Creative industries in New Zealand

Economic contribution

Report to Industry New Zealand

March 2002

NZ INSTITUTE OF ECONOMIC RESEARCH (INC.)

8 Halswell St. Thorndon

P O BOX 3479 WELLINGTON

Tel: (04) 472 1880

Fax: (04) 472 1211

Preface

The New Zealand Institute of Economic Research (NZIER), based in Wellington, was founded in 1958 as a non-profit making trust to provide economic research and consultancy services. Best known for its long-established *Quarterly Survey of Business Opinion* and forecasting publications, *Quarterly Predictions* and the annual *Industry Outlook* with five-yearly projections for 25 sectors, the Institute also undertakes a wide range of consultancy activities for government and private organisations. It obtains most of its income from research contracts obtained in a competitive market and trades on its reputation for delivering quality analysis in the right form, and at the right time, for its clients. Quality assurance is provided on the Institute's work:

- by the interaction of team members on individual projects;
- by exposure of the team's work to the critical review of a broader range of Institute staff members at internal seminars;
- by providing for peer review at various stages through a project by a senior staff member otherwise disinterested in the project;
- and sometimes by external peer reviewers at the request of a client, although this usually entails additional cost.

Authorship

This report has been prepared at NZIER by Mark Walton and Ian Duncan, and reviewed by John Yeabsley. The assistance of Robert Arlidge, Industry New Zealand is gratefully acknowledged. We are also indebted to executives of the industry bodies mentioned in the report, and others, who provided information and general guidance.

EXECUTIVE SUMMARY

Highlights

- This report sets out NZIER's initial estimates of the contribution of the New Zealand **creative sector** to the New Zealand economy.
- Our figures put GDP in the creative sector for the year to March 2001 at about 3.1% of the New Zealand total. The GDP contribution for the creative sector is comparable with that for: communication services (3.2%), central government administration and defence (3.3%), finance (3.5%), and education (3.9%).
- The creative sector GDP and employment shares estimated for the 2001 March year are higher than for the year to March 1997 i.e. the sector appears to have been grown faster than the economy as a whole over that period.
- The contribution estimate is close to those obtained in earlier New Zealand studies of the 'copyright industries' and a recent Australian study of the creative sector in that country.
- The estimated GDP share for New Zealand is significantly below the estimate of over 5% for the UK. The difference can partly be explained by the greater 'maturity; and thus higher relative importance of such industries in the UK, than in New Zealand. In particular the UK is a major net exporter of such services as advertising, design, software, and publishing services, whereas New Zealand is probably a net importer of creative services overall. This in itself would explain some of the differences in economic contribution shares between the two countries.
- Another contributing factors might be some definitional and measurement differences in the data used for the two countries. For the New Zealand study, we have based the analysis of the creative sector on the definitions used in the UK Mapping Study. But, for obvious reasons, we have also tried to link our industry definitions and estimates where possible to official statistics, that is, via an industrial classification coding system (ANZSIC). This means that the concordance between the industries covered in the New Zealand study, and the corresponding industries in the UK study, will not always be exact.
- Estimated apparent domestic consumption of creative sector outputs in New Zealand was $7-7.5 billion in the year to March 2001.

This report is intended to establish a robust basis for further refinement in the future, for example, as more extensive primary information becomes available. The results so far are subject to a number of <u>'health warnings'</u> as follow.

Caveats

The information base on which the New Zealand estimates are based is very poor for some industries, for which there is no comprehensive data collection. Some industry studies have been completed recently, and they have been very helpful in filling some of the gaps. But overall, there is scope for both double counting and under/or overestimation of data for most industries.

Hence, our results can only be taken as indicative of the range in which results based on more comprehensively collected data would fall.

We have endeavoured to be as clear as possible about the basis of the figures, but should stress that:

- Although we based the industry definitions on ANZSIC codes (and the UK study) there is still some fuzziness about industry boundaries within the sector.
- In the case of most of the industries we have only one or two revenue figures (e.g. for the latest year or two). We have backcast the figures to generate time series without any firm basis for the trends assumed. However, we have tried to reconcile our sector figures for the initial year (1996/97) with results of other studies or sources.
- The latest revenue figure for each industry is not necessarily a good indicator of future levels. Feature film production activity, for example, is inherently volatile, and could decline in forthcoming years.
- With the exception of a few sectors where the major participants publish income and expenditure figures, we have no direct observations of intermediate consumption. Hence, in some cases, we have had to assume intermediate input/revenue ratios to arrive at value added figures.
- In contrast to the recent Australian study, and previous New Zealand studies, this study has not attempted to delineate between copyright and non-copyright goods.

CONTENTS

APPENDICES

TABLES

1. INTRODUCTION

Industry New Zealand commissioned NZIER to prepare a report on the economic contribution of Creative Industries in this country.

Our brief for the report was that it:

- *Be as robust as possible given deficiencies in primary information;*
- *Use the same definitions as used in the UK Creative Industries Mapping Document*
- *Cover gross revenue, contribution to GDP, imports, exports, and employment for each industry.*
- *Include a section on growth rates.*

The structure of the report is as follows:

Section 2: The UK mapping study

Section 3: Our research process

Section 4: Economic contributions by industry

Section 5: Benchmarking

Section 6: External trade

Section 7: Expenditure on creative industries

Section 8: Sources

Appendix A: Statistical mapping

Appendix B: Survey form

Appendix C: Design revenue

2. THE UK REPORT

For the purposes of our review, the main relevant aspects of the UK study are:

- Industry coverage used
- Methodology and data focus

2.1 Industry coverage

The 2001 study in the UK, retains the original definition of the creative industries:

'those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property.'

The industry coverage for the UK study is:

- Advertising
- Architecture
- Art & Antiques Market
- Crafts
- Design

- Designer Fashion
- Film and Video
- Interactive Leisure Software
- Music
- Performing Arts
- Publishing
- Software & Computer Services
- Television & Radio

Data focus is on production (i.e. the output of UK's creative industries) rather than expenditure (i.e. the amount spent by the UK regardless of country of origin). Data estimated in the study includes:

- Core activities
- Industry revenues
- UK market size
- External trade
- Employment
- Industry structure: number and size breakdown of businesses, possibly by further (sub-industry) breakdown
- Regional dimensions: geographic distribution

3. RESEARCH APPROACH

3.1 Overview

The central focus of this New Zealand study is to generate soundly-based estimates of contributions to GDP for individual creative industries and then for the creative sector (as defined in the UK study) as a whole. Availability of relevant data ranges from fairly comprehensive data for some industries, to very little for others. Hence, results generated here for the creative sector as a whole involve a significant degree of estimation.

GDP in aggregate can be measured in three ways – production, expenditure or income approaches. In this context, where the focus is mainly on production of individual industries, and then building this up to an aggregate sectoral picture, the production approach is appropriate.

This involves estimating **annual revenue** for each industry and then deducting **intermediate consumption** (inputs of goods and services purchased from other industries, including imports). The difference is the **value added** or 'product' of each industry.

The challenge in the case of narrowly defined industries such as these, is the paucity of official data. This is limited in most cases to employment data – it is not feasible for Statistics New Zealand to undertake economic censuses of thousands of separate industries, in order to gather revenue and expenditure data for them.

The essence of the approach is to simulate SNZ production of national accounts and related official economic data. The approach, at this very fine level of industry disaggregation, draws on:

- Existing official surveys that provide data for the listed industries. These includes business demographics data on employment; inter-industry transactions data; surveys of cultural statistics and household spending on culture; and the annual information technology survey.
- Primary data or estimates by industry associations, quasi-government, and government agencies, or independent researchers – where possible obtaining current snapshots and data for earlier periods.
- Building bottom-up aggregates for the required industries, using appropriate weightings, and adjusting as required for both possible double counting, and gaps in coverage.
- Using various checks e.g. value added to GDP, employment: output ratios, to check the apparent robustness of the estimates.

The UK mapping project faced the same data challenges, and adopted broadly the same research process.

3.2 Industry definitions

The UK *Mapping Document* does not appear to use any underlying statistical classification in its definition of creative industries. We decided it would be prudent for us to do so - for reasons of comparability with national accounts, consistency across time, and transparency. It seemed sensible to use the ANZSIC classification for definition; as far as possible. This approach does not completely solve the definition problems because there is not always an exact concordance between the descriptions used in the ANZSIC code and the industry descriptions used elsewhere.

Even at the finest SNZ working-level of the ANZSIC classification (i.e., 6-digit) some of the creative industries are buried. Take fashion design as an example: fashion design is lumped with a raft of other activities including telephone answering services, collection agencies, and translators in a 'business services nec' category (L786900).

Given that many of New Zealand's fashion houses are likely to combine elements of design and manufacture, this gives an idea of the difficulty associated with trying to define very specific industries in what is essentially a classification with a broader focus. The creative industries for which ANZSIC definition is particularly problematic are:

- Designer fashion,
- crafts and art and antique markets,
- in addition, separating interactive leisure software from software and computer services proved to be problematic.

While there are definitional problems relating to the smaller of the creative industries, the ANZSIC coverage of most of them– including the significant ones in the New Zealand context - is relatively clear. The mapping definitions we have adopted are set out in Appendix A.

3.3 Condensed industry list

Because of the difficulty of defining some industries, and thus obtaining meaningful data, we have condensed the number of industries analysed to 10, compared to 13 in the UK study. The 10 are:

1. Advertising
2. Software & Computer Services (including Interactive Leisure Software)
3. Publishing
4. Television & Radio
5. Film and Video
6. Architecture
7. Design
8. Designer fashion
9. Music and Performing Arts
10. Visual arts (arts, crafts, antiques)

3.4 Data Capture

We used a brief pro forma questionnaire (refer Appendix B) as a vehicle for indicating to industry sources the 'wish list' of data we would like to gather, and for capturing consistent data across each of the industries. The questionnaire distributed was designed to focus on:

- revenue/market size
- employment
- expense and value added
- exports and imports
- industry structure
- regional dimensions
- secondary economic impacts

A sample questionnaire is attached as Appendix B.

4. ECONOMIC CONTRIBUTIONS BY INDUSTRY

4.1 Overview

In this section we set out estimates of economic contribution (value added) for each of the 10 creative industries, together with employment data. For each industry we set out:

- A list of primary activities in the industry
- A brief discussion of source material
- A table setting out the estimated economic statistics.

For some industries, we have included supplementary tables of Inter-Industry data. The data in these tables is for industries which overlap with more than one of the 10 creative industries as defined for our analysis. It is included because it provides a cross-check on our estimates, and a more detailed picture of market size and demand and supply, including exports and imports.

4.2 Advertising

4.2.1 Primary activities

Includes:

- *Agency services*
- *Advertising space selling (on a commission or fee basis)*
- *Placement services*
- *Aerial advertising services*
- *Preparation services*
- *Sample distribution service*
- *Advertising service (except sale of advertising space in own publications or broadcasts)*

4.2.2 Discussion

The main source of industry turnover data is the Communications Agencies Association (CAANZ) website. This sets out annual data by media type, cash advertising revenue, inclusive of commission when sold via agencies.

The critical point is that these turnover figures are not the income of the advertising industry, but of the various media e.g. newspapers, magazines, TV, radio etc. Examples of income for the advertising industry are:

- commissions for placement
- retainers
- one-off design assignments

The advertising industry only represents part of the total advertising market. For TV advertising, about 90% would be commissioned through CAANZ members. For radio, about 20% by value would be through CAANZ members, and 80% would be purchased by retailers through sales representatives working for radio broadcasters.

For newspapers, display advertisements are usually through advertising agencies. Classifieds (cars, real estate) would account for a larger part of their revenue than display advertisements (which are organised by agencies).

4.2.3 Economic contribution

The following table provides summary data and sources.

Table 1: Advertising – estimated economic contribution

	1996/97	1997/98	1998/99	1999/00	2000/01
Revenue ($m)	188	187	199	200	214
Intermediate consumption	47	47	50	50	53
Value added	141	140	149	150	160
Employment (est)	1411	1404	1491	1500	1601
Geographic units	988	1020	1027	1157	1077
Memo items:					
Value added/turnover	0.75	0.75	0.75	0.75	0.75
Value added/FTE ($000)	100	100	100	100	100
Advertising industry turnover	1344	1337	1420	1485	1525
Billings to turnover (%)	14%	14%	14%	14%	14%
Employment (SNZ)	6190	6210	5700	6630	4420

Notes: (1) Revenue – assumes CAANZ figure of $150m represents about 75% of industry total
(2) Employment figures estimated. Industry view was that SNZ employment figures for this industry are overstated.

Source: CAANZ/Statistics New Zealand *Business Patterns*

4.2.4 Supplementary data

The following table provides supplementary economic data and sources. Note that this comprises both advertising and marketing.

Table 2: Advertising – supplementary data

Size of market 1996 ($m)

Product	*Total supply*	*Exports*	*Imports*
Advertising and marketing	2599	62	483

Industry linkages 1996

Supplying industry	($m)
Publishing and recorded media manufacturing	141
Advertising and marketing services	1364
Motion picture, radio and TV services	373
Other NZ suppliers	238
Imports	483
Total supply	*2599*
Using industry	
Wholesale trade	575
Retail trade	349
Motion picture, radio and television services	205
Other NZ users	1408
Exports	62
Total use	*2599*

Source: *Inter-Industry Study 1996*, SNZ

4.3 Software and computer services

- *Computer consultancy service*
- *Computer programming service*
- *Software production service (other than mass production)*
- *Systems analysis service*

4.3.1 Discussion

Main information sources are the SNZ Information Technology Survey and the Ministry of Economic Development Infotech website. Note that the bulk of application software is imported, and there is no obvious way of estimating how much in-house software development takes place.

Hence, the bias here may be towards an underestimation of the true economic contribution of the creative part of this industry.

The estimates are intended to include 'Interactive leisure software' i.e. designing interactive games and writing software for them. Although this may be a sector with considerable growth potential, currently in New Zealand this is an 'infant industry' with 8-9 small companies, of which Sidhe is the biggest with about 19 employees. Total employment may thus be only about 100 full-time equivalents. Financial backing for these companies is mainly provided by software publishing houses (US, Europe, Japan) who have first claim on royalties once a game is released.

4.3.2 Economic contribution

Table 3: Software and computer services – estimated economic contribution

	1996/97	1997/98	1998/99	1999/00	2000/01
Revenue ($m)	1865	2208	2631	2869	2950
Intermediate consumption	839	994	1184	1291	1328
Value added	1026	1214	1447	1578	1623
Employment	8770	10140	12230	15640	16700
Geographic units	3494	4335	4863	5799	5602
Memo items:					
Value added/turnover	0.55	0.55	0.55	0.55	0.55
Value added/FTE ($000)	116961	119763	118320	100892	97156
Software exports ($m)	39	79	99	113	150
Sources: SNZ IT Survey/SNZ BD					

Notes: (1) Revenue taken from SNZ IT Survey – categories 'software sales' plus 'computer services'
(2) Value of in-house software development across New Zealand industry as a whole is unknown
(3) Value/added to turnover ratio assumed to be constant

Source: SNZ Information Technology Survey/SNZ Business Patterns/http://www.med.govt.nz/pbt/infotech/it1999/it99.html/ Games New Zealand/Industry New Zealand

4.3.3 Supplementary data

The following table provides supplementary economic data and sources.

Table 4: Software and computer services – supplementary data

Size of market 1996 ($m)

Product	*Total supply*	*Exports*	*Imports*
Computer software and services	1805	45	187

Industry linkages 1996

Supplying industry	($m)
Wholesale trade	236
Communication services	41
Computer services	1017
Other NZ suppliers	324
Imports	187
Total supply	*1805*
Using industry	
Wholesale trade	257
Retail trade	57
Finance	255
Computer services	98
Central government administration	148
Gross fixed capital formation	322
Other NZ users	623
Exports	45
Total use	*1805*

Source: *Inter-Industry Study 1996*, SNZ

4.4 Publishing

- *Newspaper printing or publishing*
- *Other periodical publishing*
- *Book and other publishing*
- *Recorded media manufacturing and publishing*

4.4.1 Discussion

A potential overlap arises from the last of the above-listed activities – which includes music. In other words, some so-called 'copyright' activities are not well distinguished in the official statistics.

The challenge, as for other industries, is to distinguish between physical items sold and intellectual property content, which is the aspect relevant to the creative sector.

In addition to the Copyright Council, the main industry bodies are the New Zealand Press Association, and Book Publishers Association (BPANZ) although the latter does not have complete coverage of book publishing.

4.4.2 Economic contribution

The following table provides summary data and sources.

Table 5: Publishing – estimated economic contribution

	1996/97	1997/98	1998/99	1999/00	2000/01
Revenue ($m)	1078	1122	1143	1206	1276
Intermediate consumption	647	673	686	724	766
Value added	431	449	457	482	510
Employment	9870	10030	9375	9080	8995
Geographic units	798	822	795	840	790
Memo items:					
Value added/turnover	0.4	0.4	0.4	0.4	0.4
Value added/FTE ($000)	43688	44746	48768	53128	56743

Sources: New Zealand Press Association/Book Publishers Assn/SNZ BD/CAANZ/Annual Reports

Notes: (1) Main revenue sources are newspaper and magazine sales advertising
(2) Also includes BPANZ revenue estimate for 2000/2001
(3) Value added/turnover ratio estimated from GST Business Activity Indicator

Source: New Zealand Press Association/ Annual Reports – Wilson and Horton and INL/CAANZ/BPANZ/Copyright Council/SNZ Business Patterns.

4.5 Television and radio

Organisations mainly involved in television or radio broadcasting. Includes the production of programmes, and the collection of news for broadcasting.

4.5.1 Discussion

Revenue data and expenses have been derived from annual reports of main companies involved in these activities i.e. TVNZ, Canwest, and Sky Television. In addition to these are Prime TV and West Media. The major revenue source in television and radio, as for newspapers and magazines, is advertising.

The major 'creative' component of the television industry is production of programme material. With the exception of news, current affairs, and sport, this is all covered in the SPADA survey, including detailed information on financing sources. This is an input into the broadcasting industry, but an output of screen production, as discussed in the following section. Some of this production work is undertaken by the broadcasters, and some by independent production houses.

We have deducted from the TVNZ revenue figure for 2000/2001 the amount of $143 million which covers transmission and broadcasting services delivered mainly by BCL, and is outside the 'creative sector' as defined in this report. Similar adjustments apply to earlier years.

---

[1] Refer Screen Producers and Directors Association of New Zealand (2001) *Survey of Screen Production in New Zealand 2001.*

The main information source for commercial radio is the Radio Broadcasters Association. Radio New Zealand data from the Company's annual report is also included. [2]

4.5.2 Economic contribution

The following table provides summary data and sources.

Table 6: Television and radio – estimated economic contribution

	1996/97	1997/98	1998/99	1999/00	2000/01
Revenue ($m)	779	777	822	870	911
Intermediate consumptior	415	426	446	471	512
Value added	364	351	376	399	399
Employment	5050	4290	3950	4100	4400
Geographic units	269	269	235	252	264
Memo items:					
Value added/turnover	0.47	0.45	0.46	0.46	0.44
Value added/FTE ($000)	71996	81814	95089	97239	90614

Notes: (1) Last two years from annual reports; first three years estimated
(2) Intermediate consumption estimated from accounting data
(3) Television figures adjusted to exclude transmission revenues.

Sources: Television Broadcasters Association/ Radio Broadcasters Association/ Annual Reports/ CAANZ/SNZ Business Activity

[2] Radio New Zealand is a Crown entity in terms of the Public Finance Act 1989.

4.5.3 Supplementary data

The following table provides supplementary economic data and sources for the combined motion picture, radio and television services industry.

Table 7: Motion picture, radio and television services – supplementary data

Size of market 1996 ($m)

Product	*Total supply*	*Exports*	*Imports*
Motion picture, radio, TV services	893	38	50

Industry linkages 1996

Supplying industry	($m)
Motion picture, radio and TV services	782
Other NZ suppliers	61
Imports	50
Total supply	*893*
Using industry	
Advertising and marketing services	262
Motion picture, radio and TV services	165
Other NZ users	428
Exports	38
Total use	*893*

Source: *Inter-Industry Study 1996*, SNZ

4.6 Film and video production

- *Motion picture film or tape production*

Television film or tape production

4.6.1 Discussion

a) Screen production

We have used the term 'Film and video production' for consistency with ANZSIC and the UK Mapping Study. An alternative and more commonly used label in New Zealand is the 'Screen Production Industry.'

While screen production is unambiguously an output of the 'film' industry as defined here, it is both an output and an input of the television industry, as defined above. Television broadcasters may produce programme material for broadcast or sale, or purchase local programme material from independent production houses in New Zealand.

A further complication is that the local television broadcasters do not always carry the full cost of production; significant part funding is provided by foreign investors or New Zealand on Air, for example. Thus the net cost of locally produced programmes to these broadcasters understates the value of creative activity in the production sector.

We have thus tried to use the SPADA data to provide a full picture of the 'screen production' industry, but note the fact that some output of the 'film' or 'screen production' industry is an input into the television industry and thus 'nets out' in GDP contribution terms.

Revenue estimates

The eighth in a series of surveys by the Screen Producers and Directors Association (SPADA) was published in November 2001. The total production financing figures shown in that survey are taken as the revenue figures for the industry. Note that there might thus be some mismatch between these and the SNZ employment data, which is for 'film and video production' only.

The last few years i.e. since 1998, have been exceptional ones for the New Zealand screen production industry because of the impact of *The Lord of the Rings*. For example, production financing for feature films in 2000/2001 was $308 million, compared with an average of $20 million for the five years to March 1999. The figures for the film industry and screen production in total are thus likely to fall back quite sharply in coming years.

Economic contribution

The following table provides summary data and sources.

Table 8: Screen production – estimated economic contribution

	1996/97	1997/98	1998/99	1999/00	2000/01
Revenue ($m)	217	208	307	497	572
Intermediate consumptior	130	125	184	298	343
Value added	87	83	123	199	229
Employment	1570	1880	2240	2570	2860
Geographic units	740	831	883	1137	1324
Memo items:					
Value added/turnover	0.4	0.4	0.4	0.4	0.4
Value added/FTE ($000)	55287	44255	54821	77354	80000

Notes: (1) SPADA production financing figures taken as proxy for industry revenue
(2) Employment figures are full-time equivalents from SNZ, and for film and video production only.

Sources: *Survey of Screen Production in New Zealand 2001* prepared for Screen Producers and Directors Association of New Zealand

4.6.3 Supplementary data

See Table 7 (earlier) for supplementary economic data and sources for the combined motion picture, radio and television services industry.

4.7 Architecture

- *Architect (own account)*
- *Architectural consultancy service*
- *Drafting service, architectural*
- *Town planning service*

4.7.1 Discussion

The only 'primary' industry data we have been able to obtain, from the New Zealand Institute of Architects is an estimate of gross fee income (approximately $150 million) per annum together with information on number of members and practice size distribution.

We have calculated from that information that the NZIA may cover 2,200 – 2,500 people, including support people, working in architectural practices. This compares with about 4,300 full-time equivalents as recorded in the SNZ business demographics data. We have thus, somewhat arbitrarily, doubled the NZIA gross fee income number to get an industry revenue estimate.

4.7.2 Economic contribution

The following table provides summary data and sources.

Table 9: Architecture – estimated economic contribution

	1996/97	1997/98	1998/99	1999/00	2000/01
Revenue ($m)	220	240	260	280	300
Intermediate consumptior	66	72	78	84	90
Value added	154	168	182	196	210
Employment	3910	4090	4040	4320	4340
Geographic units	1656	1821	1842	1983	1920
Memo items:					
Value added/turnover	0.7	0.7	0.7	0.7	0.7
Value added/FTE ($000)	39386	41076	45050	45370	48387

Notes: (1) Constant value added/turnover ratio assumed

Source: NZIA/SNZ Business Patterns

4.7.3 Supplementary data

The following table provides supplementary economic data and sources for the combined industry, including engineering services.

Table 10: Architecture and engineering services – supplementary data

Size of market 1996 ($m)

Product	*Total supply*	*Exports*	*Imports*
Architectural and engineering services	1793	57	81

Industry linkages 1996

Supplying industry	($m)
Technical services	1516
Other NZ suppliers	196
Imports	81
Total supply	*1793*
Using industry	
Electricity generation	161
Electricity transmission	89
Residential building construction	62
Wholesale trade	97
Technical services	184
Local government administration	106
Gross fixed capital formation	366
Other NZ users	671
Exports	57
Total use	*1793*

Source: *Inter-Industry Study 1996*, SNZ

4.8 Design

- *Commercial art service*
- *Graphic design service*
- *Signwriting*
- *Ticket writing*

4.8.1 Discussion

We have based our figures on a Massey University draft review (30/11/2001) of design. This refers to the consultancy industry rather than in-house design work within industry in general. The figures (Section 3.1.4) are described as billings/wages. We have assumed they are equivalent to revenue for the purpose of estimating economic contribution.

The amounts for each category of design estimated in the study are set out in Appendix C. As indicated there, several of these activities would probably be undertaken in other parts of the creative sector. We have deducted these amounts (totalling $176 million) to arrive at a revenue total of $300 million for design..

4.8.2 Economic contribution

The following table provides summary data and sources.

Table 11: Design – Estimated economic contribution

	1996/97	1997/98	1998/99	1999/00	2000/01
Revenue ($m)	260	270	280	290	300
Intermediate consumptio	117	122	126	131	135
Value added	143	149	154	160	165
Employment	3760	3840	4000	4420	4310
Geographic units	1484	1594	1631	1910	1814
Memo items:					
Value added/turnover	0.55	0.55	0.55	0.55	0.55
Value added/FTE ($000)	38032	38672	38500	36086	38283

Notes: (1) Massey figures adjusted for allocations to other creative industries
(2) Constant value added/turnover ratio assumed

Source: Massey University 'Design Industry Review' Draft 30/11/2001. Sections 3.1.1 and 3.1.4; Design Institute of New Zealand http://www.dinz.org.nz

4.9 Designer Fashion

4.9.1 Primary activities

The UK Mapping Study describes designer fashion as covering three main activities:

- Clothing design
- Manufacture of clothes for exhibition
- Consultancy and diffusion line

The UK Study also defines 'designer fashion' in terms of four key sectors:

1. Couture: the original designer market dominated by French based international brands
2. International designers: a label usually dominated by one name.
3. Diffusion: Designers producing 'high-street' ranges for specific stores.
4. High fashion: Up and coming new designers, usually endorsed by celebrities.

For the New Zealand designer fashion industry we have adopted the following main criteria:

- Firms or individuals involved in clothing;
- Having a primary focus on design, as distinct from manufacture of clothing.

1. We would thus include:
2. Established fashion labels
3. Lifestyle clothing
4. Niche market brands
5. Emerging new designers.

4.9.2 Data

New Zealand has a number of designers operating in one or more of these 'sectors'. However, at this stage there is no separate ANZSIC code for designer fashion, so we cannot identify employment numbers in the industry from SNZ data.

The UK Mapping Study estimates that the UK Designer Fashion industry had gross sales in 1996 equal to '9% of the UK Apparel Manufacturing Industry.'

In New Zealand, sales from the apparel and textile industry amount to about $3 billion annually. In 1999, employment in apparel manufacture accounted for about 55% of total textile and clothing.[3] This suggests turnover in the 'apparel' industry of about $1.6 billion.

If the 'designer fashion' proportion was 5% to 10%, this would put industry revenue in the $80 million to $160 million range. We suggest that a realistic figure for total industry revenue in 2000/01 is about $100 million per annum, with about $30 million of this comprising export revenue.

We have 'backcast' from this revenue figure on the assumption that revenue would have grown by 10% per annum between 1996/97 and 2000/01. These annual revenue figures ($68 million, $75 million, $83 million, $91 million, and $100 million) are then included in the creative sector aggregates for each year, and the intermediate consumption and value added figures adjusted accordingly.

4.10 Music and performing arts

4.10.1 Primary activities

- *Live theatrical or musical presentations (concerts, opera, ballet or drama)*
- *Sound recording studios*

4.10.2 Discussion

For the purposes of estimating music industry revenue, we have drawn on the recent report 'The Value of the New Zealand Music Industry' prepared for the New Zealand Music Industry Commission. This applies an industry definition as follows:

'The activities of, or made possible by, the work of creative artists who are New Zealand residents composing or performing music.' Total annual revenue generated under this definition is estimated at about $146 million. This includes government funded music education of about $30 million. We have deducted half of this amount, for consistency of approach, as it seems more properly be allocated to 'education'.

The Music Industry study incorporates the revenue generated by the NZSO and regional orchestras. Other performing arts which we need to include in our figures are ballet, opera, and drama. The 2000 Annual Report for the Royal New Zealand Ballet records revenue for that year of $7.5 million. We have assumed revenue for opera and live theatre would lift the aggregate revenue for these three to about $45 million annually, with live theatre the largest component. This is broadly consistent with household spending data (see section 6) which shows a total of $62 million (in 1995/96) being spent on 'theatre, ballet, concert, or play attendance.'

[3] Refer Burleigh Evatt/NZIER report 'Textile and clothing scoping study' Report to Industry New Zealand, July 2001.

4.10.3 Economic contribution

The following table provides summary data and sources.

Table 12: Music and performing arts – estimated economic contribution

	1996/97	1997/98	1998/99	1999/00	2000/01
Revenue ($m)	135	142	148	155	160
Intermediate consumptior	61	64	67	70	72
Value added	74	78	81	85	88
Employment	2440	2690	2600	2730	2810
Geographic units	854	918	965	1026	980
Memo items:					
Value added/turnover	0.55	0.55	0.55	0.55	0.55
Value added/FTE ($000)	30430	29033	31308	31227	31317

Notes: (1) Music industry study amount adjusted for education sector activity
(2) Constant value added/turnover ratio assumed

Source: New Zealand Music Industry Commission http://www.nzmic.org.nz/
SNZ Business Demographics

4.11 Visual arts and crafts

4.11.1 Primary activities

For this 'industry' we have combined three ANZSIC categories:

- 'creative arts' (visual arts such as painting, drawing, sculpture, pottery etc)
- Portrait and other photography
- and 'antique and used good retailing'.

We have summed employment numbers for the first two with an arbitrary 50% of the third to come up with industry aggregates.

4.11.2 Discussion

We have minimal primary information on this industry, apart from some data in the Massey University review of Design. We have thus taken the SNZ employment data as being the most reliable data, and applied an assumed 'value added/FTE' figure to generate the economic contribution estimate.

Included in the estimated revenue figure of $168 million for the latest year are $35 million for photography and $6 million for crafts. Refer Appendix C.

4.11.3 Economic contribution

The following table provides summary data and sources.

Table 13: Visual arts and crafts– estimated economic contribution

	1996/97	1997/98	1998/99	1999/00	2000/01
Revenue ($m)	136	143	156	167	168
Intermediate consumptior	61	65	70	75	75
Value added	75	79	86	92	92
Employment	2500	2630	2855	3060	3075
Geographic units	1730	1825	1909	2190	2174
Memo items:					
Value added/turnover	0.55	0.55	0.55	0.55	0.55
Value added/FTE ($000)	30000	30000	30000	30000	30000

Notes: (1) Estimates based on employment numbers

(2) Constant value added/turnover ratio and value added/FTE assumed

Source: SNZ Business Demography

4.12 Creative sector totals

4.12.1 Economic contribution

The following table shows the totals generated by summing data estimates for the 10 individual industries analysed above.

Table 14: Creative industries – economic contribution

	1996/97	1997/98	1998/99	1999/00	2000/01
Revenue ($m)	4947	5373	6029	6625	6950
Intermediate consumption	2418	2623	2933	3239	3424
Value added	2529	2749	3096	3386	3526
Employment	39281	40994	42781	47420	49091
Geographic units	12013	13435	14150	16294	15945
Memo items:					
Value added/turnover	0.51	0.51	0.51	0.51	0.51
Value added/FTE ($000)	64374	67065	72364	71412	71821
Total GDP	96911	99690	100896	105640	112317
Total employment	1330710	1345150	1339600	1381640	1382750
Average value added/FTE	72827	74111	75318	76460	81227
Creative sector shares of:					
Total GDP	2.6%	2.8%	3.1%	3.2%	3.1%
Total employment	3.0%	3.0%	3.2%	3.4%	3.6%

Notes: (1) First 5 rows sum of 10 component industry data
(2) Memo items calculated

Source: NZIER workbooks ‘Contribution totals’ and ‘SNZ BD Pivot’

5. BENCHMARKING

These fairly rough estimates put the economic contribution of the creative sector at about 3.1% of GDP and 3.6% of employment. The GDP contribution for the creative sector is comparable with that for: communication services (3.2%), central government administration and defence (3.3%), finance (3.5%), and education (3.9%).

For the creative sector as a whole, the value added/FTE amounts (around $73,000) are close to national averages, although there is considerable variation around the sector average.

As a reality check we briefly compare this result with other sources:

- BERL studies of the economic contribution of 'copyright industries' estimated value added shares of 3% in 1981/82, and 3.2% in 1986/87.[4] Allowing for some differences in coverage and some growth in the creative sectors since, our results seem broadly consistent with those.
- An Australian study which shows value added and employment in Copyright Industries equivalent to 3.3% and 3.8% respectively of Australian totals.
- The UK study which put the creative industries there at over 5% of GDP in 2001. Note that the UK is a major global centre for such activities as advertising, design, music, publishing, and software. It is likely to be a much larger net exporter of creative services as a whole (relative to GDP) than New Zealand. This would be consistent with a GDP contribution for the UK creative sector as a whole, significantly higher in percentage terms than in New Zealand.

[4] Copyright Council of New Zealand (1992) *The Economic Contribution of Copyright Based Industries* Business and Economic Research Limited.

6. EXTERNAL TRADE

6.1 International trade in services

We have been unable to gather much primary information on exports of creative goods and services, but some relevant data is included in the SNZ 'Census of International Trade in Services and Royalties.

Table 15: External trade in selected services-$m – June year 1999

Categories	Exports	Imports
Computer services	121	166
Software royalties	43	87
Advertising	38	124
Architectural, engineering and other	172	65
Personal, cultural, and recreational services	70	24
Totals	444	466
Note: Net exports of engineering services are a large component of the fifth line. These are outside the creative sector as defined here.		
Source: Statistics New Zealand		

The external trade data include in our supplementary tables shows a much larger imbalance with exports of about $275 million, and imports of nearly $1200 million. However, this is for a broader range of activities, some outside the core creative sector.

6.2 Spending by tourists

Some of the revenue earned by the creative industries would be from tourists – both international inbound, and domestic. (Likewise, some cultural spending would be by tourists).

Statistics New Zealand's *Tourism Satellite Account* include some data relevant to this study. Note that the term tourist is fairly broadly defined to include 'overseas tourist visiting New Zealand, along with the domestic travel spending of households and the employees of private business and government organisations.'[5]

In the year ended March 1997, tourism expenditure on 'libraries, archives, museums and other cultural services' amounted to $76 million, comprising $31 million in domestic demand, and $45 million in international demand.

[5] Statistics New Zealand (2001) *Provisional tourism satellite account 1998-2000*, p.19

7. EXPENDITURE ON CREATIVE INDUSTRIES

Apparent domestic consumption is the sum of production and import, less exports. Based on the revenue estimate in Table 14 (earlier), we would put apparent domestic consumption of creative goods and services at somewhere between $7 billion and $7.5 billion per annum.

We can present a partial picture of the 'demand side' of the creative sector based on SNZ (1996) *Household spending on culture*, in turn derived from the Household Economic Survey (HES). This provides only a partial picture of total New Zealand consumption of the various items because:

- They relate only to household expenditure, so exclude cultural goods and services consumed free;
- HES data includes private households only; it excludes non-private households (e.g. people living in institutions);
- It also excludes cultural spending by non-household entities – companies, local authorities, and government departments.

The 10 industry categories analysed in this study are consumed by both households and non-household entities, although some e.g. film and video are predominantly final consumption items; others, such as advertising are mainly sold to businesses i.e. are part of their intermediate consumption.

Summary information in the categories covered in the production analysis, is as follows:

Table 16: Household expenditure on cultural goods 1995/96

Category	Description	$m
Publishing	Newspaper and other publishing and distribution and retailing of books and periodicals	437
Performing arts	Theatre, ballet, concert or play attendance	62
Visual arts	Purchase of materials, visual arts, and photographic services	128
Film and video	Cinema tickets and video hire	111
Community and government activities	Adult education, cultural education and training	45
Total		783

Note: Arguably, some proportion of pay TV subscriptions should also be included
Source: Statistics New Zealand *Household Spending on Culture 1996*

This total can be compared with the figure of $1.9 billion for all household expenditure on cultural goods (including items not shown above such as spending on television sets, recorded music, and the public broadcasting fee.). This was equivalent to 4.8 per cent of net household expenditure in 1995/96.

8. SOURCES

Australian Bureau of Statistics and New Zealand Department of Statistics *ANZSIC* (1993)

Australian Copyright Council (2001) *The economic contribution of Australia's copyright industries.* Report for Australian Copyright Council and Centre for Copyright Studies prepared by the Allen Consulting Group.

Communications Agencies Association website (www.caanz.co.nz)

Copyright Council of New Zealand (1997) *Economic growth of copyright industries* Prepared by Business and Economic Research.

Copyright Council of New Zealand (1994) *Copyright reform to promote cultural, economic job and export growth.*

Copyright Council of New Zealand (1993) *Employment in copyright based industries.* Prepared by Business and Economic Research.

Copyright Council of New Zealand (1992) *The social and economic importance of copyright.* Prepared by Business and Economic Research.

Copyright Council of New Zealand (1989) *The economic contribution of copyright based industries in New Zealand.* Prepared by Business and Economic Research.

Department for Culture, Media and Sport (2001) *Creative industries mapping document 2001.*

Industry New Zealand (2001) The New Zealand music industry: a scoping review of the contemporary music industry for Industry New Zealand. Prepared by Rocky Douche' for R.P. Douche' Consulting Limited.

Institute of Policy Studies (2000) 'Funding our culture'. IPS Policy Paper, number 7, 2000

Massey University (2001) 'Design industry review'. Draft, November 2001.

New Zealand Music Industry Commission (2002) 'The value of the New Zealand music industry.' Prepared by Dialogue Consultants Limited.

Screen Producers and Directors Association of New Zealand (2001) *Survey of Screen Production in New Zealand 2001.*

Statistics New Zealand (2001) *Provisional tourism satellite account 1998-2000,* p.19

Statistics New Zealand (2001) *Inter-Industry Study 1996*

Statistics New Zealand *Business Demographics*

Statistics New Zealand 'Census of international trade in services and royalties: year ended June 1999.'

Statistics New Zealand (2000) *Government spending on culture 1990 – 1999.*

Statistics New Zealand (1995) *New Zealand cultural statistics 1995.*

Statistics New Zealand (1996) *Household spending on culture 1996.*

APPENDIX A: STATISTICAL MAPPING

In order for readers to make proper use of this research, it is important that we be as precise as possible about industry definitions used. This is for:

- Clarity about what activities we have or have not included in the creative sector;
- Consistent measurement over time;
- An understanding of comparability (or otherwise) between results for this and other mapping exercises.

We have addressed the first two by tying the definitions used and quantification to the ANZSIC structure, as follows.

Figure 1 Creative industry definitions

Industry	ANZSIC code	ANZSIC description
Publishing	C242100	Newspaper printing or publishing
	C242200	Other periodical publishing
	C242300	Book and other publishing
	C243000	Recorded media manufacturing and publishing
Art and antiques market	G525200	Antique and used good retailing (part)
	P924200	Creative arts (part?)
Architecture	L782100	Architectural services
Software and computer services	L783400	Computer consultancy services (part)
Interactive leisure software	L783400	Computer consultancy services (part)
Advertising	L785100	Advertising services
Design	L785200	Commercial art and display services
Designer fashion	L786900	Business services nec (very small part)
Film and video	P911100	Film and video production
Television and radio	P912200	Television services
	P912100	Radio services
Music	P924100	Music and theatre productions
	P925100	Sound recording studios
Performing arts	P924200	Creative arts (part?)
	P925200	Performing arts venues
	P925900	Services to the arts nec (part?)
Photography	P95230	Photographic studios

Source: Australian Bureau of Statistics and New Zealand Department of Statistics *ANZSIC* (1993)

A series of publications have been produced about the 'copyright industries' in New Zealand, and also the 'cultural sector.' The following table compares the coverage of those with that used for this work on the creative sector.

Creative	**Copyright**	**Cultural**
Advertising	Advertising	Xxxxxxxxxxxx
Architecture	Architects (25%) [1]	Xxxxxxxxxxx
Art & Antiques	xxxxxxxxxxxx	Visual arts
Crafts	xxxxxxxxxxxx	Xxxxxxxxxxxx
Design	Design	Xxxxxxxxxxxx
Designer Fashion	xxxxxxxxxxxx	Xxxxxxxxxxxx
Film and Video	Film and video	Film and video
Interactive Leisure Software	xxxxxxxxxxxx	Xxxxxxxxxxxx
Music	Artistic works	Music retailing
Performing Arts	Dramatic works	Performing arts
Publishing	Literature and print	Literature
Software & Computer Services	Computer software	Xxxxxxxxxxxx
Television & Radio	TV and radio	Xxxxxxxxxxxx

Notes: (1)As used in an Australian study and verified by industry consultation for New Zealand.

Sources: UK Mapping Study (2001); Report for Copyright Council (1992), Table 2.1, p.4; Household Spending on Culture (1996).

APPENDIX B: PRO-FORMA QUESTIONNAIRE

The following is an example of the questionnaire used to indicate to industry sources which data we ideally would have gathered. The example shown is for the advertising industry.

Creative Industries Study 2001

Advertising industry data collection

Instructions
Where able please provide **GST-exclusive** data for years **ending 31 March**
If you are unable to provide March year data, please indicate the periods to which the data relates: **Years ending** [ ]
Please provide values in millions of New Zealand dollars, unless otherwise indicated.

This industry includes the following activities:
- advertising agency services
- advertising preparation services
- advertising space selling

If the data you provide covers only a portion of the activities listed above, or includes more than these activities, please describe:

Operating revenue and expenses

	1996	1997	1998	1999
	($million)	($million)	($million)	($million)
Revenue				
Grants and subsidies received				
Royalty payments received				
Sales				
Total revenue				
Please indicate the proportion of revenue that is from **grants and subsidies**	%	%	%	%
Please indicate the proportion of revenue that is from **exports**	%	%	%	%
Please indicate the proportion of revenue that is from **intra-industry sales** (ie. sales between industry members)	%	%	%	%
Please indicate the proportion of revenue that is from **domestic sales outside this industry**	%	%	%	%
Total revenue	100%	100%	100%	100%
Operating expenses				
Goods and services purchased				
Interest paid				
Employment related expenses				
Depreciation				
Taxes and levies paid				
Total operating expenses				
Operating profit				

Employment

	1996	1997	1998	1999
Please indicate the **number of persons engaged** in your industry (as at year end):				
Full-time permanent employees				
Part-time permanent employees				
Temporary				
Self-employed / contracting				
Total number engaged				

Imports

	1996	1997	1998	1999
Estimate the value of imported **advertising** services				

Please attach any additional information that you think might be relevant in estimating the size of your industry

For example:
- sub-industry breakdown of sales or expenses
- demographic statistics of consumers

APPENDIX C: DESIGN REVENUE

Table 17: Design categories

Discipline	**Sector ($m)**	**Design ($m)**	**Other ($m)**
Graphic design	Consultancy	157	
	Advertising		45
	Other	18	
Publishing	*Publishing*		2
Illustration		5	
Photography	*Visual arts*		*35*
Digital media	*Film and TV?*		*45*
Animation	*Film and TV*		*30*
TV and Film	*Film and TV*		*10*
Product design		8	
Interior design		113	
Theatre/Exhibit	*Performing arts*		*3*
Craft design	*Crafts*		*6*
Totals		301	176
Source: Massey University draft review (30/11/2001)			