

# **The Economic Contribution of Australia's Copyright Industries**

**Prepared by  
The Allen Consulting Group  
for  
Australian Copyright Council  
and  
Centre for Copyright Studies**





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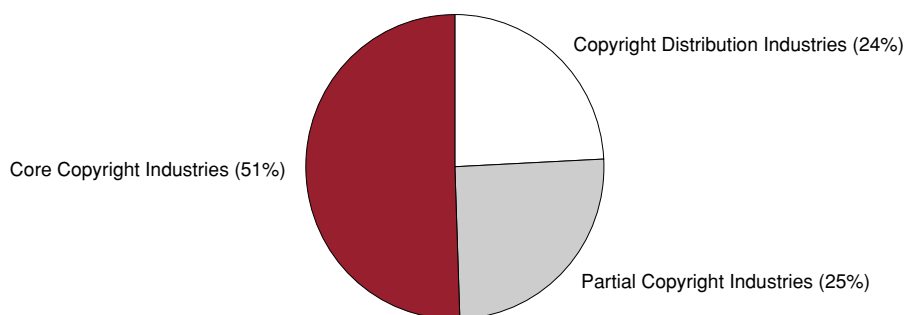
# Key Findings

Australia's copyright industries can be classified into three clusters:

- the *core* industries encompass those industries that create copyright works as their primary product;
- the *partial* copyright industries are those in which only a portion of these industries' product is associated with the creation of copyright works; and
- the copyright *distribution* industries distribute copyright materials to businesses and consumers.

The division of the total copyright contribution between the three copyright clusters is shown in the figure below.

The Relative Value of the Three Copyright Clusters (1999–2000)

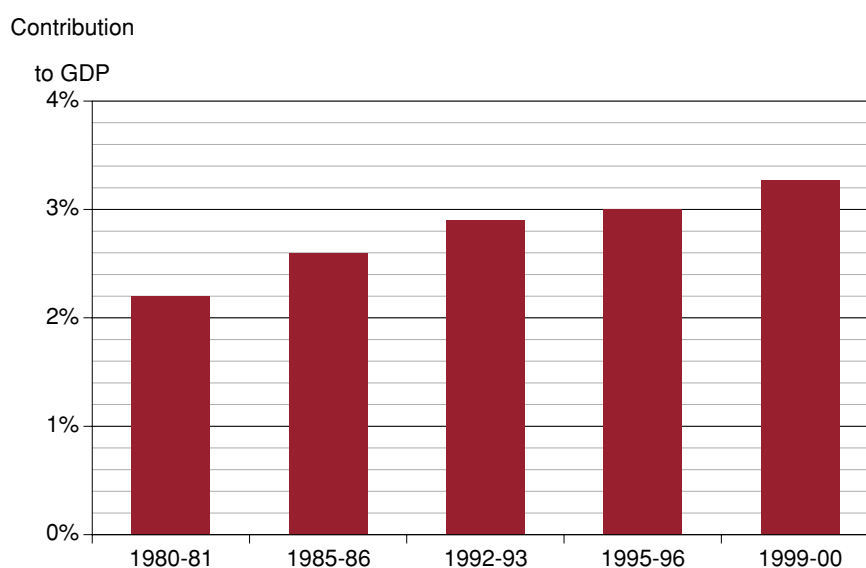


Source: IBISWorld

## Economic Value

In 1999–2000 Australia's copyright industries contributed \$19.2 billion in industry gross product (IGP). In terms of value adding, this represented 3.3 percent of Australia's Gross Domestic Product (GDP). As shown in the figure below, the value-added contribution by Australia's copyright industries is an increasingly important component of the Australian economy.

Copyright Industries' Value Add Contribution as a Percentage of GDP



Source: IBISWorld and Guldberg, H H (1994)

Over the period 1996–97 to 1999–2000 the copyright industries grew at an average annual growth rate of 5.7 percent. This growth significantly exceeded the average annual growth rate of the total economy over the same period (4.85 percent per year).

### Employment

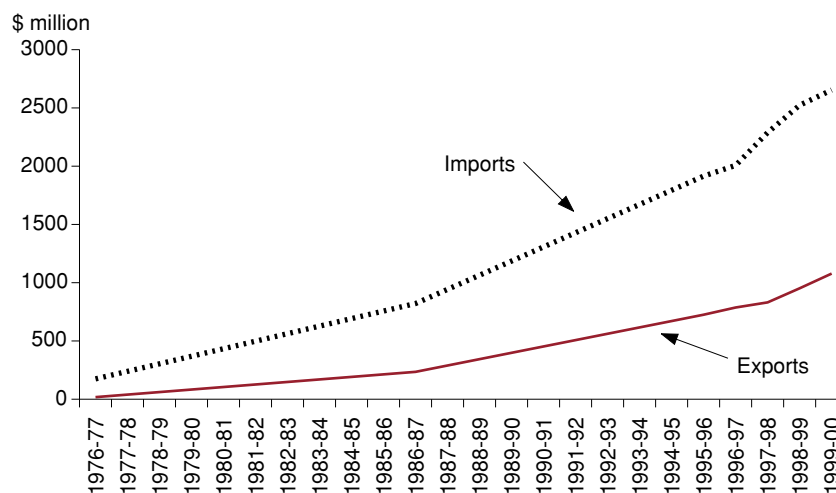
In June 2000 3.8 percent of Australia’s workforce (345,000 people) were employed in copyright industries. This is comparable to employment levels in sectors such as government administration and defence, and personal and other services.

Employment in the copyright industries has grown from around 312,000 in 1995–96 to nearly 345,000 in 1999–2000, representing an average annual growth rate of 2.7 percent. This compares with the 2 percent average annual growth in employment over the economy as a whole.

### Trade

As the figure below shows, Australia continues to be a net importer of copyright, with imports significantly higher than exports.

Figure 5.3 — Copyright Content in Trade (\$1999–2000)



Source: IBISWorld and Australian Bureau of Statistics

Consistent with assessment methodologies employed overseas, this report represents a best-practice assessment of the economic importance of Australia's copyright industries. While changes in the ABS's approach to measuring the economic contributions of particular industries should make it easier to compile future reports, to improve the accuracy of future reports will require significant government support and resourcing akin to that provided to other broadly based industries (eg, tourism's Tourism Satellite Account).

Although Australia continues to remain a net importer of copyright material, the growth rate in exports continues to outstrip the growth rate of imports, but from a lower base. Over the period 1995–96 to 1999–2000:

- export revenue from the core copyright sector increased by 44 percent, while the value of imports increased by around 29 percent;
- export revenue from the distribution sector increased by 300 percent, while the value of imports increased by around 77 percent; and
- these figures have contributed to a total growth rate in revenue from copyright materials in excess of 36 percent, and a total growth rate of around 27 percent for revenues paid for copyright materials.

## Section One

# Introduction

While the value of copyright has traditionally been seen in cultural and social terms, the rise of the information economy<sup>1</sup> and the services sector<sup>2</sup> is changing this traditional perception so that copyright is increasingly being seen as core infrastructure underpinning a number of Australian industries.

Despite this change in attitude, there has been little analysis of the economic value and importance of Australia's copyright industries as a whole. While the Australian Bureau of Statistics (ABS) conducts surveys of particular copyright-intensive sectors on an infrequent basis, no wide-ranging analysis of the economic contribution of Australia's copyright industries has been undertaken since 1994.<sup>3</sup>

In response to this lack of a contemporary broad-ranging study, The Allen Consulting Group was commissioned by the Australian Copyright Council and the Centre for Copyright Studies to prepare this independent analysis of the importance of copyright industries to the Australian economy, focusing particularly on the:

- contribution of the copyright industries to Australia's Gross Domestic Product (GDP);
- share of national employment related to Australia's copyright industries; and
- scale of international trade in copyright royalties and goods.

Even though the focus of this report is upon quantification of the copyright industries, it is important to remember that:

Figures [in economic studies] relate to the "copyright industry". They cannot measure in terms of economics the importance of the rights for the intellectual or cultural status of a country, their effects on the development of art forms, learning, and the choice of preferences for media contents etc.<sup>4</sup>

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<sup>1</sup> Australian Coalition of Service Industries and McKinsey & Company, *australia.com: Australia's Future Online* (Australian Coalition of Service Industries, Melbourne, 1997).

<sup>2</sup> The Allen Consulting Group, *Creating Value by Transforming Knowledge: Australia's Business and Professional Services Sector* (Department of Industry, Science and Resources and Austrade, Canberra, 2001).

<sup>3</sup> Guldberg, H H, *Copyright: An Economic Perspective* (2nd ed., Australian Copyright Council, Sydney, 1994).

<sup>4</sup> Karnell, G, "Authors' Rights and Copyright Economics" (1995) 26 *International Review of Industrial Property and Copyright Law* 193 at 195.

## Section Two

# Australia's Copyright Industries

An important first step is to be clear as to precisely what constitutes Australia's 'copyright industries'.

## 2.1 Defining the Copyright Industries

A major problem in the preparation of this report has been the lack of comprehensive and robust information on the copyright (and other intellectual property) industries within Australia. These difficulties largely arise because copyright-intensive industries cannot be neatly classified within the Australian and New Zealand Standard Industrial Classification (ANZSIC) system used by the ABS, or the Standard Industrial Classification (SIC) system used by international bodies such as the Organisation for Economic Co-operation and Development (OECD).

The identification of copyright industries is a difficult task, with activity spanning a number of industry divisions, such as manufacturing, wholesale and retail trade, property and business services, cultural and recreational services, and personal and other services. While portions of industries such as printing and recorded media manufacturing are readily identifiable, the product of some portions of other industries, such as architecture and advertising, are often subsumed within broader industry categories.

In undertaking this study we have disaggregated Australia's copyright industries into three clusters — *core*, *partial* and *distribution* copyright industries:

- the *core* industries encompass those industries that create copyright works as their primary product. These include the motion picture industry, the recording industry, the music publishing industry, the book, journal and newspaper publishing industry, the computer software industry (including data processing, business applications and interactive entertainment software on all platforms), music and theatre productions, photography, commercial art and display services, and the radio, television and cable broadcasting industries;
- the second group comprises the *partial* copyright industries. Unlike the core industries, only a portion of these industries' product is associated with the creation of copyright works. These industries include paper stationery manufacturing (which includes the manufacturing of calendars, greeting cards, etc), architecture, surveying and advertising services; and
- the third group, *distribution*, includes the industries involved in the distribution of copyright materials to businesses and consumers. These industries include portions of the wholesale and retail trade sectors, information storage and retrieval services, film and video distribution, libraries, museums and video hire outlets.

Further information as to the composition of these three clusters is in Appendix A.

## 2.2 The Conservative Nature of the Definition of Australia's Copyright Industries

Previous studies of copyright industries have been subject to a degree of criticism for establishing definitions that may be said to inflate the perceived value of copyright.<sup>5</sup>

A number of limitations and conservative assumptions suggest that such criticisms are not applicable with respect to this study:

- the value of copyright in intermediate goods and services is not included. Many organisations produce copyright materials as intermediate goods which are not explicitly accounted for in official surveys. Examples may include internal databases, manuals for equipment and processes, teaching materials, movies, pictures, and so on;
- there is always the possibility that changes to firms and industry structures may cause shifts in estimates from year to year. For example, there is significant convergence within and across industry sectors, creating high-profile multi-disciplinary practices.<sup>6</sup> This convergence can result in the reclassification of individual firms from one sector to another (eg, from software to hardware). Reclassification can also occur due to changes in the primary activities of a company's establishments, as well as shifts in a firm's organisational structure (eg, mergers and acquisitions, divestitures, etc). This has the potential to significantly alter industry totals for important economic variables;
- production of pirated copyright products is not included;
- copyright goods and services produced for an intention other than 'sale' (directly or indirectly) are not included. For example, over the past five or so years there has been a boom in the creation of Internet home pages by people as a hobby. While these pages are of some value as a consumption good, their production is unpriced and hence unmeasured;<sup>7</sup> and
- unlike the recent United States (US) copyright study, we have not included a fourth cluster of copyright industries associated with the manufacturing of computers, radios, televisions and consumer recording and listening devices — the *copyright-related* industries.<sup>8</sup> This cluster was not included in this Australian study because the collection of data on these industries in Australia is not disaggregated to a level which would result in credible figures.<sup>9</sup>

Given these limitations and conservative assumptions, the measures of the economic importance of copyright industries in this study will consistently understate the importance of copyright to the Australian economy. This is regrettable, but is necessary given the data limitations and the need for a reliable estimate.

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<sup>5</sup> Revesz, J, "Trade-Related Aspects of Intellectual Property Rights", Staff Research Paper (Productivity Commission, Canberra, 1999). See also Ricketson, S, *Intellectual Property Administration and Policy in Australia: An Examination of the Australian Situation, Past and Present, and Recommendations for Future Change* (Faculty of Law, Monash University, Melbourne, 2000).

<sup>6</sup> The Allen Consulting Group, "Creating Value by Transforming Knowledge: Australia's Business and Professional Services Sector" (Department of Industry, Science and Resources and Austrade, Canberra, 2001).

<sup>7</sup> There are, however, some ways in which such works are captured in this study. For example, production by Internet Service Providers (ISPs) is included, as they manage and host intellectual property, some of which will include these 'hobby' creations.

<sup>8</sup> Siwek, S E, *Copyright Industries in the U.S. Economy: The 2000 Report* (International Intellectual Property Alliance, Washington DC, 2000).

<sup>9</sup> In any event, these copyright-related industries are not major industries in Australia, and would be unlikely to make a significant contribution to the findings.

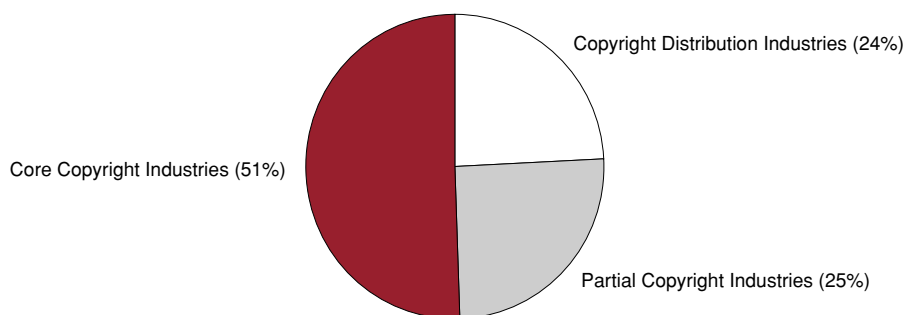
### Section Three

## The Value Added by Australia's Copyright Industries

In 1999–2000 Australia's copyright industries contributed \$19.2 billion in industry gross product (IGP) to the nation's GDP.<sup>10</sup>

Figure 3.1 illustrates the relative contributions of the three copyright clusters.

Figure 3.1 — The Relative Value of the Three Copyright Clusters (1999–2000)



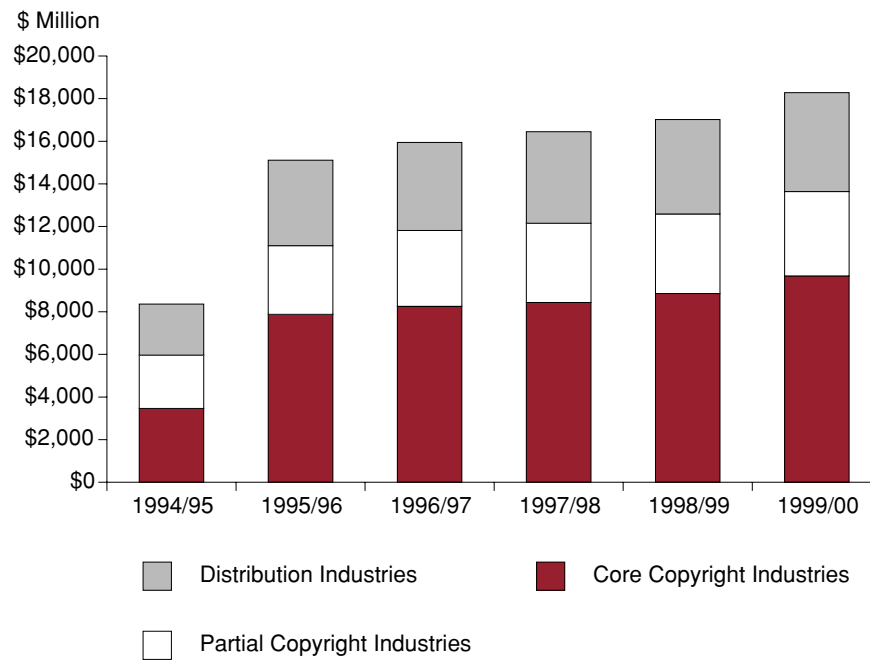
Source: IBISWorld

As shown in Figure 3.2, the contribution of Australia's copyright industries has increased from \$15.6 billion in 1996–97 to \$19.2 billion in 1999–2000, representing an average annual growth rate of 5.7 percent. The major copyright sectors performed in the following ways:

- the contribution of the core copyright industries increased from around \$7.9 billion in 1995–96 to \$9.7 billion in 1999–2000, representing a 23 percent increase over this period;
- the partial copyright industries recorded the fastest growth rate (31 percent) between 1995–96 and 1999–2000, increasing from \$3.7 billion to in excess of \$4.8 billion; and
- the contribution of the distribution industries increased from \$4 billion in 1995–96 to \$4.6 billion in 1999–2000. This was the slowest growing sector of Australia's copyright industries.

<sup>10</sup> Section A2 in Appendix A explains why IGP was used as a measure in preference to industry value added (IVA).

Figure 3.2 — The Value of Australia’s Copyright Industries (1999–2000)



Source: IBISWorld

To provide some idea as to the relative contribution to the value of the copyright industries, Table 3.1 breaks down the copyright industries’ gross product for 1999–2000.

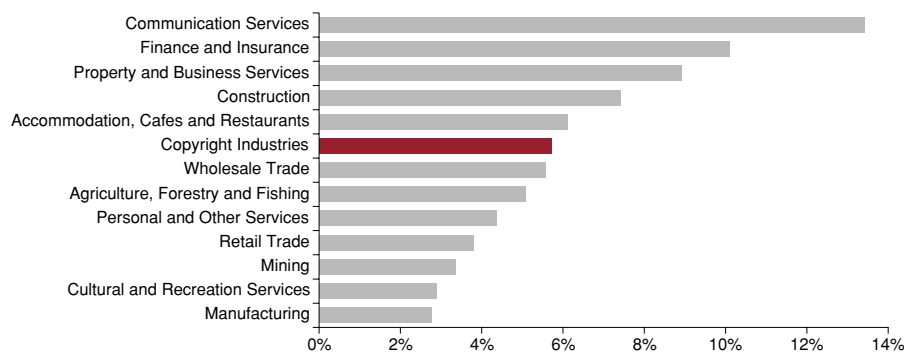
Table 3.1 — Gross Industry Product for Copyright Component of Each Copyright Industry (\$million 1999–2000)

Core Copyright Industries	\$M	Partial Copyright Industries	\$M	Copyright Distribution Industries	\$M
Newspaper Printing or Publishing	2,981	Printing	1,975	Newspaper, Book & Stationary Retailing	828
Free to Air TV	1,392	Architectural Services	538	Paper Product Wholesaling	650
Data Processing Services	950	Paper Stationery Manufacturing	526	Libraries	429
Television Services	926	Surveying Services	377	Motion Picture Exhibition	361
Film & Video Production	577	Advertising Services	245	Photographic Film Processing	328
Creative Arts	486	Services to Printing	241	Book & Magazine Wholesaling	269
Book and Other Publishing	425	Toy and Sporting Good Manufacturing	61	Film and Video Distribution	264
Other Periodical Publishing	371			Computer and Software Retailing	234
Radio Services	330			Museums	224
Recorded Media Manufacturing	318			Video Hire Outlets	180
Music & Theatre Production	266			Performing Arts Venues	134
Commercial Art & Display Services	238			Information Storage and Retrieval Services	131
Photographic Studios	172			Recorded Music Retailing	117
Internet Service Providers	121			Photographic Equipment Retailing	116
Pay TV	100			Photographic Equipment Wholesaling	106
Sound Recording Studios	26			Toy and Sporting Good Wholesaling	94
				Services to the Arts	82
				Toy and Game Retailing	36
<b>Total Core</b>	<b>9,679</b>	<b>Total Partial</b>	<b>3,963</b>	<b>Total Distribution</b>	<b>4,583</b>

Source: IBISWorld

Figure 3.3 sets out the average Industry Gross Product (IGP) growth rates by industry sector between 1995–96 and 1999–2000. Although the various copyright industries are contained within the broader industry sectors, for comparison they have also been included as a separate category.

Figure 3.3 — Average Industry Growth Rates (1995–96 to 1999–2000)



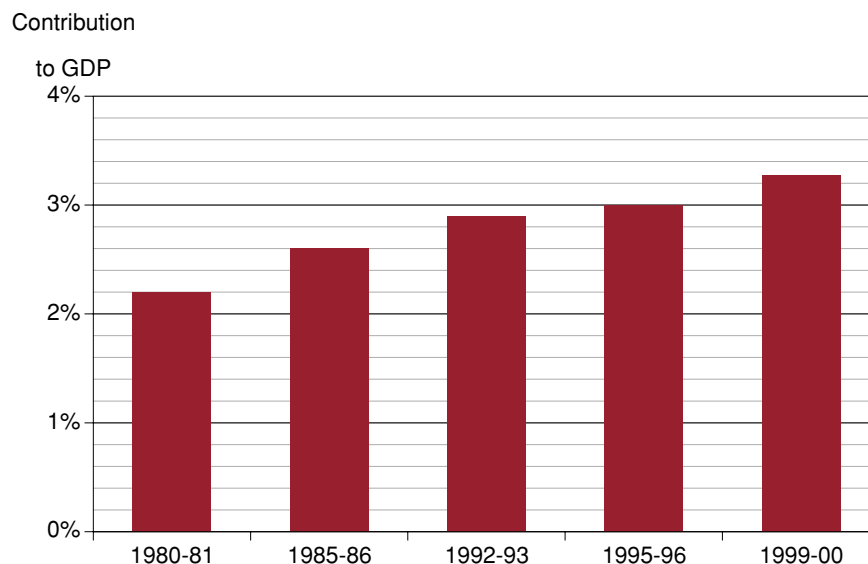
Source: IBISWorld

Figure 3.3 shows that, with a growth rate of 5.7 percent, Australia’s copyright industries are one of the fastest-growing sectors of the economy. The growth experienced by the copyright industries has exceeded the average annual growth rate of the economy at large (4.85 percent per year), as well as of key sectors such as:

- agriculture, forestry and fishing (5.1 percent);
- wholesale trade (5.6 percent);
- personal and other services (4.4 percent); and
- cultural and recreation services (2.9 percent).

Figure 3.4 shows that the value-added contribution of Australia’s copyright industries continues to increase (rising from 2.2 percent of GDP in 1980–81 to 3.3 percent in 1999–2000).<sup>11</sup>

Figure 3.4 — Copyright Industries’ Contribution to GDP



Source: IBISWorld and Guldberg, H H, *Copyright: An Economic Perspective* (2nd ed., Australian Copyright Council, Sydney, 1994)

These findings are comparable to similar studies conducted in other countries. For example:

- a US study found that in 2000, core, partial and distribution copyright industries accounted for approximately 4.2 percent of GDP;<sup>12</sup> and
- a New Zealand study found that in 1994 value-added associated with copyright (ie, non-design) industries as a percentage of GDP was between 3.2 and 3.3 percent.<sup>13</sup>

<sup>11</sup> Comparisons are drawn with results presented in: Guldberg, H H and Candi, E, *Copyright – An Economic Perspective* (Australian Copyright Council, Sydney, 1987); Guldberg, H H, *Copyright: An Economic Perspective* (2nd ed., Australian Copyright Council, Sydney, 1994). Cross-study findings should be treated with caution, as different studies include different definitions of what precisely constitutes a copyright industry, different data sources and methods may be used, and different measures of value-adding contributions may be relied upon.

<sup>12</sup> Siwek, S E, *Copyright Industries in the U.S. Economy: The 2000 Report* (International Intellectual Property Alliance, Washington DC, 2000).

## Section Four

# Employment in Australia's Copyright Industries

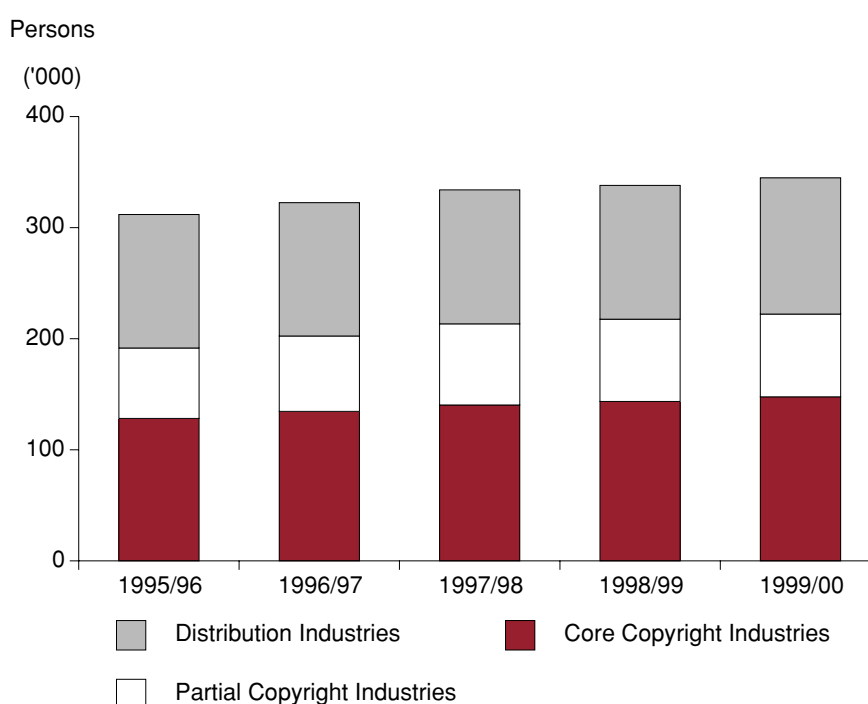
The identification of the number of employees in the copyright industries can be undertaken in two ways:

- by analysing the results of occupational classifications obtained from the ABS Census. While this approach, used in Guldberg's 1994 study of employment in the Australian copyright industries, can generate meaningful observations about occupational employment levels and salaries, we considered it inappropriate for this study given that the last Census was conducted in 1996 and would have dated significantly;<sup>14</sup> or
- by analysing the results of the ABS's regular labour force survey. This is the approach adopted for this report.

In June 2000 3.8 percent of Australia's workforce are employed in copyright industries. When compared with Australia's larger employment sectors — eg, retail trade (11.8 percent) and manufacturing (12.2 percent) — the copyright industries may appear relatively small. However, employment in the copyright industries is comparable to employment levels in sectors such as government administration and defence, and personal and other services.

As shown in Figure 4.1, employment in the copyright industries has grown from around 312,000 in 1995–96 to nearly 345,000 in 1999–2000, representing a average annual growth rate of 2.7 percent.

Figure 4.1 — Employment in the Copyright Sector



Source: IBISWorld

<sup>13</sup> Harris, F and Stroombergen, A, *A Statistical Analysis of the Economic Contribution of Copyright Based Industries* (Copyright Council of New Zealand, Wellington, 1997).

<sup>14</sup> Another Census has recently been conducted, but the results were not available when this study was completed.

The major trends in copyright employment evident in the period 1995-96 to 1999-2000 are:

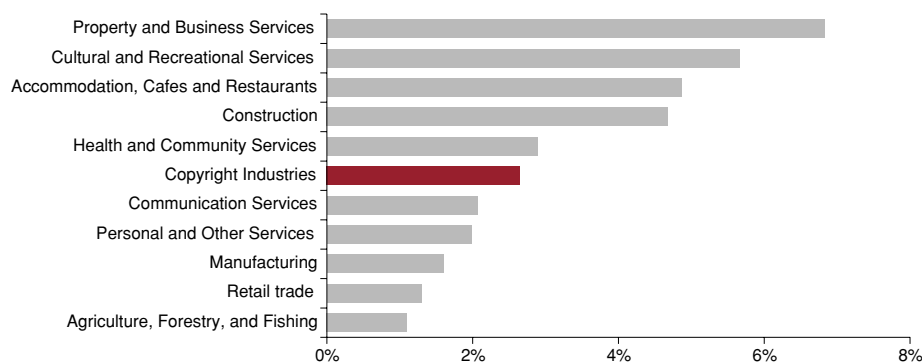
- the partial copyright sector experienced the fastest growth in employment, increasing from over 63,000 to around 74,000 between 1995-96 and 1999-2000 (an average annual growth rate of 4.4 percent);
- employment in the core copyright sector grew by nearly 20,000 between 1995-96 and 1999-2000 to reach nearly 148,000 persons; and
- growth in employment in the distribution copyright industries was minimal, even falling slightly in 1997-98 and 1999-2000. To some degree this stagnation (and temporary decline) in employment in the copyright distribution sector may be attributable to the uptake of e-commerce as a means of distributing copyright products.<sup>15</sup>

The employment growth has been driven by a number of factors, including:

- a 5.7 percent average annual growth rate in employment in the cultural and recreation services sector, which includes a large number of copyright industries, such as:
  - film and video production (growth of 13.7 percent per year);
  - pay television (growth of 50 percent per year);
- copyright-intensive industries such as data processing (10.6 percent growth per year), computer consultancy (12.2 percent growth per year) and information storage and retrieval services (17 percent growth per year) have been key drivers behind the 6.8 percent average annual growth in the property and business services sector.

Even with the overall growth in employment of the copyright sector undermined by the limited growth of the distribution industries, employment in the copyright industries is one of the fastest-growing sectors of the economy (see Figure 4.2).<sup>16</sup> Employment in the copyright industries increased at an average annual rate of 2.7 percent over the period 1995-96 to 1999-2000 in comparison with the 2 percent average annual growth rate attained in the Australian economy as a whole.<sup>17</sup>

Figure 4.2 — Average Annual Employment Growth (1995-96 to 1999-2000)



Source: IBISWorld

<sup>15</sup> See The Allen Consulting Group, *E-Commerce Across Australia* (National Office for the Information Economy and Department of Communications Information Technology and the Arts, Canberra, 2000).

<sup>16</sup> Although the various copyright industries are contained within the broader industry sectors, they have also been included as a separate category for comparison purposes.

<sup>17</sup> In 1994 Guldberg also found that total employment in Australia's copyright occupations grew faster than the total workforce between 1986 and 1991, by 1.9 percent per annum compared with 1.8 percent. Over this period computing professionals became the largest single group, increasing at an annual rate of 8.6 percent from 40,000 to over 60,000. However, as previously established, only a proportion of activity is associated with the creation of copyright material; Guldberg acknowledged that "we cannot assume that every person engages primarily in copyright activities". It is therefore highly likely that the inclusion of all employment in this, and other sectors, has resulted in overestimates of the levels and subsequent growth rate in employment in copyright industries in Australia.

Comparison of these results with similar overseas studies are illuminating:

- the recent study for the US International Intellectual Property Alliance (IIPA) found that copyright industries in the US have created jobs at a much faster rate than many leading sectors of the US economy.<sup>18</sup> In 1999 employment in the core copyright industries increased to around 5.7 percent of the US workforce.<sup>19</sup> The growth in employment in copyright industries in the US is significantly higher than the growth rates experienced in Australia, with average annual growth rates between 1996 and 1999 of 7 percent for core industries, 3.6 percent for partial industries and 2.9 percent for distribution industries; and
- the 1997 study of New Zealand's copyright industries reported that employment in copyright industries accounted for 1.8 percent of all employment in New Zealand in 1996. However, once design-based occupations (ie, occupations not covered by copyright law in Australia) are excluded, this figure falls to 1.6 percent of all employment.

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<sup>18</sup> Siwek, S E, *Copyright Industries in the U.S. Economy: The 2000 Report* (International Intellectual Property Alliance, Washington DC, 2000).

<sup>19</sup> With an adjustment to account for the inclusion of employment in the copyright-related industries, this figure is closer to 5.3 percent.

## Section Five

# International Trade in Copyright Material

With falling trade barriers and increasing cross-border trade facilitated by electronic distribution, it is increasingly important to consider the nature of trade in the copyright industries.

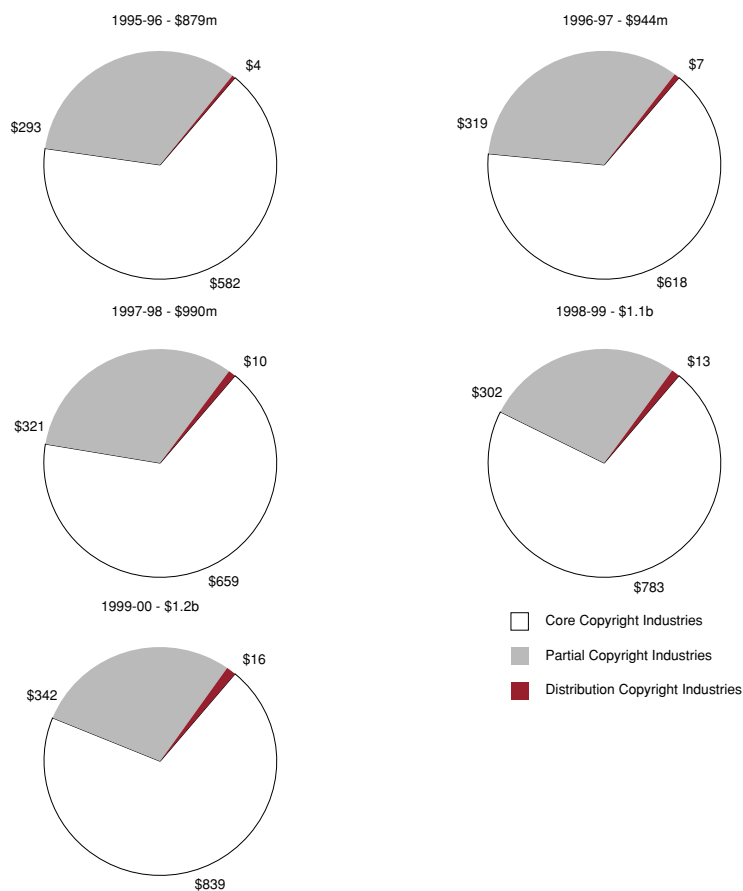
To develop a bottom-line figure on the value of copyright imports and exports three steps are necessary.

The first step is to identify the trade in goods and services in the copyright sectors (ie, excluding royalties not attached to goods or services).

Figure 5.1 shows the value of exports. Since 1995–96 exports of copyright merchandise have increased by \$316 million, to reach a value of \$1.2 billion in 1999–2000. This represents an average annual growth rate of around 9 percent. Noticeable trends include:

- 300 percent growth in exports of the distribution sector — we should not be carried away by this phenomenal growth given the low base from which it started; and
- an increase of \$256 million in exports of the core copyright sector. This was led by substantial increases in the printing, publishing and recorded media industries (which includes the mass production of computer software) and film and video production.

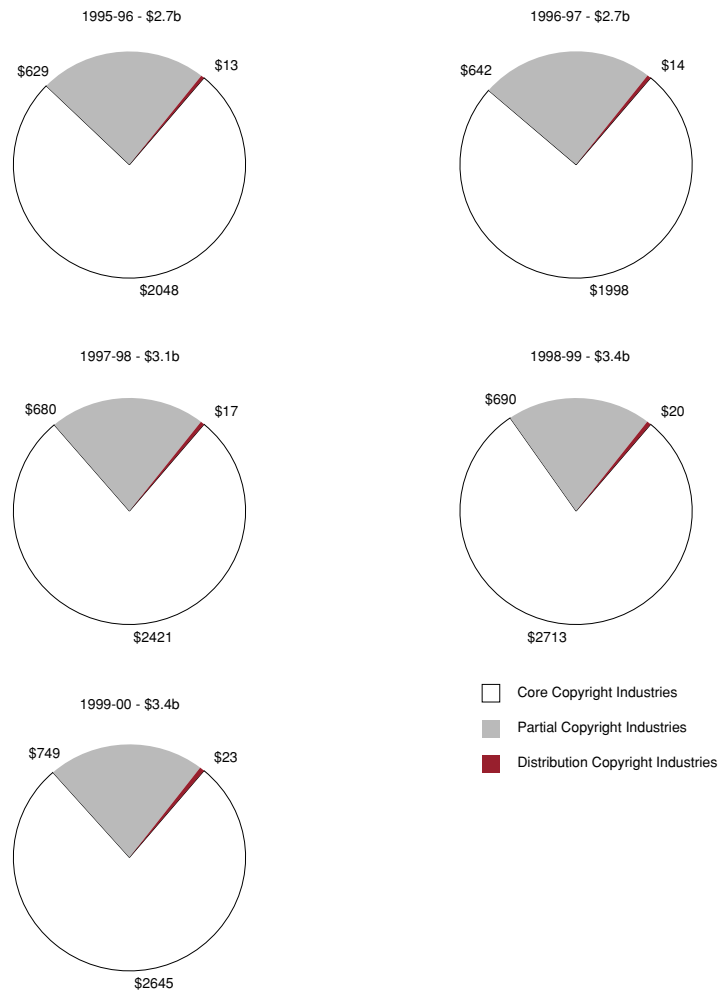
Figure 5.1 — Exports of Copyright Goods and Services (\$million)



Source: IBISWorld

In comparison, Figure 5.2 sets out merchandise imports of copyright material for the years 1995–96 to 1999–2000.

Figure 5.2 — Imports of Copyright Goods and Services (\$billion)



Source: IBISWorld

As shown, imports increased by \$728 million up to 1998–99, but actually decreased by around \$6 million to 1999–2000. This was due to a significant contraction in imports in the recorded media manufacturing sector, of around \$150 million. Other significant trends include:

- an annual growth rate of 17 percent in the distribution sector; and
- an annual growth rate of around 4.8 percent in the partial copyright industries.

Although Australia continues to remain a net importer of copyright material, the growth rate in exports continues to significantly outstrip the growth rate of imports. For example, over the period 1995–96 to 1999–2000:

- export revenue from the core copyright sector increased by 44 percent, while the value of imports increased by around 29 percent;
- export revenue from the distribution sector increased by 300 percent, while the value of imports increased by around 77 percent; and
- these figures have contributed to a total growth rate in revenue from copyright materials in excess of 36 percent and a total growth rate of around 27 percent for revenues paid for copyright materials.

The second step is to identify the flow of copyright royalties (ie, those royalties not embedded in the price of a physical good or service). With estimates of trade in royalties and licence fees reported annually by the ABS,<sup>20</sup> Table 5.1 shows the flows of copyright royalties.

The third step is to combine the merchandise and service flows with the royalty flows. This was done in a manner consistent with Revesz' methodology.<sup>21</sup>

Table 5.1 — Trade in Royalties (\$million)

	1995–96	1996–97	1997–98	1998–99	1999–00
Royalty Income	260	268	307	370	444
Royalty Expenditure	490	601	636	710	843
<b>Net Flow</b>	<b>-230</b>	<b>-333</b>	<b>-327</b>	<b>-340</b>	<b>-399</b>

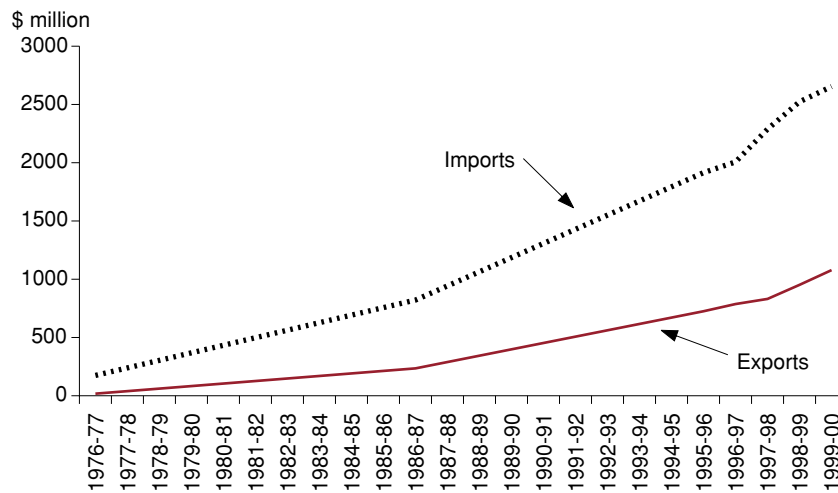
Source: Australian Bureau of Statistics

<sup>20</sup> See Australian Bureau of Statistics, "Balance of Payments and International Investment Position, Australia" Catalogue No. 5363.0 (AGPS, Canberra, 1998–99).

<sup>21</sup> Revesz, J, "Trade-Related Aspects of Intellectual Property Rights", Staff Research Paper (Productivity Commission, Canberra, 1999).

Figure 5.3 blends the Revesz findings (linking missing data periods) with our findings.

Figure 5.3 — Copyright Content in Trade (\$1999–2000)

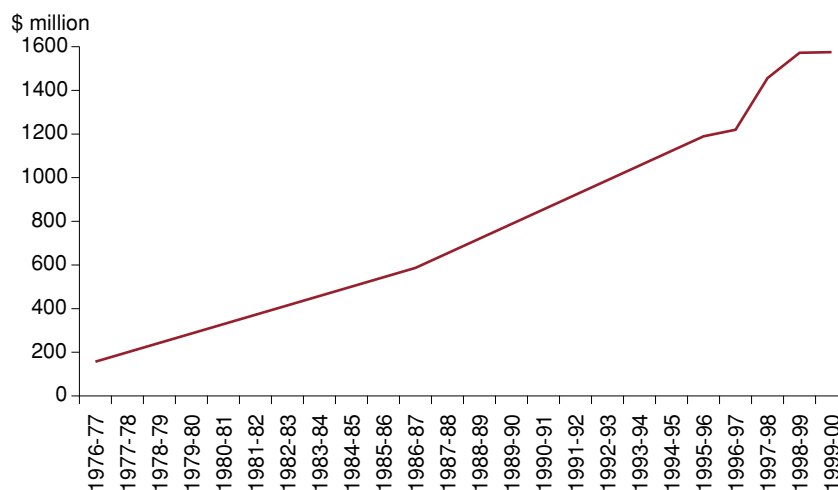


Source: IBISWorld and Australian Bureau of Statistics

As evidence of the accuracy of this methodology, adjusting for inflation since the Revesz publication, the estimates presented in Figure 5.3 fall within the estimated range in the year in which the Revesz data overlaps this study’s focus (ie, 1996–97).

The impact in net terms is shown in Figure 5.4.

Figure 5.4 — Australia’s Annual Copyright Trade Deficit (\$1999–2000)



Source: IBISWorld and Australian Bureau of Statistics

## Appendix A

# Methodology

This section comments on the methodology employed in the preparation of this report and the assumptions made.

### A1 What Are the Copyright Industries?

One of the most difficult and contentious parts of this study was the initial identification of the copyright-based industries. The Australian and New Zealand Standard Industrial Classification (ANZSIC) system was used to identify potential sectors at the class level. The appropriateness of potential industry sector participants was explored through a combination of activity analysis and consultation before being allocated to one of three industry sectors. The following definitions were adopted consistently through the report.

#### Core Copyright Industries

The *core* copyright industries are those involved in the creation of copyright works as their primary product.

Table A.1 — Core Copyright Industries

Industry	Key Activity
Newspaper Printing or Publishing	Printing or publishing newspapers.
Other Periodical Publishing	Publishing magazines, bound periodicals, or periodicals issued less frequently than weekly.
Book & Other Periodical Publishing	Publishing books, sheet music, maps or other printed articles.
Recorded Media Manufacturing & Publishing	Manufacturing or publishing pre-recorded audio, video or data media.
Internet Service Providers	Provision of Internet services to businesses and households.
Data Processing Services	Provision of data processing services.
Commercial Art and Display Services	Provision of graphic design services, sign writing or ticket writing.
Film and Television Production	Production of motion picture on film or videotape for theatre or television projection. This also includes services such as casting, film editing and titling.
Radio Services	Commercial and public radio broadcasting.
Television Services	Commercial or public television broadcasting.
Free to Air Television Services	Free to air services including commercial, public and community services.
Pay Television	Pay television services.
Music and Theatre Productions	Providing live theatrical or musical presentations (including concerts, opera, ballet and drama).
Creative Arts	Includes units engaged in musical composition, the literary arts, and visual arts such as painting drawing, sculpture and pottery.
Sound Recording Studios	Operation of sound recording studios.
Photographic Studios	Portrait or other photography.

### Partial Copyright Industries

Only a proportion of these industries' activity is associated with the creation of copyright works. The portion attributable to each industry was derived after:

- an analysis of the components that make up each sector and the scale of activity associated with each component;
- consideration of the ratios used in the New Zealand study of the copyright industries;<sup>22</sup> and
- consultation with representative stakeholders (see section A3 in this appendix).

Table A.2 — Partial Copyright Industries

Industry	Proportion of Activity	Description
Printing	60%	Commercial or job printing, including printing onto textiles or other surfaces.
Services to Printing	95%	Artwork preparation, bookbinding, phototypesetting, screenprinting manufacturing, etc.
Paper Stationery Manufacturing	90%	Manufacturing of paper stationery including albums, calendars, games, greeting cards, etc.
Toy and Sporting Good Manufacturing	48%	Manufacturing of sporting equipment (except vehicle, clothing and footwear) and toys made from all materials except fur or leather.
Architectural Services	30%	Architectural services.
Computer Consultancy Services	25%	Includes computer consultancy services, computer systems analysis or computer programming services.
Surveying Services	75%	Surveying services (excluding exploration surveying services on contract).
Advertising Services	33%	Providing advertising (except sale of advertising space in their own publications or broadcasts).

<sup>22</sup> Harris, F and Stroombergen, A, *A Statistical Analysis of the Economic Contribution of Copyright Based Industries* (Copyright Council of New Zealand, Wellington, 1997).

## Distribution Industries

The third group, copyright distribution industries, are the industries involved in the distribution of the copyright materials.

Table A.3 — Distribution Industries

Industry	Description
Photographic Equipment Wholesaling	Wholesaling photographic equipment or supplies.
Toy and Sporting Good Wholesaling*	Wholesaling toys, bicycles, or bicycle parts, firearms, ammunition, fireworks or hobby sporting equipment (except tents, sports clothing or footwear).
Book and Magazine Wholesaling	Wholesaling of books, periodicals and magazines.
Paper Product Wholesaling*	Wholesaling of stationery, greeting cards, paper or paper products.
Recorded Music Retailing	Retailing of phonographic records, audiotapes, compact discs or video cassettes.
Computer and Software Retailing*	Computer and software retailing.
Toy and Game Retailing*	Retailing of toys, games or hobby equipment or supplies.
Newspaper, Book and Stationery Retailing*	Retailing of books, periodicals, newspapers, stationery or religious goods.
Photographic Equipment Retailing	Retailing of photographic equipment or supplies.
Information Storage and Retrieval Services	Provision of information storage and retrieval services.
Film and Video Distribution	Leasing or wholesaling motion pictures on film or video tape to organisations for exhibition or sale.
Motion Picture Exhibition	The screening of motion pictures on film or videotape.
Libraries	Acquiring, collecting, organising, conserving and lending library materials such as books, magazines, manuscripts, musical scores, maps, prints or photographs.
Museums	Operation of all kinds of museums.
Performing Arts Venues	Operation of performing arts venues.
Services to the Arts*	Provision of services to the arts including casting agency operations, costume design, set design, theatre ticket agency operation and theatre lighting services.
Video Hire Outlets	Hiring pre-recorded video cassettes for personal use.
Photographic Film Processing	Developing, printing or other processing of motion picture or other photographic film.

\* copyright component includes only a portion of industry activity.

## A2 Measures of an Industry's Economic Contribution

It is frequently argued that Industry Value Added (IVA) is the most appropriate measure for determining an industry's contribution to the economy.<sup>23</sup>

IVA is the net contribution of an industry to GDP after deducting the cost of raw materials, fuel, power and other purchases from the industry's turnover. Thus IVA largely consists of the wages and salaries and operating surplus of an industry.

Although IVA is a well-recognised measure of an industry's economic contribution, there are significant limitations associated with its use in this study at this time:

- historically, the economic contribution of Australian industries has not been measured uniformly across all industry sectors, with the contribution of some industries prior to 1997–98 being reported as Industry Gross Product (IGP) as opposed to IVA;<sup>24</sup> and
- a lack of comprehensive and reliable data on IVA at the required ANZSIC class levels would have undermined the accuracy of this study and distorted the estimated contribution of Australia's copyright industries.

As a result of these limitations, the value of Australia's copyright industries has been measured in this report in terms of Industry Gross Product (IGP).

There is a strong correlation between IGP and IVA. The relationship can be expressed in these terms:

$$\text{IVA} + \text{intellectual property royalty expenses} - \text{intellectual property royalty income} - \text{computer software expenses not capitalised by the business} - \text{selected indirect taxes}^{25} = \text{IGP}$$

There can be expected to be some difference between IVA and IGP. Indeed, we estimate that IGP is, on average, 94 percent of the IVA figure. In practice, however, people tend to refer to both IVA and IGP as measures of value adding, and in some instances refer to IGP and IVA interchangeably.

Comparisons with other industry sectors and the broader economy were undertaken using Chain Volume Measures with a reference year of 1999-2000 (the most recent data).

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<sup>23</sup> See Guldberg, H H, *Copyright: An Economic Perspective* (2nd ed., Australian Copyright Council, Sydney, 1994); Siwek, S E, *Copyright Industries in the U.S. Economy: The 2000 Report* (International Intellectual Property Alliance, Washington DC, 2000).

<sup>24</sup> For periods prior to 1997–98, estimates of IGP represented the measure of the contribution by some industries to gross domestic product (GDP). However, commencing with estimates for 1997–98, following the introduction of new international standards for measuring economic variables in these industries, IGP was replaced by the variable IVA. Thus reports subsequent to this should be able to accurately use IVA as the basis for measurement.

<sup>25</sup> For manufacturing industries, the main types are fringe tax, payroll tax, land rates and land taxes.

### **A3 Data Sources**

In compiling this report The Allen Consulting Group used published and unpublished data from a variety of sources, including:

- the ABS; and
- IBISWorld — this private sector information provider supplements ABS statistics with a series of ongoing business surveys.

Supplementing these data sources, in order to provide an accurate estimate of the contribution of copyright industries to the Australian economy, The Allen Consulting Group consulted with a number of industry associations and other bodies, including:

- Advertising Federation of Australia;
- Association of Consulting Surveyors Queensland;
- Australasian Performing Right Association;
- Australia Council;
- Australian Bureau of Statistics;
- Australian Film Commission;
- Australian Film Finance Corporation;
- Australian Information Industry Association;
- Australian Institute of Professional Photography;
- Australian Interactive Multimedia Industry Association;
- Australian Record Industry Association;
- Australian Subscription TV & Radio Association;
- Australian Toy Association Limited;
- Australian Vice-Chancellors' Committee;
- Consulting Surveyors Australia;
- Federation of Australian Radio Broadcasters;
- IBISWorld;
- Robert Turnbull Photography;
- Royal Australian Institute of Architects;
- Spatial Queensland; and
- Special Broadcasting Service (SBS).

## Appendix B

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