ACIL ALLEN CONSULTING

REPORT TO
QUEENSLAND TREASURY AND TRADE

19 SEPTEMBER 2014

THE QUEENSLAND PAYROLL TAX REBATE

A REVIEW OF ECONOMIC IMPACT

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Executive Summary

Many jurisdictions around the world offer film-industry support schemes. To a substantial extent these schemes are designed to attract large footloose film productions to the location offering the support. In Queensland, the Queensland Payroll Tax Rebate (QPTR) is one of a suite of film production incentives available. It offers support roughly proportional to production size.

In the current environment, following a substantial appreciation of the Australian dollar and progressive escalation of incentives offered in other jurisdictions, the headline support schemes offered by Australian governments are insufficient to attract large productions to Australia and Queensland's schemes (including the QPTR) are insufficient to ensure that productions locating in Australia will come to Queensland. As a result, governments have to offer discretionary top-up deals if they want to be successful in attracting runaway productions.

Proponents of film-industry support schemes most often justify them by claiming that attracting film productions will increase local aggregate output and employment. Modelling purporting to demonstrate this frequently exaggerates the effect by failing to account for the extent to which additional film production crowds out other activities. Much of it fails to recognise that it is the effect of policy on the incomes accruing to a jurisdiction's residents that is what matters, not the effect on activity in the jurisdiction regardless of to whom the resulting income accrues. Moreover, the output-and-employment argument could be (and often is) applied to justify support for any other industry and there is no a-priori reason to believe that the film industry would be the winner in a contest based on this argument alone.

There are economically reasonable arguments in support of government incentives for the film industry but they relate to distinctive characteristics of the *local* industry, like its role in enhancing local culture, not to characteristics that it shares with the international industry and with other industries, like its ability to generate output and employment. These economically reasonable arguments are rarely included in quantitative assessments of the effects of film support policies. Most support schemes (including the QPTR) fail to specifically target the local industry in ways that are likely to contribute to cultural enhancement.

In the current market, in which there are large numbers of broadly similar locations aggressively competing for relatively few productions, producers will be able to expropriate most of the value of whatever benefits a location perceives will flow from securing a production. This occurs over the long run as locations progressively ramp up their headline support schemes. It also occurs in the short run on a case-by-case basis as producers negotiate for discretionary top-up deals with governments. It implies that there will be little net benefit in a location pursuing large productions to be undertaken by external production companies.

The QPTR scheme is attractive from a producer's point of view because it is simple and non-discretionary. But it fails to target aspects of the film industry that are most significant for things like cultural enhancement, which comprise the main public-policy justification for film-industry support.

In any attempt to re-orient policy to target more accurately the attainment of legitimate policy goals, governments should avoid arrangements that interfere with the operational efficiency of the industry. This may require explaining the government's objectives to producers and listening to their advice about how they could most efficiently contribute to the attainment of those goals.

Key recommendations

- The government should clarify the objectives of its support to the film production industry. The main economic justifications for support relate to cultural issues, not employment generation.
- The government should ensure that the incentives provided through the QPTR target the particular aspects of the industry that are important in achieving the government's objectives. Schemes like the QPTR that simply offer support in proportion to production size are unlikely to be appropriate.
- The government should ensure that in targeting incentives to the attainment of its objectives it does not unnecessarily interfere with the efficient operation of the industry. This suggests that future schemes should be developed in consultation with the industry.

1 Introduction and project overview

1.1 This project

Queensland Treasury and Trade (Queensland Treasury) commissioned ACIL Allen Consulting (ACIL Allen) to undertake an economic analysis of financial assistance provided to the Queensland film industry through the Queensland Payroll Tax Rebate (QPTR). The QPTR is a rebate of company payroll tax (under certain conditions) and is administered by Screen Queensland on behalf of the State Government's Office of State Revenue.

In its response to the independent Commission of Audit Report, the Queensland Government agreed that industry development and assistance programs should achieve better value for money and contribute to greater productivity in the Queensland economy. The objective of this review is to provide an economic analysis of the impact on the Queensland economy of the QPTR.

A range of incentives are offered by Screen Queensland to promote film production in the state including direct funding as well as supplementary finance from the Revolving Film Finance Fund (which offers loans at below market rates). However, these forms of assistance are not within the scope of this review.

Nevertheless, we have found it unavoidable to consider the QPTR in the context of the other forms of assistance offered to the film industry by the Queensland government and by other governments in Australia and overseas. Given the extent to which the film industry is now globalised, it would not be possible to understand the role of the QPTR in the absence of this context.

The terms of reference for this review are provided in Box 1.

Box 1 **Terms of Reference**

The review of the QPTR will:

1. Provide an overview of the economics of film production including the factors that determine the location of filming.
2. Assess Queensland's competitive advantages and disadvantages compared to other filming locations.
3. Describe the composition of the Film and Television Industry in Queensland including estimates of the size of the industry and its growth over the past decade and make appropriate comparisons with national and international jurisdictions. Indicators should include, at least, value-added and employment.
4. Describe the film production labour force in Queensland and issues with labour availability, mobility and cost.
5. Undertake a comparative assessment of government assistance provided to the film industry in Australia and internationally.
6. Develop an economic framework with which to assess the net economic impact of assistance provided to the film industry in Queensland including, specifically:
   a) How the Queensland Payroll Tax Rebate (QPTR) can assist Screen Queensland gain access to production opportunities that it may not otherwise be able to pitch for or secure;
   b) How incentives under QPTR offset any disadvantages of Queensland as a production location; and
   c) The impact that additional production and the provision of payroll tax subsidies has on the broader community.
7. Using this economic framework, assess the net benefit of QPTR to the Queensland economy.

Source: Queensland Treasury and Trade

1.2 Project methodology

Consistent with the outline of the required report as set out in the Terms of Reference (ToR), the project methodology comprises three stages.

Stage 1: Review of the film production industry in Queensland

This covers items 1-4 set out in the terms of reference. For this first stage, the project team relied on published sources and on face-to-face consultation with industry stakeholders, starting with Screen Queensland.

Stakeholders who participated in face-to-face consultations received a short discussion guide in advance of the consultations to provide them with background to the project and to allow them to consider their responses to targeted questions that informed the review.

The review of the literature was built on the library of research accumulated through past projects by ACIL Allen as well as a systematic search of the academic and grey literature. The literature review focussed on the global economics of film production, and in particular, the impact of government support for the industry in influencing location decisions, relative to breadth of factors that govern location decisions in general and/or in specific cases.

A statistical description of the industry in Queensland was also undertaken in Stage 1, drawing on the publicly available data, third party industry analysis, and data compiled by the industry itself.

Stage 2: Analysis of public policy rationales and approaches for government assistance in the film production industry

This will cover item 5 in the report outline set out in the terms of reference.

In addition to official and film-industry documentation of film-industry policies, this stage also examined the considerable body of academic literature and consulting reports on the subject.

In conjunction with the analysis of the economics of film production and factors influencing location decisions undertaken in Stage 1, the analysis of rationales and approaches for government assistance in Stage 2 allowed the project team to construct a hierarchy of policies and approaches based on a meta-analysis of evaluations of economic efficiency and effectiveness, weighted according to the quality and quantity of evidence.

Stage 3: Analysis of the net economic impact of the QPTR

This will cover items 6 and 7 in the report outline set out in the terms of reference. Stage 3 of the project comprised two components.

First the project team built on the review of the Australian and international literature on the analysis of the economic impact of the film industry and film-industry support programs undertaken in Stages 1 and 2. The aim was to explain the different methodologies that have been applied, the key assumptions that have been adopted in the applications and the differences in the results that follow from the different methodologies and assumptions. The results of the review were applied in two ways:

To draw inferences about the likely impact on the Queensland economy of the QPTR.

To specify a preferred methodology for conducting an original study of the impact of the QPTR.

The second component of Stage 3 of the project was to draw up specifications (including data requirements) for an original study of the impact of the QPTR using the preferred methodology identified in the review that comprises the first component.

Stakeholder consultations

Industry consultations were conducted at three points in the project, as detailed below.

- The project team interviewed key informants from government and industry in the early stages of the review.
- The project team discussed the interim findings of the project with select stakeholders at a mid-point workshop.
- Following delivery of the draft report, the project team presented its draft findings to all stakeholders.

Given the limited time available, Arts Queensland and Queensland Treasury agreed with ACIL Allen that different stakeholders would be involved in the review at different points as appropriate. The complete list of stakeholders consulted is in Appendix A.

1.3 Context: Employment in the film production sector in Queensland

There is limited data available on the film production sector in Queensland; the two primary data sources of employment data on the film production sector in Queensland are:

- The ABS Census
- The ABS survey of businesses in film, television and digital games (Cat. No. 8679.0)

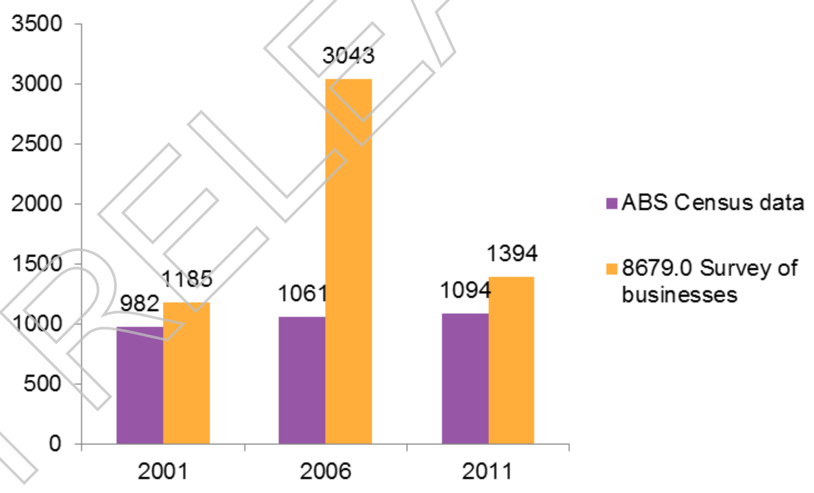
Both Census and the industry survey are undertaken once every five years. Both data sources break the industry down in to motion picture and video production (ANZSIC 5511) and post production (ANZSIC 5514), however the industry survey does not provide such a breakdown prior to 2006.

Figure 1 summarises the employment data that are available from those two sources for the last three available periods (2001, 2006 and 2011), and highlights two key points. First, according to the data, the film production sector (including post-production) is not a significant direct employer in the state – in 2011 it accounted for 0.06 per cent of the employed population of over 2 million residents.

Second, the figure shows that due to the small number of data points available, it is impossible to determine any long-term trends in employment; the Census figures would suggest that employment has been growing gradually over the period while the industry survey exhibits a high degree of volatility. It is unclear whether the increase in employment in 2006 according to the industry survey is a result of sampling error, a spike in employment due to a large production, or a sustained rise in employment during that period.

More robust data on film production is unlikely to overturn the conclusion that only a relatively small number of people are employed in the sector.

Figure 1 **Queensland employment in motion picture and video production and post-production combined (2001, 2006 and 2011)**



Source: ABS Census

State-level data available on value added for the film production sector are even more scarce than employment data sector. For an outline of the data available on a national level, see Appendix B.

1.4 This report

The rest of this report is structured as follows:

Section 2 explains the mechanics of the QPTR and presents data on the recent history of the scheme.

Section 3 provides an overview of the film production industry in Queensland.

Section 4 sets out our understanding of how film producers decide where to locate their productions. This includes an explanation of the role that production incentives in general and the QPTR in particular play in those decisions.

Section 5 discusses arguments that have been advanced as possible public policy rationales for providing government funded film production incentives. It also reviews the economic modelling that has been used in studies that purport to quantify the benefits accruing to a location that is able to attract film production.

Section 6 addresses the issue of the extent to which a location that succeeds in attracting film production by providing government-funded incentives should expect to retain the value of whatever benefits it perceives to be associated with hosting the production. This depends on the characteristics of the locational market for production that has developed as a consequence of the widespread willingness of governments to offer production incentives.

Our policy conclusions are set out in *Section 7*. These address the overall case for providing production incentives and the issue of how incentives should be structured if they are offered. In particular, it addresses the question of whether or not the QPTR should be retained.

2 How the QPTR works

2.1 Overview of the QPTR

The QPTR is quite a simple scheme under which producers receive a full rebate of the payroll tax that they paid in respect of all eligible productions. The rebate is made on completion of production, i.e., producers are required to pay the Queensland payroll tax (currently 4.75% of taxable wages) but can claim a full rebate once the production is complete. In most cases, as well as a rebate of the payroll tax that they have paid directly producers can also claim a rebate of payroll tax paid on the labour component of payments made to contractors. Claims must be lodged within 12 months of the completion of the production.

To be liable for the payroll tax in the first place, an employer must have an annual wage bill exceeding $1.1 million. To be eligible for the rebate, an individual production must involve “Queensland Production Expenditure” (QPE) of at least $3.5 million. QPE is essentially all payments made to Queensland residents or to suppliers located in Queensland or operating through a Queensland branch. Note that the rebate is of all payroll tax, not just payroll tax paid in respect of QPE. That is, eligible producers are entitled to a rebate of payroll tax paid on remuneration paid to non-residents as well as to Queensland residents.

Producers also have the opportunity to “bundle” smaller productions within four-year periods. For bundles of projects to be eligible for receipt of the QPTR, the aggregate QPE must be at least $5 million. For bundled productions, a claim must be lodged within 12 months of the completion of the last production in the bundle.

Assuming that there is not much variation in the share of taxable wages and salaries in total film-production expenditure[1], the QPTR is an incentive that is roughly proportional to production value. There is no ceiling on the rebate but the floor on payroll-tax liability and the QPTR eligibility criterion effectively mean that there is a floor on the size of production companies that can claim the rebate.

2.2 Statistics on projects receiving the QPTR

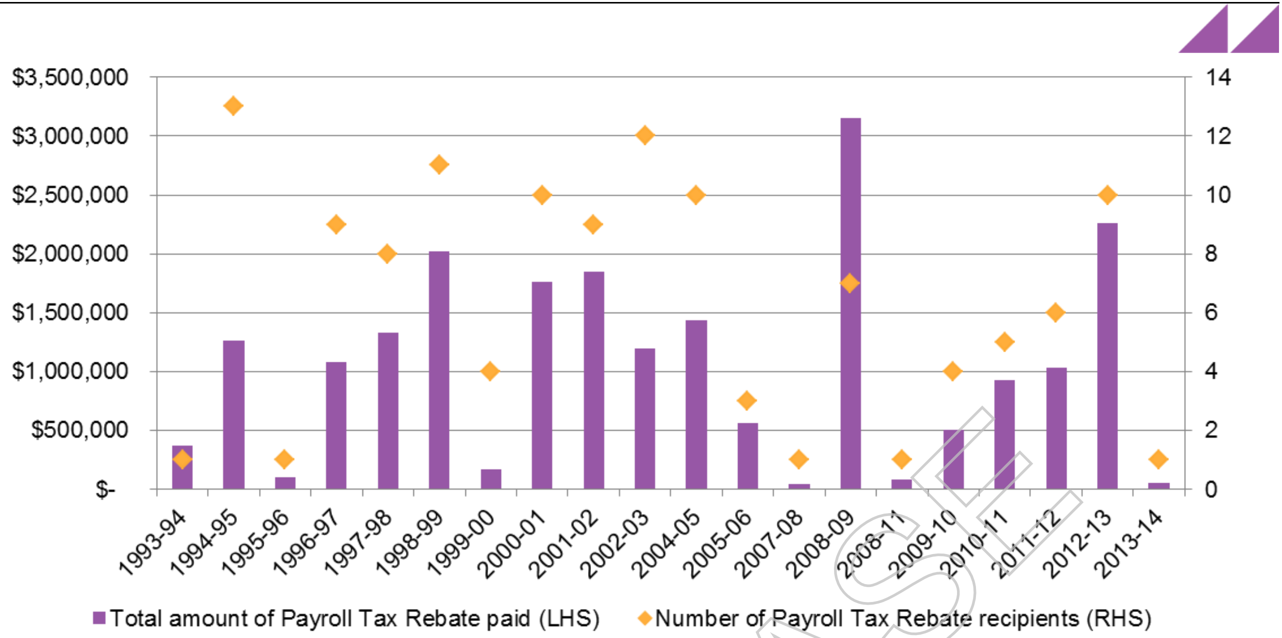
Figure 1 shows the number of successful claims made and the value of the rebates paid in each of the last 22 years. It illustrates the year-to-year volatility of film production in Queensland.

Figure 2 shows the rebate received under each of the 126 successful claims that were made in the period 1993-2014. Seven productions received rebates in excess of $400,000 and together accounted for 25% of total payments. The smallest 101 out of the 126 successful claims (80%) accounted for 48% of total payments.

Figure 3 plots QPE against rebate received for all successful claims.

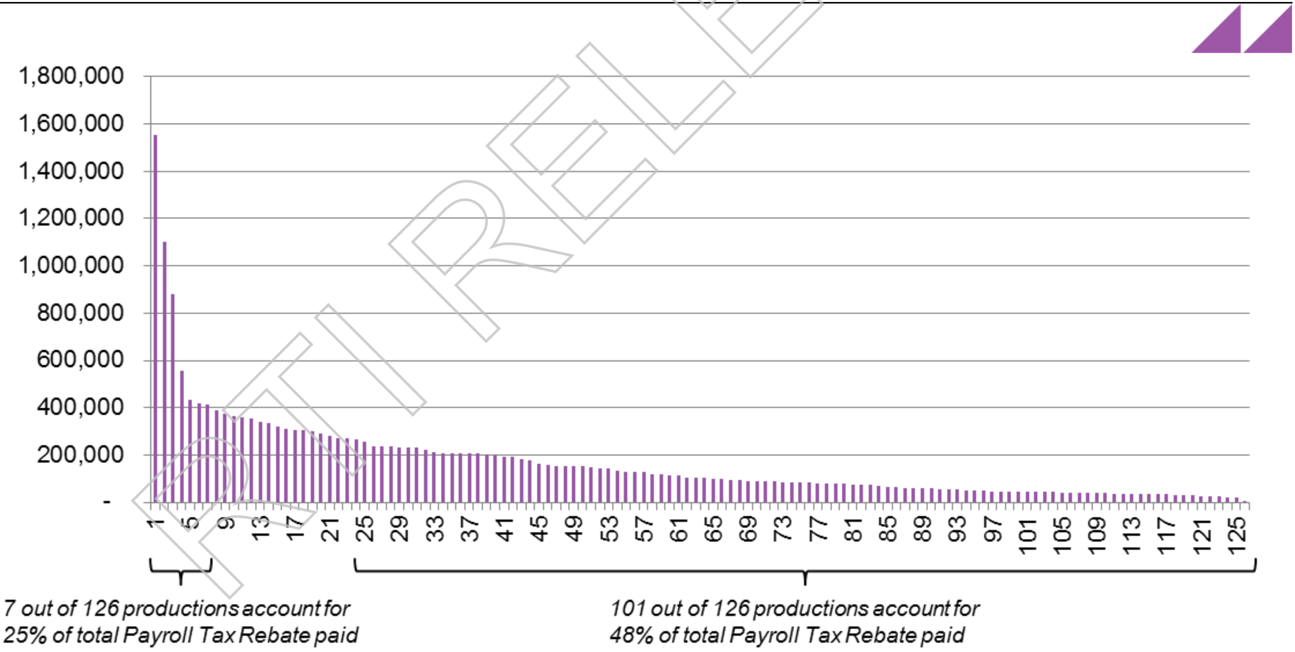
[1] According to Screen Queensland, 30-50% is a “rule of thumb” value for this ratio.

Figure 2 **QPTR rebate paid and number of recipients each year (1993/94 to 2013/14)**



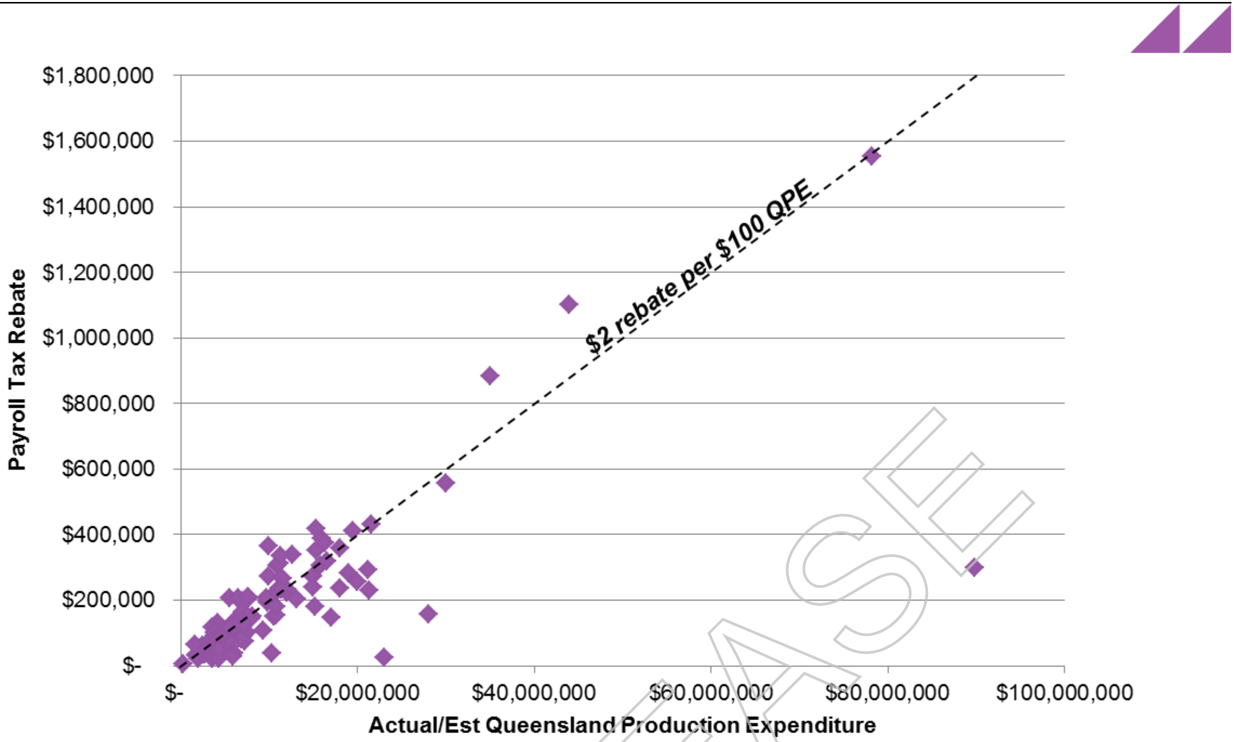
Source: QPTR data supplied Screen Queensland

Figure 3 **Distribution of payroll tax rebate values by project**



Source: QPTR data supplied Screen Queensland

Figure 4 **Ratio of payroll tax rebated to production expenditure**



Source: Source: QPTR data supplied Screen Queensland

The fitted regression line in Figure 3 supports the idea that the QPTR is an incentive that is roughly proportional to production size, with the average incentive rate being 2%. Generally, projects cluster closely around the regression line but there is one very large project that received a much smaller rebate than would be expected.

As a point of comparison to the QPTR, the Commonwealth government's Location Offset providers a 16.5 per cent rebate calculated on qualifying Australian production expenditure; stakeholders frequently cite a minimum total rebate of 30 per cent as necessary for an Australian location to be internationally competitive at current exchange rates.

Anticipating the discussion in Section 3, Figure 3 allows us to consider the materiality of the QPTR from the producers' point of view. The key point is that the size of a production as measured by QPE or total project spend is unlikely to be the financial bottom line relevant to production decisions. Instead, we need a measure of the return that the producer requires for a production to be considered viable. We have no data on this but consider 20% a reasonable working hypothesis. Applying this to QPE, the regression result in Figure 3 suggests that the QPTR could be worth about 10% of the producer's financial bottom line. Hence, it is quite material.

In closing this section, we note that neither NSW nor Victoria – Queensland's main domestic rivals as a location for film production – include payroll tax rebates in the incentives that they offer to producers. South Australia, on the other hand, does have such a scheme.

Key Finding 1

- The QPTR is worth roughly 2% of production value (above a minimum value of $3.5 million).
- QPTR payments reflect the year-to-year volatility of film production in Queensland.
- Since 1993, seven productions accounted for 25% of total QPTR payments.
- Neither NSW nor Victoria includes a payroll tax rebate in the film incentives that they offer.

3 Producer's perspective on the QPTR

3.1 Runaway film production

From the literature that we have reviewed and from our stakeholder consultations, it is apparent that over-riding features of the film production industry are that it is financially driven and geographically footloose. This is true of the major feature-film productions that are targeted by many government incentive schemes and of ancillary activities such as post production processing and visual effects. It is also true of most of the television industry and of video advertising.

This is not a novel conclusion. For example, writing in 2005, Wasko (2005) observed:

> Although the US film industry may have some unique characteristics, it is still an industry organised around profit. From a film inception as an idea or concept to its distribution to a wider range of outlets and locations, film industry insiders explain that the motivating force is the bottom line.

The financial risks and cost pressures associated with motion picture and video production underpin the phenomenon of runaway or footloose production, which has been the subject of numerous studies and the target of many government incentive schemes internationally, including in Australia.

In the studies, the idea of runaway production is generally conceived from the perspective of the historical homes of the international motion picture industry in the United States – Hollywood (California) and New York. Three different categories of runaway production are cited in the literature:

- *Artistic runaways* – are films conceived in one location (typically Hollywood) but subsequently produced in another location that is better able to service the story artistically. Artistic runaways are generally reliant on specific or iconic locations, landmarks and/or natural environments. Artistic runaways do not appear to be particularly common because firstly, there are locations that can 'double' to meet an artistic requirement and secondly, the majority of a production may be shot at an alternate location with only select segments being produced at the specific site. Moreover, technological developments have made it possible to recreate just about any location digitally.
- *Natural economic runaways* – are films that shoot abroad to take advantage of economic conditions such as cheap labour and/or construction costs that ultimately lead to a reduced production budget.
- *Artificial economic runaways* – are the primary focus for much of the literature. These are films for which the production location has been determined by government policies and incentives designed to lure filming away from where it was first conceived.

Runaway production is not a new phenomenon; in the 1950s it was a major concern for Hollywood with an increasing number of films being produced in Europe, Japan, Cuba and US states other than California. However, these tended to be artistic or natural economic runaways – the advent of artificial economic runaways, driven by economic incentives (in particular tax credits) is relatively recent. A summary chronology of the development of film production incentive schemes is given in Box 2.

Box 2 **Chronology of the development of film production incentives**

Film production incentives have existed in many forms (tax credits, cash rebates, grants, sales tax and lodging exemptions, fee-free locations etc.) for many years to one extent or another. For example, in the 1930s, the Government of New South Wales offered minimal financial assistance to a small number of productions.

Most existing film production incentives were established (in a number of countries and sub-national regional jurisdictions) after the introduction of a film production incentive program by the Canadian Government in 1997. To combat the phenomenon of "runaway production", several US states introduced increasingly lavish incentives to match those being offered by Canada. The most notable of these were Louisiana and New Mexico who implemented these schemes in 2002. As first movers, these states attracted substantial film production activity, and by 2005 it was estimated that 15 other states had enacted various film production incentives. This expansion continued and by the end of 2010, 43 US states had film production incentive schemes in place.

States that were late movers became increasingly aggressive in offering rebates, for example Michigan offered a 42% refundable tax credit on any Michigan production expenditure. The examples set by Louisiana and Michigan have been replicated all over the world, where national governments, in addition to any state schemes, compete for film productions using generous film production incentives. Notable examples are New Zealand and the UK

Due to the cost of such incentives, and in some cases the lack of substantial film production, several US states have begun to amend or wind up the film production incentives. As of 2014, 7 states have removed their film production incentives and another state has ceased funding the program.

Source: ACIL Allen desktop research

3.2 Producers' location decisions

Industry representatives gave us a clear and consistent story about how location decisions are made for international feature-film productions and how a scheme such as the QPTR fits in to those decisions. Most other stakeholders appear to subscribe to this story.

For any project, there will almost always be several locations that the producer regards as broadly suitable. Especially following recent developments in digital technology, cases in which a story is so location-specific that only one location is feasible are extremely rare. Although from a technical point of view the features of just about any location can be recreated digitally, producers often prefer to use an authentic location, in large part because it is often the cheaper option.

For the wide range of productions for which producers might regard Australia as broadly suitable, a number of states in the US (e.g., California, New York, Louisiana, Georgia, New Mexico, North Carolina and Mississippi), Canada, New Zealand and the UK were mentioned as the main competitors. Within Australia, Sydney is probably still the preferred location, with the Gold Coast and Melbourne also ranked highly. In establishing their menus of broadly suitable locations, the main factors that producers consider are: geographic suitability (Queensland is great for beach, desert and contemporary urban but unsuitable for period urban); studio availability; crew availability; political stability; security; and the lifestyle desirability of the venue to key participants (especially the movie stars).

The choice between locations included in the "broadly suitable" menu is almost entirely financial. The producer will have a clear idea about the net-of-tax financial bottom line that he/she is targeting (including the currency in which it is denominated). Producers also have detailed information about financial drivers in the candidate locations and sophisticated financial models for comparing production costs (inclusive of incentives) in the competing locations in terms of their relevant financial bottom lines.

As shown in Box 3, all locations that are regarded as competing with Queensland offer substantial government incentives to attract international producers.

Box 3 **Film production incentives in major locations competing with Queensland**

Louisiana: Louisiana offers a partially refundable, fully transferable, 10-year carry forward motion picture production tax credit as long as the local minimum spend is in excess of USD300,000. There are no project caps or funding caps however there is a cap of USD 1 million per person credit on a 5% resident payroll. Louisiana utilises an online application portal.

Georgia offers a transferable tax credit with a 5-year carry forward for both production and interactive entertainment production companies. To be eligible for this scheme, there is a requirement of USD 500,000 minimum local spend. This scheme has a $USD 5 million project cap for each entertainment production company.

New Mexico offers a refundable tax credit, or up to a maximum of 30% with an annual project cap of USD 50 million. Tax Credits greater than USD 2 million are deferred, split into equal payments up to a maximum of 3 years.

North Carolina offers a refundable tax credit of up to 25% of qualifying local spend with a cap of USD 1 million per person on compensation and USD 20 million per feature film. To be eligible for this scheme the minimum local spend is $USD 250,000.

Mississippi offers a cash rebate up to a maximum of $USD 5 million on individual resident payroll and $USD 10 million rebate cap per project with a USD 20 million annual project cap. The minimum local spend for Mississippi's cash rebate is USD 50,000 in base investment and/or payroll.

Canada: There are a variety of schemes operated by Canadian provinces. Most are non-capped refundable tax credit schemes allowing 25% - 50% tax credit on qualifying state expenditure including labour to non-residents. Alberta differs from other provinces in that it offers a cash grant with a project cap of CAD 5 million, requiring a local spend in excess of CAD 50,000. Most provincial schemes can be stacked with the national Canadian Federal Tax Incentive which is 16% of qualifying Canadian labour expenditures.

New Zealand offers cash grants for production, and post digital and visual effects to a maximum of 20% of New Zealand qualified spend. This scheme has no annual funding cap. To be eligible, New Zealand qualified spending must exceed NZD 15 million for feature films and NZD 4 million for eligible non-feature film and television.

The **UK** offers refundable tax relief, one for film and another for television/animation. The refundable tax relief is available on the lower of either 80% of total core expenditure of the actual UK core expenditure. The tax relief is 25% up to GBP 20 million and 20% of any films above GBP 20 million.

Source: ACIL Allen desktop research

These government incentives are regarded by stakeholders as important swing factors for location decisions. Typically, producers do not rely on any single incentive scheme alone. Instead, they seek to tap cocktails of government support, including generally available "headline" schemes and special discretionary offers. Hence, from the producer's point of view, the QPTR is not viewed in isolation from other support that is available from the Commonwealth and state governments. It is viewed as one element to be taken into account in estimating the aggregate financial incentive that is available to induce producers to locate productions in Queensland.

But even a small scheme such as the QPTR can be significant at the margin. As noted at the end of Section 2 (above), it is plausible to believe that the QPTR could be worth around 10% of the producer's financial bottom line, assuming that producers expect a return of about 20% of total project costs. We have no firm data on this but in addition to the inference that we drew from Figure 3 in Section 2, the following pieces of information give us some confidence in this conclusion.

— According to Screen Queensland, a reasonable "rule of thumb" is that wages and salaries account for 30-50% of aggregate production expenditure – for a $5million production this would be $1.5-2.5 million, incurring a payroll tax liability of $70-120 thousand. If the producer is targeting a 20% (or $1 million) return on total expenditure, the payroll tax rebate (say around $100k) represents about 10% of the required return.

— Again according to Screen Queensland, the QPTR has cost "over $8.3 million" over the last six years and expenditure on the associated productions has been "more than $400 million". That is, the QPTR cost represents about 10% of our assumed 20% required return on production expenditure.

The view that financial factors in general and government incentives in particular are crucial to producers' location decisions seems plausible in the context of choosing between "broadly suitable" locations which (by definition) are similar in most non-financial dimensions.

3.3 Australia's relative attractiveness as a production location

All stakeholders regard Australia as having declined in financial attractiveness in recent years. The main factors underlying the decline are: rising costs and appreciation of the Australian exchange rate (both due largely to the recent mining boom); and Australia's failure to keep pace with the escalation of government "headline" incentives that has occurred in other locations.

The Australian Government Location Offset scheme offers producers a 16.5 per cent rebate on qualifying Australian spend of large-budget productions that do not satisfy the significant Australian content test for the Producer Offset. The industry has been lobbying to have the Location Offset increased to 30 per cent, claiming that the increase is necessary to restore Australia's previous competitive position. In the absence of such an increase, producers have used state-based schemes and ad hoc special deals as means of compiling packages of support sufficient to justify locating their projects in Australia. From this perspective, the availability of the QPTR is just reducing the size of the "special deal" that the Queensland government will have to offer if it wants to persuade a producer to locate a production in Queensland.

Some stakeholders thought that Australia in general and Queensland in particular, has lagged behind other locations in the way in which financial incentives are presented to the industry – on film-authority websites, for example. They claim that producers prefer clear up-front offerings to ad hoc deals. However, if the industry's financial modelling capacity is as sophisticated as stakeholders claim, it is difficult to believe that this is a decisive factor in location decisions in general. On the other hand, it is likely that negotiating discretionary deals is more costly and time-consuming for producers than just evaluating the aggregate significance of generally available headline support schemes. Producers presumably factor in the financial costs of sealing deals in deciding the relative financial attractions of competing locations. But timing issues can also sometimes be decisive in determining where a production opts to locate – the time taken to negotiate a discretionary deal could, for example mean that a production that would need to be shot in summer in Queensland could not be commenced until winter. In that case, it is likely that the project would go to some other summer location. This example is typical of a range of anecdotes that we were told by industry stakeholders as illustrations of ways in which government processes or requirements could be incompatible with operational efficiency of film production.

From this point of view, simple transparent schemes like the QPTR are attractive because they impose no detailed operational requirements on recipients – as shown in Section 2 (above), for eligible producers the QPTR is just roughly proportional to project size, although the floor on payroll-tax liability and the QPE eligibility hurdle mean that the rebate scheme is biased against small producers. The QPTR does not target or put any restrictions on any particular aspect of the film-production process. Although attractive to producers, this may not be the best way for host locations to achieve whatever benefits they perceive to flow from hosting productions. This is an issue that we take up further in Section 5 (below).

Key Finding 2

- Over-riding features of film production are that it is financially driven and geographically footloose. Government incentives to attract runaway production are relatively recent.
- From the producers' perspective, the choice between comparable locations is largely financial, and government incentives are important swing factors.
- Producers use Commonwealth and State schemes and ad hoc special deals to compile packages of support. The QPTR reduces the size of the "special deal" that the Queensland government will have to offer to attract a production.
- Producers prefer simple and transparent schemes like the QPTR because of the certainty of support and because they impose no detailed operational requirements.

4 The economic case for film-industry incentives

4.1 The macroeconomic argument

The argument most frequently advanced in support of a government offering film-industry incentive schemes is that the schemes will increase the level of film-industry activity in the local economy and thereby increase *aggregate* output and employment. In the case of foreign film productions, it is argued that incentives increase the supply of foreign capital to the local economy relative to the level that would pertain in the absence of the incentives. There are several problems with this argument:

— Industry policy is no longer generally accepted by economists or policy makers as an appropriate instrument with which to target macroeconomic goals. Although industry lobby groups continue to appeal to the macroeconomic argument, the intellectual battle on this point in Australia was won by the predecessors of the current Productivity Commission and others long ago – initially in the context of trade policy.

— The same output-and-employment argument could be advanced in support of providing incentives to any other industry. Hence, even if it were accepted that industry policy is an appropriate macroeconomic instrument, a valid justification for using government funds to support the film industry would have to show that the increases in output and employment produced by supporting the film industry are greater than those that would be produced by providing equivalent support to any other industry. There is no particular reason to believe that the film industry would be a winner in such a contest. Any valid justification for film-industry support would have to focus on differences between the film industry and other industries not on characteristics that the film industry has in common with others, like its ability to contribute to aggregate economic activity and aggregate employment.

— Proponents of the argument do not generally take sufficient account of the extent to which stimulating output and employment in a particular sector (film production in this case) will crowd out activity in other sectors. The main explanation for crowding out is that sectors compete for scarce resources in the economy – enhancing the competitive position of a particular sector tends to raise the prices of the scarce resources to the detriment of the other competing sectors. Another explanation relevant to the case of stimulating foreign-capital inflow in a particular sector is that the inflow will cause appreciation of the local economy's real exchange rate, undermining the ability of other traded-goods sectors to compete with foreign suppliers. We develop these points more fully later in this section when we review modelling studies that have been advanced in support of film-industry incentive schemes.

— Proponents of the argument emphasise that government incentives "leverage" additional foreign capital that would not otherwise be available to the location. This is correct as far as stimulation of local activity (GDP or GRP) is concerned because it means that there is more capital employed in the location than would otherwise be the case. Whether or not it leads to a net increase in aggregate employment or just increases wage rates and moves labour into the film industry but out of other industries depends on assumptions about the supply side of the labour market. One plausible assumption is that increases in the demand for labour such as are generated by industry incentives, increase aggregate employment in the short run but put upward pressure on wage rates that eventually cause labour to be shed from other industries.

— Another problem with the "leverage" argument is that it applies to the stimulation of activity in the location but not necessarily to the incomes of the location's residents. The owners of the additional foreign capital will expect a return on it. Hence, the additional capital income generated in the location will enhance their economic welfare, not that of the location's residents.

4.2 Market-failure arguments

Rather than as a macroeconomic instrument, industry policy (including the provision of incentive schemes to film producers) is better thought of as a means for changing the *structure* (not the *size*) of the economy relative to the structure that would eventuate in the absence of assistance measures. From this point of view, film-industry incentives make policy sense if there is a view that the film industry would be too small relative to other industries in the absence of such incentives. This approach accepts the idea that inducing an increase in film-industry activity is likely to reduce activity in some other sectors.

In a modern market-based democracy, consumer sovereignty is generally regarded as the fundamental basis for economic policy. Policies that change the economic structure of a jurisdiction are regarded as legitimate not because the jurisdiction's citizens do not know what is good for them but because their preferences will not adequately be reflected in market outcomes in the absence of policy intervention.

4.2.1 Cultural enrichment and public goods

Standard economic justifications for industry support policies (or of policies that restrict industry growth) rely on the identification of characteristics of an industry's activities that are not adequately dealt with by private markets (i.e., market failures). One possibility is that an industry produces "public goods", i.e., goods that once they have been produced at all can be consumed by additional consumers without imposing any additional costs on society and from which additional consumers cannot be excluded. In such a case, no individual has an incentive to contribute to the cost of provision (they would prefer to "free ride") with the consequence that the private market will not support provision at a level consistent with the aggregate value placed by consumers on consumption of the goods.

It is often claimed (plausibly) that the film industry (and other artistic industries) are important for the enhancement of a society's culture. Cultural enhancement certainly has public-goods characteristics and hence provides a *prima facie* justification for government intervention to promote industries that contribute to it. A serious problem is that it is difficult to estimate the value that members of the community place on cultural enhancement. This accounts for the fact that it is almost never included in purported quantifications of the benefits of film-industry incentives. More seriously, the measurement problem implies that it will be difficult for policy makers to judge what level of support is justified by the cultural-enhancement argument. It might be hard to have confidence that whatever level is chosen is socially superior to no support at all – the public-goods argument (or something equivalent) is a necessary, but not sufficient condition for government intervention.

An emphasis on cultural benefits as a primary justification for government support of the film industry has a long history, with the emphasis on output and employment benefits a relatively recent phenomenon.

4.2.2 A smart economy

Another idea related to market failure is that the forces of demand and supply in the labour market driven by private productivity and worker preferences do not produce an industrial/occupational structure in the labour force that is optimal from society's point of view. If that were the case, there could be an argument for subsidising employment in industries/occupations that would be under-represented (relative to the optimal structure of employment) in the absence of government intervention.

The market demand for workers depends on how profitable it is for employers to employ them, that is, on the workers' private productivity. Workers whose employment bestows benefits on society in addition to their private productivity are likely to be under-represented in the work force. One possibility is that film-industry workers produce cultural benefits of the public-goods type. Another is that they enhance the productivity of some other group of workers, i.e., that their employment is associated with a positive externality.

We note that this view that "jobs in our industry are more valuable than their market wages reflect" is another that the film industry has in common with many other industries – scientific research and information technology, for example.

4.2.3 External effects on other industries

A third example is the possibility that activity in a particular industry indirectly stimulates activity in others, other than by way of the fact that the other industries supply inputs to the particular industry. A frequent claim is that films raise the international profile of the location in which they are shot and increase the location's other economic opportunities. The main example is the possibility that film production stimulates inbound tourism. From an economic point of view, this is essentially a terms-of-trade argument – it amounts to the claim that film production increases foreigners' demand for visiting the location, i.e., it means that more tourists would visit the location at a given cost of doing so or that visitors who would have come anyway would be prepared to pay a higher price to do so.

This certainly would represent an economic gain to the relevant location overall, although like any other increase in the terms of trade (Australia's recent mining boom, for example) it would cause the exchange rate to appreciate, making it more difficult for other industries that produce internationally traded goods or services to compete with foreign competitors. This idea is well known in the economics literature, where it is variously referred to as the "Gregory effect" or the "Dutch disease" (see Gregory, 1976 and Corden, 1984). For a particular application to tourism, see Adams and Parmenter (1995).

4.3 Studies to quantify the benefits

As part of this project, we reviewed a substantial number of academic and consulting studies that purport to quantify the benefits to a location of attracting film production. Appendix 1 gives an annotated list of such studies.

Such studies are frequently tendered in support of film industry incentive schemes, although they rarely include any explicit link between the increase in film-industry activity that drives the results and the existence of an incentive scheme. More often, they analyse the effects of an increase in film-industry spending with an implicit assumption that such an increase could be due to government incentives – for a recent example, see ACIL Allen (2014). Studies that take this approach do not account for the distortionary effects of taxes that would be required to finance the incentive schemes. Moreover, by focussing on the effects of productions that are attracted to a location, they fail to account for the resources that are expended attempting but failing to attract productions.

The studies focus most frequently on the idea that the attraction of film productions will stimulate output and employment in the host location. As well as output and employment stimulated *directly* in the film industry, studies that attempt to quantify these effects invariably include output and employment that is stimulated *indirectly* in other industries from which the film industry sources inputs, and output and employment is *induced* by the spending of the additional income earned as a consequence of the direct and indirect expansions of economic activity[2].

In general, expansions of output and employment in any particular industry will also tend to crowd out output and employment in other industries. This is a key insight of general equilibrium economics and computable general equilibrium (CGE) models. Examples of crowding-out mechanisms are the rise in wages that increased demand for labour will stimulate and the appreciation of the real exchange rate that expansions of export industries will produce.

The extent to which crowding out is included in studies purporting to quantify the benefits of film production incentives varies across studies. Studies based on IO models (e.g. ACG 2009, AFC 2006, Access Economics 2011, E&Y 2012, Oxford Economics 2012) ignore the possibility. It is not uncommon for study reports to acknowledge the key deficiency of IO analysis, even when the modelling reported relies on it. As noted in Tax Foundation (2010), one approach to addressing the failure of IO models to account for crowding out is to rely on another method to identify the direct effects of financing an industry support scheme (a major direct cost of the scheme) and then to use IO methods to evaluate separately the indirect and induced benefits and the indirect and induced costs. The Tax Foundation report provides a comprehensive history of the development of state-based movie production incentives in the US and a sceptical view of the economic analysis that is commonly offered in support of the schemes.

Studies using CGE models generally include some crowding out effects, although the extent to which they are included depends on details of the way in which the model is configured for the particular study. A good recent example is ACIL Allen Consulting (2014). It projects the effects on output and employment in Australia of foreign film producers spending an additional $300million in Australia in each of two years. It uses a CGE model but assumes that increases in the demand for labour (*direct*, *indirect* and *induced*) have no effect on domestic wage rates. It also takes no account of how the provision of any government support that might have been required to attract the additional film-industry spending would have been financed. Hence, the study abstracts from what are generally regarded as some of the more important crowding out mechanisms in modern market economies.

Our review did not identify any CGE modelling studies that make a realistic attempt to account for a full range of crowding-out effects. In this sense, our conclusion is that the studies tend to exaggerate the positive macroeconomic effects of attracting film production to a location. Moreover, by focussing on effects on aggregate output and employment, rather than on the effects on the incomes accruing to the location's residents, the studies frequently fail to deal adequately with the issue of the extent to which incomes *generated* within the location by additional film production enhance the economic welfare of the location's residents. To deal adequately with the issue requires data on the ownership of additional capital employed in the location as a consequence of the expansion in film production, on the place of residence of the additional labour employed and on the

[2] The terminology of *direct*, *indirect* and *induced* effects was introduced into economics as part of Leontief's input-output (IO) modelling (Leontief, 1986).

location's taxation regime relating to foreign owned income. ACIL Allen Consulting (2014) makes an attempt to deal with this distinction between local activity and local income.

As indicated in the notes in Appendix 1, there is a substantial body of literature in the US and Canada that is sceptical about studies advanced in support of film-industry incentives. For example, in advising the Michigan legislature on the future of Michigan's incentive schemes, Zin (2010) makes the following telling observation:

> "Regardless of the entity performing the analysis, studies affiliated with or commissioned by the film industry or state film offices generally have produced more favorable evaluations of the incentive programs than have studies affiliated with other executive branch agencies, legislative agencies, or relatively independent analysts."
>
> *– Zin, (2010), p. 26*

Although the quantitative studies relied upon by proponents of film-industry incentives generally overestimate the extent to which additional film production has macroeconomic effects, they frequently omit to include the main legitimate benefits – cultural enrichment and other spillovers. With the exception of sometimes including assumptions about tourism benefits, at best the studies include a qualitative discussion of these effects. The frequent claim that such effects are unquantifiable is, in our view, incorrect, at least as a conceptual matter. From an economist's point of view the key issue is to estimate the aggregate amount that members of the community would be prepared to pay for the benefits. Given the public-goods characteristics of the benefits, this value cannot be revealed in a market process. Social scientists have developed techniques for estimating the value that the community places on public goods – contingent-valuation techniques, for example. However, none of the literature that we examined included such methods in their evaluations of the effects of film-support schemes.

Key Finding 3

- The arguments that film-industry incentive schemes will increase the level of economic activity and aggregate employment are generally flawed because:
  - These output-and-employment arguments could be advanced in support of any other industry and there is no prima facie case for why film production would deliver a demonstrably better outcome
  - They rely on flawed models of the economy which fail to account adequately for crowding out effects and therefore tend to exaggerate the positive macroeconomic effects of attracting film production.
- Output and employment are measures of economic value generated within a location, not measures of the income accruing to citizens of the location. It is income (or economic welfare) effects that are the appropriate measures on which to base economic policy decisions.
- To point out that the arguments most frequently used to justify film-industry incentives are of dubious validity is not to say that there are no valid economic justifications for such policies. Cultural enhancement has public-goods characteristics and provides a *prima facie* justification for government intervention to promote industries that contribute to it. However, it is difficult to estimate the value that members of the community place on cultural enhancement.

Table 1 **Stocktake of studies of the economic impact of film production incentive schemes**

Reference	Jurisdiction	Title	Assessment of approach to assessing/modelling economic impact of incentives
Christopherson and Rightor 2010	USA	The Creative Economy as "Big Business": Evaluating State Strategies to Lure Filmmakers	Discusses difficulties with the statistical basis and counterfactual assumptions in studies supporting film subsidies in US states.

Reference	Jurisdiction	Title	Assessment of approach to assessing/modelling economic impact of incentives
Tannenwald 2010	USA	State Film Subsidies: Not Much Bang For Too Many Bucks	Sceptical about studies purporting to quantify benefits. Emphasises US states' "race to the bottom.
Luther 2010	USA	Movie Production Incentives: Blockbuster Support for Lackluster Policy	Critical of studies that ignore crowding out. Emphasises implications of location competition for projects.
Robyn and David 2012	USA	Movie Production Incentives in the Last Frontier	Critical of studies that ignore crowding out. Emphasises implications of location competition for projects.
Ernst and Young 2012	USA	Evaluating the effectiveness of state film tax credit programs	Qualitative discussion recognises that evaluation of film incentives should be relative to the alternative uses of the funds required to fund them. But empirical analysis based on a case study and the IMPLAN model seems to ignore this.
Adkisson 2013	USA	Policy Convergence, State Film-Production Incentives, and Employment: A Brief Case Study	Concludes that US states competing for film production are playing a zero-sum game.
Lester 2012	Canada	Tax Credits for Foreign Location Shooting of Films: No Net Benefit for Canada	Sound – emphasises the need to account for crowding out associated with financing incentive schemes. Uses partial-equilibrium cost-benefit techniques. Noted that Canadian Provincial schemes do not target the local industry directly and are of limited relevance to cultural objectives.
Oxford Economics 2012	UK	The Economic Impact of the UK Film Industry	Includes distribution and exhibition of UK films as well as film production as direct effects and uses IO techniqes to assess indirect and induced effects. Fails to account for "Dutch-disease" effects in discussion of export stimulation. Sound qualitative discussion of cultural impacts, emphasising public goods.
PWC 2010, 2012, 2013	Australia	Australia's Location and PDV Offset Incentive – Economic Impact Study	Uses TERM CGE model, with labour-market crowding out. Explicit tax-financing assumptions, including allowance for additional taxes raised from the film industry. Increased activity mainly generated by increased foreign investment but no account seems to be taken of ownership of the returns to it (i.e., distinction between GDP and national income).
ACIL Allen 2014	Australia	Economic Benefit Of Foreign Film Production in Australia	Uses Tasman Global CGE model to simulate the effects of increased film-industry spending. Adopts a slack-labour-market assumption, limiting the extent of crowding out.
Screen Australia 2012	Australia	Getting down to business The Producer Offset five years on	Interview based – no impact modelling.
Access Economics 2011	Australia	Economic Contribution of the Film and Television Industry	Relies on crude IO analysis.
Allen Consulting Group 2009	Victoria	Economic and cultural benefits of screen production in Victoria	Relies on IO multipliers taken from an earlier AFC (2006) study.
Jensen 2011	Sydney	The spatial and economic contribution of Sydney's visual entertainment industries	Interview based and descriptive analysis. No new impact modelling.
Turok 2002	Scotland	Cities, Clusters and Creative Industries: The Case of Film and Television in Scotland	Focusses on cluster theory. No new impact analysis but thinks economic significance usually exaggerated.
Ward and O'Regan 2007, 2009	Gold Coast	Servicing 'the other Hollywood'. The vicissitudes of an international television production location (2007). The Film Producer as the Longstay Business Tourist: Rethinking Film and Tourism from a Gold Coast Perspective (2009)	2007 paper looks at history and decline of TV industry on the Gold Coast as the emphasis turned to the attraction of large scale productions. 2009 paper looks at foreign film industry as quasi-tourism. Author emphasises the small-region perspective. No formal impact analysis.
Bal 2009	Massachusetts	A Report on the Massachusetts Film Industry Tax Incentives	Balanced budget approach using IO analysis.
Pitter 2013	Massachusetts	A Report on the Massachusetts Film Industry Tax Incentives	Balanced budget approach using IO analysis.
Franzini 2011	New Jersey	Memorandum: New Jersey Film and Digital Media Tax Credit Program	Relies on the IMPLAN IO model. No method for relating film activity to incentives.
Leinenkugel 2009	Wisconsin	Cost Benefit Analysis Of Wisconsin Film Tax Credit Program	Cost-benefit analysis with negative conclusion for tax-credits for film productions.

Reference	Jurisdiction	Title	Assessment of approach to assessing/modelling economic impact of incentives
McMillen, Parr, and Helming 2008	Connecticut	The Economic and Fiscal Impacts of Connecticut's Film Tax Credit	Uses the REMI model, which has neoclassical properties accommodating crowding out.
Weiner 2009	Connecticut	Memorandum: Cost-benefit analysis of Connecticut's film tax credit	Advocates balanced-budget approach and notes that this is not always done.
Zin 2010	Michigan	Film Incentives In Michigan	Reviews studies of the impact of film incentives. Recognises that impact analysis should account for opportunity cost of funds and that this is not always done. Notes relationship between study results and study sponsors. Relies on IO multipliers. Opines that using the same multiplier to evaluate the benefits and costs in a balanced-budget analysis will overstate the net benefits.
Popp and Peach 2008	New Mexico	The Film Industry in New Mexico and The Provision of Tax Incentives	Recognises that supply constraints are important but uses the IMPLAN IO model.

Source*:* ACIL Allen Consulting

5 Implications of competition among locations

5.1 The intensity of competition for footloose production

In Section 5, we expressed sceptical views about the frequently touted argument that film industry incentives have favourable macroeconomic effects on a location that succeeds in attracting additional film production by using such incentives. We were particularly sceptical about the validity of many of the studies that purport to quantify these effects using IO analysis of CGE models.

We are less sceptical about the idea that some aspects of film production could be important in enhancing a location's culture, or that hosting major film productions could have spill-over benefits for other industries (e.g., tourism). It could also be the case, as many stakeholders believe, that hosting large productions is important in facilitating the development of local film producers or of businesses able to provide essential services to the local industry as well as to major international productions. We noted, however, that studies offered in support of film production incentives rarely include convincing evidence on the value of the cultural and spill-over effects.

As well as evaluating evidence of the existence and magnitude of the favourable effects of attracting additional film production, policy makers should consider the implications of the international market for film productions that now exists. It will determine the extent to which a location that succeeds in attracting film productions can expect to retain the value of any such favourable effects. Competition between locations seeking to attract film producers has two effects that are relevant to the policy maker's decision:

— Locations will inevitably expend resources chasing productions that they don't succeed in winning. These costs should be included if deciding whether or not a policy of providing incentive should be pursued – it is insufficient to focus just on the net benefits of projects that are secured.

— To win a project, a location will have to pay the producer at least some of, and maybe a substantial proportion of, the value of whatever positive effects it perceives will flow from hosting the project.

As noted in Section 4 (above), there will almost always be several alternative locations that the producer regards as broadly suitable for any production that could be shot in Queensland. Competition among the broadly suitable locations has grown significantly in recent years, fuelled by the spread of government incentive schemes – usually in the form of tax credits – often refundable or transferable if their value exceeds a film producer's tax liability. Although this is an international phenomenon with Canada, the UK and New Zealand prominent, the history of movie production incentive (MPI) offerings in the USA illustrates the sort of developments that have occurred. Louisiana, in 1992, was the first state to introduce an MPI but by 2009 all but six states had followed suit[3]. Unsurprisingly, there turned out to be a substantial first-mover advantage, with states that entered the

[3] This is well documented in *Tax Foundation (2010)*.

competition later having much less success in attracting productions and establishing local industries than states like Louisiana. Between 2009 and 2014, eight states (Arizona, Idaho, Indiana, Iowa, Kansas, Missouri, South Dakota and Wisconsin) either removed their MPI schemes altogether or withdrew funding from them.

5.2 The transfer of the net economic benefits of local production to film producers

The importance of the virulent competition that has now developed is that a location that succeeds in attracting an international film production can no longer expect to retain much (if any) of the value of whatever advantages they think hosting the productions might have -- most of that value will be expropriated by the producer as a consequence of the evolution of the competitive bidding process. This could be viewed as a long-term process dependent on the escalation of the headline schemes that locations offer. However, as we noted in Section 4 (above), in the current environment discretionary top ups on top of the headline schemes are required for Queensland to attract major productions. The widespread willingness of governments to negotiate such special top ups allow producers to extract value from competing locations on a short-run case-by-case basis.

In the simplest case in which none of the competing locations has a natural advantage over others from the producer's perspective and in which all locations perceive the same hosting value, to secure the project a location would have to offer the entire perceived hosting value as an incentive to the producer. In other words, the competitive structure is such that the value of the project to each location will always be greater than the value of any specific location to the producer – hence, it is the producer that wins out in the location-bidding game.

More generally, for a location to expect to succeed in attracting a project, it must expect the value that it places on attracting the project to exceed the value placed on attracting it by any other of the competing locations. If it does succeed, the most that a location should expect to retain is the difference between the value that it places on the project and the value placed on it by the location with the next highest valuation. This point of view suggests that studies aimed at quantifying the value to a location of hosting a production might best be interpreted as providing an estimate of the maximum amount that the location should be prepared to put on the table in its effort to attract the production. In the market structure that has now developed, the location should expect that to attract the production it will have to allow the producer to take most of this amount. Industry stakeholders recognised that the main effects of the widespread availability of taxpayer funded support schemes has been to decentralise production away from its traditional centres such as Hollywood and New York and to increase the economic rents earned by film producers and high-profile actors.

It is the implications of this market structure, rather than any doubts about the existence and magnitude of favourable effects of hosting projects that comprise the most compelling economic argument against jurisdictions offering financial incentives to attract large film productions, especially international productions. As noted in Appendix 1, several of the contributions to the US literature recognise this problem, e.g., Tannenwald (2010) and Adkisson (2013).The argument of this section applies most powerfully to a jurisdiction as a whole, ignoring the interests of sub-regions within it. But Queensland (or even more so, the Gold Coast) might anticipate that its share of the gross benefits that Australia would experience if a film production locates there is higher that the share of the total incentive that Australia would have to offer to secure the production. If this were the case, then Queensland (or even more so, the Gold Coast) could be a net beneficiary, but only at the expense of the other Australian residents who have to contribute a share to the total incentive that is greater than the share of the gross Australian benefits that they enjoy. All stakeholders that we spoke to agreed that in the current environment, securing a major production requires significant contributions from the Commonwealth and state governments and concessions from the local area in which the production takes place.

Key Finding 4

- Competition among the broadly suitable locations has grown significantly in recent years, fuelled by the spread of government incentive schemes.
- The importance of this competition is that a location that succeeds in attracting a footloose film production can no longer expect to retain much (if any) of the value of whatever advantages it thinks hosting the productions might have -- most of that value will be expropriated by the producer.
- The fact that producers will capture most/all of value that a location assigns to securing a production is the most compelling economic argument against jurisdictions offering financial incentives to attract international film productions.

6 Conclusions

In our view, there is limited value in looking at the QPTR in isolation. Rather, it is better understood as one ingredient in a cocktail of incentives that a producer will need to assemble for it to be worthwhile locating a production in Queensland. The other main ingredients will be headline incentives available from the Commonwealth government, discretionary support available under the Screen Queensland budget and special deals struck with the Commonwealth and State governments.

In the current environment, the State government will have to make a special deal on top of its headline incentives if it is to secure a major production. In this context, the availability of the QPTR really just reduces the cost of the special deal that will have to be struck.

Being a simple scheme that provides support roughly in proportion to production size and does not target any other particular aspect of the film industry, the QPTR fits neatly as a component of a package to attract large productions. But in our view, the economic case for providing film-industry incentives of this type is weak for three main reasons:

— We regard the often-advanced claim that such incentives yield macroeconomic benefits as spurious. Certainly, most of the studies that purport to quantify these benefits seriously overestimate whatever benefits might exist.

— The advancement of cultural aims that are valued by the local population but not attainable by market mechanisms is probably the most convincing economic justification for providing support to the film industry. But this suggests that support should flow to the local industry, which is typically small scale. A strategy of targeting large productions, especially large international productions, relies on the existence of substantial spill-overs to aspects of the local industry that are important to the enhancement of local culture. We received mixed views about the extent to which such spill-overs exist.

— The current environment in which there are many similar locations competing to secure relatively few large productions implies that most of the value of whatever favourable effects a location perceives will eventuate from hosting a large production will be appropriated by the film producer, not retained by the host location.

As suggested above, our view is that the main economic case for government support of the film industry relates to cultural enrichment. In view of this, our main recommendation is that the government clarify the objectives of its support to the industry and ensure that the incentives provided target the particular aspects of the industry that are important in achieving those objectives. Most likely, this will entail ensuring that the incentives favour parts of the local industry that promote Australian cultural values. The QPTR has no such obvious targeting.

The main danger in developing a more targeted approach is that it will be done in ways that unnecessarily interfere with the efficient operation of the industry. A strength of a simple scheme such as the QPTR is that it avoids that danger. Any more targeted approach should be developed in consultation with the industry not as a bureaucratic imposition on it. Stakeholders provided us with several examples of ways in which government policy might inhibit the efficiency of their operations and of alternative ways in which the industry could have advanced the apparent aims of policy more efficiently.

Key recommendations

- The government should clarify the objectives of its support to the film production industry. The main economic justifications for support relate to cultural issues, not employment generation.
- The government should ensure that the incentives provided through the QPTR target the particular aspects of the industry that are important in achieving the government's objectives. Schemes like the QPTR that simply offer support in proportion to production size are unlikely to be appropriate.
- The government should ensure that in targeting incentives to the attainment of its objectives it does not unnecessarily interfere with the efficient operation of the industry. This suggests that future schemes should be developed in consultation with the industry.

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Appendix A Stakeholders consulted

The following stakeholders were consulted as part of the review of the Queensland Payroll Tax Rebate. The consultation strategy and relevant stakeholders were developed in consultation with Queensland Treasury and Trade and Art Queensland. The following list identifies those stakeholders that were invited to participate at each stage of the consultation process.

Interviews

- Ausfilm
- City of Gold Coast
- Cutting Edge
- Disney
- Fox Studios
- Screen Australia
- Screen Producers Association of Australia (SPA)
- Screen Queensland
- The University of Queensland
- Village Roadshow Studios
- Warner Bros

Mid-point workshop

- Arts Queensland
- Ausfilm
- Blacklab Entertainment
- Cutting Edge
- Freshwater Pictures
- Hoodlum
- Jonathan M Shiff Productions
- Pictures in Paradise
- Prep Shoot Post
- Screen Producers Association of Australia (SPA)
- Screen Queensland
- Storybridge Films
- Village Roadshow Studios
- WildBear Entertainment

Presentation of freview findings

- Arts Queensland
- Ausfilm

- Blacklab Entertainment
- Cutting Edge
- Disney
- Endemol
- Freshwater Picture
- Hoodlum
- Jonathan M Shiff Productions
- McElroy All Media
- Pictures in Paradise
- Prep Shoot Post
- Screen Australia
- Screen Producers Association of Australia (SPA)
- Screen Queensland
- Storybridge Films
- Village Roadshow Studios
- Walden Media
- Warner Bros
- WildBear Entertainment

Appendix B Economic Size of Queensland's Film Production and Post-Production Industry

ABS Data

The ABS does not publish industry value added at 4 digit ANZSIC level on a state basis.

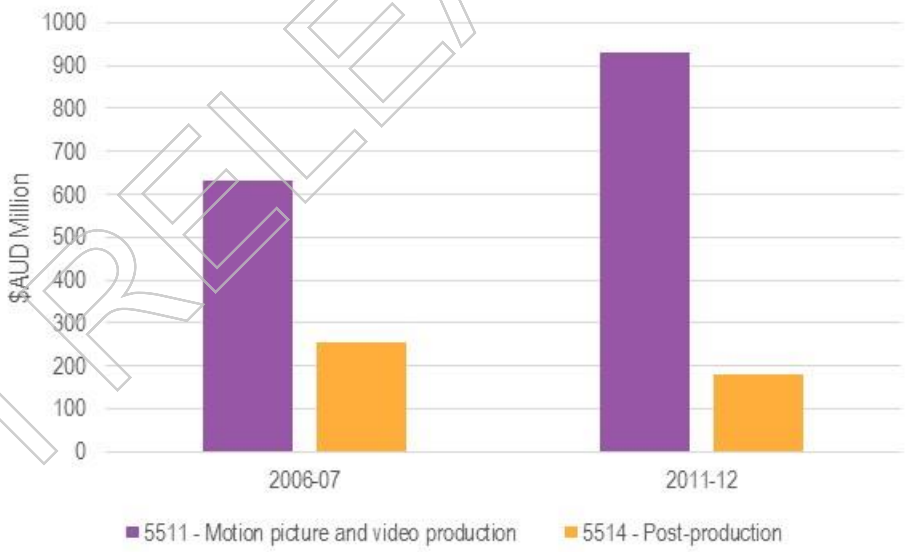
The ABS does publish annual state 1 digit ANZSIC level industry value added in 5220.0 – State Accounts, however given 5514 and 5511 fall under Division J – Information, Media and, Telecommunications this data is of limited use.

Nationally, the ABS publishes annual 2 digit industry value added in 8155.0 – Australian Industry. At level 55, Motion picture and sound recording activities, relative standard errors are few, however there is no state component to this report.

8679.0 – Film, Television, and, Digital Games, Australia publishes 5514 and 5511 industry value added, on a national level only. At the four digit level, the ABS does advise to be aware of the large relative standard errors.

The estimates of national industry value added are shown below in Figure 5.

Figure 5 **National Industry Value Added**



Source: ACIL Allen Consulting & ABS Cat No. 8679.0 Film, Television, and, Digital Games, Australia, 2011-12

Despite having national industry value added, there is no viable state component that would enable proration of national estimates. Due to the limited time series of detailed data, employment and total income would largely be speculative methods to prorate national industry value added. This situation is further complicated by different encoding to ANZSIC methods applied for different publications/surveys. For example, 8679.0 is encoded to ANZSIC differently to census or LFS or 5220.0. These differences make it difficult to use a combination of statistics to split national estimates to states.

IBISWorld data

IBISWorld periodically publishes industry reports for both ANZSIC 5511 and 5514. IBISWorld produce some state level estimates, namely state revenue and number of businesses, however there are no value added estimates produced at the state level.

The approach taken by IBISWorld to derive state revenue and number of businesses is unclear and therefore no assurances can be given with respect to their reliability. While IBISWorld does acknowledge use of ABS statistics, the application of these statistics is not always transparent. As displayed below in Table 2 and Table 3, IBISWorld generally reports their findings in percentage terms, and do not provide absolute numbers, thereby further limiting the value of the information in those reports.

The tables show that IBISWorld estimates that 16.8 per cent of the business activity in motion picture and video production is based in Queensland, and 12.9 per cent of businesses in this sector are Queensland based.

Table 2 **IBISWorld: 5511 – Motion picture and video production**

	% of Business Locations	% of Establishments
NSW	44.30%	47.20%
VIC	25.30%	26.40%
QLD	16.80%	12.90%
SA	4.50%	4.60%
WA	6.30%	6.40%
TAS	0.80%	1%
NT	0.50%	0.30%
ACT	1.50%	1.20%

Note: % of business location is a location based estimate of business activity while establishments is place of physical business operation

Source: ACIL Allen Consulting & IBISWorld Industry Report: J5511 Motion Picture and Video Production in Australia, March 2014

Table 3 **IBISWorld: 5514 – Post-Production**

	% of Business Locations[1]	% of Establishments
NSW	50.80%	50.50%
VIC	23.60%	32.30%
QLD	18.30%	8.70%
SA	4.60%	3.10%
WA	2.30%	4.60%
TAS	0.20%	0.20%
NT	0.20%	0.20%
ACT	0.40%	0.40%

Note: % of business location is a location based estimate of business activity while establishments is place of physical business operation

[1] IBISWorld data sums to greater than 10 per cent

Source: ACIL Allen Consulting & IBISWorld Industry Report: J5514 Video Postproduction Services in Australia, December 2013