regional level. See also GDP generated and GRP.

GDP generated: here refers only to direct value added by the sector itself, so does not include indirect or induced effects on other sectors (unless otherwise stated).

GFC: global financial crisis of 2007–2008, which triggered a global recession.

GRP Gross Regional Product: the net output or value added in a particular region, i.e. the portion of national GDP attributable to that region. See also GDP.

GU: geographic business unit: a separate operating unit engaged predominantly in one kind of economic activity from a single physical location or base (as used in Statistics New Zealand's Business Demography data).

HS10: 10-digit level Harmonised System to classify export commodities.

Labour Productivity: (average) labour productivity is used here to denote output per employee, calculated as total value added divided by total number of employees (both from ANZSIC 2006). It is affected by various things, including availability and quality of other factors of production (e.g. capital goods).

LQ Location Quotient: see SLQ.

MBIE: Ministry of Business, Innovation and Employment – incorporates some or all of several previous ministries.

MSI: Ministry of Science and Innovation (now part of MBIE).

n.e.c.: not elsewhere classified.

Output: Gross output is the value of goods and services produced. It consists of net output, or value added (see "GDP"), plus the cost of intermediate inputs.

Pa per annum: annual or per year.

Productivity: see Labour Productivity.

RCA Revealed Comparative Advantage: RCA of a product is New Zealand exporters' share of world exports of that product, compared to New Zealand exporters' average share of world exports of all products. RCA can also be calculated as that product's share of total New Zealand exports, compared to that product's share of total world exports.

Sector: The creative sector, unless otherwise indicated.

SLQ Simple Location Quotient: a statistical measurement of the relative concentration of a given industry in a given place. It is calculated by dividing the proportion of the area's economic activity in an industry, by the proportion of the nation's economic activity in that same industry. Calculated another way, it is a region's share of national activity in an industry, divided by the total regional economy's share of the total national economy. If the region was a scaled down version of the nation, then all its SLQs would equal 1. Instead, in most regions in most countries, some sectors are relatively larger than others and have a higher SLQ, and others are relatively smaller and have a lower SLQ (but the weighted average for all sectors in a given region is always 1). If the SLQ index for a sector is greater than 1, then the sector is deemed to be strong there (i.e. the industry is of high importance to the regional economy, compared to that sector's importance to the national economy).

SNZ: Statistics New Zealand (government department).

Sqm: square metres.

Sub-sector: Part of the sector; here, usually a grouping of ANZSIC 4- or 5-digit categories.

Subdivision(s): ANZSIC 2-digit category(s).

SWOT analysis: strengths, weaknesses, opportunities and threats.

Value added: see GDP.

Vs: versus

Appendix 2: Sector definition

This report uses the creative sector and sub-sectors definition from the Auckland City Council report *Auckland's creative industries: The numbers 2009*, as follows:

Sub-sector	ANZSIC 2006	ANZSIC06 Description	% deemed creative
Design	M69210	Architectural Services	100%
	M69240	Other Specialised Design Services	113%
	M69400	Advertising Services	100%
	R90020	Creative Artists, Musicians, Writers and Performers	4%
Publishing	J54110	Newspaper Publishing	100%
	J54120	Magazine and Other Periodical Publishing	100%
	J54130	Book Publishing	100%
	J54190	Other Publishing (except Software, Music and Internet)	100%
	R90020	Creative Artists, Musicians, Writers and Performers	26%
Screen Production: TV	J56210	Free-to-Air Television Broadcasting	100%
	J56220	Cable and Other Subscription Programming	100%
Screen production: Film, video	J55110	Motion Picture and Video Production	100%
	J55130	Motion Picture Exhibition	100%
	R90020	Creative Artists, Musicians, Writers and Performers	10%
	J55140	Postproduction Services and Other Motion Picture and Video Activities	100%
Radio	J56100	Radio Broadcasting	100%
Digital media	J54200	Software Publishing	100%
	J57000	Internet Publishing and Broadcasting	100%
	M70000	Computer Systems Design and Related Services	5%
Performing Arts	R90010	Performing Arts Operation	100%
	R90020	Creative Artists, Musicians, Writers and Performers	11%
	R90020	Services to the arts =R90020*50%	50%
	R90030	Performing Arts Venue Operation	100%
Visual Arts	C20290	Other Ceramic Product Manufacturing	33%
	C25910	Jewellery and Silverware Manufacturing	100%
	M69910	Professional Photographic Services	100%
	R89100	Museum Operation	32%
	R90020	Creative Artists, Musicians, Writers and Performers	37%
Music	C16200	Reproduction of Recorded Media	100%
	J55220	Music and Other Sound Recording Activities	100%
	R90020	Creative Artists, Musicians, Writers and Performers	12%

Note: Percentages highlighted in **yellow** denote partial inclusion in the creative sector:

- (R90020 is spread amongst several sub-sectors, but sums to 100%)
- M69240 is scaled up by 13% to allow for other designers in excluded categories.

- M70000 includes only the 5% who are assumed to be engaged in web-related (creative) activities.
- C20290 and R89100 are assumed to be partially creative.
- Services to the arts (in excluded categories) is assumed to be half the size of R90020.

Comparison to Martin Jenkins report for ATEED

The creative sector definition used in this report differs from Martin Jenkins' 2012 Auckland Tourism, Events and Economic Development Ltd (ATEED) Sector Engagement Framework, which includes a "screen and creative (digital) content" sector that overlaps the definition in this report but has major differences as follows:

- "while broader creative firms are included in the sector, the [Martin Jenkins/ATEED] focus is on digital content businesses"
- they exclude some (minor) ANZSIC categories that are in the creative sector
- they include only part of many creative sub-sectors, notably publishing and design
- they include three additional ANZSIC categories: motion picture distribution, music publishing and video rental
- they include small portions of 22 other additional ANZSIC categories, ranging from 0.4 per cent of Surveying and Mapping Services to 33 per cent of Libraries
- they divide the sector into 12 "segments", but do not list or describe which ANZSIC categories are aggregated into which segments.

While useful for some purposes, their approach of including numerous fractions of many ANZSIC categories has the disadvantage that there is no way to distinguish whether growth in activity in a fractional category is due to growth in the creative portion or the non-creative portion (or both).

Appendix 3: Data sources and limitations

This report uses a range of data sources. Each source has its own merits. Where possible, the most appropriate data source has been used. Unless otherwise stated, all business demographic data is from Statistics New Zealand's Business Demographics series.

Employment and Geographic Units – These are taken from Statistics New Zealand's Business Demography Survey 2000 to 2012, using the latest (ANZSIC 2006) classification system. Data is taken at the 4-digit level, which provides a perfect match to the sector definition used in this report. The survey is based on the Statistics New Zealand Longitudinal Business Frame ("LBF") and gives an annual snapshot (as at February, and released in October) of the structure and characteristics of New Zealand businesses. The series covers economically significant individual, private sector and public sector enterprises that are engaged in the production of goods and services in New Zealand.

The term "business" is here used to denote a geographic business unit ("GU"), as used in Statistics New Zealand's Business Demography data. It is defined as a separate operating unit engaged predominantly in one kind of economic activity from a single physical location or base. A single enterprise can own and operate one or more business units.

Employment is based on employee counts ("ECs"), which includes both full and part time employees but not working proprietors. ECs are typically considered a reasonable proxy for full time employment equivalent ("FTEs"), to the extent that the overstatement by including part timers is approximately offset by the understatement from excluding self-employed working proprietors. This may or may not be the case for the creative sector, to a greater or lesser extent than the rest of the economy. See Appendix 4: Estimating employment for further discussion.

Location – employment location and business location are taken from Statistics New Zealand's Business Demographics series, as per **Employment and Geographic Units**.

Gross Domestic Product ("GDP")³⁰ and labour productivity - This is taken from Infometrics' national and regional GDP series 2001 to 2012, which is expressed in 1995/96 constant prices, and then inflating to 2012 dollars using the December 2012 GDP deflator. Statistics New Zealand does not directly provide calculations or forecasts of regional GDP (i.e. "value added" or "output") for the sector and its components, so models have been used. These models use lagged estimates of employment, and have recently been updated to apply the ANZSIC 2006 classification system, rather than ANZSIC 1996. The GDP and productivity estimates are based on Infometrics' estimates of employment, which tend to be higher than Statistics New Zealand's Business Demographics ECs (28,204 vs. 17,896) due to the former including an estimate of working proprietors and other non-EC workers.

³⁰ See Appendix 1: Glossary and abbreviations for definition of GDP.

Exports- For 2012, this is taken from a custom dataset produced by Statistics New Zealand for Auckland Council. It comprises exports through Auckland’s airport and sea ports, so it differs from goods and service exports by Auckland firms as follows.

- Includes exports through Auckland even if from elsewhere in New Zealand.
- Excludes exports from Auckland that are via other New Zealand ports.
- Excludes exports of services that are not embodied in merchandise passing through the ports (for example, royalties on films and videos).
- Excludes sales of goods and services to tourists while they are in Auckland.

Time series export data for 2001 and 2008 is taken from Martin Jenkins’s 2012 Sector Engagement Framework (draft) for Auckland Tourism, Events and Economic Development Ltd (ATEED), using their “screen and creative (digital) content” sector as a proxy. It overlaps the definition in this report but has major differences³¹. This data is from a customised dataset from Market Economics, and includes an estimate of Auckland exports of services – especially in relation to motion picture and video activities.

Data limitations

The sector is likely to have a high proportion of participants who are not well captured by official statistics, for example because they do not have regular paid work or income. By definition this data is hard to capture or even estimate.

Employee counts include part time workers but exclude working proprietors and some self-employed, who are probably a high portion of this sector. Businesses with zero employees may provide an indicative upper limit for working proprietors.

GDP statistics at the regional level from Infometrics and Statistics New Zealand are necessarily based on numerous assumptions and so are subject to substantial error margins. Also, price changes are assumed to reflect “value”, but may include changing market conditions or improved availability (e.g. cheaper production methods). Labour productivity comparison calculations are then particularly problematic.

The definition of the creative sector includes creative and non-creative employees in creative industries, and leaves out creative occupations in non-creative industries as included in the ARC’s CCI 2010 *Auckland’s Creative Workforce Report*. This was based on 2006 census data and so could not be replicated from the 2013 census until its detailed data is available, which will not be until 2014 or later. The CCI report calculated that in 2006 the creative workforce was 50 per cent larger than the creative sector.

Official detailed estimates of exports are available for Auckland only for 2011 and 2012 based on the latest revision of HS10 (10-digit Harmonised System for traded commodities rather than production activities), which have been aggregated up to ANZIC 2006 4-digit categories for 2012. However, this does not capture the following:

³¹ See Appendix 2: Sector definition for list of differences

- comparable exports through Auckland in past years (and the HS10 system had been recently revised, so is not fully comparable to previous years)
- tourism earnings generated by the sector – which could be very difficult to split out from general tourism earnings
- exports of services – which are difficult to estimate at the regional level by sub-sector, and also problematic at the sector level.

Export estimates for Auckland by sub-sector for 2000-2008 by Market Economics as cited by Martin Jenkins are based in large part on pro-rataing higher level data in proportion to employment. No better estimates are available, but they are still based on numerous assumptions and so are subject to substantial error margins.

Appendix 4: Estimating employment

Employment is based on employee counts (“ECs”), which includes both full and part time employees but not working proprietors. ECs are typically considered a reasonable proxy for full time employment equivalent (“FTEs”), to the extent that the overstatement by including part timers is approximately offset by the understatement from excluding self-employed working proprietors. This may or may not be the case for the creative sector, to a greater or lesser extent than the rest of the economy.

Table A4(a) gives an indication of the potential significance of not counting working proprietors, by looking at the proportion of businesses that have no employees. For Auckland’s creative sector 79 per cent of businesses have no employees, which is moderately higher than for the Auckland economy as a whole (68%). (However, the Auckland total economy is heavily affected by the Rental, Hiring and Real Estate Services sector, which has less than 2% of Auckland’s total employment but 20% of all businesses.)

Table A4(a): Proportion of businesses that have no employees, Auckland, 2012

	Creative sector	Auckland all sectors
Businesses with no employees (GUs)	7,121	109,558
Total businesses all sizes (GUs)	9,044	161,154
Proportion of businesses with no ECs	78.7%	68.0%

Table A4(b) shows the number of businesses that have no employees, relative to the total number of employees. This could be considered an indicative upper limit for the potential number of business proprietors who work in the business but are not counted as employees. The Auckland economy as a whole has 110,000 zero-EC GUs and 643,000 ECs, which is a ratio of 17 per cent. The creative sector is significantly different, with 7121 zero-EC GUs and 17,884 ECs, which is a ratio of 40 per cent. (The difference is due primarily to creative sector businesses being smaller (having fewer employees) than the rest of the economy) The difference of 23 per cent could be interpreted as an indication of the extent to which actual activity in the sector might be more understated than usual by the standard employee count measure.

Table A4(b): Businesses with no employees versus employment, Auckland, 2012

	Creative sector	Auckland all sectors
Businesses with no employees (ECs)	7,121	109,558
number of employees (ECs)	17,884	642,944
ratio "zero EC": employees	39.8%	17.0%

Table A4(c) shows another indication of measurement issues: the difference between ECs from Statistics New Zealand and the Infometrics estimates of employment.

Infometrics include an estimate of workers who are not EC employees. For the Auckland economy overall, the Infometrics estimate is slightly higher (+14%), but for the creative sector it is substantially higher (+58%). The difference varies greatly by creative sub-sector and so can affect their relative sizes, from nothing for radio (+0%), to a much more than doubling for film and video (+173%) to make it the second largest creative sub-sector (4413 workers), ahead of publishing (3877) and TV (2791).

The table also shows the proportion of workers (per Infometrics) that are not EC employees. The proportions for the more structured sub-sectors (with the largest average business sizes and highest productivity), namely radio (0%), TV (9%) and publishing (17%), are relatively minor, similar to the rest of the economy (12%). The proportions are much higher for the most flexible and decentralised sub-sectors (with the smallest average business sizes and lowest productivity), namely film and video (63%), music (56%) and both visual (55%) and performing (52%) arts. Design (37%) and digital media (23%) are in between, comparable to the average for the creative sector (37%).

Table A4(c): Statistics NZ ECs versus Infometrics employment, Auckland, 2012

	Stats NZ EC_2012	Infometrics workers	Difference	Difference % vs. ECs	Non-EC as % of workers
Design	6,840	10,907	4,067	59%	37%
Publishing	3,200	3,877	678	21%	17%
Screen Production: TV	2,530	2,791	261	10%	9%
Screen production: Film, video	1,616	4,413	2,797	173%	63%
Radio	1,000	999	-1	0%	0%
Digital media	718	927	209	29%	23%
Performing Arts	948	1,989	1,042	110%	52%
Visual Arts	811	1,794	983	121%	55%
Music	234	507	273	116%	56%
Creative sector	17,896	28,204	10,308	58%	37%
Total All Sectors	642,940	731,774	88,834	14%	12%

Appendix 5: Sub-sector locations

A5.1 Sector employment by location

Creative sector employment in Auckland is largely concentrated in the CBD and fringes, plus lesser concentrations around Ellerslie/Ferndale, North Harbour and Takapuna (see Figure A5(a)).

Figure A5(a): Creative sector employment by census area unit, 2012

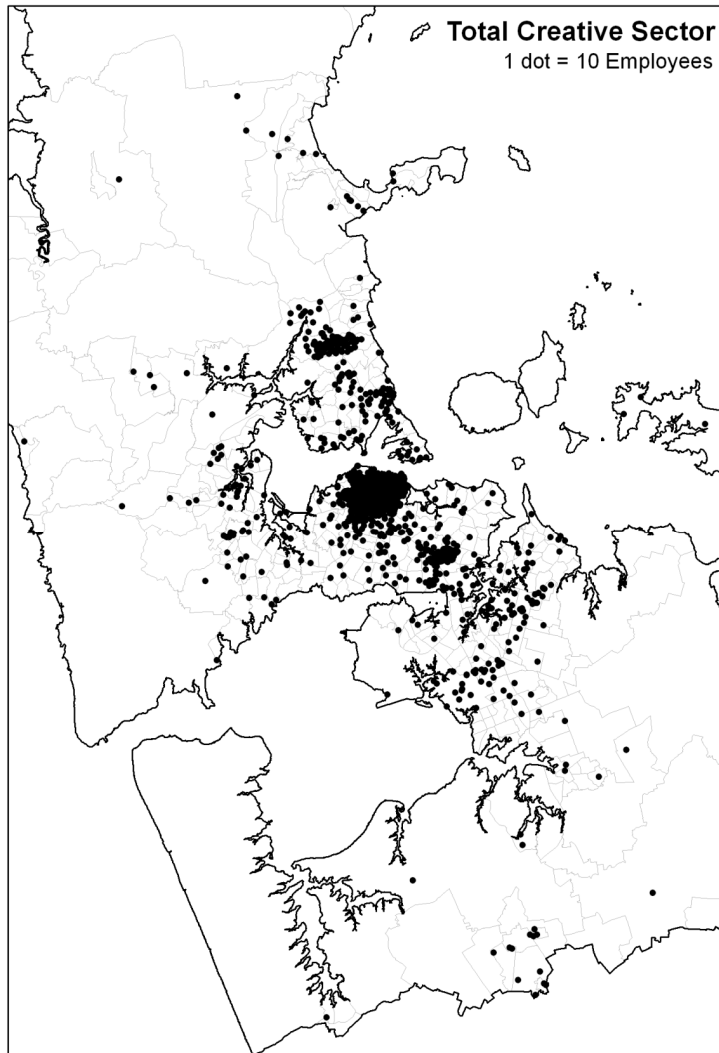


Table A5(a) shows that creative sector employment in Auckland is located primarily in Waitemata local board (57.4%), but substantial portions of the sector are also located in Maungakiekie-Tamaki (9.4%), Albert-Eden (7.3%) and Upper Harbour (5.4%). These four local boards together provide 80 per cent of the sector's employment. Next highest is Howick, with only 3.0 per cent, and the rest have even smaller shares.

Waitemata is not only a major employment area for all sectors of the economy, but also has a relatively high proportion of its employment devoted to the creative sector (6.6%). The other three main locations (Maungakiekie-Tamaki, Albert-Eden and Upper Harbour) have creative sector shares of their economy closer to the Auckland average (2.2%, 3.5% and 2.6%, versus 2.8%), so their high share of the creative sector is due to their sheer size of overall employment. In the rest of Auckland the creative sector employs a lower proportion of the total workforce (1.1%).

Table A5(a): Creative sector employment by local board, 2012

	Waitemata	Maungakiekie-Tamaki	Albert-Eden	Upper Harbour	Howick	Rest of Auckland	Auckland Total
Creative sector employees	10,257	1,689	1,311	967	543	3,117	17,884
Share of creative sector	57.4%	9.4%	7.3%	5.4%	3.0%	17.4%	100.0%
creative % of all sectors	6.6%	2.2%	3.5%	2.6%	1.3%	1.1%	2.8%

A5.2 Sub-sector employment by location

This section contains an analysis of the distribution and concentration of creative sector employment in Auckland. The location of creative sector employment is extremely concentrated, more so than for businesses.

Figure A5(b) shows the locations of creative workers in the creative sub-sectors.

Figure A5(b): Employment concentrations of creative sub-sectors by location, 2012

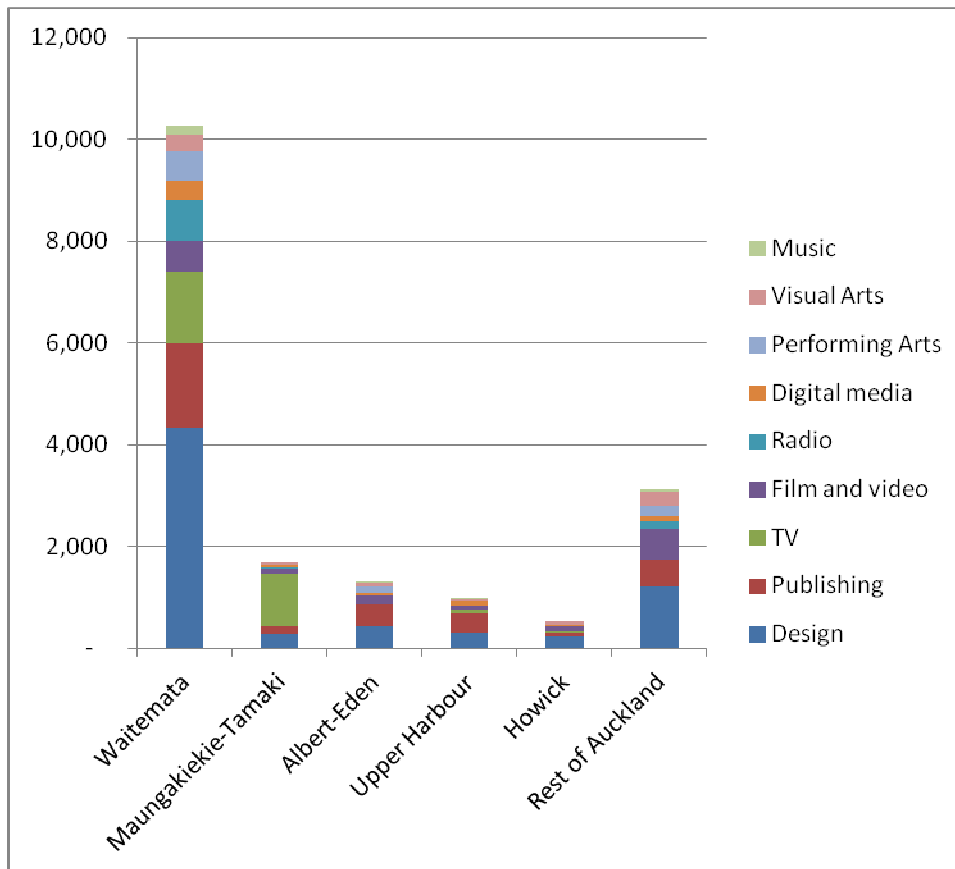


Figure A5(b) shows the following.

- Over half (57%) of creative sector employment in Auckland can be found in the Waitemata local board.
- Four other locations each have at least 3 per cent of the sector's employment, but all are less than 10 per cent
- Waitemata's design sub-sector alone employs more people than the entire creative sector in each of the other local boards.

The significant creative sub-sector employment concentrations by location (local board) are highlighted as follows, and also reflected in Table A5(b).

Waitemata is strong in all sub-sectors (57% on average), but more so in some than others. Auckland's radio employment is mostly in Waitemata (81%), as is most music (74%), but the local board is relatively less strong in screen production (37%) and visual arts (39%).

Maungakiekie-Tamaki has 9 per cent of Auckland's creative sector employment, but nearly half (41%) of Auckland's screen production (TV) sub-sector. Consequently, the majority (61%) of this location's creative sector employment is in TV.

Albert-Eden has 7 per cent of Auckland's creative sector employment, with higher shares for publishing (13%) and performing arts (13%). Consequently, publishing accounts for 32 per cent of this location's creative sector employment.

Upper Harbour has 5 per cent of Auckland's creative sector employment, but with much higher shares for publishing (12%) and digital media (15%). Consequently, publishing accounts for 39 per cent of this location's creative sector employment, and digital media's share is also relatively high here (11%).

Henderson-Massey has only 2 per cent of Auckland's creative sector employment, less than Howick, Devonport-Takapuna and Kaipatiki, but employs 10 per cent of the screen production (film and video) sub-sector. Consequently this sub-sector accounts for nearly half (44%) of this location's creative sector employment.

A5.3 Employment locations of sub-sectors

Table A5(b) shows, for each creative sub-sector and the sector as a whole, the share of that sub-sector's employment in each Auckland location. See also the maps in section A5.5.

Table A5(b): Employment in the creative sector and sub-sectors, by location, 2012

	Creative Sector Total	Design	Publishing	Screen Production: TV	Screen production: Film, video	Radio	Digital media	Performing Arts	Visual Arts	Music
Waitemata	57.4%	63.5%	51.6%	55.6%	36.9%	81.0%	52.7%	62.1%	39.2%	74.3%
Maungakiekie-Tamaki	9.4%	4.2%	4.8%	40.7%	5.6%	2.5%	8.1%	0.6%	4.9%	0.0%
Albert-Eden	7.3%	6.4%	13.1%	0.1%	10.6%	1.2%	7.0%	13.2%	8.6%	8.9%
Upper Harbour	5.4%	4.7%	11.7%	2.9%	3.6%	0.3%	14.7%	1.6%	1.8%	1.7%
Howick	3.0%	3.5%	2.3%	0.2%	6.7%	0.0%	2.2%	2.2%	9.4%	0.0%
Rest of Auckland	17.4%	17.7%	16.5%	0.5%	36.5%	15.0%	15.3%	20.2%	36.2%	15.1%
Total Auckland	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Auckland ECs	17,884	6,840	3,202	2,530	1,617	1,000	714	954	802	225

Table A5(b) shows, for each sub-sector, that compared to the distribution of employment in the creative sector as a whole:

- **Design** employment follows the distribution of the sector as a whole, although with an even greater concentration in Waitemata (63.5% of the sub-sector's employment is in this location) and less in Maungakiekie-Tamaki (4.2%)

- **Publishing** employment has lower concentrations in Waitemata (51.6% of the sub-sector's employment is in this location) and Maungakiekie-Tamaki (4.6%), but higher concentrations in Albert-Eden (13.1%) and Upper Harbour (11.7%).
- **Screen production (TV)** has a massive concentration in Maungakiekie-Tamaki (40.7% of the sub-sector) at the expense of all the other non-Waitemata locations, which total only 3.7% of the sub-sector's employment (versus 33.2% for the sector as a whole).
- **Screen production (film and video)** is unusually dispersed: "rest of Auckland" is high (36.5% of the sub-sector, including Henderson-Massey (10.1%)), largely at the expense of Waitemata ("only" 36.9%).
- **Radio** is highly concentrated in Waitemata (81.0%) at the expense of the four other "large" creative sector locations (totalling 4.0% for radio, versus 25.1% for the creative sector as a whole).
- **Digital media** has a relatively high concentration in Upper Harbour (14.7%) and somewhat lower (than for the sector as a whole) in Waitemata (52.7%).
- **Performing arts** is relatively stronger in Albert-Eden (13.2%) and arguably in Waitemata (62.1%), but largely absent in Maungakiekie-Tamaki (0.6%) and Upper Harbour (1.6%).
- **Visual arts** are unusually dispersed: relatively weaker in Waitemata (39.2%) and Upper Harbour (1.8%) and relatively strong in Howick (9.4%) and "rest of Auckland" (36.2%).
- **Music** is highly concentrated in Waitemata (74.3% of the sub-sector) at the expense of Maungakiekie-Tamaki (0.0%) and Upper Harbour (1.7%).

A5.4 Business locations of sub-sectors

The location of creative sector businesses is more dispersed than for employment. Table A5(c) shows, for the total creative sector and for each creative sub-sector, the share of those businesses that each local board has. It also shows the proportion of Auckland's total creative businesses that are in each sub-sector.

Table A5(c): Locations of creative sector businesses in Auckland, 2012

Location	Total Creative sector	Design	Publishing	Screen Production: TV	Screen production: Film, video	Radio	Digital media	Performing Arts	Visual Arts	Music
Waitemata	27.2%	27.7%	25.8%	40.0%	31.2%	52.3%	22.0%	23.6%	24.0%	26.3%
Albert-Eden	13.5%	11.0%	12.2%	11.4%	16.8%	4.5%	8.9%	18.2%	14.8%	16.3%
Orakei	6.7%	7.8%	7.2%	0.0%	5.5%	0.0%	7.2%	5.4%	6.2%	6.2%
Kaipatiki	5.6%	5.6%	4.7%	2.9%	5.7%	0.0%	5.8%	6.1%	5.8%	6.5%
Devonport-Takapuna	5.5%	5.4%	6.1%	2.9%	4.8%	2.3%	6.7%	6.0%	5.9%	5.7%
Waitakere Ranges	5.4%	3.7%	5.8%	2.9%	7.4%	0.0%	2.5%	7.4%	6.7%	6.8%
Hibiscus and Bays	5.1%	5.9%	4.3%	2.9%	3.4%	2.3%	8.2%	4.8%	5.3%	4.1%
Howick	4.7%	6.1%	4.6%	5.7%	1.8%	6.8%	7.1%	3.4%	5.0%	3.0%
Rest of Auckland	26.2%	26.7%	29.1%	31.4%	23.4%	31.8%	31.6%	25.1%	26.3%	25.1%
Auckland Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Auckland Total GUs	9,044	3,827	725	35	1,595	44	319	1,086	1,097	316
Auckland Total Shares	100.0%	42.3%	8.0%	0.4%	17.6%	0.5%	3.5%	12.0%	12.1%	3.5%

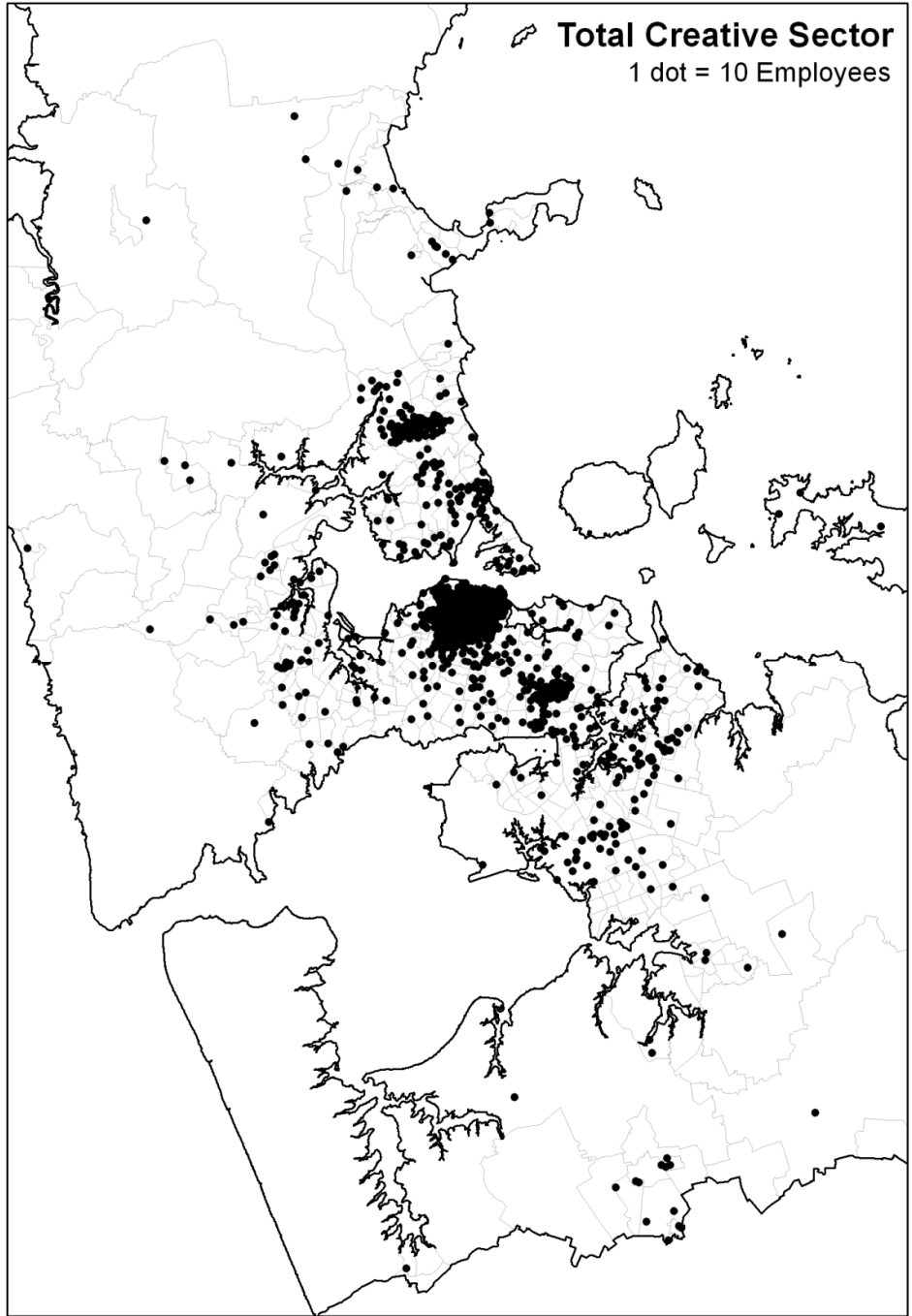
Looking at the geographic distribution of the businesses in the individual sub-sectors, Table A5(c) shows the following.

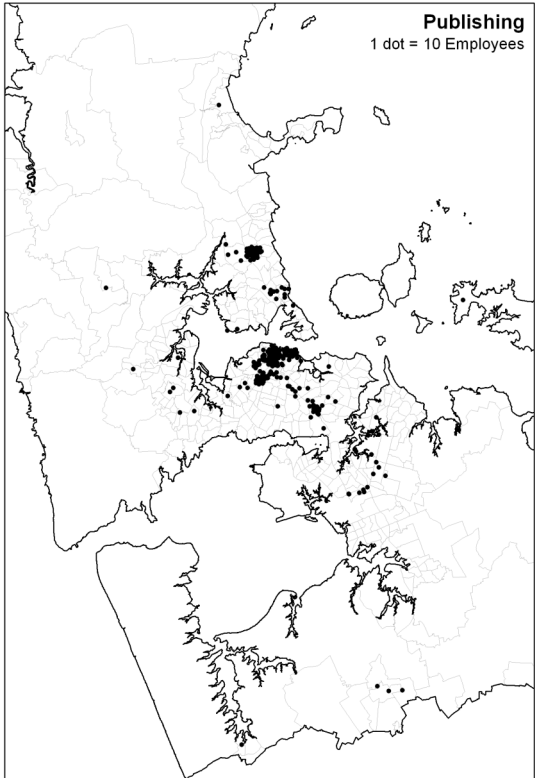
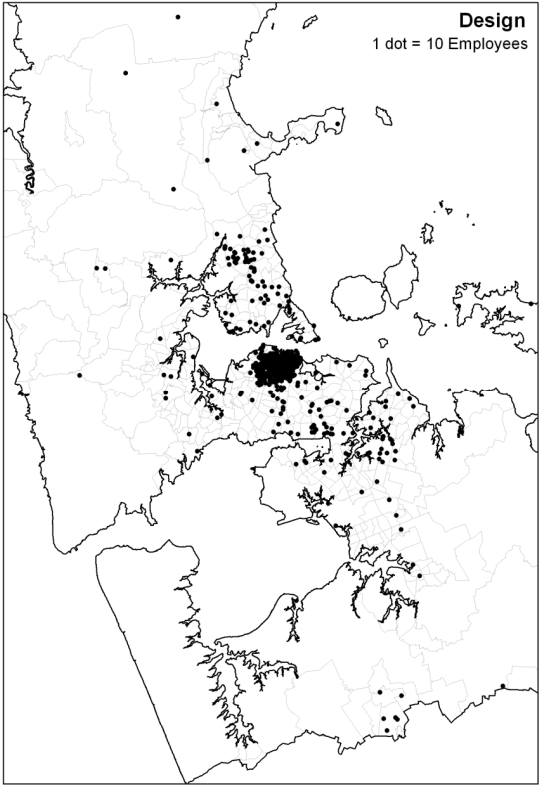
- **Design** and also **publishing** businesses follow a similar distribution to the sector, with nearly half (design: 46.5%; publishing: 45.2%) in the three main isthmus locations (Waitemata, Albert-Eden, Orakei).
- **Screen production (TV)** businesses are even more highly concentrated in Waitemata (40%), plus an unusually high proportion are in Maungakiekie-Tamaki (23%) which has much smaller shares of other sub-sectors.
- **Screen production (film and video)** follows a similar distribution to the sector, although with a higher proportion (53.5%) in the three main isthmus locations.
- **Radio** businesses are predominantly in Waitemata (52.3%) or dispersed around Auckland.
- **Digital media** businesses follow a similar distribution to the sector, but with a smaller share in the main isthmus locations (41.1%), and a higher share in the “rest of Auckland” (31.6%) than the sector as a whole (26.2%). The Upper Harbour’s share of businesses (7.7%) is much smaller than its share of employment (14.7%), implying a larger average size of businesses in the sub-sector there than in the rest of Auckland.
- **Performing arts, visual arts** and **music** all follow a similar distribution to the sector as a whole, although with Albert-Eden over-represented to varying degrees.(18.2%,

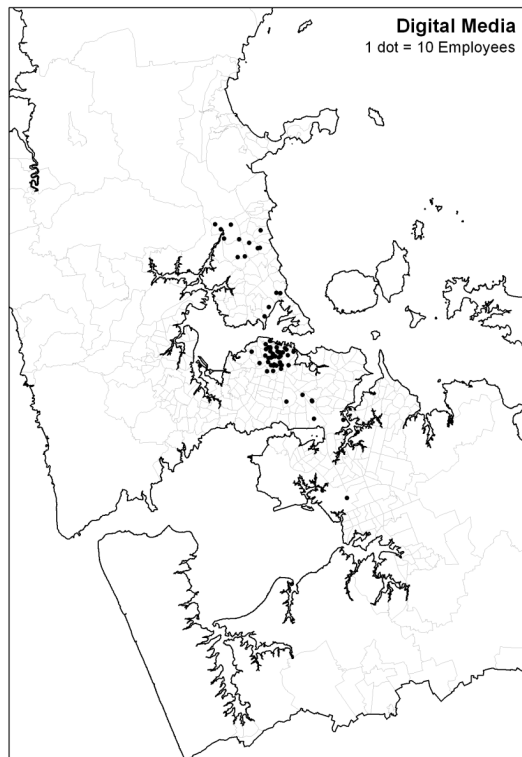
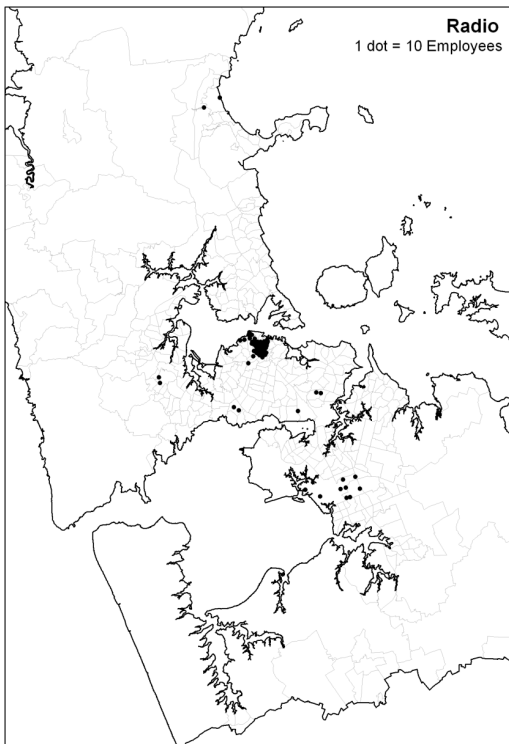
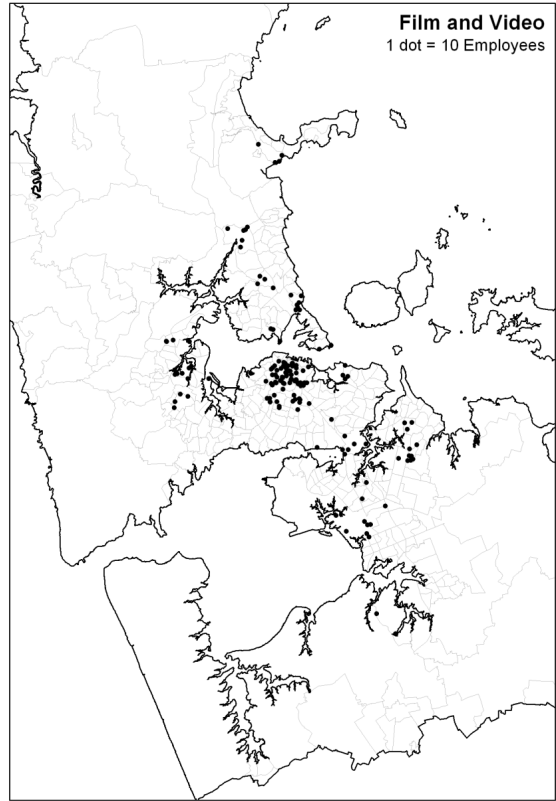
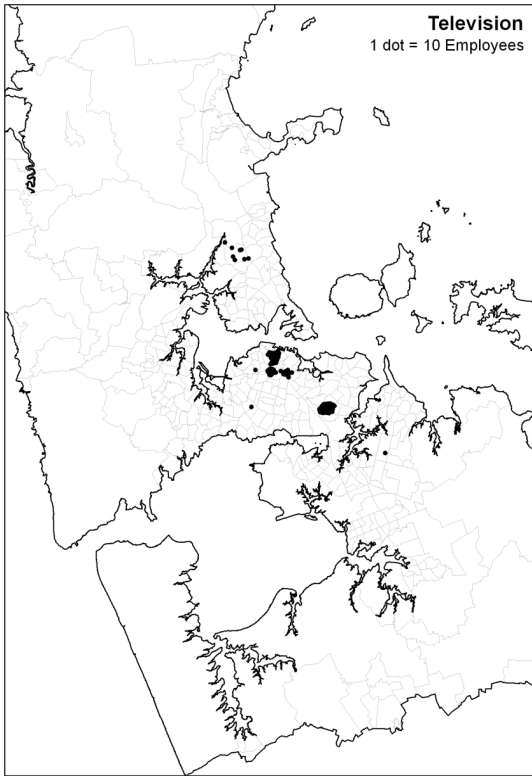
14.8% and 16.3% respectively, versus 13.5% of the creative sector being there and 7.4% for Albert-Eden's share of the total economy).

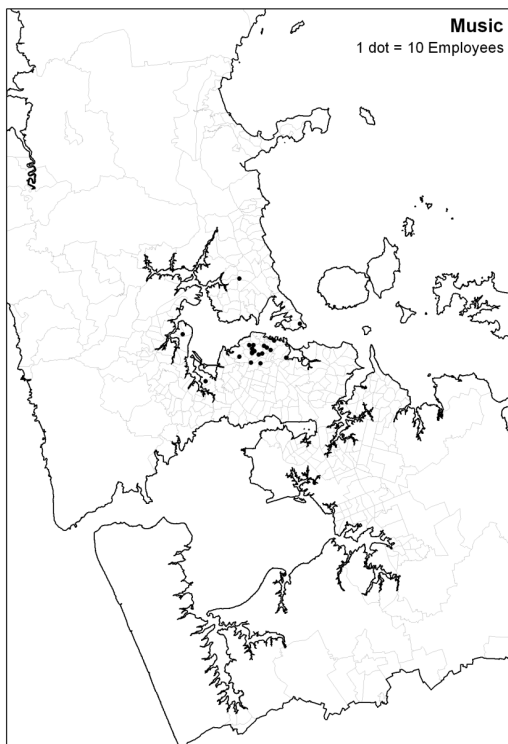
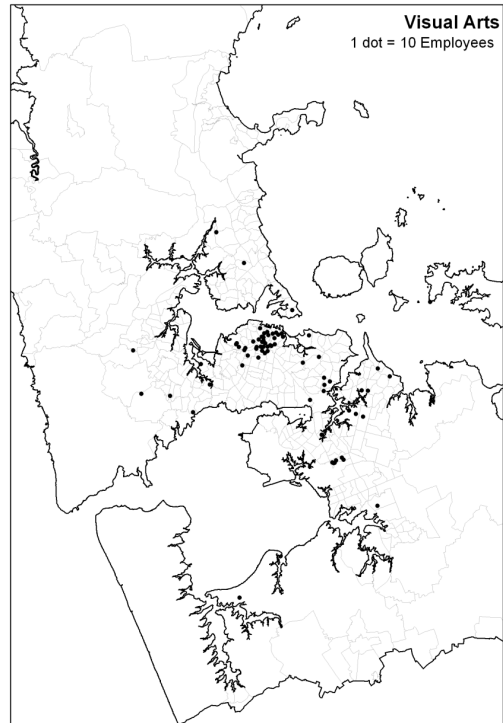
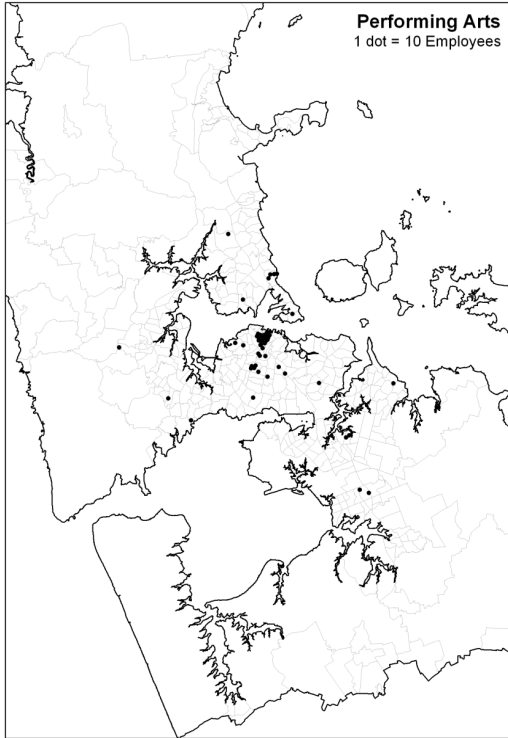
A5.5 Employment distribution maps

The following figures show the distribution of employment by census area unit for the creative sector and each of the creative sub-sectors, as at February 2012.









Appendix 6: Difficulties with R900200

Difficulties in counting creative artists, musicians, writers and performers

In this analysis the ANZSIC06 group R900200 (Creative artists, musicians, writers and performers) has been split across the nine creative sub-sectors based on occupational profiles from the 2006 Census. For example, 11 per cent of R900200 employment was allocated to the performing arts i.e. 60 Employee Counts nationally and 18 Employee Counts in Auckland.

Analysis of Census data has shown that many of the occupations associated with R900200 are also present in other codes, in particular R900100 – Performing arts operation and R900300 – Performing arts venue operation.

Over time the employment figures recorded against the four component activities in Performing arts may vary significantly as performers and artists are coded to different ANZSICs. As a result caution should be taken when assessing individual activity trends and it is recommended that for accuracy the Performing arts sector be viewed as a whole.

Furthermore, services to the arts was previously a category in ANZSIC1996, but is now calculated as being the same size as 50 per cent of the whole of R900200.

In addition, R900200 has an unusually high relative number of businesses that have no employees (1170 GUs) relative to the total number of employees (160), which suggests that the category is likely to have an unusually high proportion of working proprietors who are not captured in the official employment statistics.

Additionally, many of the occupations within the Performing arts sector are unlikely to be fully represented in official employment statistics. For example, a film maker may conduct their film making activities as a self-funded project or with the help of friends and associates in a skills-bartering arrangement.

It is therefore important to note that many of the more freelance and non-institutionalised creative activities (particularly performers and artists) are likely to be under-represented compared to more corporate activities (e.g. architecture).

Details of primary activities

R900100 – Performing arts operation: circus operation, dance and ballet company operation, musical comedy company operation, musical productions, opera company operation, orchestra operation, performing arts operation n.e.c., theatre restaurant operation (mainly entertainment facility), theatrical company operation.

R900200 – Creative artists, musicians, writers and performers: artists, cartooning, choreography service, composing (including musical composition), costume designing, creative arts service, journalistic service, musicians, playwriting and screenwriting, producing or directing original or artistic work, sculpting, set design service, speaking service, theatre lighting design service, writing (including poetry and comedy).

R900300 – Performing arts venue operation: concert hall operation, entertainment centre operation, music bowl operation, opera house operation, performing arts venue operation n.e.c., playhouse operation, theatre operation (except motion picture theatre).

Appendix 7: SWOT analysis

No authoritative SWOT analysis exists for the creative sector as defined in this report. Instead, this section is based on the SWOT analysis of the “Screen and creative (digital) content sector” in Martin Jenkins’ 2012 Auckland Tourism, Events and Economic Development Ltd (ATEED) Sector Engagement Framework. Their main emphasis is on the screen production TV, screen production film and video and digital media sub-sectors, with less weight given to the design and publishing sub-sectors.

A7.1 Key SWOT findings (screen production and digital media)

Weaknesses and threats: The major issues that appear to be impacting on the growth of the sector in Auckland, based on the SWOT analysis, are:

- limited scale and capability of firms to attract investment and internationalise
- infrastructure constraints (broadband and studio facilities).

Opportunities and strengths: Opportunities for the sector in Auckland are based on:

- leveraging the growing reputation of the sector and capabilities that are emerging in areas such as animation and design in order to attract further work and investment from offshore
- the sector’s increasing propensity towards collaboration to overcome collective problems and to take up collective opportunities.

A7.2 Strengths

Reputation: Auckland has a good international reputation for quality television and film production. The region leads New Zealand for domestic and international TV production (complementing Wellington’s lead on film production). Being located in Auckland is considered to be advantageous because of its access to suppliers, such as software and hardware vendors and head offices.

Skill-base: There is a relatively large pool of skilled crew labour available in Auckland. Specialised training and education facilities are also available.

Capability: Auckland appears to have some competencies in animation, design and advertising. There is some research capability of relevance to industry in the region (e.g. AUT Creative Industries Research Institute). New Zealand has a revealed comparative advantage in personal, cultural and recreational services – more than 60% of this category is audio-visual and related services for the production of radio and television programmes and motion pictures. However, it is unclear whether Auckland has a genuine competitive advantage in screen production.

Facilities: There are a range of studios clustered around different filming locations (e.g. Waitakere, Rodney) and post production facilities (central and west).

Collaboration: In recent years there has been an increasing commitment to collaboration, with the formation of the Auckland Screen and Creative Digital Content Leadership Group.

A7.3 Weaknesses

Scale: The majority of firms are small, owner-operated businesses with fluctuating employees (project-based contracting model). The impact of large projects relative to firm size in the screen sector creates a large cyclical workflow environment and, as a result, firms struggle to plan for innovation.

Internationalisation: Firms in the sector have relatively limited management capability. Few business leaders in the sector are experienced in internationalisation, or know how to enter new markets.

Investment: The sector is not particularly attractive for international investment due to the unique business model for many firms in the sector and a lack of ability in some segments to raise project-based funding domestically. The lumpy nature of business in many parts of the sector drives many firms to find “bread and butter” income from regular production projects (often fee for service) rather than developing IP. A lack of track record, management capability and the small size of the domestic market have been cited by investors as impediments to investment.

Infrastructure: Firms indicate that the lack of robust broadband infrastructure is a limitation on their ability to connect and do business internationally.

Research-industry linkages: There are pockets of strength in terms of technology platforms and research and development capability within the research system that has relevance to the sector but these are not strongly connected with industry.

A7.4 Opportunities

Overcoming distance: Online work and distribution is increasing, which may make Auckland’s distance from markets less of an issue.

Markets: there are growing opportunities in Asian markets, with organisations in those markets seeking Western partners to do business with. New Zealand digital companies are considered attractive partners as they are perceived as being sensitive to other cultures and new ways of working.

Investment potential: There is some foreign direct investment (“FDI”) in larger TV production companies like Screentime, South Pacific Pictures and Eyeworks Touchdown, which suggests that Auckland can be an attractive investment proposition. Land constraints in Wellington make investment in studio infrastructure in Auckland more viable. Co-production agreements (e.g. with Australia, Canada, France, UK, Singapore, Korea, China, India) also provide opportunities for financing New Zealand screen productions.

Enabling technologies: There are opportunities to use digital technologies to improve firm/sector productivity in the public and private sector in Auckland (e.g. automate design data, manuals and other material), and possible benefits for the education sector (supplementing/replacing existing training and skills).

A7.5 Threats

Distance from major production centres: The making, distribution and exhibition of films continues to be dominated by a small number of vertically integrated groups in the US and India.

Infrastructure: Insufficient world-class sound stage space may limit further screen production sector growth (different studios provide different services but most are too small for large budget productions). Industry consultation suggests that an additional 3-4 sound stages of over 1800sqm, with potential for further expansion, are needed.

► Find out more: phone 09 301 0101
email research@aucklandcouncil.govt.nz
or visit www.aucklandcouncil.govt.nz

