Commercial-in-Confidence

March 2009

Economic Contribution of the Film and Television Industry

Report by Access Economics Pty Limited for

AFACT

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EXECUTIVE SUMMARY

Access Economics has been commissioned by the Australian Federation Against Copyright Theft (AFACT) to quantify the contribution to the Australian economy of the film and television industry. This study considers key economic variables such as employment and value-added contributed by the industry.

The industry has estimated turnover of just under $14.5 billion in 2006-07, see Table 1-1. Out of this turnover, the industry generated an estimated $4.4 billion in value-added. This is the contribution of the industry to the gross domestic product (GDP) of Australia in 2006-07, and represents 0.43 per cent of (GDP). The largest sector within the industry is estimated to be free-to-air TV, which contributed about $1.9 billion in value-added (or about 43 per cent of the industry contribution).

The total economic contribution of the film and television industry is outlined in Table 1-1, showing the direct, indirect and total contribution of the industry.

TABLE 1-1: TOTAL ECONOMIC CONTRIBUTION OF THE MOTION PICTURE AND TELEVISION SECTOR, 2006-07

Sector	Gross Output ($m)	Wages ($m)	Value-added ($m)	Employment (FTE)
Direct	**14,440.6**	**2,112.7**	**4,442.0**	**37,773.5**
Production	2,003.3	620.1	769.7	10,616.0
Distribution	2,433.2	169.8	622.3	2,180.2
Free to Air TV	4,530.1	682.1	1,899.3	6,033.0
Pay TV	2,282.6	204.1	374.1	2,640.0
Exhibition	1,375.5	171.3	314.5	5,890.4
Retail	1,301.0	144.2	223.2	5,663.2
Rental	514.9	121.0	238.9	4,750.6
Indirect	**2,343.9**	**301.4**	**853.0**	**11,139.8**
Total	**16,784.5**	**2,414.1**	**5,295.0**	**48,913.3**

Source: Access Economics

The film and television industry generated total gross output of $16.8 billion. This included $5.3 billion in total value-added, made up of $4.4 billion direct and about $853.0 million in indirect value-added. About half of the value-added includes wage payments of $2.4 billion, comprising of $2.1 billion in direct and $0.3 billion in indirect payments. FTE employment is estimated to be about 49,000 which includes 37,774 in direct FTEs and 11,140 in indirect FTE employment

1. BACKGROUND

Access Economics has been commissioned by the Australian Federation Against Copyright Theft (AFACT) to quantify the contribution to the Australian economy of the film and television industry. This study considers key economic variables such as employment, wages paid and profit earned in several key sectors within the industry. Specifically, the aims of this study were:

- to report an overall estimate of the direct and indirect economic contribution of the film and television industry;
- to report a breakdown of the industry by its component sectors to allow consideration of the economic contribution by areas of interest to AFACT and its members; and
- to report specifically on the members of the Motion Picture Association.

This latter deliverable is to be made available in a separate report to AFACT.

1.1 A NOTE ON DATA AND COVERAGE

The project brief listed seven industry sectors which the report could consider, including:

- production;
- distribution;
- exhibition;
- related rental and retail;
- television;
- manufacturing; and
- festivals and other

Due to some data limitations, Access Economics has considered the first five sectors quantitatively in this report. A qualitative discussion of festivals, manufacturing and the shift towards online and digital content is included. The data used in the report is sourced primarily from ABS publications, but is supplemented by other sources where it is available and more recent. The ABS publications for the production and television sectors are based on 2006-07 data and hence this was chosen as the year to be considered for the economic contribution.

Data sources are more dated for the other sectors. ABS publications are available for the exhibition, distribution and rental sectors, however the data is based on 1999-00 information. In order to arrive at an estimate of the contribution of these sectors in 2006-07 it has been necessary to update this information. This necessarily involved several assumptions to be made, and these are outlined in the Appendix.

Access Economics was provided with a list of industry sector contacts. Where it was felt that the data, or updating methodology, could be improved upon by discussion with the industry, these contacts were approached.

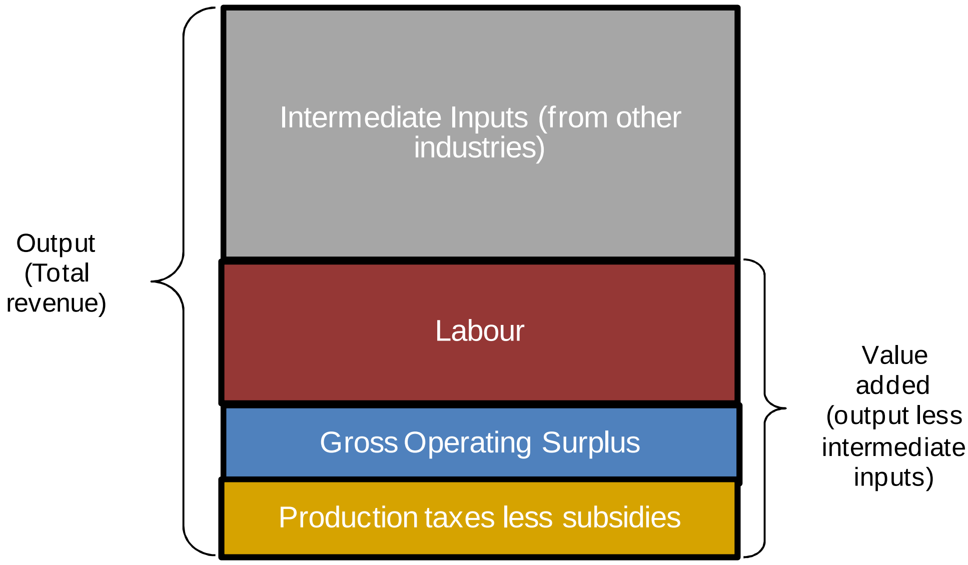
2. INDUSTRY ECONOMIC CONTRIBUTION

There are four widely used measures of economic activity. Each tells a different story about the economic contribution of an industry, these are;

- **Value-added**, measures the value of output (i.e., goods and services) generated by the entity's factors of production (i.e., labour and capital) as measured in the income to those factors of production. The sum of value-added across all entities in the economy equals gross domestic product. Given the relationship to GDP the value-added measure can be thought of as the increased contribution to welfare. In summary the value-added is the sum of;
  - Gross operating surplus (GOS). GOS represents the value of income generated by the entity's direct capital inputs, this is generally measured as the Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA);
  - Tax on production less subsidy provided for production. This generally includes company taxes and taxes on employment. Note given we calculate the returns to capital before tax (EBITDA) we do not include company tax here or this would double count that tax; and,
  - **Labour income** is a subcomponent of value-added. It represents the value of output generated by the entity's direct labour inputs, as measured by the income to labour;
- **Gross output** measures the total value of the goods and services supplied by the entity. This is a broader measure than value-added because it in addition to the value-added generated by the entity, it also includes the value of intermediate inputs used by the entity that flow from value-added generated by other entities;
- **Employment** is a fundamentally different measure of activity to those above. It measures the number of workers that are employed by the entity, rather than the value of the workers' output.

Figure 2-1 provides a useful summary of the components that make up gross output. Gross output is the sum of value-added and the value of intermediate inputs. Value-added can be calculated directly by summing the payments to the primary factors of production, labour (i.e., salaries) and capital (i.e., gross operating surplus, 'GOS', or profit), as well as production taxes less subsidies. The value intermediate inputs can also be calculated directly by summing up expenses related to non-primary factor inputs.

FIGURE 2-1: ECONOMIC ACTIVITY ACCOUNTING FRAMEWORK



Source: Access Economics

Using the accounting framework in Figure 2-1 generally the intermediate inputs activity generates the flow-on or indirect contribution of an industry or firm. For more discussion on the indirect contribution see Section 3.1.1; more discussion is needed here because of the high level of intra-industry trade. Conversely, within this framework, output and value-added a direct measure of economic contribution.

2.1 DIRECT ECONOMIC CONTRIBUTION

The direct economic contribution of the film and television industry is outlined in Table 2-1. In Australia the 2006-07 sector contribution is estimated to be $4.4 billion in value-added which included $2.1 billion in wages and $2.4 billion in GOS (minus $99.2 million in government production subsidies). The GOS was calculated on the basis of $14.4 billion in gross output and $12.0 billion in ordinary expenses.

TABLE 2-1: ECONOMIC CONTRIBUTION OF THE FILM AND TELEVISION INDUSTRY, $M, 2006-2007

Sector	Gross Output	Ordinary expenses	GOS (EBIDTA)	Wages	Subsidies	Value-added
Production	2,003.3	1,754.5	248.8	620.1	99.2	769.7
Distribution	2,433.2	1,980.7	452.5	169.8		622.3
Free to Air TV	4,530.1	3,312.9	1,217.2	682.1		1,899.3
Pay TV	2,282.6	2,112.6	170.0	204.1		374.1
Exhibition	1,375.5	1,232.4	143.1	171.3		314.5
Retail	1,301.0	1,222.0	79.0	144.2		223.2
Rental	514.9	397.0	118.0	121.0		238.9
Total	14,440.6	12,012.0	2,428.5	2,112.7	99.2	4,442.0

Source: *Television, Film and Video Production and Post-Production Services, Australia, 2006-07* (ABS cat. no. 8679.0); *Film and Video Production and Distribution, Australia, 1999-2000* (ABS cat. no. 8679.0); Motion Picture Exhibition, Australia, 1999-2000 (ABS cat. no. 8654.0); *Video Hire Industry, Australia, 1999-2000* (ABS cat. no. 8562.0); AVSDA and GfK as published in *Get the Picture – Video*, Screen Australia July 2008; Australian government film financing bodies and Access Economics calculations.

By all accounts the Free-to-air television sector is the largest contributor to economic activity. The sector provides $1.9 billion in value-added (or a third of the total industry value-added); this is made up of $1,217.2 million in GOS and $682.1 million in wages. This sector's GOS is about 50 per cent of direct industry GOS; and, 26 per cent of gross output for this sector is profit returned to capital owners.

The latter figure is the highest in the industry and much higher than similar sectors like exhibition (with 10.4 per cent) and pay TV (with 7.4 per cent). This reflects the high concentration in the sector, with only three major TV networks in operation, compared to other sectors.

Retail on the other hand has a lower proportion of GOS to gross output, at about 6 per cent. This reflects the higher competitive nature of that sector. Based on about $1.3 billion in turnover, GOS is $79 million with wages about double that at $144.2 million. In total the retail channel generates $223.2 million in value-added; slightly smaller than rental. Rental value-added includes $118.0 million in GOS and $121.0 million in wages.

The production sector

Output in the production sector is estimated to be $2.0 billion with $248.8 million in EBITDA and $620.1 million in wages. The production sector received $99.2 million in subsidies from government, about $53.2 million from the Australian Government (through its Film Finance Corporation) and about $46.0 million from the state film financing offices. There are various forms of funding and support programs provided by governments, the funding outlined above is limited to direct funding of production and does not include tax concessions.

The Australian Government offered tax concessions under 10BA of the tax code. For 2005/06 was $8.5 million and averaged $19.5 million from 1989-90 to 2005-06 (there is no data for 2006-07). Division 10BA (and the related 10B concession) was offered by the Australian Government up to June 2007 where it was replaced by different financing vehicles of concession. This included the changes to the Film Licensed Investment Company scheme and certain changes to cost offsets for Qualifying Australian Production expenditure).

Of the $2.0 billion in output about $410 million in turnover is from the independent domestic sector. This sector is categorised as Australian-based independent content providers of documentaries, television drama, variety, children's feature films, animation and television commercials and is represented by the Screen Producers Association of Australia (SPAA). If we assume a similar production function to the wider sector this implies an EBITDA of about $50.9 million and payments to wage earners of $126.9.

Employment

Total employment in the industry is estimated to be about 37,773 full time equivalents (FTE), with about a quarter of those in the production sector (see Table 2-2). Distribution has the lowest employment of the sectors with 2,180 in FTEs.

TABLE 2-2: EMPLOYMENT BY SECTOR (FTE)

	Employment
Production	10,616
Distribution	2,180
Free to Air TV	6,033
Pay TV	2,640
Exhibition	5,890
Retail	5,663
Rental	4,751
Total	37,773

Source: *ibid*

Significant levels of employment are also estimated for the free to air TV networks with 6,033 FTE employee, 5,890 in the exhibition sector and 5,663 in the retail sector.

As discussed above, higher skilled workers attract higher wages to those with lower skills. In this context we would expect to see lower wages in the exhibition, retail and rental sectors, as these activities attract lower skilled retail staff, and higher wages in the higher skilled sectors like production, distribution and television.

3. FRAMEWORK FOR THE ANALYSIS

The measurements of activity outlined above in Section 2.1 accounts for the direct contribution of the film and television industry. The following chapter describes the total economic contribution of the industry. This section provides an overview of the economic framework and concepts.

3.1 FRAMEWORK OVERVIEW

Measuring the direct activity as we have done above, attempts to measure the economic contribution of firms in the film and television industry where the direct activity measures how the demand created by the industry contributes to other industries.

This can be summarised in the following way;

- The **direct** component measures the economic activity directly associated with the film and television sector; and,
- The **indirect** component measures the economic activity generated by the industry through the demand it generates for outputs from other industries.
- The **total** economic activity generated by the film and television sector is the sum of the direct and indirect components.

In the context of the film and television industry, direct and indirect contributions can be thought of in the following way;

- A **direct** activity includes (1) making content like film and for television; (2) distributing content; and, (3) content use by the consumer either through the retail channel in buying or renting a DVD, watching television or going to the movies.
- In providing these products to consumers firms generate demand in their own right though buying intermediate inputs from other industries in the economy; this measures the **indirect** activity. For example, to make filmed entertainment production, companies buy inputs like wood to construct sets, and film and electronic equipment to capture and store the work. Such demand creates economic activity – like employment and value-added – in other industries.

3.1.1 INPUT OUTPUT ANALYSIS AND THE MULTIPLIER

To calculate the size of this indirect effect we use an input output framework. As the name suggests, the framework represents the output of an industry and the inputs used to create that output. This framework is well suited for economic contribution studies because it provides the methodology to calculate the total economic contribution of the film and television industry.

Within the film and television industry there is a high level of intra-industry inputs used in making the final product. For example, the production sector provides content to manufacturers, free-to-air and pay television, distributors and to itself; a stylised representation of this is illustrated in Table 3-1 (see the dark red shading).

The manufacturing sector provides physical copies of media (includes DVDs) to the distributors and they inturn distribute them to retail and rental stores and to exhibitors (note some of the content provided by distributors may not involve a manufacturing process, like that provided to TV and pay TV, more discussion on the manufacturing sector can be found in Section 5.1.7).

Products supplied by the television sectors, exhibitors, retail and rental are all consumed by households (see the purple shading); this is a representation of final goods and service consumption.

TABLE 3-1: STYLISED REPRESENTATION OF THE FILM AND TELEVISION INDUSTRY

	Prod.	Manu.	Dist.	TV	Pay TV	Exhib.	Retail	Rental	Household Consumption
Production									
Manufacturing									
Distribution									
Free to Air TV									
Pay TV									
Exhibition									
Retail									
Rental									
Value-added									

This stylised setting of the industry suggests much of the demand generated by the industry is provided by itself. For completeness, the intermediate inputs as discussed in Figure 2-1 have by-and-large been captured in the sectoral direct measure of economic contribution. Spill-over or indirect contribution is limited to the production sector because it is at the start of the value-added chain.

The multiplier

The multiplier is the generally accepted method of estimating the spill-over or indirect contribution. They are estimated using input-output tables provided by the Australian Bureau of Statistics.

In general terms they are designed to capture the total economic activity in the value-added chain from consumption higher up the value chain. For instance when buying a loaf of bread from a supermarket; there is value-added created. This value-added is represented by the income earned by the supermarket in profits and employees in wages; this is the *direct value-added*. In addition to this is the value-added (or income earned) by (1) the person who delivers the bread to market; (2) the baker who bakes the bread; and, (3) the farmer who makes the wheat; this is the *indirect value-added*.

We can also estimate the turnover, employment and wages earned by this indirect activity. This is done in the next chapter by using the multipliers outlined in Table 3-2. The multipliers suggest that for every million dollars of gross output in the sector \$810,000 of total value-added is generated and 10.86 total FTE are employed.

TABLE 3-2: DOMESTIC GROSS OUTPUT MULTIPLIERS*

	Gross output multiplier
Gross output	2.17
Value-added	0.81
Labour income	0.46
Employment	10.86

Source: ABS cat. no. 5209.0, Access Economics
* Industry multiplier used here is the Motion picture, radio and television services.

4. ESTIMATE OF ECONOMIC CONTRIBUTION

The following is a summary of the direct, indirect and total contribution of the Australian film and television industry.

4.1 DIRECT

The sectoral based direct contribution of the film and television industry is outlined in Table 4-1. The economic contribution includes $4.4 billion in value-added and about 37,774 in FTE workers.

TABLE 4-1: DIRECT ECONOMIC CONTRIBUTION, $M, 2006-07

Sector	Gross Output	Wages	Value-added	Employment (FTE)
Production	2,003.3	620.1	769.7	10,616.0
Distribution	2,433.2	169.8	622.3	2,180.2
Free to Air TV	4,530.1	682.1	1,899.3	6,033.0
Pay TV	2,282.6	204.1	374.1	2,640.0
Exhibition	1,375.5	171.3	314.5	5,890.4
Retail	1,301.0	144.2	223.2	5,663.2
Rental	514.9	121.0	238.9	4,750.6
Total	14,440.6	2,112.7	4,442.0	37,773.5

Source: Various

4.2 INDIRECT

The indirect contribution is the total contribution estimated using the multipliers outlined above minus the direct contribution (in this case the production sector). The indirect contribution is outlined in Table 4-2.

TABLE 4-2: INDIRECT CONTRIBUTION, $M, 2006-07

	Gross Output	Wages	Value-added	Employment (FTE)
Indirect	2,343.9	301.4	753.8	11,140

Source: Access Economics

The flow-on or indirect effects of demand created in the production sector includes an increase in FTE employment of 11,140 and wage contribution of $301.4 million. The figures indicate demand created in the production sector generates higher value-added of $753.8 million. But it is worth noting the limitations of the framework – see section 4.7 – that include this increase in demand does not have price effects in other sectors. These limitations affect the interpretation of the results and claims that can be made.

4.3 TOTAL

The total economic contribution of the film and television sector is outlined in Table 4-3, the table outlines the direct and indirect contribution – as discussed above – and the total contribution.

TABLE 4-3: TOTAL ECONOMIC CONTRIBUTION, $M, 2006-07

Sector	Gross Output	Wages	Value-added	Employment (FTE)
Direct	**14,440.6**	**2,112.7**	**4,442.0**	**37,773.5**
Production	2,003.3	620.1	769.7	10,616.0
Distribution	2,433.2	169.8	622.3	2,180.2
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Rental	514.9	121.0	238.9	4,750.6
Indirect	**2,343.9**	**301.4**	**853.0**	**11,139.8**
Total	**16,784.5**	**2,414.1**	**5,295.0**	**48,913.3**

Source: Access Economics

The film and television industry generated total gross output of $16.8 billion. This included $5.3 billion in total value-added, made up of $4.4 direct and about $853.0 million in indirect value-added. About half of the value-added includes wage payments of $2.4 billion, comprising of $2.1 billion in direct and $0.3 billion in indirect payments. FTE employment is estimated to be about 49,000 which includes 37,774 in direct FTEs and 11,140 in indirect FTE employment.

4.4 COMPARISON TO OTHER SECTORS

In comparison to other sectors of the economy the direct value-added in the film and television sector compares favourably to sectors which are typically viewed as economically significant to the Australian economy. For example, it is about the same size as the bauxite, nickel and other mining sectors with about $4.5 of direct value-added. The industry is bigger than copper mining – with $3.4 billion in value-added.

Table 5–5 provides a comparison of the film and television industry with other – mining – sectors of the economy.

TABLE 4-4: COMPARISON WITH OTHER INDUSTRIES, $M, 2006-07

Industry	Value-added (income method)
Film and Television	**4,442**
Copper ore mining	3,442
Gold ore mining	1,919
Mineral sand mining	328
Silver-lead-zinc ore mining	4,079
Bauxite mining, nickel ore mining and other metal ore mining	4,529
Non-metallic mineral mining and quarrying	1,740
Exploration and other mining support services	3,084

Source: ABS cat. no. 8415.0 Mining Operation Australia 2006-07

4.5 STATE CONTRIBUTION

Table 4-5 outlines the economic contribution of the film and television sector by state. The larger eastern seaboard states of New South Wales (NSW), Victoria and Queensland are the highest contributors to economic activity in the industry. This is an indication that these states are the home of the majority filmed entertainment, television production and distribution activity in the industry.

TABLE 4-5: ECONOMIC CONTRIBUTION BY STATES, $M, 2006-07

State	Gross Output	Wages	Value-added	Value-added (Per cent)	Employment (FTE)
New South Wales	7,176.7	1,029.5	2,281.9	43.1	21,244
Victoria	3,731.1	537.0	1,171.9	22.1	10,832
Queensland	3,091.6	443.2	972.9	18.4	9,188
South Australia	900.5	130.5	282.4	5.3	2,512
Western Australia	1,175.6	170.8	362.5	6.8	3,218
Tasmania	243.7	35.5	76.8	1.4	660
Northern Territory	116.9	17.0	37.0	0.7	321
ACT	348.2	50.7	109.8	2.1	940
Australia	16,784.5	2,414.1	5,295.0	100.0	48,913

Source: Access Economics

NSW contributes $2.3 billion to value-added – about 43 per cent – Victoria contributes to about $1.2 billion or about 22 per cent, with Queensland providing about $1.0 billion in value-added. These states are also the main centres of employment in the industry, with NSW the highest employer with 21,244 FTEs.

Employment by FTEs was the basis for the extrapolation of the gross output, wages and value-added estimation (see Appendix A). Given this there are certain assumptions we are making about the industry that may limit the interpretation of the information; these are outlined below.

4.6 TAXES

Included in the value-added outlined above is a component of tax paid to government; this is estimated to be $1.8 billion. This includes $428.4 million in corporate tax, $545.2 million in income tax and about $797.9 million in net GST; see Table 4-6.

TABLE 4-6: TAX PAID, 2007, BY CATEGORY $M

Tax category	Tax paid
Corporations tax	428.4
Income tax	545.2
GST	797.9
NSW	341.2
Victoria	177.4
Queensland	147.0
South Australia	42.8
Western Australia	55.9
Tasmania	11.6
Northern Territory	5.6
ACT	16.6
Includes Exhibition (GST)	*125.0*
Retail (GST)	*118.3*
Total	1,771.6

Source: Access Economics estimates

The corporations tax was estimated from the total profit of the industry and applied at a 30 per cent rate. The profit is different to the GOS because it includes non-operational income and expenses including depreciation and amortisation. The income tax was estimated using an average FTE wage rate and the 2006-07 income tax scales. GST was estimated on the final turnover figures for each sector that sold final goods to consumers; it was assumed that none of the sales are GST exempt. Of the $797.9 million in GST raised in the industry $125.0 million is paid by consumers of films and $118.3 million by consumers of DVD's.

4.7 LIMITATIONS OF ECONOMIC ACTIVITY ANALYSIS

It is important to note economic activity analysis while striving to be comprehensive embodies some inherent limitations. This is the case because the analysis takes place in a static framework that essentially ignores price and crowding out effects.

A widely acknowledged problem of economy activity multipliers is that they implicitly assume fixed prices which can overstate impact of the effects of additional economic activity. This is less of a problem when measuring the economic impact of a smaller entity because changes in demand and supply are expected to have a negligible impact on prices.

The analysis, while taking into account economy-wide effects through intermediate goods linkages, ignores the possible crowding out effects of expanding film and television activities. For example, greater consumption of intermediate inputs by the industry potentially reduces the overall production in other industries as agents substitute away from goods that have increased in price. This would have the effect of lowering economic activity.

Further, as discussed above the methodology to extrapolate the state contribution may also provide a limitation to the interpretation of the results. The methodology – based on stratifying the total results on estimated state based FTE employment – assumes a number of factors, including;

- Employment productivity is uniform across the states. This suggests an employee in a regional television station in Canberra is the same as an employee in production in Sydney. This is an important distinction because workers in different sectors may have access to more capital and consequently be more productive, driving higher value-added and wages;
- It assumes the employment in the state is a good proxy for value-added, output and employment. This may not be the case where the employment in the sector is not the same – or at least similar – to the consumption in that sector; and,
- With regards to the indirect activity, it assumes no trade between the states. Or, the domestically supplied intermediate inputs used by production firms in NSW are sourced from that state.

Also, there were a number of assumptions made to determine the employment by state. This included Pay TV state employment figures at the same proportions to free-to-air television. This is expected to have little impact on the results because Pay TV is only 6 per cent of total employment, but we would expect a higher concentration of employment in the eastern seaboard states.

5. DESCRIPTION OF THE FILM AND TELEVISION SECTOR

The film and television industry comprises a wide array of different businesses and services across Australia. Little or no information is available on the industry as a whole, and to arrive at an estimate of its contribution to the Australian economy it is necessary to break the industry into components for which information is available. This section describes the breakdown that has been adopted in the report, and provides some detail on each of the selected sector components.

The breakdown was guided partly on the industry sectors identified in the brief, but was also constrained by the availability of information. For example, while festivals are an important part of the domestic film landscape, there was insufficient information available to adequately assess its economic contribution. The breakdown chosen for the study comprises the following sectors:

- production of film, video and television services;
- distribution of content for cinemas, video and television;
- cinema exhibition;
- free-to-air television broadcasting;
- subscription television broadcasting; and
- rental; and
- retail of film and television content on DVDs and videos.

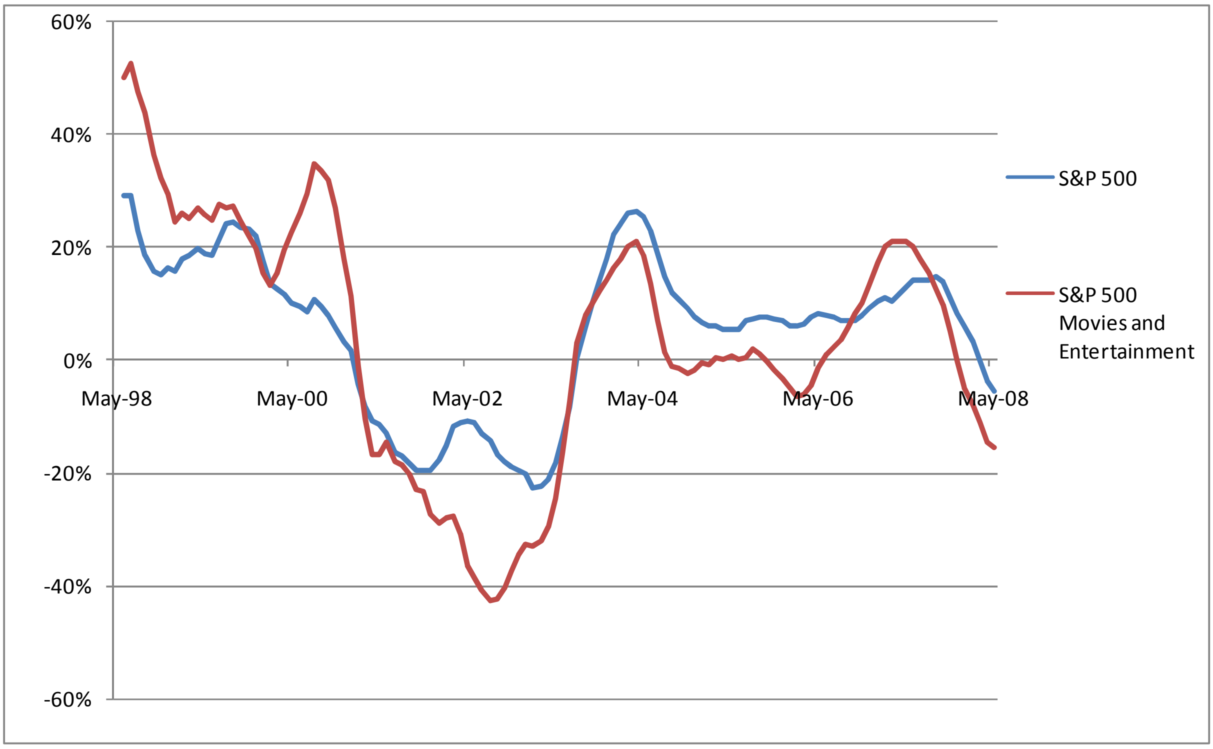
The sub-sections below contain a brief description of each sector, but primarily concentrate on the economic data relevant to the calculation of value-added. It is this latter component that is the focus of the report. The information reported in these sub-sections forms the basis for the analysis which is reported in the preceding sections. While the focus is predominantly on financial data, information is also provided on other factors which may impact on the performance of each sector, such as local content laws or government assistance.

Overall, the performance of most of the sectors appears to have been positive in recent years. The most up-to-date data available is for the production and television sectors, each of which have recorded a slight growth in real terms since the beginning of the decade. Other sectors, such as subscription television, have grown strongly off a low base. There is some evidence that the growth in retail and other viewing means has placed pressure on cinema exhibition, with growth in box office receipts slowing since the turn of the century.

More generally, returns in the film and television industry appear to be related to the general economic climate. This is an intuitive result given the discretionary nature of most of the services produced. This view is supported by Chart 5-1 below. This shows the returns to the Standard and Poors 500 Movies and Entertainment Index[1], based on selected US firms in the industry, against the broader S&P 500 Index. The returns on these indices are highly correlated (with a correlation of 89 per cent over the period shown) indicating that the financial performance of the industry is cyclical in nature. It is likely that the Australian industry would follow a similar pattern.

[1] This index is used in the absence of a similar index for Australian companies.

CHART 5-1: RETURNS TO THE US MOVIES AND ENTERTAINMENT SECTOR SINCE 1998



Source: Bloomberg

Note: This chart plots the six month moving average of the annual returns on each of the indices.

The sub-sections contain comparisons of key performance indicators over time where this information is available and believed to be useful. Discussion of trends into the future is avoided in order to present only factual information.

5.1 THE INDUSTRY SECTORS

The film and television industry broadly comprises two intimately linked components. The production industry produces content for both film and television viewing, while distribution comprises businesses which on-sell to cinemas, television broadcasters and rental, retail or online stores. Further, production which is initially intended for cinema exhibition will eventually find its way on to television broadcasts and store shelves. Hence, it is difficult to separate production processes vertically, with industries instead grouped by activity: production of content, distribution of content, and the final consumption of content through exhibition, home viewing of rental or retail and television. These are discussed below.

5.1.1 PRODUCTION

The production sector creates the viewing material which is displayed on televisions, at cinemas and through personal viewing of goods purchased from rental or retail stores. It forms the first link of the chain which makes up the industry. The ABS recently released a publication which considers ‘businesses mainly engaged in film, television program, television commercial and video production’ and reports the performance of such businesses for the 2006-07 financial year. This data forms the basis for the economic contribution reported above.

Australia has a long history of film production, credited with producing the world's first feature length film in 1906. In recent years, government incentives and increased investment have lead to more production activity taking place in Australia. In 2006-07 there were 28 Australian-produced and co-produced films, and 45 television drama programs. The market value of these productions were $270 million and $272 million respectively.

According to the ABS data, there are currently around 2,500 businesses operating in the sector, generating around $2 billion worth of income and $1.85 billion in expenses. As with many of the sectors in the film and television industry, the number of firms has fallen in recent years, while the value of turnover has grown in real terms. Since 2002-03 income has grown at an average annual rate of 5.2 per cent. While labour costs rose at 7.1 per cent, income grew at a greater rate than total expenses over this period.

TABLE 5-1: PERFORMANCE OF THE PRODUCTION SECTOR

Performance Category	2002/03	2006/07	Av annual % change
Businesses at end June (no.)	2,638	2,492	-1.4
Employment at end June (no.)	16,360	13,844	-4.1
Income (%m)	1,658	2,028	5.2
Labour Costs (%m)	470	620	7.1
Other Expenses (%m)	1,081	1,237	3.4

Source: ABS

Table 5-1 above shows employment has fallen at an average rate of 4.1 per cent since 2002-03. Table 5-2 below gives a snap-shot of employment in 2006-07 broken down by employment type. It shows that the largest category of employment in the sector is casual, comprising 43 per cent of employees, with full time employment the next largest with 33 per cent of all employment falling in this category.

TABLE 5-2: EMPLOYMENT IN PRODUCTION, 2006/07

Employment Type	Film/Video Production	Post Production	Total
Working proprietors	400	155	556
Permanent full-time	2,769	1,645	4,414
Permanent part-time	514	277	791
Casual	5,210	457	5,667
Other	2,379	592	2,973
Total	**10,873**	**2,971**	**13,844**

Source: ABS

While the vast majority of businesses are small[2] (85 per cent of businesses contain four persons or fewer) a large proportion of employment is in the larger firms (39 per cent of employees work for businesses with more than 100 persons). Table 5-3 below gives the economic indicators of firm performance by employee numbers.

[2] A view expressed in consultation was that many of these small businesses are not 'full-time' businesses, but have instead been set up for specific ventures. If this is the case, the ABS will overestimate the number of businesses in the industry.

TABLE 5-3: PERFORMANCE BY FIRM SIZE (NO. OF EMPLOYEES)

	0-4	5-9	10-19	20-49	50-99	100<
Businesses (no.)	2,120	169	126	45	14	18
Employment (no.)	3,533	1,099	1,578	1,233	1,002	5,400
Total income ($m)	654	243	237	152	106	635

Source: ABS

Of the total income to production services of $1.46 billion, 35 per cent was from sale of television content. Sale of production services to other businesses contributed 21 per cent of income. Commercials were the next largest income source, accounting for around 16 per cent of income, while income from the production of feature films contributed around 14 per cent of industry income.

TABLE 5-4: SOURCE OF PRODUCTION INCOME, 2006-07

Activity	Income ($m)	Proportion of industry income %
Feature films	213.7	13.5
Television programs	549.7	34.7
Commercials	245.4	15.5
Corporate, marketing and training media	89.6	5.7
Educational media	10.2	0.6
Music media	2.1	0.1
Production services to other businesses	332.3	21.0
Other	20.5	1.3
Total	**1463.5**	**92.4**

Source: ABS

The post-production component of the sector is substantially smaller, accounting for only 3 per cent of total industry income. Of the total post-production income of $46.3 million, film laboratory services and visual editing are the largest contributors, earning $25.3 million and $15.8 million respectively.

TABLE 5-5: SOURCES OF POST-PRODUCTION INCOME, 2006-07

Activity	Income ($m)	Proportion of industry income %
Visual editing	15.8	1.0
Sound editing	2.6	0.2
Duplication	1.7	0.1
Transferring	0.9	0.1
Film laboratory services	25.3	1.6
Total	**46.3**	**3.0**

Source: ABS

Table 5-6 gives the major expense items reported by the ABS for both production and post-production services. In aggregate, labour costs are the largest expense item, accounting for 33 per cent of total industry expenses. 'Payments to other businesses' is the next largest item, accounting for 29 per cent of total expenses.

TABLE 5-6: EXPENSE ITEMS IN PRODUCTION ($M) 2006-07

Expense Item	Production	Post-production	Total
Labour costs	453.2	166.9	620.1
Payments to other Businesses	486.7	57.9	544.5
Purchases	87.7	39.1	126.7
Rent, leasing and hiring	79.9	23.8	103.7
Royalties	38.4	0.6	39.0
Other	316.1	107.3	423.5
Total	**1,461.8**	**395.6**	**1,857.4**

Source: ABS

In recent years the Australian Government has attempted to attract production of foreign-owned films to Australia. This has been provided in the form of tax assistance, direct funding and various other initiatives. Recently, the Government held its Review of Australian Government Film Funding Support which led to the Australian Screen Production Incentive. Various state governments also provide assistance to screen production through incentives such as tax rebates, grants, rebates and various other initiatives.

Direct government funding into the production sector has been substantial in recent years. In 2006/07 government funding, which was primarily channelled through the Film Finance Corporation, totalled $76 million. This was equivalent to 17 per cent of the total funding of Australian films and television content produced that year.

Much of the income derived from Australian production comes from overseas sales (see Table 5-7). Almost 40 per cent of income from production and post production comes from overseas business, and production service income is about one third derived from overseas.

TABLE 5-7: PRODUCTION INCOME BY SOURCE, 2006-07 ($M)

	Production	Production services	Post-production	Total
Sourced from Australian resident businesses	810.7	257.8	307.8	1,376.4
Sourced from overseas businesses	321.6	85.9	119.8	527.3
Total	1,132.4	343.7	427.6	1,903.7

Source: ABS

5.1.1.1 THE DIGITAL PRODUCTION SECTOR

There have been a number of changes in the digital production sub sector in Australia in the past decade. Hollywood studios have included Australia as a production base within the global supply chain of filmed content; this includes productions like the *Matrix* trilogy, a co-production between Village Roadshow Pictures and Warner Bros, and *Star Wars*.

Australian content is also finding its way into global cinemas like the recently produced Australian computer animated production *Happy Feet*; produced by Sydney based visual effect firm Animal Logic.

Animal Logic operates across the entertainment industry with its roots within the post, digital and visual effects (PDV) sector. Started in 1991 with less than ten people – generally producing commercials – today the company has grown to a core of 200 employees and up to 550 depending on production demand. These are spread across the Pacific with the majority of employment in Australia.

Today, its production demand comes from across the entertainment industry, with clients including advertising agencies, fee for service post production (like the *Matrix*), television and animation. Generally speaking, this suggests the company is developing not only technical intellectual property but creative intellectual property and diversifying into all facets of the industry.

The digital production sub sector is also a significant employer in the aggregate production sector that attracts relatively high wages for its specialist staff. The animation, computer generated imagery and visual effects technicians accounted for 4.9 per cent of all employment in the sector (673 of the 13,844 persons employed in the sector, these are based on ABS 2006-07 estimates). These technicians earn 9.7 per cent of the wages in the production sector, or $51.4 million.

5.1.2 DISTRIBUTION

The distribution sector provides a key link between the production of viewing material, and its consumption through film exhibitors, retail and rental outlets, on-line and television. This section considers its role in the context of all three of these outlets. The most recent data available for the distribution sector is from an ABS publication which reports the industry's performance for the 1999-2000 financial year. The Appendix discusses how this is updated to 2006-07.

The major players in the theatrical distribution industry are predominantly foreign owned (Sony Pictures Releasing, 20th Century Fox, Buena Vista International, Paramount and Universal) with the only Australian owned major player being Roadshow Film Distributors. In 2002 Roadshow distributed six of the ten largest films of the year, and has benefited from an agreement with Warner Brothers to distribute their films. In addition to these distributors, which deal mainly with larger box-office films, there are numerous other distributors which deal largely with smaller art-house productions.

Table 5-8 provides details of the performance of the sector over the period 1993-94 to 2006-07. One clear trend over this period was the large increase in activity, especially over the period 1999-00 to 2006-07. This has been driven by the large increase in DVD sales to the retail sector. Over this period DVD sales have increased from about $15.7 million to over $1 billion.

TABLE 5-8: PERFORMANCE OF THE DISTRIBUTION SECTOR

	1993/94	1996/97	1999/00	2006/07*
Businesses (no.)	69	66	58	N/A
Income ($m)	640	973	1,141	2,433.2
Expenses ($m)	601	970	1,038	1,980.7

Source: ABS,

* 2006/2007 figures are Access Economics estimates

It should be noted here that nominal turnover has increased from $1,007.4 in 1999-00 to $2,160.4 million by 2006-07 (see Appendix 1 for more information).

Employment in the sector is predominantly based on full time workers, which made up 74 per cent of total employment in 1999/2000. This grew over the period 1993/94 to 1999/00 however not at the same rate as turnover. Employment increased by 31 per cent over this period.

TABLE 5-9: EMPLOYMENT IN THE DISTRIBUTION SECTOR

Employment Type	1993/94	1996/97	1999/00	2006/07*
Full Time	808	1,107	1,059	1,859
Part Time	173	234	366	642
Total	**981**	**1,341**	**1,425**	**2,501**

Source: ABS

* 2006/2007 figures are Access Economics estimates

Table 5-10 shows the main sources of income for the industry in 1999/2000. Lease of films to exhibitors is the largest single income source, which made up 25 per cent of income in that year. Income from rental and sales to video hire stores comprised 17 per cent of income, sales to retail comprised 14 per cent, and income from distribution to television comprised 30 per cent across free-to-air and pay TV.

TABLE 5-10: SOURCE OF INCOME ($M), 1999-2000

Income category	Businesses	Value ($m)
Sales to Video Hire Stores	11	100
Sale to Retail Outlets	13	157
Rental/lease to Exhibitors	12	289
Rental/lease to FTA Television	14	172
Rental/lease to Pay TV	17	169
Rental/lease to Video Hire Stores	7	94
Other Income	n.a.	327
Total Income	**51**	**1,142**

Source: ABS

Table 5-11 gives the main expense items in 1999-2000. The major single expense item was copyright fees and licences for film and video distribution (23 per cent), with advertising (12 per cent) and programs rights (12 per cent) the next largest expense categories.

TABLE 5-11: MAJOR EXPENSE ITEMS 1999-2000

Expense Item	Value ($m)	% Contribution
Labour Costs	66.8	6%
Dubbing, Duplication and Film Print Costs	77.7	7%
Program Rights/licence Fees Used	124.4	12%
Copyright Fees/licences for Film and Video Distribution	235.6	23%
Advertising Expenses	127.1	12%
Other Costs	406.8	39%
Total Costs	**1038.4**	**100%**

Source: ABS

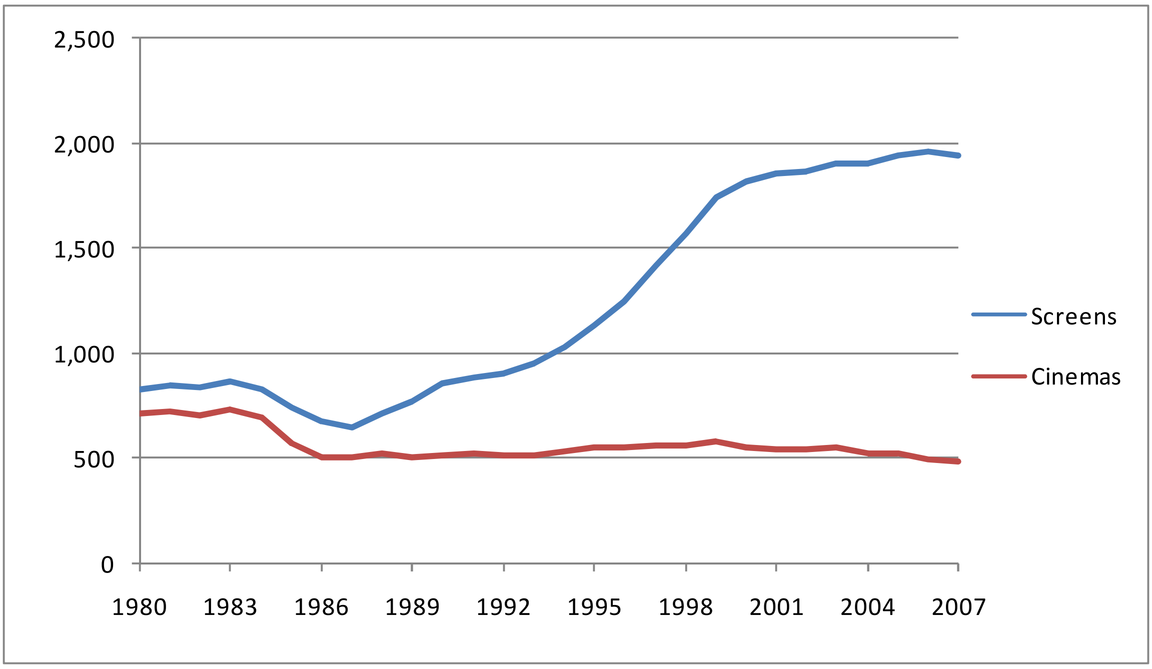
The distribution sector is concentrated in NSW, Victoria and Queensland, with these States making up 98 per cent of the industry by employment and 96 per cent by income. Of these, 65 per cent of the total national employment is located in NSW, 21 per cent in Victoria and 11 per cent in Queensland.

5.1.3 EXHIBITION

The exhibition sector comprises businesses involved in the display of films in cinemas. In Australia this industry is dominated by four large exhibitors (Birch Carroll and Coyle, Greater Union, Hoyts and Village) which together hold slightly over half of the market. Exhibitors specialising in art house productions, such as Palace and Dendy, are gaining market share, but are not on the same scale as these larger exhibitors. The balance are small independent businesses.

The sector has experienced a boom since the late 1980's. In the decade 1990-2000 the number of screens in Australia more than doubled, rising from 851 to 1,855 as shown in Chart 5-2 below. Since then, this growth has slowed although screen numbers continue to rise, currently standing at 1,941 screens nationwide.

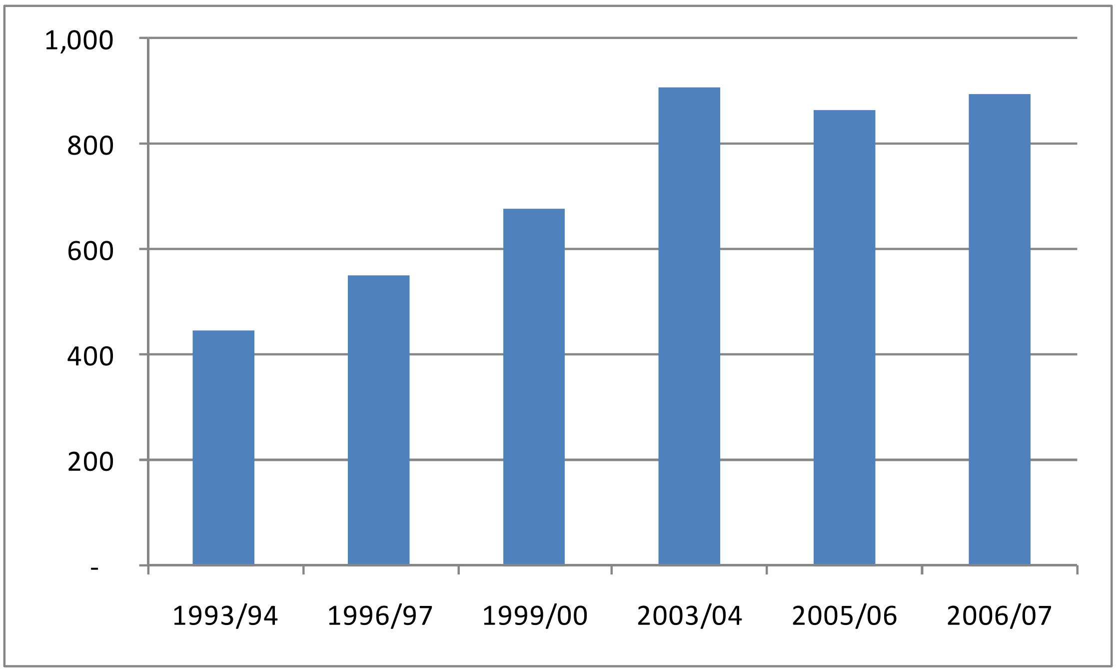
CHART 5-2: CHANGES IN CINEMA AND SCREEN NUMBERS SINCE 1980



Source: Screen Australia, *get the picture: Cinema*.

Chart 5-3 below graphs the value of box office receipts over the fifteen years up to 2006-07. It shows that box office receipts have followed a similar trend to the growth in screens.

CHART 5-3: BOX OFFICE RECEIPTS ($M)



Source: Screen Australia, *get the picture: Cinema*.

Recent details on the financial performance of the sector are not available, with the most recent data coming from the ABS which reports data for the 1999-00 financial year. This information is presented in Table 5-12 below, with Access Economics' estimates for 2006-07 provided in addition.

TABLE 5-12: PERFORMANCE OF THE EXHIBITION SECTOR

Industry Details	1996/97	1999/2000	2006/2007*
Businesses (no.)	188	173	N/A
Box office receipts ($m)	552	679	896
Total Employment (no.)	7,739	9,282	9,876
Income ($m)	832.2	1,046	1,376
Expenses ($m)	713.2	934	1232

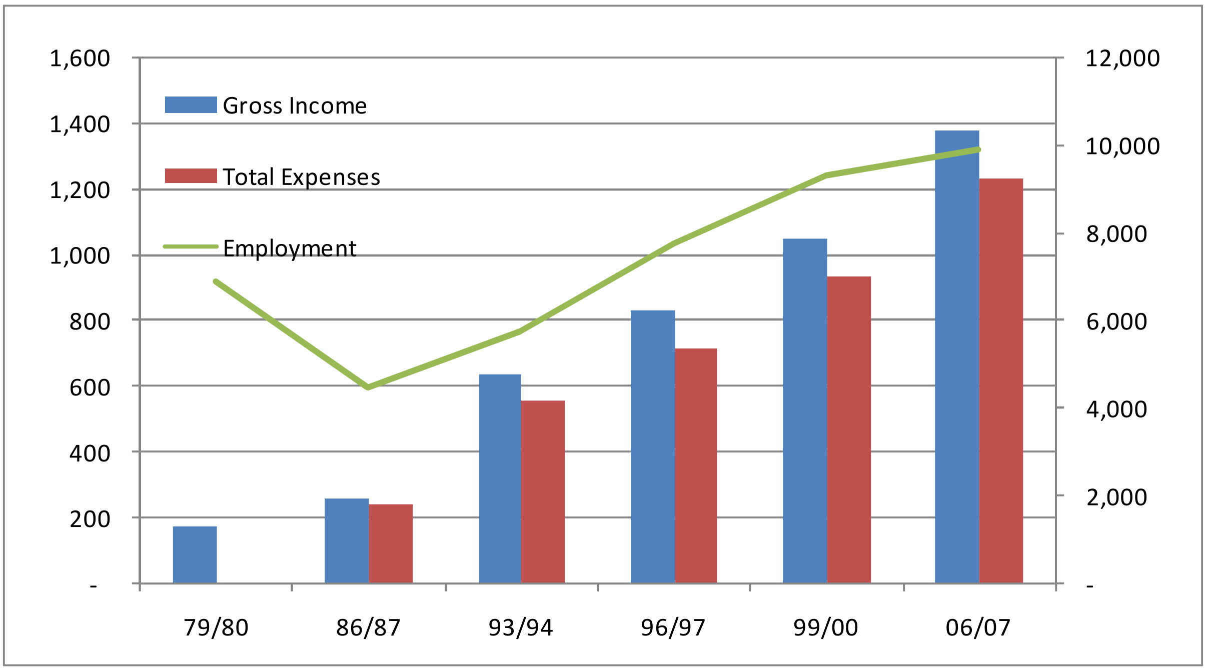
Source: ABS

* 2006/2007 figures are Access Economics estimates

The independent cinema sector comprises around 28 per cent of total box-office takings. Of this industry, 50 per cent of the revenue is received by the nine larger independent exhibitors, with the remaining 50 per cent accruing to smaller cinemas with an average of only two screens per exhibitor. Many of these smaller independent exhibitors are located outside of the major cities.

Chart 5-4 below illustrates the rise in the size of the sector over the 1980's and 1990's. Income, expenses and employment all grew in line with the expansion of cinemas and screens over this period.

CHART 5-4: FINANCIAL PERFORMANCE ($M) AND EMPLOYMENT (NO.) IN EXHIBITION



Source: Screen Australia, *get the picture: Cinema*.

Note: Expense data for 79/80 is unavailable.

Table 5-13 below gives a breakdown of the performance of the sector by state. As would be expected, box office receipts and activity generally align with populations.

TABLE 5-13: PERFORMANCE BY STATE IN 1999-2000

	Screens (no.)	Employment (no.)	Wages ($m)	Box Office Receipts ($m)	Box Office Receipts (%)
New South Wales	456	3172	45.1	243.7	35.9
Victoria	438	2616	37.1	176.7	26
Queensland	310	1475	20.2	120	17.7
South Australia	99	691	10.1	40.5	6
Western Australia	150	876	12.8	71.9	10.6
Tasmania	np	np	np	np	np
Northern Territory	np	np	np	np	np
ACT	29	212	2.2	14.3	2.1
Australia	**1513**	**9282**	**129**	**678.9**	**100**

Source: ABS

5.1.4 TELEVISION

The television sector is divided into two sub sectors: free-to-air television and subscription television (pay TV). The main difference between the two is the way in which revenue is earned, with free-to-air receiving income predominantly from advertising, while subscription television raises its revenue from subscribers.

The data in this section is based on a publication from the ABS which reports financial data on both free-to-air and subscription television for the financial year 2006/07. Overall, it shows that the television sector has performed strongly. Total employment in the sector is 10,000 persons, with businesses earning $671.3 million.

FREE-TO-AIR

The free-to-air TV sector comprises television broadcasters who do not charge viewers for the services provided. Instead, for commercial providers, revenue is received from advertisers who pay for airtime during regular programming. In addition to the three commercial channels (Ten, Seven and Nine) are two publicly-funded networks (SBS and ABC).

Free-to-air viewing is available via both analogue and digital format, with the latter being a more recent introduction to the market. All free-to-air providers still broadcast via analogue transmission, with this reaching 94 per cent of the population. Digital reception has grown sharply and is currently available to 54 per cent of Australian households.

In 2006-07 total income stood at $4.5 billion and consisted predominantly of revenue from the sale of air time, while expenses were $3.7 billion consisting mainly of the purchase of program rights and salary costs. Table 5-14 below provides details of the recent financial performance of the industry.

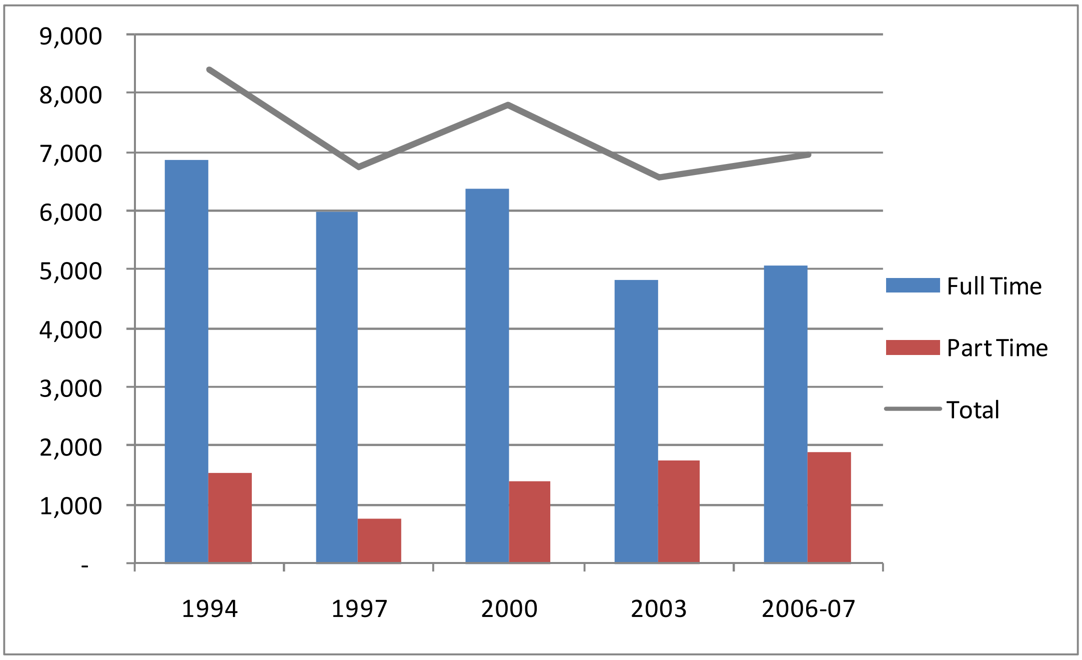
TABLE 5-14: FINANCIAL PERFORMANCE OF FREE-TO-AIR TELEVISION ($M)

	2002/03	2006/07	Av. Annual % Growth
Employment (no.)	6,577	6,980	1.5%
Income ($m)	3,810	4,530	4.4%
Expenses ($m)	3,154	3,704	4.1%

Source: ABS

Employment in the sector has fluctuated over the past 15 years. The ABS has reported employment in three-year intervals since 1994-95, at which point total employment was reported at 8,422 persons. By 1997-98 this number had fallen to 6,758 and in 2006-07 this had increased slightly to 6,980. The proportion of part time to full time workers had increased slightly over this period, although there is no clear trend in this data. Chart 5-5 below illustrates the industry employment over this period.

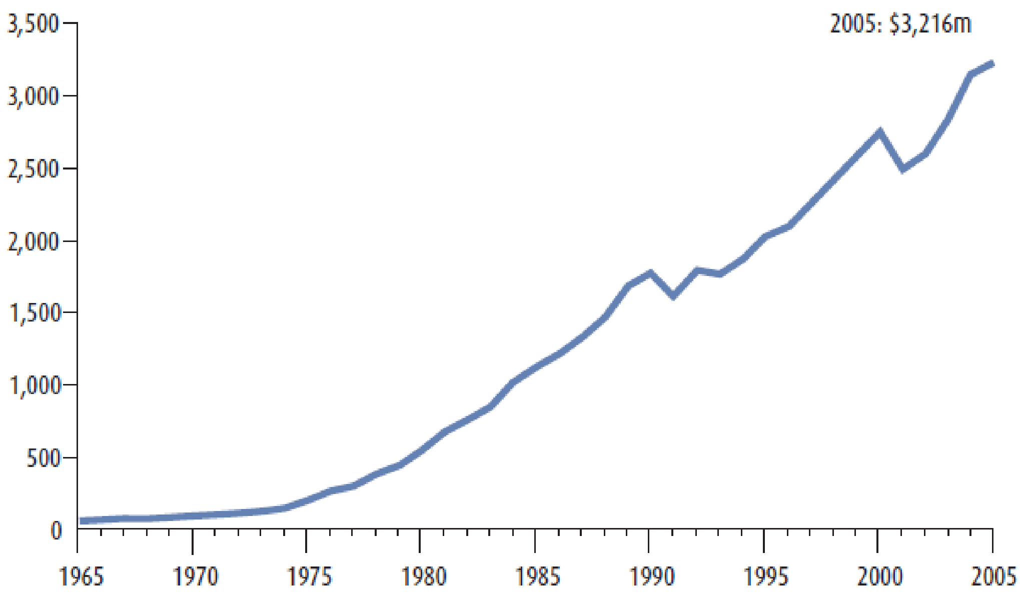
CHART 5-5: EMPLOYMENT TRENDS IN FREE-TO-AIR TV (NO.)



Source: Screen Australia and ABS.

Commercial television stations earn the vast majority of their revenue from advertising. Of the total $3.9 billion of revenue for commercial stations in 2005-06, $3.55 billion, or around 90 per cent, of this came from advertising. Figure 5-1 below shows the growth in advertising revenue since 1965. Over this period revenue growth has been relatively steady, at a rate slightly above inflation.

FIGURE 5-1: ADVERTISING REVENUE FOR FREE-TO-AIR STATIONS ($M)



Source: Screen Australia, *get the picture: Free-to-air TV*

Table 5-15 below gives a breakdown of free-to-air television activity by state. NSW has by far the largest amount of activity, accounting for nearly 50 per cent of the industry by income. Unlike some other sectors considered in this report which are concentrated in a few states, the activity in free-to-air television roughly aligns with state populations.

TABLE 5-15: FREE-TO-AIR TV ACTIVITY BY STATE

	NSW	Vic	Qld	SA	WA	ACT
Businesses (no.)	11	6	8	6	6	5
Employment (no.)	2,970	1,431	1,110	381	437	357
Wages and salaries ($m)	302.3	113.2	70.0	26.9	30.9	21.9
Total income ($m)	2,206.0	950.1	631.9	269.3	356.3	28.3
Total income (% of total)	48.7	21.0	13.9	5.9	7.9	0.6

Source: ABS

Note: The ABS does not report data for Tasmania or the NT. Together these states comprise 2 per cent of total national income. The per cent of total income row above includes Tasmania and the NT in the calculations.

The commercial channel programming content has been regulated by the Australian Communications and Media Authority (ACMA) since its inception in 2005. ACMA, and previous regulators, have imposed a variety of content requirements on commercial televisions. Under the Australian Content Standard, 55% of Australian programs must be shown between 6:00 am and midnight on all free-to-air television stations. Under the Australian Content Standard, programs which are produced under the creative control of Australians must comprise at least 55 per cent of all Australian programs between 6:00 am and midnight.

Company operations

There are three key players in the free-to-air television sector, channels, Seven, Nine and Ten, all part of consolidated media companies. The Seven Network Limited – owners of Channel Seven – also operates traditional media entities such as magazine and newspaper publishing and in new media such as Seven's interests in Yahoo7. Seven reported an EBITDA – in broadcast television of $337.6 million in 2006-07, an increase of 31.7 percent over the previous year.

PBLMedia – owner of the Nine Network – have similar interests in new and traditional media along with Ticketek and Sydney's Acer Arena. PBLMedia's free-to-air interests also include NBN based out of Newcastle. The Nine Network reports EBITDA of $206.6 million for the financial year 2006-07, an increase of 2.2 per cent from 2005-06.

Ten Network Holdings includes the television operations of Ten and the out-of-home division that includes the Eye Group. Ten Holdings reports television EBITDA of $237.0 million and out-of-home EBITDA of $12.2 million making Ten the least diversified operators in the sector.

SUBSCRIPTION TELEVISION

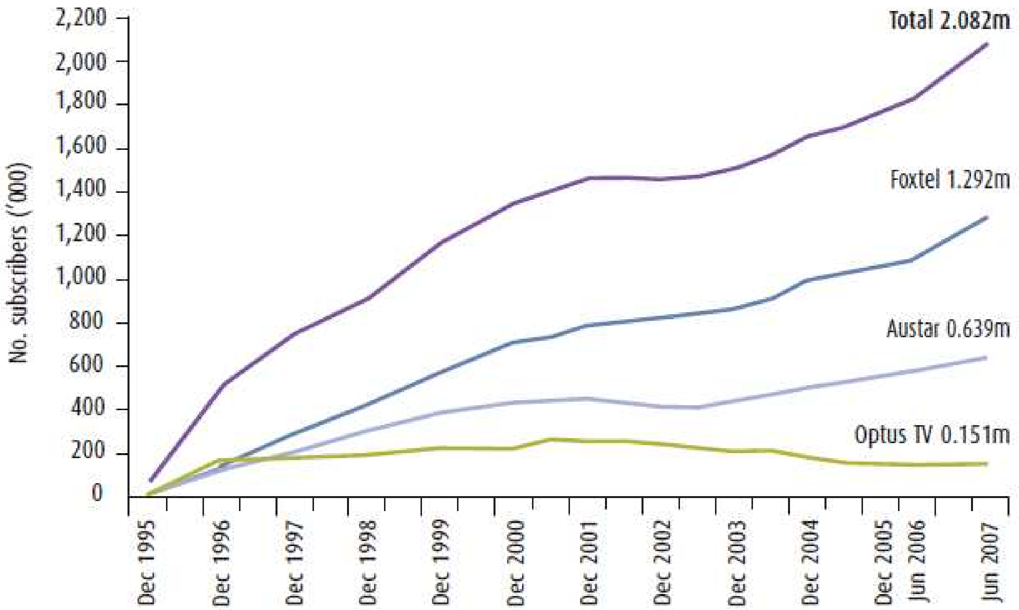
The pay TV sector includes any platform which charges a direct fee to the viewer for the services offered. As such, subscriptions are the main revenue driver for these firms, although advertising may account for a small portion of overall earnings. The pay TV sector in Australia is characterised by a number of key players, of which FOXTEL is the largest. AUSTAR is the next largest provider and predominantly supplies rural areas.

The ABS reported financial information for the pay TV industry as part of its *Television, Film and Video Production and Post-Production Services: 2006-07* publication. This publication reports total income at $2.28 billion for 2006-07, with expenses at $2.45 billion. While this implies an operating loss for this year, the value-added reported is positive at $333.5 million.

Employment has grown by around 50 per cent since the creation of the sector in Australia, although since 1999-00 employment growth has averaged less than one per cent annually. The ABS reports total employment in the sector at 1996-97 of 2,085 persons, growing to 2,861 by 1999-00 and 3,052 by 2006-07. However, it is worth noting that a recent survey of the sector conducted by ASTRA places this figure at around 4,000 employees. The last breakdown of this data by full-time and part-time workers was in 1999-00 and revealed that 83 per cent of the workforce was employed on a full-time basis.

Subscriptions have risen rapidly since the market's inception in 1995, and this trend has continued, largely unabated, to today. Currently, around 30 per cent of households with televisions have a subscription to a pay TV provider. While this number is still growing, it falls well short of other markets where the pay TV market has matured. For example, 88 per cent of US households and 50 of UK households hold a pay TV subscription. Trends in subscription in the Australian market are shown in Chart 5-6 below.

CHART 5-6: PAY TV SUBSCRIPTION IN AUSTRALIA



Source: Screen Australia, *get the Picture: Pay TV,* July 2008.

Telstra has a 50 per cent stake in FOXTEL, and together with Optus the two telecommunications giants hold a commanding share of the subscription market. Indeed, pay TV in Australia has been seen as a means for these players to diversify their service offerings to consumers. This has been highlighted by channel sharing arrangements, and service bundling of pay TV subscription with other communication services.

The pay TV industry, also regulated by ACMA, is required to spend 10 per cent of their total program expenditure on new eligible Australian and New Zealand drama programs.

FOXTEL

FOXTEL is a key player in the subscription TV sector in Australia. The diversified communications group also provides content for its self and the rest of the subscription TV sector. This includes the wholly owned FOX8 and the joint venture with AUSTAR – XYZnetworks Pty Ltd – producers of Channel [V] and Arena (note these operations are classified in the production sector). FOXTEL reported EBITDA of $237 million in 2006-07, this was based on $1,420 million in revenue an increase of 12 per cent from the previous year.

FOXTEL is also undergoing a number of content delivery changes designed to diversify the customer offering; this includes a move away from analogue to digital. Currently both FOXTEL and AUSTAR are fully digital. In recent years FOXTEL have offered iQ/iQ2 giving the consumer the ability to control live TV and record shows, also recently FOXTEL has added high definition packages. Digitisation has also allowed subscribers to access pay-per-view movies, giving the customer a 48 hour period to watch a movie. This offering along with video-on-demand and services like Telstra BigPond movies are beginning to blur the lines of distribution.

5.1.5 RETAIL AND RENTAL

Historical

This sector comprises businesses which rent or sell any viewing content that is an output from the production industry. This is generally in the form of DVDs for home viewing purposes. Whilst up to date sales figures were available for the retail sector, there was insufficient financial data to estimate the contribution of the sector using currently available information. This is elaborated on below.

The rental data is based on an ABS publication which reports financial data for 1999/00. In this year the industry comprised of 1,166 businesses employing a total of just over 11,000 persons. A substantial proportion of these rental businesses comprise franchisees, under the banner of Video Ezy, Blockbuster and other smaller chains. Income stood at $595.2 million, slightly larger than expenses of $558.7 million.

TABLE 5-16: PERFORMANCE OF THE RENTAL INDUSTRY IN 1999-2000

Performance Indicator	Value
Businesses (no.)	1,166
Employment (no.)	11,034
Income ($m)	595.2
Expenses ($m)	558.7

Source: ABS

Table 5-17 below lists the sources of income for the rental industry in 1999-2000. The rental of videos was by far the largest income source, at around 75 per cent of total income, with earnings from DVDs sitting at 1 per cent. In 2006-07 it would be expected that this trend would have reversed, with almost all earnings from the rental of goods being from DVDs. Other income is derived from the sale of other goods (7.6 per cent) which comprise mainly of food and beverage sold on the premises and the sale of videos and other goods (6.1 per cent).

TABLE 5-17: INCOME SOURCES FOR THE RENTAL SECTOR 1999-2000

Source of Income	Value ($m)	% Contribution
Rental of videos	443.8	74.6%
Rental of DVDs	5.9	1.0%
Sale of videos and video related goods	36.3	6.1%
Sales of other goods	45.2	7.6%
Other income	19.8	3.3%
Total income	**595.2**	**100.0%**

Source: ABS

In 1999-2000 the total expenses for the rental sector were $559 million. Labour costs are the largest expense items for rental businesses, accounting for 23 per cent of total costs. Purchases of goods are of a similar magnitude, slightly less than 23 per cent, and rental of premises are the next largest at 13 per cent.

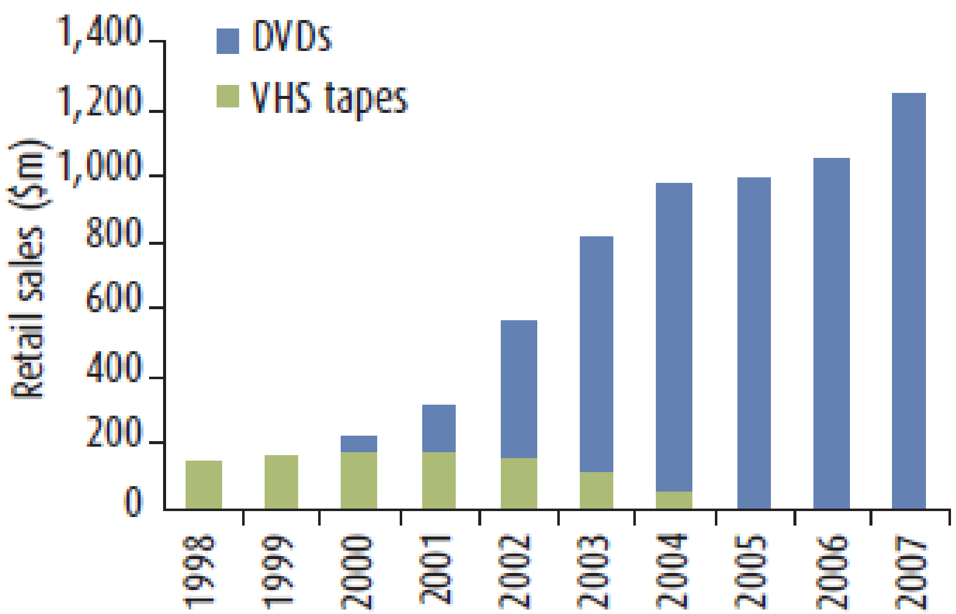
TABLE 5-18: EXPENSE ITEMS FOR THE RENTAL SECTOR 1999-2000

Expense Item	Value ($m)	% Contribution
Labour costs	128.9	23.1%
Rental of premises	74.3	13.3%
Rental of Videos/DVDs	16.2	2.9%
Purchases	127.8	22.9%
Other costs	208.3	37.3%
Total	**558.7**	**100.0%**

Source: ABS

For the retail industry there is less data available, with the primary data sources used being Screen Australia's *Get the picture: Video* publication and various annual reports of major retailers. The Screen Australia publication reports sales of videos and DVDs over the decade 1998-2007. This is reproduced in Chart 5-7 below.

CHART 5-7: RETAIL SALES OF VIDEOS AND DVDS



Source: Screen Australia, *get the picture: Video*.

Two major trends are noticeable in this chart. Firstly, the total value of product has increased rapidly over the ten year period. This was particularly the case up until 2004, with sales slowing somewhat after that point. Secondly, there has been a substitution away from videos and towards DVDs as the preferred viewing medium. The rise of DVDs has had a substantial impact across the film sector.

Current contribution – Retail and Rental

RETAIL

This section discusses the current contribution of the retail and rental sectors based on Access Economics' estimates. More details of the calculations behind the estimates are provided in the Appendix.

The retail sector was the one area in the industry where ABS data was not available. Sales of DVD and video were available from GfK Australia as reported by Screen Australia. For the calendar year 2007 Access Economics estimates DVD sales in Australia to be $1,448.6 million, see Table 5-19.

DVD sales have increased from $12.0 million in 1999 to $1,448.2 million by 2007. Over the same period VHS sales have decreased from $177.3 million in 1998 to $0.4 million by 2007; VHS sales peaked at the turn of the century with sales of about $205 million in 2000 and 2001. These trends in retail turnover – by product class – are generally reflected in the number of units sold. In total, units sold have increased from 8.0 million in 1998 to 80.9 million in 2007. VHS sales have decreased from 8.0 million in 1998 to less than 100,000 by 2007 peaking in at 10.2 and 10.7 million units in 2000 and 2001 respectively.

DVD sales have increased from 0.4 million in 1999 to 80.9 million by 2008. This reflects the growth in the new market in the sale of digital home entertainment, which together with DVD rental, had a higher gross annual output than the exhibition sector by 2006-07.

TABLE 5-19: RETAIL TURNOVER OF DVD AND VIDEO, 1998 TO 2007

	Units sold (millions)			Value ($ million current prices)		
	VHS	DVD	Total	VHS	DVD	Total
1998	8.0		8.0	177.3		177.3
1999	9.2	0.4	9.5	187.1	12.0	199.1
2000	10.2	1.6	11.9	204.8	56.8	261.6
2001	10.7	5.1	15.8	204.4	165.5	369.9
2002	10.0	15.6	25.6	184.1	468.7	652.8
2003	7.6	30.5	38.1	128.4	817.2	945.5
2004	4.0	47.6	51.6	62.2	1,097.2	1,159.4
2005	0.8	54.8	55.8	12.4	1,118.4	1,130.7
2006	0.2	62.6	62.7	2.2	1,229.5	1,231.9
2007	<0.1	80.9	80.9	0.4	1,448.2	1,448.6

Source: GfK, Screen Australia and Access Economics estimates

To estimate EBITDA and wages, information can be gleaned from relevant annual reports. JB HiFi and Woolworths – consumer electronics division – were used to ascertain EBITDA and wages as a share of turnover. On average EBITDA was 6.07 per cent of turnover and wages were 11.1 per cent of turnover.

Employment was converted from persons employed into FTE by the methodology outlined in the appendix. To attain the state-based employment figures the national FTE figure of 5,663 was distributed in the same proportion as the rental sector. The resulting estimates of the economic contribution of the sector in 2006-07 are given below.

TABLE 5-20: ECONOMIC CONTRIBUTION OF THE RETAIL SECTOR IN 2006-07

Gross Output ($m)	Wages ($m)	Value-added ($m)	Employment (FTE)
1,301	144	223	5,663

Source: PwC, *Outlook Australian Entertainment & Media 2008 -2012* and Access Economics estimates

RENTAL

Following the sell-off of Blockbuster's corporate stores, all rental outlets in Australia are franchises. Currently there are around 2000 such stores. This section outlines how the data was updated to reflect the 2006-07 financial year.

The rental sector data was updated based on data from Blockbuster in the US and from PwC's recent Outlook publication. The Blockbuster information showed a decrease in rental income of about 18 per cent from 2000 to 2007. However, merchandise sales were recorded to have increased by about 100 per cent. Final rental income figures were used from the PwC *Outlook* publication which outlined rental income decreasing from $396 million in 2003 to $365 in 2005 and rebounding to $387 million in 2007. Industry representatives suggest that these figures may understate the actual amount, with figures of around $600 million being closer to the mark.

A summary of how the ABS 1999-00 information was updated to reflect 2006-07 is provided in Table 5-21, it shows ordinary earnings (ex game rental income) decreasing in nominal terms from $548.7 million in 1999-00 to $534.4 million by 2006-07. This is driven by the decrease in rental income from a relatively high base and the increase in sales income from a lower base.

TABLE 5-21: THE RENTAL SECTOR, 1999-00 AND 2006-07, CURRENT PRICES

Performance Indicator	1999-00	2006-07
Ordinary earnings ($m)	548.7	514.90
Ordinary costs ($m)	423.2	396.95
EBITDA ($m)	125.5	117.96
Wages ($m)	128.9	120.96
Value-added ($m)	254.4	238.92
Employment (FTE)	6,901	4750.6

Source: ABS and Access Economics estimates

Employment was converted from persons employed into FTE by the methodology outlined in the Appendix, using the employment by state as published in the ABS publication *Video Hire Industry, Australia* (cat. no. 8562.0).

On-line offerings

Download to own and video streaming options are available over the internet in Australia in a number of services such as Apple itunes and various 'catch-up' TV options from the public and commercial broadcasters. The internet also offers video-on-demand services where the consumer can stream content and DVD subscription services like those offered by Quickflix and Telstra's BigPond Movies that are growing in use (albeit from a small base). The estimated sales in this sector for 2007 are estimated to be $37 million up from $20 million in 2006 and $5 million in 2005, see Table 5-22.

TABLE 5-22: ONLINE DVD SUBSCRIPTION SALES 2004-2012, AUSTRALIA AND GLOBAL, $M

	2004	2005	2006	2007	*2012*
Australia	1	6	20	37	*400*
Global	967	1,480	1,929	3,034	*11,203*

Source: Price Waterhouse Coopers, *Outlook Australian Entertainment & Media 2008 - 2012.*

Australian sales figures are expected to increase to $400 million by 2012, by the same time global sales are expected to be $11.2 billion. It should be noted that the industry itself has reported being less optimistic than PwC about these forecasts.

5.1.6 FESTIVALS

Australia hosts a diverse range of film festivals of varying scales and themes. Principal among these are the larger film festivals: the Sydney International Film Festival, the Adelaide Film Festival, the Melbourne International Film Festival, the Brisbane International Film Festival and Tropfest.

Film festivals in Australia have traditionally combined film promotion and tourism and provided a means for independent producers to showcase their films and market them to potential distributors. Hence, they have played an important role in matching films with no distribution rights with independent distributors and exhibitors. In exchange for providing this service, festivals have traditionally been able to receive the exhibited films at no charge.

In addition to the matching role provided by film festivals, they also provide a substantial economic contribution in terms of the tourism they induce and the subsequent flow-on to the local community. The Australian Government collects and reports information on tourism and tourist-related expenditure. This is typically reported in terms of value per visitor-night which estimates the expenditure of each visitor to a region per night stayed. This expenditure comprises purchases of accommodation, food and drink and transport, and is typically in the vicinity of $100 per visitor night, highlighting the importance which tourism can have on local businesses and employment.

5.1.7 MANUFACTURING

The manufacturing sector comprises firms engaged in the manufacturing of physical DVDs with pre-recorded content. The vast majority – upward of 95 per cent – of DVDs sold in Australia are manufactured domestically. This currently consists of an annual production of around 180 million discs.

There are currently six firms active in the manufacturing sector, with this activity primarily based in Sydney and Melbourne. Employment in the sector consists of over 1,000 full time workers and a further 1,000 casual workers. Production activity within the sector fluctuates throughout the year, driven by peaks in demand for end products. As such, around 60 per cent of production occurs over the six months July to December, with the balance occurring over the quieter period of January to June.

6. REFERENCES

Australian Bureau of Statistics, cat. no. 8679.0, *Television, Film and Video Production and Post-Production Services, Australia, 2006-07*

Australian Bureau of Statistics, cat. no. 8679.0, *Film and Video Production and Distribution, Australia, 1999-2000*

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APPENDIX A: TECHNICAL APPENDIX

ESTIMATING THE DIRECT ECONOMIC ACTIVITY – DISCUSSION BY SECTOR

For summary purposes Table 4-1 has been replicated below, the following sections will discuss how these direct measures of activity were estimated.

DIRECT ECONOMIC CONTRIBUTION, $M, 2006-07

Sector	Gross Output	Wages	Value-added	Employment (FTE)
Production	2,003.3	620.1	769.7	10,616.0
Distribution	2,433.2	169.8	622.3	2,180.2
Free to Air TV	4,530.1	682.1	1,899.3	6,033.0
Pay TV	2,282.6	204.1	374.1	2,640.0
Exhibition	1,375.5	171.3	314.5	5,890.4
Retail	1,301.0	144.2	223.2	5,663.2
Rental	514.9	121.0	238.9	4,750.6
Total	14,440.6	2,112.7	4,442.0	37,773.5

Source: Various

PRODUCTION

With regards to production the ABS publishes (cat. no. 8679.0) up-to-date information to estimate the relevant measures of activity; little extrapolation was used to put together these estimates.

Employment - FTE

Adjustments were made to convert employment numbers from persons employed to FTEs (this is to adjust part-time employment and casual employment into full time equivalents). To do so it is assumed a full-time employee is 1 FTE, a casual is 0.5 of an FTE and the same for part-time.

TELEVISION

Similarly the television sector up-to-date ABS data was used to estimate the economic activity in the sector.

As is discussed above employment was used to estimate the state breakdown of economic contribution. This called for an estimation of the employment by sector by states. With regards to employment in free-to-air television the ABS did not publish some figures for some smaller states (like Tasmania and the Northern Territory); but did include the results in the totals. For example the ABS publishes 6,980 employed Australia wide including 294 in Tasmania and the Northern Territory. To attain the employment in those states population was used to split out the 294.

The employment numbers were then converted into FTEs as described above.

Distribution

Aged ABS data (from ABS cat. no. 8679.0 published for years 1999-2000) was used to form the basis of analysis for this sector. Income data was updated to reflect the activity in the sector in 2006-07, this included updating wholesale sale figures attained from *Get the Picture Video* by Screen Australia, the same was done for exhibition. Similar extrapolations were made for other sectors like rental, free-to-air television and pay television. Table 1 represents how the income to distributors was assumed to change from 1999-00 to 2006-07. The assumed changes were informed by various sources including information provided by AVSDA as reported by Screen Australia and the ABS. The large increase in retail income is driven by the large increase in DVD sales, similarly the large increase in payments by Pay TV operators is a reflection of growth in that sector.

Table 6-1: Distribution income, 1999-00 to 2006-07 current prices

	1999-2000	2006-2007	Change
Retail	181.0	1,017.9	462.4%
Rental	195.3	193.4	-1.0%
Exhibition	289.4	381.7	31.9%
Free-to-Air	172.5	228.5	32.5%
Pay TV	169.2	279.9	65.4%
Turnover	1,007.4	2,160.4	

Source: Various and Access Economics estimates

Once the update turnover figure was attained a Leontief production function was assumed, that is, other data was updated by the same proportion to the increase in nominal sales.

Employment was not increased in the same manner; this was assumed to stay fixed at the levels in 1999-2000. This is because the increase in sales and other measures of activity are nominal increases and is not a good measure of increase in employment; notwithstanding the current approach may be a lower bound to actual employment in the distribution sector. The persons employed data published by the ABS was again adjusted into FTE using the methodology discussed above.

Exhibition

As for distribution the aged (1999-2000) data published by the ABS was updated using the same Leontief technique. The updated sales figures in this case came from Screen Australia publication *Get the Picture*; in this instance the nominal box office receipts increased from $679 million to $895.5 million.

The ratio of these nominal turnover figures of 1.319 provided a scaling factor to increase operational expenses and other income factors. For instance other income was increased from $367 million in 1999-00 to $484.4 million by 2006-07; by the same methodology wages increase from $130 million to $171.3 million over the same period. Employment was converted from persons employed into FTE by the usual methodology outlined above.

Retail

The retail sector was the one area in the industry where ABS data was not available, sales of DVD and video was available from GfK Australia as reported by Screen Australia. For the calendar year 2007 we estimated DVD sales in Australia to be $1,448.6 million, see Table

6-2. This involved taking the reported turnover figure $1,231.0 million and increasing it by a factor of 100/85 on the advise of GfK (the reported turnover figure by their own admission only covers 85 per cent of the market).

DVD sales have increased from $12.0 million in 1999 to $1,448.2 million by 2007. Over the same period VHS sales have decreased from $177.3 million in 1998 to $0.4 million by 2007; VHS sales peaked at the turn of the century with sales of about $205 million in 2000 and 2001. These trends in retail turnover – by product class – are generally reflected in the number of units sold, in all total units sold have increased from 8.0 million in 1998 to 80.9 million in 2007. VHS sales have decreased from 8.0 million in 1998 to less than 100,000 by 2007 peaking in at 10.2 and 10.7 million units in 2000 and 2001 respectively. DVD sales have increased from 0.4 million in 1999 to 80.9 million by 2008.

TABLE 6-2: RETAIL TURNOVER OF DVD AND VIDEO, 1998 TO 2007

	Units sold (millions)			Value ($ million current prices)		
	VHS	DVD	Total	VHS	DVD	Total
1998	8.0		8.0	177.3		177.3
1999	9.2	0.4	9.5	187.1	12.0	199.1
2000	10.2	1.6	11.9	204.8	56.8	261.6
2001	10.7	5.1	15.8	204.4	165.5	369.9
2002	10.0	15.6	25.6	184.1	468.7	652.8
2003	7.6	30.5	38.1	128.4	817.2	945.5
2004	4.0	47.6	51.6	62.2	1,097.2	1,159.4
2005	0.8	54.8	55.8	12.4	1,118.4	1,130.7
2006	0.2	62.6	62.7	2.2	1,229.5	1,231.9
2007	<0.1	80.9	80.9	0.4	1,448.2	1,448.6

Source: GfK, Screen Australia and Access Economics estimates

To estimate EBITDA and wages extrapolations were made from relevant annual reports. JB HiFi and Woolworths – consumer electronics division – was used to ascertain EBITDA and wages as a share of turnover. On average EBITDA was 6.07 per cent of turnover and wages were 11.1 per cent of turnover.

Employment was converted from persons employed into FTE by the methodology outlined above. To attain the state based employment figures the national FTE figure of 5,663 was distributed in the same proportion as the rental sector.

RENTAL

The rental sector was subject to an ABS publication (see cat. no. 8562.0), but the information was dated (1999-2000). As with the above sectors we updated the data based on information available, in this case we used information from Blockbuster in the US and from PwC's Outlook publication. For the rental sector care was taken to ensure we increased each of the income streams in the channel. For instance we held an *a priori* view that rental income may have decreased as a proportion of income to an increase in sales in the channel.

This was confirmed from the rental and sales figures from Blockbuster; the Blockbuster information showed a decrease in rental income of about 18 per cent from 2000 to 2007. On the other hand merchandise sales increase by about 100 per cent. Final rental income figures were used from the PwC *Outlook* publication, this outlined rental income decreasing from $396 million in 2003 to $365 in 2005 and rebounding to $387 million in 2007.

A summary of how the ABS 1999-00 information was updated to reflect 2006-07 is provided in Table 6-3, it shows ordinary earnings (ex game rental income) decreasing in nominal terms from $548.7 million in 1999-00 to $534.4 million by 2006-07. This is driven by the decrease in rental income from a relatively high base and the increase in sales income from a lower base.

TABLE 6-3: THE RENTAL SECTOR, 1999-00 AND 2006-07, CURRENT PRICES

Performance Indicator	1999-00	2006-07
Ordinary earnings ($m)	548.7	514.90
Ordinary costs ($m)	423.2	396.95
EBITDA ($m)	125.5	117.96
Wages ($m)	128.9	120.96
Value-added ($m)	254.4	238.92
Employment (FTE)	6,901	4750.6

Source: ABS and Access Economics estimates

Employment was converted from persons employed into FTE by the usual methodology outlined above, using the employment by state as published in the ABS publication *Video Hire Industry, Australia* (cat. no. 8562.0).