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Australia's Creative Economy: Definitions of the Segments and Sectors

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Abstract: The experimental methodologies developed in the Creative Industries National Mapping Project (CINMP) by the ARC Centre of Excellence for Creative Industries & Innovation (CCI) indicate the need for greater consistency in the selection of relevant industry and occupation classifications that are used to measure *Creative Industries* and *Creative Workforce* characteristics. This report defines these terms then briefly describes and applies the CCI classification framework to determine classifications that meet the definition of the various *Creative* segments.

Reports in this Series: This report is focussed on the definitions of the segments used by the CCI and is best understood when read in-conjunction with the other research reports that are available from the project web-site <<https://wiki.cci.edu.au/display/NMP/NMP+Publications>>:

“Australia's Creative Economy: Basic Evidence on Size, Growth, Income and Employment”
<<http://eprints.qut.edu.au/archive/0008241/>>

“Australia's Creative Economy: Mapping Methodologies”
<<http://eprints.qut.edu.au/archive/00006228/>>

“Australia's Creative Economy: Definitions of the Segments and Sectors”
<<http://eprints.qut.edu.au/archive/0008242/>>

“The Creative Industries: Topography and Dynamics”
<<http://eprints.qut.edu.au/archive/0008243/>>

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1. Introduction

The term *Creative Industries* is now widely used by business and government in similar ways to the more established terms of cultural sector, primary and manufacturing industries. Governments have been quick to see the potential of the *Creative Industries* and *Cultural Industries* for turning the latent symbolic value residing in highly educated workforces, communities and locales into economic assets. But what are these industries- if we can't agree on a realistic definition then it will be hard to measure and compare them.

This paper explains the *Creative Industries* definition as implemented by the CCI Creative Industries National Mapping Project.

1.1 What are the Creative Industries?

The term "*Creative Industries*" as a label for a grouping of activities was first used in September 1994 by Dr Terry Cutler of Cutler and Co. in the *Commerce in Content Report*¹ produced for the (then) Department of Industry, Science and Technology. However the first explicit use of *Creative Industries* for a group of commercially focused cultural and media activities was in 1998 with the release of the Creative Industries Mapping Study² by the UK Department of Culture, Media and Sport.

There has been much discussion since about an appropriate definition for these industries. Of the various government reports using the term, one of the most recent, the Queensland State Government's Creative Industries Strategy, defines *Creative Industries*³ as those industries that are "*focused on linking creativity with commercial markets: these industries use creativity as their source of value, generating ideas into new intellectual property (IP) and then using and commercialising that IP in innovative ways - often through industry inter-action on a project-by-project basis.*"

The *Creative Industries* are not only the Cultural Industries, although they include many widely recognised cultural activities. In more specific terms, they exploit symbolic knowledge and skills, often through adding value, commercialisation, distribution and marketing. In this sense, the *Creative Industries* are also seen in a new economy context and having a stronger degree of commercial focus rather than the predominantly aesthetic objective of the traditional cultural industries. It is important to capture the scope, value and impact of the *Creative Industries* and related activities on the broader economy not only as they currently are but also how they evolve and grow over the coming decade.

1.2 Applicability

The fact that *Creative Industries* are culturally based also means that the selection of activities, while having a more or less constant core, will have variations according to the nation and its cultural traditions. A further diversity is introduced by the different characteristics of the national classification systems used to access data on activities and the level of detail at which such detail is made available- having finely detailed definitions of the activities that make up Creative Industries and those employed within it, *Creative Workforce*, becomes a purely academic taxonomic debate if these are not aligned to the availability of data to measure them.

The definition of *Creative Industries*' activities and segments that follows is implementable within Australia and New Zealand using a combination of current industry and occupation classifications to analyse full coverage national datasets. While the methodology used for selecting these activities is applicable to other countries the data required for this may often be at less detail resulting in an increased likelihood for either over-reach or under-counting.

1 <http://www.nla.gov.au/misc/cutler/cutlercp.html> accessed 1 June 2007

2 Department of Culture, Media and Sport, Creative Industries Mapping Document 1998, London,(1998) <http://www.culture.gov.uk/global/publications/archive_1998/Creative_Industries_Mapping_Document_1998.htm>

3 Except where used for quoting, the use of italics indicates a phrase or word in "Definitions" in Appendix 5

2. Measuring Creative Production

The CCI Definition of Creative Industries

The specialist *Creative Industries* comprise a set of interlocking sectors of the economy focused on extending and exploiting symbolic cultural products to the public such as the arts, films, interactive games, or providing business-to-business symbolic or information services in areas such as architecture, advertising and marketing, design, as well as web, multimedia and software development. Most often *Creative* production delivers unique or customised products from incomplete or abstract specifications received either from a client or derived from a desire for personal, artistic exploration.

Commercially relevant *Creative* activity occurs in three ways: first, by individuals (as sole traders or producers), second, by groups working within specialist (often consulting) *Creative* organisations and third, by individuals employed by the broader industry or government organisations in specific *Creative Occupations*. The first two categories can be viewed as the specialist *Creative Industries*, while the third type of *Creative* production has often been unrecognised in the literature.

As a consequence, the direct economic impact of *Creative* activity has previously been substantially underestimated. For instance, the approach used by most analysts to measure the employment impact of design is to count the people employed within firms in the specialist design industries of Architectural Services and Photographic Services. CCI's analysis has shown this leads to under-counting by approximately 30 percent. Some specialist design consulting activities are lost within much broader business services or technical services industries. A number of overseas studies use an alternative approach of counting the number of people in a range of design occupations. However this method of analysis does not take into account the support and management staff working within specialist *Creative* firms or businesses.

A more comprehensive approach to measuring the impact of *Creative* activity and the *Creative* capacity needs to encompass both the specific industry based activity and the specific *Creative Occupations across the wider economy*: CCI's Creative Industries National Mapping Study terms this approach the *Creative Trident*, which is the total of: *Creative Occupations* within the core *Creative Industries (Specialists)*, plus those in the *Creative Occupations* in employment in other industries (*Embedded*), plus the non-creative management and support occupations that are employed within the specific *Creative Industries (Support)*.

Table 1. The axes of the Creative Trident methodology for determining employment within the Creative Workforce

| | | | |
|-----------------------------|---|------------------------------|--|
| | Creative Industries | Employed in Other Industries | |
| Creative Occupations | Specialists Creatives | Embedded Creatives | Total employed in specific Creative Occupations |
| Other Occupations Employed | Management and Support Staff | | |
| | Total employment within businesses in the specific Creative Industries | | The total employment in the Creative Workforce |

The *Creative Trident* approach is used to determine the employment based impact of the *Creative Workforce* at the geographic scale of countries or major cities while the traditional *Creative Industries* approach is used to examine the firm characteristics of the specialist *Creative Businesses*.

If analysis is needed of areas where the total workforce is below 500,000 then it is not feasible to access Census data in the detailed matrix of employment by occupation within industries that is necessary to construct the *Creative Trident*. In this situation two alternatives can be used instead: the traditional *Creative Industries* approach of examining employment within specific industries or the *Creative Occupations* approach. While both approaches are useful for revealing patterns and employment levels within those dimensions they cannot be used to calculate the level of total *Creative Workforce* employment nor the level of *Specialist, Embedded* or *Support* employment.

3. The Value Web and Value Chains

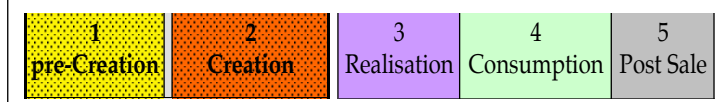
As mentioned earlier, there has been considerable discussion about the appropriate definition of the *Creative Industries*. Some reports have resorted to a listing of sectors or segments⁴ such as music and performing arts, publishing etc. Some studies include antiques and second hand furniture, others exclude computer software development. There is the further difficulty that the existing classification schemes, which are used to acquire and analyse the data, do not align well with *Creative* activities, particularly the industry classifications, and, as has happened with the CINMP, what alignment there is at the beginning of a study may change at the project's midpoint through the introduction of updated classifications.

To reduce the errors that could be introduced by inconsistency in selecting relevant classifications from different releases, different resolutions and domain, CCI sought to develop a philosophy or framework that it could apply to occupation, industry, qualification and product classifications. We applied the concepts of the *Creative Value Web*⁵ and developed a methodology with three criteria (or dimensions): the classification's type or domain of activity, its primary stage along the value chain and relationship of its value chain to the *Creative Value Web*.

3.1 The Stages of the Value Chains

CCI's classification of the stages of the value chain are shown in Figure 1. The pre-creation stage includes preservation & access functions such as libraries, museums that are a critical resource for *Creative* people. Museums and libraries have been at the forefront in projects that facilitate the production or repurposing of analogue and digital creative content. This stage also includes post-consumption & pre-production activities

Figure 1: The Stages of the Value Chain used for determining employment within the Creative Workforce



such as collecting societies, commercial image libraries and stock footage libraries.

The Creation stage includes the originating activities such as writing, music composition, software designer; the performance related activities such as musical performance; the recording stage including digitisation, conversion and activities that may

also part of performance e.g. film.. Other activities within the Creation stage include Pre-publishing (editing and layout, software testing). The activities associated with the legal and practical act of publishing are included within this stage.

Less clear cut though are those *Creative* activities, especially those mostly conducted by individuals, that can have standard classifications that span most or all of the *Value Web* stages from creation through to realisation: for example for the Jewellery design sector the most relevant industry classification would appear to be at the manufacturing stage (Australian and New Zealand Standard Industry Classifications (ANZSIC93) 2941 Jewellery and Silverware Manufacturing) however 40% of the 5,500 people employed are in either the occupation of (under Australian Standard Classification of Occupation ASCOv2) 498311 Jeweller. or 253179 Visual Arts And Crafts Professionals not elsewhere classified. Therefore this industry classification is considered to cover the design and concurrent manufacture of jewellery and is included in the creation stage despite "manufacturing" being in the title of the classification.

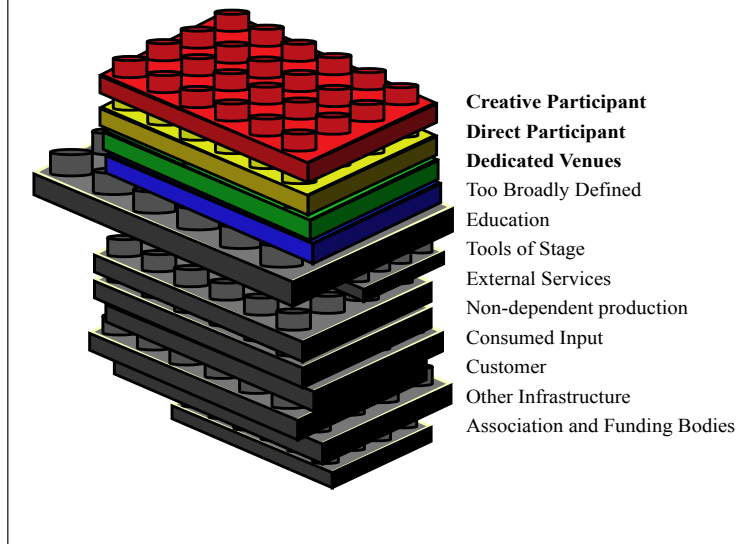
Generally though, the CCI definition of the *Creative Industries* and Creative Occupations (Creative Segments) ignores those stages downstream from the creation stage as these are not a direct measure of the *Creative* capacity: the explicit realisation (manufacturing, wholesaling, distribution and retailing stages), customer usage and the post-sale stage that includes second hand sales, service and repairs.

4 The term "Sectors" is used as the sub-grouping of the specialist Creative firms while "segment" is used as the sub-grouping the Creative Workforce which includes embedded employment.

5 P. Andrews and J. Hahn, Transforming supply chains into value webs, p99 in *If Your Company was a Cockroach*, Hearn G. ed QUT (2007)

3.2 The Layers of Value Chains

Figure 2: The layers of value chains that define the relevance within the Creative Segments' Value Web



CCI has identified 13 layers of activities within the *Value Web* that produce *Creative* goods and services but our analysis focuses only on the direct participants of the value chains (see the coloured sections in Figure 2). The directly relevant layers, from the viewpoint of the *Creative Segments*, are the Creative Participants layer which is responsible for the core origination activities such as Film Directors and Architecture services; while those in the Direct Participants layer have a direct and active infrastructure role of supporting pre-creation or creation activities with activities such as libraries and providing stage lighting. The Dedicated Venues layer encompasses the provision of direct infrastructure that is necessary for the pre-creation and creation activities, including performance within drama and opera theatres.

The indirect contributors to the *Value Web* include the provision of education services to creators and customers, the provision of tools and capital items to all or specific stages of the value chain. The making and sale of musical instruments

and the manufacture and sale of television sets are also excluded as these are considered “tools of stage” and thus lie on separate, often parallel value chains to the primary *Creative* value chain. Other indirect value chains include indirect or partially downstream activities such as office building and home construction and real estate agencies (all partially downstream from architecture), or apparel manufacturing (which is partially downstream from Fashion Design). The CCI methodology defines these types of activities as “Relevant non-core dependent Production”.

Some decisions on the inclusion of specific industries or occupations are made on the basis of the relative contribution of the *Creative* activities. For example, while architects are used to design houses and office buildings only 30% of houses are designed by architects and architect’s fees represent a small proportion of the total value of buildings so it would be inappropriate to include the value of house construction in the analysis of employment or numbers of businesses.

Other layers of value chains include “External Services to *Value Web* member” such as accounting, legal, engineering, surveying and business services; Associations such as a professional or industry associations; Funding Bodies such as government industry development and investment bodies. There is one further layer which is not strictly a value chain, “Too Broadly Defined” is used for those classifications that could be directly relevant except they also include a significant proportion of non-relevant activity. This is discussed further in Appendix 2. The Criteria for the Allocation of Classifications to the Segments.

While it is not appropriate to include indirect contributors to the *Value Web* when measuring the employment generated or the scale of business activity, it would be relevant to utilise to use them for cluster studies, for determining the total input/output effects or for investigating the flow-on strategic impact of a segment.

Refer to Appendix 1 for a table showing the distribution of recent Australian standard industry and occupation classifications to the value chains stages and value chains layers.

4. The Creative Segments and Sectors

CCI has used a pragmatic approach to identifying the segments⁶ containing occupations and activities that are either closely related to each other or closely aligned in a production chain. To some extent, these choices have been made with a view to addressing classification weaknesses and the way the classifications are applied to national data sets such as the Australian Census of Population. For instance some industries, such as music, have poor coverage within the 1993 release of the Australian and New Zealand Standard Industry Classifications (ANZSIC93) (Sound Recording Studios is the only natural industry under ANZSIC93) but there are a number of directly relevant classifications for occupation. Music's related activities such as Performing Arts may have poor coverage in the occupational classifications but has reasonably well defined industry classifications. These two sectors, when combined provide a reasonably pragmatic segment with a respectable level of employment in both industry and occupation dimensions.

The Creative Industry and Occupation segments within CCI's Creative Segments definition are:

- Music and Performing Arts segment
- Film, TV, Radio segment
- Advertising and marketing segment
- Software, Web and Multimedia development segment
- Writing, Publishing and Print Media segment
- Architecture, Design and Visual Arts segment⁷

Table 2 provides a further breakdown of the activities within these segments.

Table 2: *The activities included within CCI's Creative Segments grouping definition*

| Creative Segment and Sector | Sub-segment | Major activities included |
|-----------------------------|-----------------|--------------------------------------|
| Music and Performing Arts | Music | Music Composition |
| | | Music Performance |
| | | Music Recording |
| | | Music Composition Publishing |
| | Performing Arts | Performing Arts general |
| | | Performing Arts Dance and Ballet |
| | | Performing Arts Drama |
| | | Performing Arts Venues |
| | | Performing Arts Opera |
| Film, TV and Radio | Radio | Radio program production |
| | Film and TV | Film Production |
| | | Film Special Effects Post Production |
| | | Film Scriptwriting |
| | | TV Broadcasting |
| | | Film and Video Libraries |

6 The term "segment" is used as the sub-grouping of the Creative Workforce which includes industry and embedded employment while "sectors" is used as the sub-grouping of the specialist Creative firms. While Segments encompasses industry based Sectors, Sectors does not cover all of Segments- therefore "Segments" is used as an inclusive term.

7 The general "catch-all" industry classification (such as 9242 in ANZSIC93) which contains self-employed creators - artists, writers and actors - has been allocated to the Design industry segment as 56% of the people within this classification were found to be employed in design occupations.

| Creative Segment and Sector | Sub-segment | Major activities included |
|--------------------------------------|---------------------|--|
| Advertising and Marketing | Services | Advertising Services |
| | | Marketing Services |
| | | Advertising Media |
| Software and Interactive Content | Software | Software development |
| | | Software product Publishing |
| | Interactive Content | Multimedia Internet development |
| | | Interactive and Online Games Development |
| | | Interactive Games Publishers |
| | | Multimedia Internet Service Providers |
| Publishing | Publishing | Newspaper Publishing |
| | | Periodicals Publishing |
| | | Book Publishing |
| | Composition | Writing |
| | | Libraries |
| Architecture, Design and Visual Arts | Design | Architecture |
| | | Graphic Arts and Illustration |
| | | Jewellery Design |
| | | Fashion Design |
| | | Interior Design |
| | | Product Design |
| | | Marine Architecture |
| | | Other Specialised Design |
| | Visual Arts | Museums and Galleries |
| | | Visual Arts, Painters, Sculptors |
| | | Photography |

5. The Selection of Specific Classifications

The precise industries and occupations selected to be analysed within the segments can vary, depending on the purpose and the scope of the available standard classifications. Of particular interest in a first round, sizing analysis are the activities of direct participants in the value chains of the *Creative Segments*, particularly at the points where the intangible cultural-relevant value is generated. (CCI's procedure for selecting the appropriate industry and occupation codes is described in Appendix 2).

With five-yearly Censuses, Australia (and New Zealand) are well favoured when compared to most other countries (compared with the UK and US which have a census every 10 years). As a consequence, generally more up to date data on a national scale is available. In addition, the employment and industry data is coded and available at reasonably fine resolution.

Based on the ANZSIC93 release, of the 640 industry classifications actually used in the Australian 2001 Census, 28 are applicable to measuring employment in *Creative Workforce*. This represented 4.4% of available classifications.

Based on the Australian Standard Classification of Occupation version 2 (ASCO V2), of the 1,315 occupations at six digits used at the 2001 Census, 85 are directly relevant to *Creative Occupations*. This represent 6.8% of available classification. Data sourced using four digit classifications drops the available number of suitable classifications to 30 (from 89) out of 354, representing 6.4% of all classifications. The finer the resolution of classification that can be used for measuring the *Creative Workforce*, the better the discrimination between relevant and not relevant activities and the greater the accuracy.

5.1 Sectors, Segments and Industry Classifications

Table 3 shows the number of industry classifications from the 1993 and 2006 releases of the Australian and New Zealand Standard Industrial Classifications (ANZSIC) that meet the CCI segment definitions. For comparison purposes the table also shows the total employment within the segment determined from using data from the New Zealand 2006 Census that was coded in both releases. Unfortunately, the Australian 2006 Census data was not available at the time of this report but it is expected to show a similar pattern in the shift of employment within the segments.

Table 3: Comparison of the number of classifications available and the number of people employed in Creative Industries Sector or Segments in 2006 in New Zealand

| Creative Sector or Segment | ANZSIC93 | | ANZSIC06 | |
|---|------------------|------------|------------------|------------|
| | Employed NZ 2006 | # of Codes | Employed NZ 2006 | # of Codes |
| Advertising and Marketing | 5,571 | 1 | 5,568 | 1 |
| Architecture, Design and Visual Arts | 20,886 | 7 | 22,200 | 6 |
| Film, TV and Radio | 9,561 | 6 | 9,516 | 5 |
| Music and Performing Arts | 3,108 | 6 | 2,460 | 5 |
| Publishing | 14,679 | 6 | 14,298 | 5 |
| Software and Interactive Content | 21,672 | 1 | 24,321 | 6 |
| Total Employed and relevant Classifications | 75,477 | 27 | 78,363 | 28 |

Source: Analysis by CCI of Statistics NZ Census 2006 tables 16 and 17

The changes in classifications resulted in a cleaner distinction between those industries relevant to the *Creative Trident* and others. Consequently some minor *Creative* components of other industries such as product and

fashion design could now be counted in the *Creative Workforce*, resulting in an overall 4% increase in the estimations of the number employed.

The rise in the estimations for total numbers of employees was largely driven by the impact of the classification changes on Software and Interactive Content Development which went from one relevant classification to six and from 21,000 people employed to 24,000.”

Appendix 3 expands Table 3, listing the specific industry classifications from both releases revealing the size of some of the newly included industries (Software Publishing, Internet Publishing, Internet Service Providers), the splits (Post-production Services) the shifts (Commercial Arts and Display to Specialised Design) and the disappearances (Services to the Arts).

5.2 Creative Segments and Occupation Classifications

Table 4 shows the number of occupation classifications from the 1996 Australian Standard Classification of Occupation (ASCO) and the 2006 Australian and New Zealand Standard Classifications of Occupation (ANZSCO) that meet the CCI segment definitions.

Table 4: Comparison of the number of Occupation classifications available to define the Creative Occupations Segments

| Creative Segment | Number of Relevant Occupation Classification | |
|--------------------------------------|--|---------------|
| | ASCO v2 (1996) | ANZSCO (2006) |
| Advertising and Marketing | 5 | 4 |
| Architecture, Design and Visual Arts | 29 | 24 |
| Film, TV and Radio | 22 | 18 |
| Music and Performing Arts | 16 | 14 |
| Publishing | 13 | 10 |
| Software and Interactive Content | 4 | 16 |
| Total number of Classifications | 89 | 86 |

Again the Software and Interactive Content segment is the winner rising 4 to 16 occupations at the expense of all other segments. It is not clear yet what effect this has on employment levels within the same dataset as New Zealand had not previously used the Australian Standard Classification of Occupation (ASCO) and their preceding classification system is not directly comparable.

Appendix 4 provides a listing of the occupation classifications that are relevant to the segments and the *Creative Occupations* definition.

6. Further information

The methodology and the issues surrounding the measurement of the *Creative Industries* are explored in greater depth on the Creative Industries National Mapping Study web site at <<http://wiki.cci.edu.au/>>. Specifically on the Publication page are a series of research reports including one on the methodology.

<<https://wiki.cci.edu.au/display/NMP/NMP+Publications>>

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Appendix 1: The Distribution of Industry and Occupation Classifications to the CCI Stages and Value Chain Layers

Table 5: Distribution of standard classifications to the Stages of the CCI Value Web

| Standard Classification | | 1 Pre-creation | 2 Creation | 3 Realisation | 4 Consumption | 5 Post Sale | 9 not relevant | Total |
|-------------------------|----------|----------------|------------|---------------|---------------|-------------|----------------|-------|
| Industry | ASIC83 | 3 | 25 | 81 | 1 | 3 | 501 | 614 |
| | ASIC69 | 3 | 29 | 96 | | | 449 | 577 |
| | ANZSIC93 | 3 | 46 | 156 | 2 | 6 | 446 | 659 |
| | ANZSIC06 | 2 | 47 | 153 | 2 | 1 | 307 | 512 |
| Occupation | ASCOv2 | 9 | 103 | 149 | 3 | | 1,053 | 1,317 |
| | ANZSCO | 8 | 92 | 71 | 8 | 4 | 816 | 999 |

Table 6: Distribution of standard classifications to the Participation Levels of the CCI Value Web

| Value Chain Layer (Participation level) | Industry | | | | Occupation | |
|--|------------|------------|------------|------------|-------------|------------|
| | ASIC69 | ASIC83 | ANZSIC93 | ANZSIC06 | ASCv2 | ANZSCO |
| Creative Participant | 15 | 23 | 23 | 25 | 54 | 57 |
| Direct Participant | 5 | 4 | 8 | 8 | 35 | 39 |
| Dedicated venues | 1 | 1 | 4 | 2 | 4 | 3 |
| Broadly Defined | 5 | 2 | 9 | 1 | 8 | |
| Education | 12 | 1 | 2 | 2 | 4 | 5 |
| Tools of Stage | 5 | 6 | 10 | 11 | 1 | 6 |
| External Services | 4 | 4 | 13 | 11 | 15 | 11 |
| Non-dependent production | 52 | 63 | 105 | 74 | 140 | 56 |
| Consumed Input | | | 1 | | | |
| Customer | | | | | 4 | 4 |
| Other Infrastructure | 1 | 1 | | 3 | | |
| Association and Funding Bodies | 3 | 2 | | | | 2 |
| Not relevant | 474 | 507 | 484 | 375 | 1052 | 816 |
| Grand Total | 577 | 614 | 659 | 512 | 1317 | 999 |

Appendix 2: The Criteria for the Allocation of Classifications to the Segments and Sectors

The rationale for allocating the various releases of industry and occupation classification to the CCI's sectors or segments, stages and value chain layers (or participation levels) has been based on a number of criteria of varied significance depending on the context:

1. Is the occupation or industry activity substantially aligned to a *Creative Workforce* related activity to the extent that including it would be not be challenged?
2. If a creative sector activity is a minor part of an industry or occupation activity then it is filtered out as it is "too broad a definition".

In addition, the ABS uses non-standard broad classifications to allocate a person to (an occupation or an industry) not confident about allocating them to the finest level of detail. For example, if a respondent's primary activity can be reliably allocated to a 3 digit industry code but not to a four digit code the ABS utilises a non-standard 4 digit code from a converted 3 digit code by the addition of a zero. Within industry classifications examples are 2400 Printing, Publishing and Recorded Media, undefined, 9240 Arts, undefined, 7850 Marketing and Business Management Services, undefined, P000 Cultural and Recreational Services undefined. These categories often include lots of activities that aren't relevant such as sport, gambling and parks. The relevance of the activities in such categories can be ascertained by examining the proportion of *Creative Occupations* of those employed in that industry and vice versa.

3. Separate the direct creative activities from the support activities.
4. Separate the capital and tools items from the main value chain.
5. If evaluating downstream activities such as manufacturing, distribution, wholesaling or retailing, is there substantial relevance or coverage between the creation activity and the downstream activity.
6. Coverage means a substantial part of the value within the activity must come through the defined upstream creative activity. Architecture has only 25% coverage (in Australia) of domestic buildings that are constructed, while in contrast, authors have (arguably) 98% coverage of books that are published.

Appendix 3: The Industry Classifications included within the Creative Segments and Sectors Definition

The New Zealand 2006 Census data is included purely to show the impact of the change in classifications on the same dataset. The impact of the change in classifications on Australian Census data may vary depending on how the ABS allocates responses in practice.

ANZSIC93 classifications with no equivalent (or subset) in ANZSIC06 are highlighted in *italics*.

ANZSIC06 classifications with no direct equivalent (or superset) in ANZSIC93 are highlighted in **bold**.

| Creative Industry Segment or Sector | Industry of Employment Prefix "n_" is ANZSIC93 Prefix "o_" is ANZSIC06 | New Zealand 2006 Census | | |
|---|--|-------------------------|--------------|--------|
| | | ANZSIC 1993 | ANZSIC 2006 | Impact |
| Advertising & Marketing | n_7851 Advertising Services | 5,571 | | |
| | <i>o_6940 Advertising Services</i> | | 5,568 | |
| Advertising & Marketing Sector Total | | 5,571 | 5,568 | -0.1% |
| Architecture, Design & Visual Arts | n_2941 Jewellery & Silverware Manufacturing | 1,227 | | |
| | <i>o_2591 Jewellery & Silverware Manufacturing</i> | | 1,236 | |
| | n_7821 Architectural Services | 7,077 | | |
| | <i>o_6921 Architectural Services</i> | | 7,077 | |
| | n_9242 Creative Arts | 3,369 | | |
| | <i>o_9002 Creative Artists, Musicians, Writers & Performers</i> | | 3,609 | |
| | n_7852 Commercial Art & Display Services | 5,355 | | |
| | <i>o_6924 Other Specialised Design Services</i> | | 6,417 | |
| | n_9523 Photographic Studios | 1,620 | | |
| | <i>o_6991 Professional Photographic Services</i> | | 1,623 | |
| | n_9220 Museums | 2,238 | | |
| <i>o_8910 Museum Operation</i> | | 2,238 | | |
| Architecture, Design & Visual Arts Sector Total | | 20,886 | 22,200 | 6.3% |
| Creative Industry Segment | Industry of Employment "n_" is ANZSIC93 "o_" is ANZSIC06 | New Zealand 2006 Census | | |
| | | ANZSIC 1993 | ANZSIC 2006 | Impact |
| Film, TV & Radio | n_9111 Film & Video Production | 4,485 | | |
| | <i>o_5511 Motion Picture & Video Production</i> | | 4,029 | |
| | <i>o_5514 Post-production Services & Other Motion Picture Activities</i> | | 459 | |
| | n_9121 Radio Services | 2,355 | | |
| | <i>o_5610 Radio Broadcasting</i> | | 2,316 | |
| | n_9122 Television Services | 2,721 | | |
| | <i>o_5621 Free-to-Air Television Broadcasting</i> | | 1,890 | |
| | <i>o_5622 Cable & Other Subscription Broadcasting</i> | | 822 | |
| Film, TV & Radio Sector Total | | 9,561 | 9,516 | -0.5% |

| Creative Industry Segment | Industry of Employment "n_" is ANZSIC93 "o_" is ANZSIC06 | New Zealand 2006 Census | | |
|--------------------------------------|--|-------------------------|-------------|--------|
| | | ANZSIC 1993 | ANZSIC 2006 | Impact |
| Music & Performing Arts | n_2430 Recorded Media Manufacturing & Publishing | 150 | | |
| | o_5521 Music Publishing | | 33 | |
| | o_1620 Reproduction of Recorded Media | | 96 | |
| | n_9241 Music & Theatre Productions | 1,290 | | |
| | o_9001 Performing Arts Operation | | 1,317 | |
| | n_9251 Sound Recording Studios | 285 | | |
| | o_5522 Music & Other Sound Recording Activities | | 288 | |
| | n_9252 Performing Arts Venues | 726 | | |
| | o_9003 Performing Arts Venue Operation | | 726 | |
| | n_9259 Services to the Arts N.E.C. | 657 | | |
| Music & Performing Arts Sector Total | | 3,108 | 2,460 | -20.8% |

| Creative Industry Segment | Industry of Employment "n_" is ANZSIC93 "o_" is ANZSIC06 | New Zealand 2006 Census | | |
|---------------------------|--|-------------------------|-------------|--------|
| | | ANZSIC 1993 | ANZSIC 2006 | Impact |
| Publishing | n_2421 Newspaper Printing or Publishing | 6,672 | | |
| | o_5411 Newspaper Publishing | | 6,465 | |
| | n_2422 Other Periodical Publishing | 2,319 | | |
| | o_5412 Magazine & Other Periodical Publishing | | 2,295 | |
| | o_5419 Other Publishing (except Software, Music & Internet) | | 135 | |
| | n_2423 Book & Other Publishing | 1,776 | | |
| | o_5413 Book Publishing | | 1,491 | |
| | n_9210 Libraries | 3,912 | | |
| | o_6010 Libraries & Archives | | 3,912 | |
| Publishing Sector Total | | 14,679 | 14,298 | -2.6% |

| Creative Industry Segment | Industry of Employment "n_" is ANZSIC93 "o_" is ANZSIC06 | New Zealand 2006 Census | | |
|---|---|-------------------------|---------------|-------------|
| | | ANZSIC 1993 | ANZSIC 2006 | Impact |
| Software & Interactive Content | n_7834 Computer Consultancy Services | 21,672 | | |
| | o_7000 Computer System Design & Related Services | | 21,669 | |
| | o_5414 Directory & Mailing List Publishing | | 57 | |
| | o_5420 Software Publishing | | 54 | |
| | o_5700 Internet Publishing & Broadcasting | | 60 | |
| | o_5910 Internet Service Providers & Web Search Portals | | 927 | |
| | o_5921 Data Processing & Web Hosting Services | | 1,554 | |
| Software & Interactive Content Sector Total | | 21,672 | 24,321 | 12.2% |
| Total of employment in NZ in 2006 across all Creative Industries Sectors | | 75,477 | 78,363 | 3.8% |

Appendix 4: The Occupation Classifications included within the Creative Segments Definition

| Segment Name | Occupation in ASCO release 2 (prefix "e_") | Occupation in ANZSCO (released 2006, prefix "f_") |
|--------------------------------------|---|--|
| Advertising & Marketing | e_222100 Marketing and Advertising Professionals | f_131111 Advertising and Public Relations Manager |
| | e_222113 Marketing Specialist | f_212411 Copywriter |
| | e_222117 Advertising Specialist | f_225111 Advertising Specialist |
| | e_253419 Copywriter | f_225113 Marketing Specialist |
| | e_599511 Desktop Publishing Operator | |
| Architecture, Design and Visual Arts | e_212100 Architects and Landscape Architects | f_139911 Arts Administrator or Manager |
| | e_212111 Architect | f_211311 Photographer |
| | e_212113 Landscape Architect | f_211411 Painter (Visual Arts) |
| | e_212921 Naval Architect | f_211412 Potter or Ceramic Artist |
| | e_252311 Urban and Regional Planner | f_211413 Sculptor |
| | e_253000 Artists and Related Professionals Nfd | f_211499 Visual Arts and Crafts Professionals n.e.c. |
| | e_253100 Visual Arts and Crafts Professionals | f_224211 Archivist |
| | e_253111 Painter (Visual Arts) | f_224212 Gallery or Museum Curator |
| | e_253113 Sculptor | f_232111 Architect |
| | e_253115 Potter or Ceramic Artist | f_232112 Landscape Architect |
| | e_253179 Visual Arts and Crafts Professionals Nec | f_232311 Fashion Designer |
| | e_253211 Photographer | f_232312 Industrial Designer |
| | e_253300 Designers and Illustrators | f_232313 Jewellery Designer |
| | e_253311 Fashion Designer | f_232411 Graphic Designer |
| | e_253313 Graphic Designer | f_232412 Illustrator |
| | e_253315 Industrial Designer | f_232511 Interior Designer |
| | e_253317 Interior Designer | f_232611 Urban and Regional Planner |
| | e_253319 Illustrator | f_233916 Naval Architect |
| | e_254911 Conservator | f_234911 Conservator |
| | e_254921 Museum or Gallery Curator | f_312111 Architectural Draftsperson |
| | e_312113 Architectural Associate | f_399311 Gallery or Museum Technician |
| | e_399913 Museum or Art Gallery Technician | f_399411 Jeweller |
| | e_498300 Jewellers and Related Tradespersons | f_399915 Photographer's Assistant |
| | e_498311 Jeweller | |
| | e_498381 Apprentice Jeweller | |
| | e_599917 Photographer's Assistant | |

| Segment Name | Occupation in ASCO release 2 (prefix "e_") | Occupation in ANZSCO (released 2006, prefix "f_") |
|---|--|--|
| Film, TV and Radio | e_129600 Media Producers and Artistic Directors | f_212111 Artistic Director |
| | e_129611 Media Producer | f_212112 Media Producer (Excluding Video) |
| | e_129613 Artistic Director | f_212113 Radio Presenter |
| | e_253415 Television Journalist | f_212114 Television Presenter |
| | e_253417 Radio Journalist | f_212311 Art Director (Film, Television or Stage) |
| | e_253515 Script Editor | f_212312 Director (Film, Television, Radio or Stage) |
| | e_253600 Film, Television, Radio and Stage Directors | f_212313 Director Of Photography |
| | e_253611 Art Director (Film, Television or Stage) | f_212314 Film and Video Editor |
| | e_253613 Director (Film, Television, Radio or Stage) | f_212315 Program Director (Television or Radio) |
| | e_253615 Director Of Photography | f_212317 Technical Director |
| | e_253617 Film and Video Editor | f_212318 Video Producer |
| | e_253621 Program Director (Radio or Television) | f_212399 Film, Television, Radio and Stage Directors Nec |
| | e_253623 Technical Director | f_212414 Radio Journalist |
| | e_253679 Film, Television, Radio and Stage Directors | f_212416 Television Journalist |
| | e_253711 Music Director | f_399511 Broadcast Transmitter Operator |
| | e_253900 Media Presenters | f_399512 Camera Operator (Film, Television or Video) |
| | e_253911 Radio Presenter | f_399517 Television Equipment Operator |
| | e_253913 Television Presenter | f_599912 Production Assistant (Film, Television, Radio or Stage) |
| | e_499213 Camera Operator (Film, Television or Video) | |
| | e_499215 Television Equipment Operator | |
| e_499217 Broadcast Transmitter Operator | | |
| e_499223 Production Assistant (Film, Television or Radio) | | |
| Music and Performing Arts | e_253619 Stage Manager | f_211111 Actor |
| | e_253700 Musicians and Related Professionals | f_211112 Dancer or Choreographer |
| | e_253713 Singer | f_211113 Entertainer or Variety Artist |
| | e_253715 Instrumental Musician | f_211199 Actors, Dancers and Other Entertainers Nec |
| | e_253717 Composer | f_211211 Composer |
| | e_253779 Musicians and Related Professionals Nec | f_211212 Music Director |
| | e_253800 Actors, Dancers and Related Professionals | f_211213 Musician (Instrumental) |
| | e_253811 Actor | f_211214 Singer |
| | e_253813 Dancer or Choreographer | f_211299 Music Professionals Nec |
| | e_253879 Actors, Dancers and Related Professionals Nec | f_212316 Stage Manager |
| | e_499200 Performing Arts Support Workers | f_399513 Light Technician |
| | e_499211 Sound Technician | f_399514 Make Up Artist |
| | e_499221 Light Technician | f_399516 Sound Technician |
| | e_499225 Production Assistant (Theatre) | f_399599 Performing Arts Technicians Nec |
| | e_499227 Make Up Artist | |
| | e_499279 Performing Arts Support Workers Nec | |

| Segment Name | Occupation in ASCO release 2 (prefix "e_") | Occupation in ANZSCO (released 2006, prefix "f_") |
|--|--|--|
| Publishing | e_229211 Librarian | f_212211 Author |
| | e_229915 Archivist | f_212212 Book or Script Editor |
| | e_253400 Journalists and Related Professionals Nfd | f_212412 Newspaper or Periodical Editor |
| | e_253411 Editor | f_212413 Print Journalist |
| | e_253413 Print Journalist | f_212415 Technical Writer |
| | e_253421 Technical Writer | f_212499 Journalists and Other Writers Nec |
| | e_253479 Journalists and Related Professionals Nec | f_224611 Librarian |
| | e_253500 Authors and Related Professionals | f_399312 Library Technician |
| | e_253511 Author | f_599711 Library Assistant |
| | e_253513 Book Editor | f_599913 Proof Reader |
| | e_399711 Library Technician | |
| | e_619211 Library Assistant | |
| | e_619911 Proof Reader | |
| Software and Interactive Media Devontent | e_223113 Systems Designer | f_225211 ICT Account Manager |
| | e_223115 Software Designer | f_225212 ICT Business Development Manager |
| | e_223117 Applications and Analyst Programmer | f_232413 Multimedia Designer |
| | e_223119 Systems Programmer | f_232414 Web Designer |
| | | f_261111 ICT Business Analyst |
| | | f_261112 Systems Analyst |
| | | f_261211 Multimedia Specialist |
| | | f_261212 Web Developer |
| | | f_261311 Analyst Programmer |
| | | f_261312 Developer Programmer |
| | | f_261313 Software Engineer |
| | | f_261399 Software and Applications Programmers Nec |
| | | f_263211 ICT Quality Assurance Engineer |
| | | f_263213 ICT Systems Test Engineer |
| | | f_263299 ICT Support and Test Engineers Nec |
| | f_313113 Web Administrator | |

Appendix 5: Definitions

Creative Trident

The *Creative Trident* is the collective term for a set of interlocking segments of the economy focused on extending and exploiting symbolic cultural products such as the arts, films, interactive games, or providing business-to-business symbolic or information services in areas such as architecture, advertising and marketing, design, as well as web, multimedia and software development. It comprises all the people working within firms and organisations specialising in the production of creative goods and services and the people working in specialist *Creative Occupations* in “non-creative” firms and organisations.

The *Creative Trident* is based on a methodology developed by the CCI to determine the employment based impact of the *Creative Economy*. The *Creative Occupations* approach is beneficial for making comparisons of population centres, even the small towns and cities where it is not feasible to obtain the Census employment by combined occupation and industry matrices.

Creative Economy

Creative Economy refers to the human activities related with the production, distribution, exchange, and consumption of creative goods and services. CCI's analysis of the *Creative Economy* focuses on the impacts of both the *Creative Workforce* and *Creative Businesses* across the whole economy.

Creative Occupations

Creative Occupations are a selection of occupations that produce creative goods or services. They may be participants at any stage of the production process but it is the involvement of such people primarily in creative functions (rather than, for example, retail sales) that distinguishes them.

Creative Workforce

The Creative workforce refers to the people employed in all the specialist creative occupations or *Support* occupations in specialist firms and organisations operating within the *Creative Industries* and those employed in *Creative Occupations* “Embedded” in other industries. It is determined using the Creative Trident methodology with the selection based on the Creative Segments grouping definition.

Creative Industries

The bundle of Industry determined activities that are used to select the specialist businesses that are direct participants in the production of a major grouping of Creative outputs such as Architecture, Design and Visual Arts. We describe six industry sectors within the *Creative Industries*. However the make up of the groupings may vary depending on the purpose of the analysis or the portfolio of the Government Department or Industry body proposing the segments.

Creative Businesses

The Firms and other organisations that are direct participants in the production of a major grouping or Sector of Creative outputs such as Architecture, Design and Visual Arts.

Creative Segments grouping

A grouping term used as an alternative to the term Creative Industries (when it is used as a grouping term for a bundle of creative activities rather than as a specialist creative businesses). Creative Segments encompassed selections of occupations and industry activities.

Creative Segment

A subgroup of the Creative Workforce, distinguished by the goods and services that they are engaged in producing either on the basis of their specialist occupation or by the specialist industry they work in.

Creative Sub-segment

A subgroup of the Creative Segments of the Creative Workforce and is therefore examining occupation and industry of employment: specialist occupation or by the specialist industry they work in.

Creative Sector

A major grouping within a *Creative Industries*. For example an analysis of the Film, TV and Broadcasting Industry sector is focussed purely on the specialist firm based measures and ignores any measures from the relevant occupation's embedded employment.

Creative Sub-sector

A more focussed sub-grouping within a *Creative Sector*. For example the Film, TV and Broadcasting Industry sector can be conceptually disaggregated into the individual Film, TV and Broadcasting subsectors, and further to film production, digital animation and post-production, etc.

Creative Trident Methodology

A methodology for analysing a single, highly detailed, census data table of the number of people employed for every occupation across every industry. The methodology focusses on counting those in specialist occupations and industries and those who are not.

Trident Modes

Trident Modes refer to the three "locations" of employment within the *Creative Trident*, *Specialist*, *Embedded* and *Support*. The balance or proportions between the three modes can provide an insight into the nature of a segment and its contribution to other industries.

Specialist Mode

Those people in defined *Creative Occupations* employed (or working) within the defined *Creative Industries*. When examining a specific Creative Segment, *Specialist Mode* also includes inter-segment *Specialists*, in other words *Creative Specialists* from other creative segments working within that segment.

Embedded Mode

Those people employed within the defined *Creative Occupations* who are not working within the defined *Creative Industries*.

Support (or Business) Mode

Those people employed within the defined *Creative Industries* who are not working in the defined *Creative Occupations*.

GST-registered

Businesses that are registered on the Australian Business Register that have estimated their annual income above the threshold of \$50,000 (\$100 000 or more for non profit organisations) are also required to be registered for the Goods and Services Tax (GST). Businesses below this threshold may register at their option.

not GST-registered

Businesses that are registered on the Australian Business Register that have estimated their annual income to be below the threshold of \$50,000 (\$100 000 or more for non profit organisations) are not required to be registered for the Goods and Services Tax (GST). These are mostly part time workers and hobbyist 80% are individuals.

Resolution

The CINMP uses the term “resolution” to refer to the level of classification for which data is available. In a standard three or four level classification hierarchy, the finest resolution is the one with the most digits often either four or six. The lowest resolution is the “top level” classification. Accurate metrics for the *Creative Industries* are most effectively generated by teasing out the individual fine “strands” of creative occupations and industry activities and then combining them into a “cord” for each segment (occupation and industry) or sector (industry only) which can then be joined together to form the *Creative Economies* “rope”. It cannot be reliably and consistently achieved by combining an arbitrary slice or proportion of one rope with other slices of other ropes. The latter approach easily unravels and has limited meaning when comparisons with other industries.

Dimensions

Data Dimensions refer to the primary characteristics of the *data-cubes* sourced from organisations such as the ABS and which are used for secondary analysis. The dimensions the NMP have found useful for Census matrices include:

- occupation of employment,
- tertiary qualification obtained (highest qualification),
- industry of employment and
- geographic location of employment.
- geographic location of residence.

Creative Digital Segments grouping and Creative Digital Industries

The Creative Digital Segments are defined as those activities involved in the production, creation and publishing of experiential and informational media that are currently being (or soon will be) produced or delivered or experienced in digital form. Inherent in the definition are the “software” based applications and services that enable or assist in these production, management, publishing and consumption activities.

Many of these activities are traditional “analogue” segments and sectors, such as film and television that are moving rapidly into partial, or complete, digital production and delivery chains. Other activities are the “born digital” sectors that have recently emerged such as broadband and mobile content where there is no analogue media to manage or process through the value chain. Other activities, such as libraries, provide a critical preservation, access and re-use role not only of “born digital” media but also of physical media and even three dimensional artefacts that are in the process of being digitised so that they can be preserved, discovered, accessed and experienced in different ways in digital form.

The Cultural Segments grouping and Cultural Industries

The National Mapping Project defines the segments within the Cultural Segments as:

- Music and Performing Arts segment
- Film, TV, Radio segment
- Writing, Publishing and Print Media segment which includes libraries.
- Visual Arts sector which includes museums and galleries but not antiques or second hand furniture.

In effect CCI's definition excludes the more commercially focussed, primarily fee-for-service oriented activities, of the *Creative Segments* definition: software and digital content production, interactive games, advertising and marketing, architecture, landscape, interior and product design. Typically the Cultural

definition also includes dedicated venues and the presentation of the outputs, such as motion picture cinemas, commercial art galleries and dedicated book shops and music stores.

Data-cube

A computer data format that is specially constructed for analysis purposes using software such as SpaceTime Research's SuperCross. The highly compressed file supports many different dimensions of data, each with its own hierarchy of classifications. Multiple hierarchies can be supported for each dimension providing alternate views of the same data.

