

Economic Benefit of Production Studios for the Greater Christchurch Region

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Foreword

Before COVID-19, screen industry agencies including New Zealand Film Commission (NZFC) concluded that due to a shortage of studio facilities, the industry could not meet the international demand for New Zealand as a screen production destination. Domestic productions suffered similarly from a lack of suitable facilities.

Securing further development of suitable studio facilities will contribute significantly towards addressing infrastructure deficits in the screen industry, adding to New Zealand's reputation of being a world-leading destination for screen production. Besides, appropriate development offers expanded opportunities for local writers, producers and directors to have access to studios and skills training facilities.

To act now would mean that developments could be underway when the production sector is ready for a restart in the COVID-19 context. New Zealand needs to be ready for that time.

Philippa Mossman - Head of International Attraction, New Zealand Film Commission April 2020

Introduction

This report seeks to estimate the economic benefit that could accrue to greater Christchurch from the establishment of a film production studio in Christchurch. Specifically, by quantifying the spending of different types of production activity, a baseline 'benefit' is established for productions of different types and sizes.



The screen industry comprises of two main parts 'production & postproduction' and 'distribution'. This report will refer to the screen industry as a whole from time to time, but its primary focus is on production and postproduction. This is because the primary beneficiary of additional production studios accrues to the 'production and postproduction' part of the industry. Nowhere in this report is any benefit from distribution considered.

To better understand the potential benefits, a brief description of how a film production is put together is provided to inform the reader on both the nature of the funds spent and how this contributes to the economy as a whole. An outline of the location of existing production studios is also provided to give the reader an understanding of the strategic importance that an additional studio in Christchurch could have in the context of the overall New Zealand film industry.

Combining an estimate of production value and number with an understanding of how and what that money is spent on allows a meaningful conclusion to be reached on the economic benefit for greater Christchurch. This is accomplished by creating two scenarios:

- A 'base case' no large production is secured
- A 'base case +' assuming that one or more large productions can be secured

A summary of the additional employment opportunities likely to be made available as a result of a further production facility is also provided, demonstrating the volume and variety of employment opportunities available in this industry. Downstream effects are also identified (for example "spin-off" tourism activities spurred by popular films) but no attempt is made to quantify these at this stage.

Film Production – an anatomy

"The screen industry has many linkages to other industries due to the complex nature of the products produced and the diverse range of inputs required. This means that the economic benefits from better performance and growth in the screen industry are distributed widely."

To understand what benefit a production studio might bring to greater Christchurch, it is necessary to understand what work is done and how the money is spent.

Productions have 5 main stages:

- Development
- Preproduction
- Production
- Postproduction
- Distribution

This report does not attempt to elaborate on what is done at each step; there is sufficient content on the internet for the curious reader. However, it is relevant to point out that although production is a vital step, it is one of five, with significant work being completed before and after. This is important as production studios act as strategic keystone asset, where their presence has a disproportionate effect on the surrounding economic ecosystem. Preproduction and postproduction activity become more prevalent surrounding production studios, compounding the economic benefit gained from production activity alone.

Further, as noted in the quotation above, the production process is complex and requires many inputs from many different suppliers. The New Zealand Institute of Economic Research lists some of these inputs in their 2017 reportⁱⁱ:

Equipment purchases



- Leased property
- Software, tapes, audio and video records
- Financial and insurance services
- Telecommunication and internet services
- Electricity
- Broadcasting and distribution services
- Couriers, freight and storage
- Accommodation, food and beverages services
- Air passenger transport
- Maintenance of office and transport equipment
- Petrol
- Photographic and scientific equipment
- Government and security services
- Road and rail transport
- Publishing and printing services

The specifics and proportions spent will differ from production to production, but when speaking of 'economic benefit' it is useful to ground this general term in specific consumption. The above list is provided so that the reader can understand where this benefit is likely to be felt, stressing the variety of industries involved.

The New Zealand Screen Industry

Data collated by StatsNZ indicates that production and postproduction comprises 50% of a wider screen industry. The screen industry has consistently generated revenue of approximately \$3.2b each year in New Zealand from 2014-2018, with production and postproduction contributing approximately \$1.6b to that figure on a per annum basis.ⁱⁱⁱ

Currently, New Zealand's primary film and television production studios are based solely in the North Island and the resultant economic activity is concentrated in Auckland and Wellington with less than 5% of revenue being generated in the South Island.

The South Island is, however, sought after as a destination for location filming, even for those films produced in the North Island or abroad. By way of example, recent films utilising the South Island as a filming location include:

- Z for Zachariah (2015) filmed in Port Levy, Banks Peninsula, Christchurch
- Hope and Wire (2014) filmed in Christchurch, Canterbury
- Slow West (2015) filmed in Twizel, Mackenzie District
- The Changeover (2017) filmed in Christchurch, Canterbury
- Mulan (2019) filmed in Twizel, Mackenzie District
- The Luminaries (2019) filmed in the West Coast

Despite the strong attraction of the South Island as a filming location, the lack of studio facilities prevents significant productions being based in South Island.

On current data, Auckland and Wellington attract 95% of the economic activity attributed to the screen industry and on this basis, it can be surmised that the presence of the production studios themselves are a significant determiner of overall economic impact. While the use of a location for a period of filming may generate some economic activity,



the predominant activity occurs in the production facility with consequential economic benefit. This is consistent with an a priori understanding of the industry and how a production is put together.¹

By way of example, Mulan (2019) had an estimated budget of \$200-300m^{iv} and had many significant scenes shot in the Mackenzie District. This activity contributed an estimated \$13m to the regional economy through expenditure while on location. However, the postproduction then moved to the North Island with Weta Digital (Wellington) and Kumeu studio (Auckland) completing the tertiary aspects of the film.

It is reasonable to expect that in doing so, the Wellington and Auckland economies were able to capture a much larger portion of the additional revenue generated by this film. The availability of film studios in Christchurch may well have resulted in the retention of that additional revenue in the South Island. In addition to Christchurch, the economic opportunity presented by film production studios in the South Island has been recognised by proponents in both Queenstown and Dunedin.^v

While an undersupply of film production facilities has been identified as a constraint on the growth of the industry generally, demand is unlikely to support the successful operation of two to three large-scale facilities in the South Island. To that end, the ability to establish these facilities quickly will offer a competitive advantage over other propositions.

Christchurch's Screen and Creative Assets

In addition to its locational advantages as a filming location, Christchurch has three major tertiary providers with courses that are directly relevant to the screen industry in Christchurch:

Ara Institute of Technology

- Bachelor of Design (Motion Design)
- Bachelor of Performing Arts
- Bachelor of Music Arts
- Bachelor of Design (Fashion Technology and Design)

University of Canterbury

- Bachelor of Arts (Cinema Studies)
- Bachelor of Product Design in Applied Immersive Game Design
- Human Interface Technology Laboratory New Zealand (HIT Lab NZ)

Yoobee School of Design (UC Campus)

- Diploma in 3D Production
- Diploma in Screen Production
- Diploma in Fashion
- Diploma in Digital design Animation and Film Production
- Diploma in Game Art and Development

Christchurch also has a resilient game development industry. This is relevant to the screen industry as skills and expertise required to develop content for games can cross over to an aspect of postproduction called, Post, Digital and Visual Effects (PDV).

¹ For clarity, this is a hypothesis presented by the author and is consistent with the facts. However, despite no examples to the contrary being found, there is no guarantee that this hypothesis will hold true.



A Film Production Is Not a Restaurant

The screen industry is, however, different to other industries and consequently, an analysis of the industry cannot be approached in the same way as other more orthodox industries (like restaurants).

Put simply, one or two productions occurring in New Zealand at any given time are likely to command a disproportionate share of the revenue for the total industry. This is important to acknowledge as the nature of the industry affects the statistical distribution of screen-related data, which in turn has significant effects on the usefulness of summary statistics.

Putting this in context, between February 2010 and March 2020, 131 productions received New Zealand Screen Production Grants (NZSPG). However, only 9 productions were responsible for 50% of the total revenue and one (The Hobbit), made up 23% of the revenue by itself.

For that reason, when estimating the economic benefit that a production studio could have to greater Christchurch this report considers a scenario where *no* large production is secured as well as a scenario where large productions are secured.

How Much and How Many?

In order to estimate the economic benefit that a production studio may have to greater Christchurch, it is necessary to gain an understanding of how many productions are filmed in New Zealand each year and how much revenue they generate. This then needs to be further split into large productions which command a disproportionate share of the total (as set out above), from other productions.

For feature films, a large production is defined as one greater than \$15m in Qualifying New Zealand Production Expenditure (QNZPE). This is consistent with the NZSPG Criteria for International Productions^{vi}

For non-feature film production, referred to in this report as 'small-screen' the definition for a large production is \$4m in QNZPE. For work specific to Post, Digital and Visual Effects (PDV) the threshold is \$500k in QNZPE. This is consistent with the NZSPG Criteria for International Productions^{vii 2}.

Below is an attempt to estimate what an average year of production activity looks like in New Zealand. This is done so that the reader can understand the economic benefit of securing significant production studio capacity. Of note is the high number of small-screen productions, commercials and 'other' which includes smaller films and music videos.

The total industry is assumed to be worth \$1.6b per year which is marginally less than the average from 2014-2018 (inclusive). As noted at the beginning of this report the 'distribution' aspect of the screen industry has been excluded, specifically; television broadcasting, 'film and video distribution' and film exhibition.

² Many large feature films have PDV activity, the data does not allow this to be separated. Note that including non-feature film PDV activity in the 'large small screen' group made little difference to the summary statistics when compared to leaving it out.



	New Zealand Production Sumber of completed scree	•	
Туре	Number of Productions estimate p/a	Percent of total revenue estimate p/a	Total industry estimate p/a
Feature films	46	55%	\$876,533,560
Small Screen - Series & one off	1725	31%	\$502,158,029
Commercials	2000	10%	\$165,301,614
All other	4658	4%	\$56,006,797

Due to the unequal nature of this industry with a small number of productions responsible for a disproportionate amount of the annual revenue, the estimated effect of large feature films, defined as those with \$15m or more in QNZPE, has been shown separately.

	New Zealand Production S	Screen Industry.	
	Feature Films - estimated	annual average	
Feature films	Number of Productions	Percent of feature film	Total feature film
reature minis	estimate p/a	revenue estimate p/a	estimate p/a
Large	0	46%	\$402 757 507

 Large
 8
 46%
 \$402,757,597

 Small
 38
 54%
 \$473,775,963

 Total
 46
 100%
 \$876,533,560

Similarly for small-screen, those productions that are estimated to qualify for a television and other non-feature films or a PDV grant have been defined as large and shown separately.

	New Zealand Production S Small Screen - Series & one off* - e	•	
Small Screen - Series & one off	Number of Productions estimate p/a	Percent of small screen revenue estimate p/a	Total small screen estimate p/a
Large	13	10%	\$49,094,535
Small	1712	90%	\$453,063,494
Total	1725	100%	\$502,158,029

^{*}inc PDV activity

Averages taken from 2016 onwards as PDV grant threshold reduced from Aug 2015

Economic Benefit

This section outlines two different scenarios: the first is the 'base case' where *no* large production is secured, but a conservative number of smaller productions are secured and the second is the 'base case +' scenario where large productions are secured.

The two cases below are presented with as few assumptions as feasibly possible.

Base Case:

Assumptions:

- 1. A production studio is built and fully operational
- 2. No large feature films are secured
- 3. No large 'small-screen series and one-off' productions are secured
- 4. No commercials or 'other' productions are secured



- 5. Four smaller feature films are secured per year (~10% of that currently available)
- 6. 20 smaller 'small-screen series and one-off' are secured per year (~1% of that currently available)
- 7. The location of a production studio is the epicentre for QNZPE spending.

Outcome:

- 1. Approximately \$50m of revenue would be generated per year for greater Christchurch
- 2. Approximately 270 people would be employed

This is presented as a 'base case', not as a 'prediction'. It is supplied to provide an understanding of how much benefit this industry could deliver to greater Christchurch with minimal and conservative assumptions. As stated earlier in this report distribution benefits have been excluded.

Base Case +:

Assumptions:

- 1. A production studio is built and fully operational
- 2. One or more feature films is secured
- 3. One or more large 'small-screen series and one-off' productions is secured
- 4. Some commercials or 'other' productions are secured
- 5. The location of a production studio is the epicentre for QNZPE spending

Outcome:

- 1. Benefit would be significantly more than the \$50m base case, doubling or quadrupling the base case benefits for the duration of that production.
- 2. Considerably more people would be employed for the duration of the larger production before reducing to levels before the large production.

Employment

The screen industry has consistently employed more than 14,000 people per annum in a variety of jobs since 2005, with approximately 50% in production and 50% in distribution. As noted above this report focuses on the benefits generated from production and therefore excludes employment accruing in distribution.

In addition to the 270 plus additional jobs estimated to be generated by the scenarios outlined in this report (see Economic Benefit section above), it is important to consider that there is also a large spread of incomes and employment arrangements within the screen industry. This has significant implications for those people who are entering the job market either for the first time or after a period of unemployment. A large variety of job types and employment arrangements means that each individual has a higher chance of finding a job and employment arrangement that suits their individual situation (as compared to an industry with few job types and few employment arrangements).

This phenomenon has a positive effect on any group that is otherwise disadvantaged or struggling to find work that suits their particular set of circumstances.

An important segment of high value jobs lies in Post, Digital and Visual Effects (PDV) activity. Christchurch is well situated to capture a meaningful share of this PDV activity. The University of Canterbury has a Bachelor of Product Design in Applied Immersive Game Design with many of the skills learnt applicable in both game design and PDV activity. Further, Christchurch has two established game design companies (Cerebralfix and Digital Confectioners)^{ix}. This demonstrates that the city has the capability to grow this high value industry. For clarity, this report has not attempted to quantify any potential beyond what is outlined in the 'base case +' scenario.



Down Stream Impacts

Film and television productions also have an increasingly significant effect on culture and tourism, with the most popular productions spawning their own ecosystem of tourism and merchandise. For example, the AMC production 'Breaking Bad' a highly successful TV series was estimated to add an *additional* USD\$75m to the New Mexico economy. This was through spill over activity such as independent tours with people travelling from all over the world to go on a 'Breaking bad' tour.^x Closer to home the Lord of the Rings series has its own tourist attractions and is likely to have paved the road for the successful production of The Hobbit in New Zealand. It appears that this tertiary economic activity is most prevalent for the hyper-successful productions, but its presence cannot be ignored when speaking of the wider economic benefits. For clarity, this report has not attempted to quantify such benefits.

Major productions are now a truly international business which introduces the possibility of export revenue being derived. The revenue from exporting productions is primarily accrued to the owners of the Intellectual property rights and the financiers of the production. This is an area where production and distribution merge together. A production studio by itself will not generate this type of revenue. However, has alluded to above, production studios ought to be considered a keystone asset, one that enables other levels of production. When considering the impact that a major production studio could have on the Greater Christchurch region it is reasonable to consider these highly valuable tertiary levels of economic benefit. For clarity, this report has not attempted to quantify such benefits.

Conclusion

The relative economic benefit of a film studio development for greater Christchurch will depend on its ability to secure production activity. For that reason, this report has identified two scenarios cases for illustrating the potential revenue that could be generated by such a facility.

The base case illustrates that even with a conservative percentage take of the total production activity in New Zealand, a film studios development in Christchurch could generate up to \$50m in added revenue for greater Christchurch. Securing a larger feature film could increase that figure by two to four times. Also, film production facilities in Christchurch would offer employment opportunity for up to 270 people (based on the same conservative estimate of secured production activity).

This report has not attempted to quantify and include other economic and employment benefits which could result from the establishment and operation of film studios in greater Christchurch.



Definitions, Notes and Assumptions:

Definitions:

- PDV: Post, Digital and Visual Effects
- This report has adopted the StatsNZ definitions found here
- Qualifying New Zealand Production Expenditure (QNZPE)
 https://www.nzfilm.co.nz/international/screen-incentives/nzspg-criteria-international-1-july-2017
- For feature films, a large production is defined as one greater than \$15m in Qualifying New Zealand
 Production Expenditure (QNZPE). This is consistent with the NZSPG Criteria for International Productions^{xi}
- For non-feature film production, referred to in this report as small- screen the definition for a large production is \$4m in QNZPE. For work specific to Post, Digital and Visual Effects (PDV) the threshold \$500k in QNZPE. This is consistent with the NZSPG Criteria for International Productions^{xii}
- Production and postproduction production and postproduction sectors include revenue from contracting
 and producing activities. Producing is activity on a screen work for which the business has end-to-end
 responsibility. This does not preclude the company subcontracting parts of that work. Contracting is an
 activity that contributes to a work for which another business has production responsibility."

Notes:

• No attempt has been made to segment 'direct', 'indirect' or 'induced' economic activity, common in orthodox economic analysis. The reader is left to make the necessary assumptions themselves if they wish.

Assumptions

- That 'Total Qualifying NZ Production Expenditure' is a fair proxy for economic benefit.
- That the number of productions active in New Zealand in any given year will be the same (on average) in the foreseeable future than it has been in the past.
- That one or two large productions in any given year will command a disproportional share of the total industry revenue.
- That people employed is distributed in direct proportion to the revenue generated.



Calculation with source data

Table

New Zealand Production Screen Industry. | Number of completed screen industry works

Data Point				
description	Data Point	Source	Source level 2	Calculation
	Number of Productions			Average of years 2014, 2015, 2016 & 2017.
Feature films	estimate p/a	https://figure.nz/chart/dvY0Hic7z212CrID		Rounded
Small Screen - Series	Number of Productions			Sum One off & Series. Then Average of years 2014,
& one off	estimate p/a	https://figure.nz/chart/dvY0Hic7z212CrlD		2015, 2016 & 2017. Rounded
	Number of Productions			Average of years 2014, 2015, 2016 & 2017.
Commercials	estimate p/a	https://figure.nz/chart/dvY0Hic7z212CrID		Rounded
	Number of Productions			Sum Other & Non broadcast media. Then Average
All other	estimate p/a	https://figure.nz/chart/dvY0Hic7z212CrID		of years 2014, 2015, 2016 & 2017. Rounded
		http://archive.stats.govt.nz/browse for stats/industry sectors/film and television/ScreenIndustrySurvey	table 8	Sum Production Format (Feature films), NZ\$
	Percent of total revenue	HOTP12-13.aspx		(million) years 2010, 2011, 2012, 2013. Then divide
Feature films	estimate p/a			by Sum Production Format (all)
		http://archive.stats.govt.nz/browse for stats/industry sectors/film and television/ScreenIndustrySurvey	table 8	Sum Production Format (Television programmes),
Small Screen - Series	Percent of total revenue	HOTP12-13.aspx		NZ\$ (million) years 2010, 2011, 2012, 2013. Then
& one off	estimate p/a			divide by Sum Production Format (all)
		http://archive.stats.govt.nz/browse for stats/industry sectors/film and television/ScreenIndustrySurvey	table 8	Sum Production Format (Commercials), NZ\$
	Percent of total revenue	<u>HOTP12-13.aspx</u>		(million) years 2010, 2011, 2012, 2013. Then divide
Commercials	estimate p/a			by Sum Production Format (all)
		http://archive.stats.govt.nz/browse for stats/industry sectors/film and television/ScreenIndustrySurvey	table 8	Sum Production Format (Sum Other & Non
		HOTP12-13.aspx		broadcast media), NZ\$ (million) years 2010, 2011,
	Percent of total revenue			2012, 2013. Then divide by Sum Production Format
All other	estimate p/a		7	(all)
	Total industry estimate			Number of Productions estimate p/a X Percent of
Feature films	p/a			total revenue estimate p/a (set at \$1.6Bil)
Small Screen - Series	Total industry estimate			Number of Productions estimate p/a X Percent of
& one off	p/a	As above		total revenue estimate p/a (set at \$1.6Bil)
	Total industry estimate			Number of Productions estimate p/a X Percent of
Commercials	p/a			total revenue estimate p/a (set at \$1.6Bil)
	Total industry estimate			Number of Productions estimate p/a X Percent of
All other	p/a			total revenue estimate p/a (set at \$1.6Bil)

New Zealand Production Screen Industry. | Feature Films - estimated annual average

Data Point				
description	Data Point	Source	Source level 2	Calculation
	Number of Productions	https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG-		Count of Name of
Large	estimate p/a	Intl%20Grants%20Approved%20%281%20Jan%202010%20-%2031%20Mar%202020%29.pdf		Average 2010 -

ne of Screen Production (>15mil). Then Average 2010 - 2019.



Small	estimate p/a	Intl%20Grants%20Approved%20%281%20Jan%202010%20-%2031%20Mar%202020%29.pdf		Total Number of Productions estimate p/a - Large
Large	Percent of feature film re	venue estimate p/a		Large / Total
Small Large	Percent of feature film re Total feature film estimate p/a	venue estimate p/a https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG- https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG- https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG- https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%20%20Mar%202020%29.pdf https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%2031%20Mar%202020%29.pdf https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%20Mar%202020%29.pdf		Small / Total Sum of Total Qualifying NZ Production Expenditure (<15mil). Then Average 2010 - 2019. NZPQE aggregated at 'Name of Screen Production' level
Small	Total feature film estimate p/a	https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG_ Intl%20Grants%20Approved%20%281%20Jan%202010%20-%2031%20Mar%202020%29.pdf		Total feature film estimate p/a - Large
	ction Screen Industry. Small	Screen - Series & one off* - estimated annual average		
Data Point				
description	Data Point	Source	Source level 2	Calculation
description	Number of Productions estimate p/a	https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG- Intl%20Grants%20Approved%20%281%20Jan%202010%20-%2031%20Mar%202020%29.pdf	Source level 2	Count of Name of Screen Production (<15mil). Then Average 2016 - 2019.
<u> </u>	Number of Productions	https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG-	Source level 2	Count of Name of Screen Production (<15mil). Then
Large	Number of Productions estimate p/a Number of Productions	https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG- Intl%20Grants%20Approved%20%281%20Jan%202010%20-%2031%20Mar%202020%29.pdf https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG- Intl%20Grants%20Approved%20%281%20Jan%202010%20-%2031%20Mar%202020%29.pdf	Source level 2	Count of Name of Screen Production (<15mil). Then Average 2016 - 2019.
Large Small Large Small	Number of Productions estimate p/a Number of Productions estimate p/a Percent of feature film re Percent of feature film re Total feature film	https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG- Intl%20Grants%20Approved%20%281%20Jan%202010%20-%2031%20Mar%202020%29.pdf https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG- Intl%20Grants%20Approved%20%281%20Jan%202010%20-%2031%20Mar%202020%29.pdf wenue estimate p/a wenue estimate p/a https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG-	Source level 2	Count of Name of Screen Production (<15mil). Then Average 2016 - 2019. Total Number of Productions estimate p/a - Large Large / Total Small / Total Sum of Total Qualifying NZ Production Expenditure
Large Small Large	Number of Productions estimate p/a Number of Productions estimate p/a Percent of feature film re	https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG-Intl%20Grants%20Approved%20%281%20Jan%202010%20-%2031%20Mar%202020%29.pdf https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG-Intl%20Grants%20Approved%20%281%20Jan%202010%20-%2031%20Mar%202020%29.pdf wenue estimate p/a wenue estimate p/a	Source level 2	Count of Name of Screen Production (<15mil). Then Average 2016 - 2019. Total Number of Productions estimate p/a - Large Large / Total Small / Total

https://www.nzfilm.co.nz/sites/default/files/2018-02/LBSPG%20%26%20NZSPG-

Number of Productions



https://www.tvnz.co.nz/one-news/entertainment/lights-camera-action-soon-isolated-otago-community-hosts-300 m-disney-remake-mulanter and the community-hosts are community-hosts and the community-hosts and the community-hosts are community-hosts

Votago Daily Times (2020) Film studio mooted to diversify the local economy, Phillip Chandler, 23 April 2020 https://www.odt.co.nz/regions/queenstown/film-studio-mooted-diversify-local-economy; Otago Daily Times (2020) \$17m film studio on cards, Emma Perry, 20 April 2020, https://www.odt.co.nz/news/dunedin/17m-film-studio-cards

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¹ P.9 The economic contribution of the screen industry, NZIER report, November 2017

Bealing, M. Krieble, T. (2017) the economic contribution of the screen industry, New Zealand Institute of Economic Research, November 2017.

iii https://www.stats.govt.nz/information-releases/screen-industry-201718

iv Sources differ on the budget between \$200-\$300m https://en.wikipedia.org/wiki/Mulan (2020 film)#Post-production

vi https://www.nzfilm.co.nz/international/screen-incentives/nzspg-criteria-international-1-july-2017

vii https://www.nzfilm.co.nz/international/screen-incentives/nzspg-criteria-international-1-july-2017

viii https://www.stats.govt.nz/information-releases/screen-industry-201718

ix https://epicinnovation.co.nz/tenants/

^{*} http://www.newmexiconewsport.com/how-has-breaking-bad-affected-new-mexicos-economy/

xi https://www.nzfilm.co.nz/international/screen-incentives/nzspg-criteria-international-1-july-2017

xii https://www.nzfilm.co.nz/international/screen-incentives/nzspg-criteria-international-1-july-2017