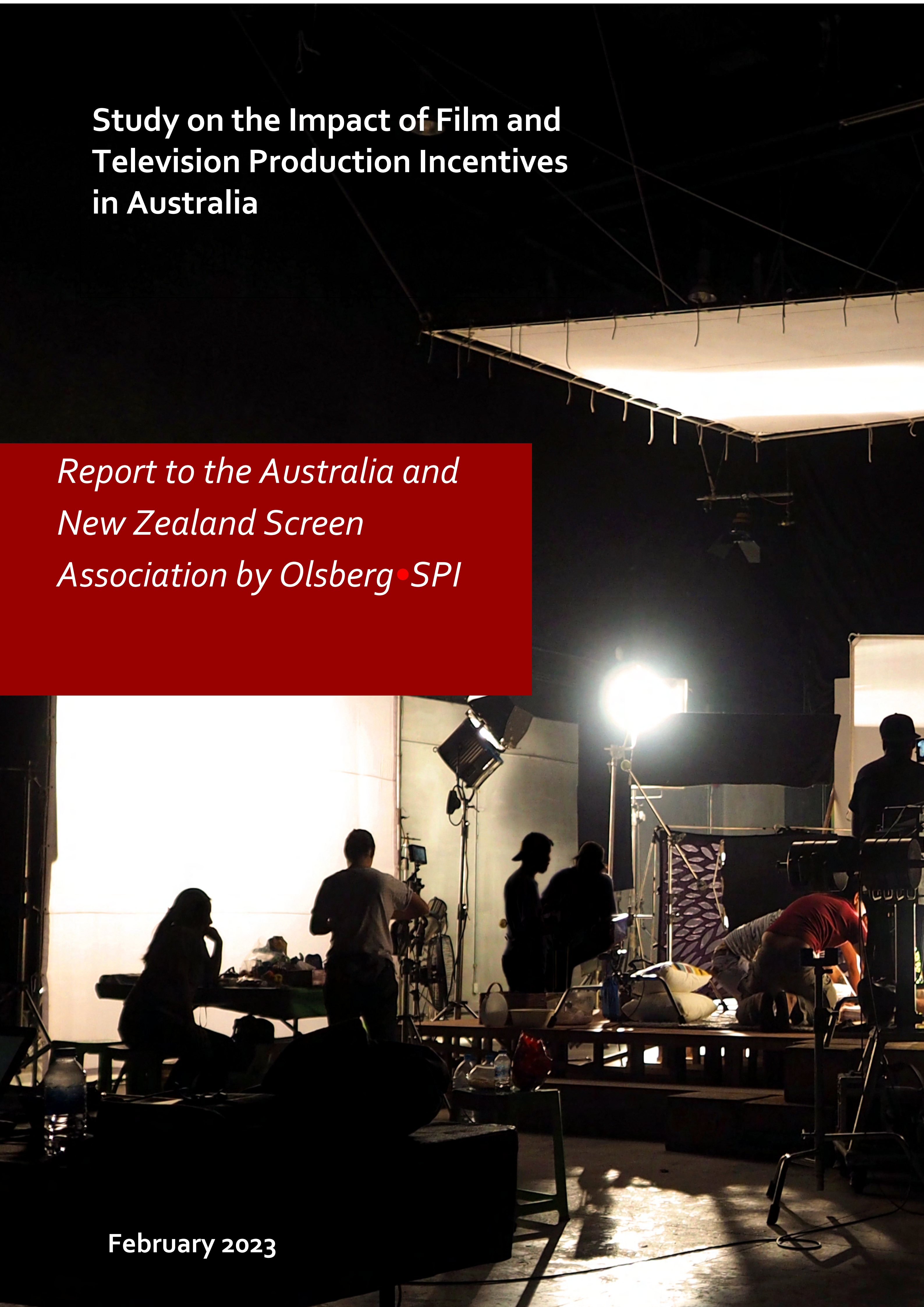


Study on the Impact of Film and Television Production Incentives in Australia

Report to the Australia and New Zealand Screen Association by Olsberg•SPI

February 2023

Contents

1. EXECUTIVE SUMMARY

1.1. Study Overview

Olsberg•SPI ("**SPI**") was commissioned by the Motion Picture Association (MPA) and the Australia and New Zealand Screen Association (ANZSA) to produce an up-to-date economic impact assessment of the film and television production incentives between 2018/19 – 2021/22, including the Producer Offset, Location Offset, Location Incentive and Post, Digital and Visual Effects (PDV) Offset (**"the study"**).

This study uses established, international best practice to demonstrate the value in terms of direct, indirect and induced economic impact, as well as wider spillover impacts such as screen tourism and investment in infrastructure. It also includes micro impact measures in the form of vendor heat maps and ripple effect analysis to further demonstrate the value and impact of screen productions.[1]

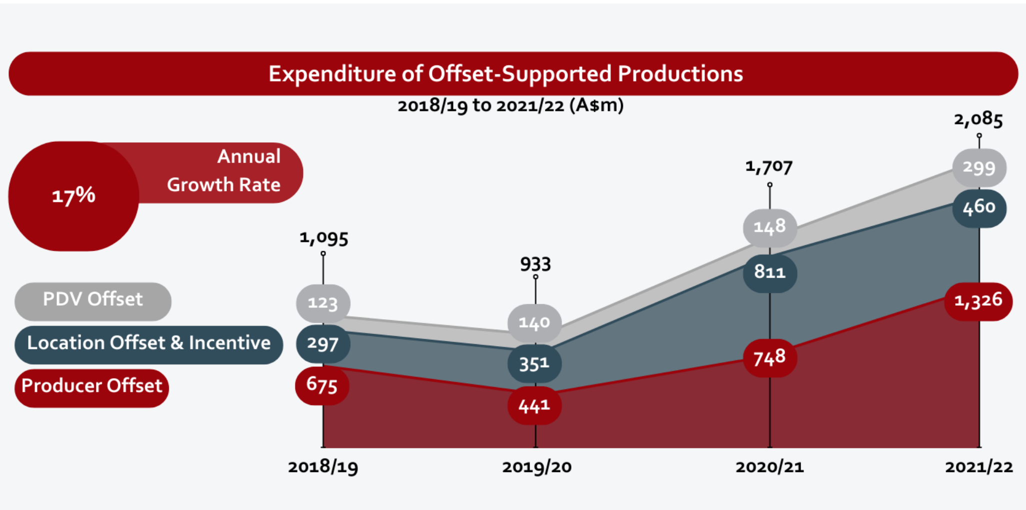
SPI's approach used a combination of primary and secondary research, including 30 confidential consultations with national agencies and government departments, state-level agencies, trade associations, Australian production companies, studios and international studios and streamers. This was supported by extensive desk research using existing resources and datasets, including reports on production activity in Australia.

1.2. Key Findings

1.2.1. Significant Economic Impact

There has been a significant increase in expenditure associated with offset-supported productions, reaching over A$2.1 billion in 2021/22 across the combined PDV Offset, Location Offset and Incentive and Producer Offset. There has been an annual growth rate of 17% in direct expenditure across the three Offsets.

Figure 1 – Direct Expenditure of Offset-Supported Productions 2018/19 – 2021/22



This has led to significant economic impacts, summarised in Figure 2 below. Between 2018/19 – 2021/2022 total GVA across the three Offsets amounted to A$5.9 billion. In 2021/11, 20,600 FTE jobs have been supported across the three Offsets.

[1] This study uses a more tailored approach to focus on production sector impacts only, so the results are not directly comparable to our 2018 study *Impact of Film and TV Incentives in Australia*. The 2018 report is available at: https://www.o-spi.com/projects/evaluation-of-the-australian-offsets

Figure 2 – Economic Impact of Offsets, GVA and FTE Jobs 2018/19 – 2021/22

GVA – Between 2018/19 and 2021/22 (A$m)

	Direct	Indirect	Induced	Total
Location Offset and Incentive	705	687	726	2,119
PDV Offset	243	237	250	731
Producer Offset	1,003	976	1,029	3,008
Total	1,951	1,900	2,006	5,857

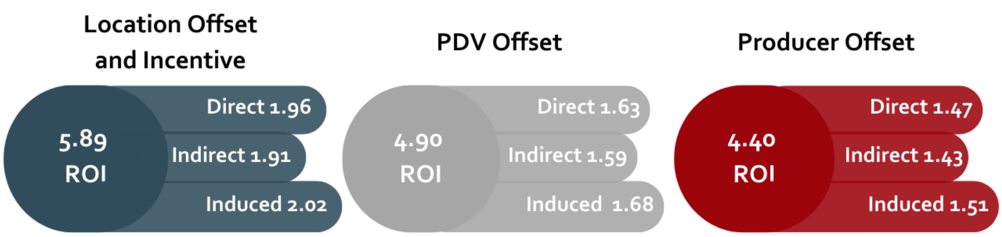
FTE Jobs – Supported in 2021/22

	Direct	Indirect	Induced	Total
Location Offset and Incentive	1,700	1,700	1,600	5,000
PDV Offset	1,100	1,000	1,000	3,100
Producer Offset	4,300	4,200	4,000	12,500
Total	7,100	6,900	6,600	20,600

1.2.2. A Suite of Effective Initiatives

This report measures the return on investment (ROI) based on how much economic value is supported by A$1 of net investment by the Australian government. The net investment is the cost of the Offset minus the direct tax return associated with the offset. This ROI metric for the three Offsets ranges from 4.40 for the Producer Offset to 5.89 for the Location Offset. When taking out induced effects, ROI figures (direct and indirect) amount to 3.87 for the Location Offset and Incentive, 3.22 for the PDV Offset and 2.9 for the Producer Offset.

Figure 3 – Return on Investment Across Offsets, 2018/19 – 2021/22



1.2.3. A Thriving Economic Sector, with Some Issues

The evidence in this report points unequivocally to a thriving screen production sector that delivers considerable economic benefits. Australia is firmly placed in the top league of countries where governments have recognised the economic (and cultural) benefits of this activity, having put in place sensible and effective policy levers that underpin growth and deliver considerable value for public money.

Evidencing this growth, comparing 2018/19 to 2021/22, Offset-supported production expenditure grew by 91%, GVA generated from these productions grew by 92%, tax revenue generated grew by 91% and FTE jobs by 76%.

Notwithstanding this evidence, there are some risks, currently, that this position is under threat, particularly regarding the future of the Locations Offset and Incentive system. There are two fundamental issues that are affecting growth scenarios negatively. The first is the uncertainty surrounding levels of future funding. The second relates to the complex arrangements involved in identifying at what percentage level the incentive will be available. This puts Australia at a competitive disadvantage, amid calls for establishing a certain 30% level for the Offset and removing the discretionary Location Incentive. This doesn't just risk location shoots in Australia, it also risks PDV work as PDV work is done in proximity to the location shoot, and – increasingly – captured in camera through volumetric soundstages.

There is no doubt that investors in new stages are holding back their plans for new studio provision, urgently needed because of constrained capacity, because of the uncertainty around this particular Offset. Compared to its competition, Australia is considerably underserved in studio provision and evidence contained in section 10.2.6 demonstrates how much studio capacity is a concern, and how uncertainties around the Location Offset and Incentive are contributing to this problem.

1.2.4. Additionality

One of the objectives of the research was to identify the degree to which this public investment generates fresh economic activity that would not have taken place in Australia had the Offsets not existed ("**additionality**"). Overall, the survey results and the consultation evidence available to date show a high degree of additionality across all three Offsets. The availability, predictability and smooth operation of the Offsets have been key decision considerations for producers bringing productions and post/production projects to Australia. The results showed that the Offsets are also extremely valuable for domestic productions in ensuring that they are financially viable.

Based on survey and consultation, the additionality rate for the Location Offset and Incentive is estimated to be 100% - meaning that all eligible expenditure can be attributed to the presence of the Offsets and/or Incentive. The PDV Offset additionality rate is currently estimated to be 93.6% and the Producer Offset additionality rate is 85.8%. All economic impact results for output, GVA, FTE jobs, tax and ROI presented are net – the impact of expenditure that would have occurred in Australia without the incentives has been removed.

1.2.5. Micro Economic Impacts

SPI also carried out customised research into the additional value of productions when the impact of local expenditure is analysed. This is the micro-economic effect that impacts a range of other business sectors in and around the geographical area where the production expenditure takes place.

Film and TV production are specialist manufacturing processes which require a wide variety of inputs. These include a large number of workers – spanning creative, technical, logistical and support roles – as well as equipment, facilities, infrastructure and services. While some of these inputs will be sourced directly from the screen sector – i.e., from individuals or vendors who only work in film and TV production – normally, a larger proportion of expenditure is made in other areas of the economy. SPI refers to this as the "**Ripple Effect**" – i.e., the micro-economic impacts that each production generates for other business sectors.

The Ripple Analysis research in this study analyses a representative mid-budget range TV drama series. The research reveals that a powerful 60% of total below-the-line production expenditure lands in, and benefits, other business sectors outside the specialist screen production sector.

In addition to the Ripple Analysis, SPI engaged with an Australian production company to assess the impact of their productions on the screen sector supply chain. Analysis was conducted on three television drama series to determine where the spend landed in terms of geographic location. This analysis covered spend across the whole country, but separate research was performed on spend in different states.

Across the three productions, over A$72 million was spent in Victoria, New South Wales, Queensland, Western Australia, South Australia and Tasmania and the maps included in Section 8.3 demonstrate how widely around the state the expenditure took place. While is often thought that screen production is a very metro-centric activity, this research shows how the activity is spread around geographically.

1.2.6. Factors Affecting the Future Growth of the Sector

In looking to the future, there are several factors that could affect what happens to the level of future production activity. Several of these factors are outside the control of any entity, but some are likely to be a direct consequence of public policy. These are discussed in Chapter 10 but, briefly, the main factors are:

- Global economic uncertainty – as with virtually every business sector, screen production is not immune to global economic trends. The US heritage studios and streamers, and other major producers will be affected by recessionary trends and the health of the global economy.
- Underlying consumer demand for content – as markets move from underdeveloped to mature, and the amount of disposable income increases, demand for screen content can be expected to grow. Once the current economic malaise is over, this should bring global production levels above the previous highs of pre-pandemic 2019, and further growth is expected to continue.
- The future of the Location Offset/Incentive – discussed above, it is clear that the most positive outcome to grow the levels of inward production would be to increase the Location Offset to a higher permanent percentage and remove the uncertainty around available funds, thus eliminating the need for a top-up Location Incentive.
- Building studio and stages provision – Australia is well behind its competitors in this area, and if improvements are not made future growth in production levels will be inhibited. However, unlocking the uncertainty referred to above should encourage the private sector investment appetite which is currently reluctant to commit.
- When the factors that determine production location conditions for portable productions are assessed, Australia is in a strong position and is counted among the top rank of desirable locations, and this is likely to continue if the uncertainty over the Location Offset/Incentive is resolved.
- Workforce and stages capacity – there is a global shortage of human and physical infrastructure and continued policies are needed, at Federal and state levels, to develop the sector's capacity and competence.

Section One:

The Screen Production Sector in Australia

2. THE SCREEN PRODUCTION SECTOR IN AUSTRALIA

2.1. The Australian Screen Production Incentive

The Australian Screen Production Incentive (ASPI) is a key Australian Government mechanism for investing in screen production. Through the ASPI, the Government provides incentives for domestic and international film, television and other screen production through four streams:

- The PDV Offset for digital animation, post-production and visual effects (30%)
- The Producer Offset (40% for Australian theatrical features; 30% for non-theatrical Australian content)
- The Location Offset (16.5% for large incoming film and television productions); which can be combined with:
- The Location Incentive (merit-assessed grant of up to 13.5% for large incoming film and television productions).

The three Offsets have undergone a series of changes since their initial introduction in 2007, most recently increasing the Producer Offset rate for television production to 30% from 20%. This change was introduced from 1st January 2022 and applies to productions that began principal photography on or after 1st July 2021.[2]

These Offsets replaced previous investor-driven and some selective funding models and offer a range of benefits for the Australian production sector. Compared to their predecessors, the present Offsets are automatic, democratic – they are available to all productions that fulfil the eligibility criteria – and offer a degree of certainty for producers. The Location Incentive, as a merit-assessed grant, is an outlier given that it is a selective top-up incentive.

Beyond the wider economic benefits, the Producer Offset has a specific cultural policy objective to support the production of significant Australian content.[3] To qualify, productions must meet the requirements of the Significant Australian Content (SAC) test which assesses the subject matter and location of the film, as well as the cultural contribution of Australians above- and below-the line working on the film. Through the Producer Offset, Australian producers have gained greater equity in their productions and an alternative funding avenue, which has enabled the Australian screen sector to develop and grow.[4]

2.2. The Global Production Deluge

The years prior to the pandemic saw a global deluge of film and television production. This was driven by demand for all types of content from consumers and investors alike – which include newer entrants such as the streamers, as well as established broadcasters and US studios. However, many of the major producers have re-set production plans which have slowed the growth curve, resulting primarily from current global economic uncertainty and some consolidation within the corporate structure of the sector.

This current levelling-off is likely to be relatively short term as underlying demand from global consumers will continue. SPI anticipates the current cooling off of the growth curve will remain

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[2] *Australian Screen Production Incentive Reforms.* Australian Taxation Office, 12th January 2022. Accessible at: https://www.ato.gov.au/General/New-legislation/In-detail/Direct-taxes/Income-tax-for-businesses/Australian-Screen-Production-Incentive-Reforms/

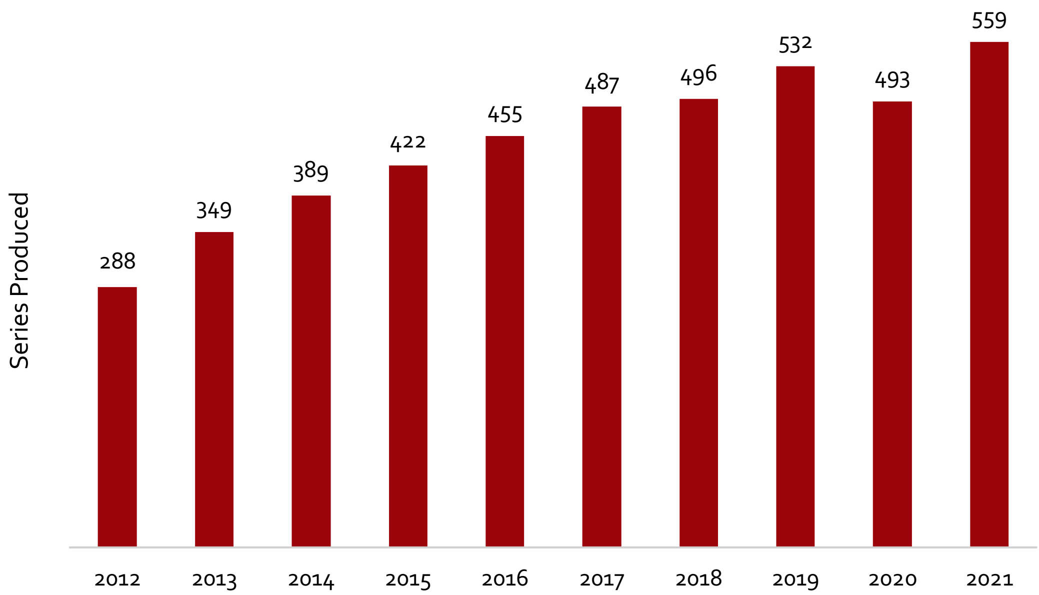
[3] *Producer Offset Guidelines.* Screen Australia, 2022. Accessible at: https://www.screenaustralia.gov.au/getmedia/70b2fae6-232c-4a48-be6d-e970aead20d9/Guidelines-producer-offset-2022.pdf?ext=.pdf

[4] *Skin in the Game.* Screen Australia, November 2017. Accessible at: https://www.screenaustralia.gov.au/getmedia/cbd7dfc8-50e7-498a-af30-2db89c6b3f30/Skin-in-the-game-producer-offset.pdf

until global economic conditions, and uncertainty, improve, after which we expect continued expansion of the global production sector.

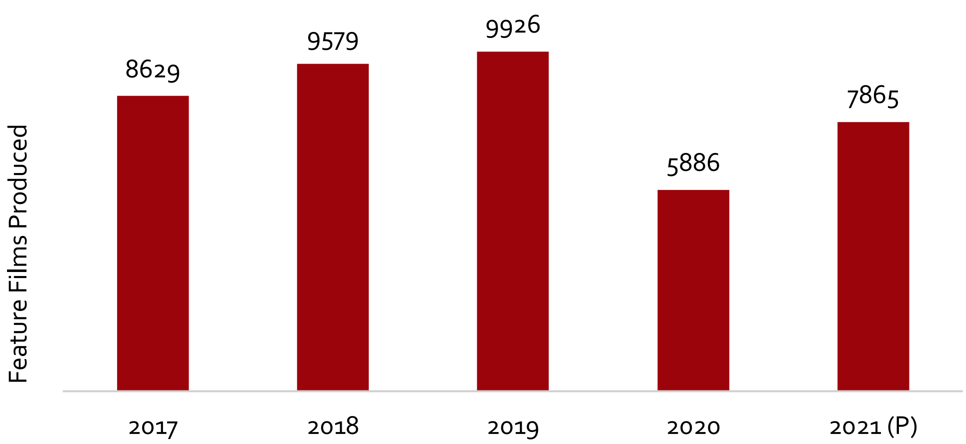
Prior to the pandemic, screen content production reached record levels, with US$177 billion in global production spend in 2019.[5] Much of the growth has been driven by television series although feature film production has also been gradually increasing.

Figure 4 – Scripted Original Series Production in the US, 2012 – 2021



Source: FX Networks Research[6]

Figure 5 – Worldwide Feature Film Production, 2017 – 2021



Source: European Audiovisual Observatory

[5] *Global Screen Production – The Impact of Film and Television Production on Economic Recovery from COVID-19.* Olsberg•SPI, 25th June 2020. Accessible at: https://www.o-spi.com/projects/economic-impact-studies-research-and-evaluation-lyglh

[6] *Peak TV Tally: According to FX Research, A Record 559 Original Scripted Series Aired in 2021.* Variety, 14th January 2022. Accessible at: https://variety.com/2022/tv/news/original-tv-series-tally-2021-1235154979/

Governments around the world have paid particular attention to the production[7] sector as a driver of economic growth because of two distinct factors:

- The intensifying appetite for content from the streamers and traditional Hollywood studios, and other content investors, underpinned by an ongoing expansion of global consumer demand for filmed entertainment, and
- Government recognition that screen production plays a unique role in delivering economic value, in part because of the way that large sums are rapidly spent, spreading throughout an economy, when this fast-paced 'specialised manufacturing' activity takes place.

Before the pandemic hit in early 2020, Australia had already established a leading position as a desirable destination for international productions, based on many factors, including the Location Offset and Location Incentive grant programmes. This reputation was enhanced by the speed with which the production sector was able to reopen post-pandemic, quickly implementing safe shooting protocols and the increased $400 million funding for the Location Incentive programme.

2.3. Federal, State, and Territory Investments

2.3.1. Federal Investments

Government support is critical to the continued success and growth of the Australian screen industry. Federal government invests in the sector through a number of avenues, including the ASPI and Screen Australia funding.

The Offsets represent a large part of the Federal Government's investment in the Australian screen production sector. Feature films and television drama account for approximately 30% of audiovisual production spend in Australia.[8] Funding through the Federal Government has contributed an average of 36% of the total financing to Australian features, and 37% of total financing for Australian television and VOD over the past five years. This is primarily due to the Producer Offset and direct funding from Screen Australia. The Producer Offset has contributed an average of 32% of total financing for Australian features and 14% to total financing for Australian television and VOD over the past five years. The Location and PDV Offsets make up an average of 2% of total financing for Australian television and VOD over the past five years.[9]

The Producer Offset encourages market-based investment for screen content. Foreign investment has become the leading source of financing of Australian features, contributing an average of 44% of financing over a five-year period. Foreign investment contributes an average of 33% of financing over a five-year period to Australian television and VOD projects, second only to investment from the Australian screen industry, which contributed an average of 37% of financing over a five-year period. In 2021/22, foreign investment in 10 of the 46 Australian television and VOD titles accounted for 62% of total television and VOD foreign contributions. This reflects a growing opportunity for Australian stories to connect with global audiences.

Screen Australia provides selective funding for domestic and co-produced films, television and online content. Over the course of 2021/22, Screen Australia invested over A$52.2 million in production funding for domestic and co-produced content. This included over A$14 million in production funding to feature film, A$23.8 million towards television drama, A$6 million on

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[7] Primarily feature films, scripted television, and documentaries.

[8] This excludes online production. Other areas of activity include documentaries, web-series, light entertainment, commercials, music videos, corporate videos, and sport, news and current affairs.

[9] *Drama Report 2021-22*. Screen Australia, 10th November 2022. Accessible at: https://www.screenaustralia.gov.au/getmedia/3a8f3011-211c-4f93-bd41-3b4767585dec/SA-DramaReport.pdf

children's television and A$7.8 million towards online drama.[10] Funding is also available through Screen Australia to support development, sales and distribution.

The ASPI has been integral to encouraging international projects to select Australia for their productions. The PDV Offset is considered competitive internationally, particularly when combined with state level PDV incentives. As a result, there has been continued growth within Australia's animation, post-production and VFX sector. The Location Offset, in comparison, is relatively uncompetitive against other global production hubs at its base rate of 16.5%. Previously, discretionary top-up funding was utilised to attract footloose international productions to Australia. Since 2018, the Location Incentive grant has been introduced and, when combined with the Location Offset, offers an incentive rate of 30%. While this offers greater certainty than the previous top-up approach, it remains less certain and reliable in comparison to the incentives offered by international competitors such as the UK, Georgia (US), and Canada. Furthermore, we understand a substantial portion of the budget has been allocated. According to a recent announcement, A$412 million has been committed under the Location Incentive programme as of October 2022, leaving approximately A$128 million remaining in the programme.[11] Through consultations, SPI understands that it is expected that Location Incentive funds will likely be extinguished in early 2023.

Federal investments in the screen sector through the various incentives is also accompanied by a commitment towards skills and employment development. One of the conditions imposed by the federal government for applicants to successfully receive the Location Incentive is to demonstrate a commitment to undertaking skills and development activities, detailing skills development plans as part of the production.[12] With particular reference to the Location Incentive, Paul Fletcher, then Minister for Communications, Urban Infrastructure, Cities and the Arts, noted that the Location Incentive had created over 17,800 Australian jobs[13] for cast and crew in the country.[14]

The growth of Australia's production sector, fueled by the ASPI, has enabled consistent and quality employment opportunities for Australian cast and crew. Notably, in 2021, Ausfilm announced a workforce capacity working group with key stakeholders such as the Office of the Arts, Screen Australia, state screen agencies, Australian Film, Television and Radio School (AFTRS) and National Institute of Dramatic Arts (NIDA) to address skills and workforce-related gaps in Australia.[15]

2.3.2. State and Territory Investments

Alongside the Federal Government's ASPI, a number of Australian states also offer investment and grant schemes for the screen sector, similar to Canada's provinces which have long opted to augment the Federal incentive available there. These schemes aim to support local film

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[10] *Annual Report 2021-22.* Screen Australia, October 2022. Accessible at: https://www.screenaustralia.gov.au/getmedia/4af98de9-e06a-4269-aee3-98d7fd5c52ee/SA-Annual-Report-2021-2022.pdf?ext=.pdf

[11] *Disney's Kingdom of the Planet of the Apes to boost local jobs within our screen industry*. Australian Government: Office of the Arts, 10th October 2022. Accessible at: https://www.arts.gov.au/departmental-news/disneys-kingdom-planet-apes-boost-local-jobs-within-our-screen-industry

[12] *Location Incentive Application Form*. Australian Government: Department of Infrastructure, Transport, Regional Development, Communication and the Arts. Accessible at: https://screenincentives.smartygrants.com.au/location_incentive/262868/view.

[13] In this context, jobs refers to individual cast and crew roles on productions in Australia that received the Location Incentive. It is not directly comparable to the jobs (FTE) analysis in this report.

[14] *Film Fund Delivering Record Jobs and Boosting the Local Economy*. Paul Fletcher MP: Media Releases, 14th February 2022. Accessible at: https://www.paulfletcher.com.au/media-releases/film-fund-delivering-record-jobs-and-boosting-the-local-economy.

[15] *Ausfilm's Workforce Capacity Working Group.* Ausfilm, 2021. Accessible at: https://www.ausfilm.com.au/what-we-do/ausfilms-workforce-capacity-working-group/.

makers to attract finance for their projects and to attract footloose productions into the states and territories of Australia – both from international or domestic sources – and provide additional funding on top of the Federal Offsets. The funding will typically require specific outcomes – whether in terms of jobs, training, or investment impacts – to generate benefits for the state governments. As a result of these benefits, state incentives have been substantially increased in the past few years. Regional incentives have also been introduced by local governments, such as those in the Gold Coast and Cloncurry[16] in Queensland, to capitalise on the global production deluge.

God's Favorite Idiot. Cr. Vince Valitutti/Netflix ©2022

In November 2020, the New South Wales (NSW) Government announced a A$175 million investment into the 'Made in NSW' fund between 2020/21 and 2024/25.[17] The fund is designed to attract high-end screen production to the state that will "significantly contribute to the NSW economy, create high value jobs, create new opportunities in western Sydney and regional NSW and build the skills and capacity of established and emerging practitioners".[18] Since its announcement, the fund has attracted productions such as *Wolf Like Me* (2022), *Furiosa* (2024), and *God's Favorite Idiot* (2022) to NSW.

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[16] *Cloncurry Council Announces Film Incentive Program.* Inside Film, 5th October 2022. Accessible at: https://if.com.au/cloncurry-council-announces-film-incentive-program/

[17] *It's Showtime for NSW Screen Industry with Record $175 million Investment for Made in NSW.* NSW Government, 7th November 2020. Accessible at: https://screen.nsw.gov.au/data/publish/1230/dominic_perrottet_don_harwin_it_s_showtime_for_nsw_screen_industry.pdf

[18] *Made in NSW – TV Drama and Features.* Screen NSW. Accessible at: https://www.screen.nsw.gov.au/funding/production-support/Made+in+NSW+-+TV+Drama+

> ‘Made in NSW’ has injected more than A$900 million into the NSW economy through local production ... Our strong and continued investment means we are in a position to attract and retain the best productions so we can maintain a vibrant, thriving film industry here in NSW.
>
> *– Premier Dominic Perrottet (then treasurer) (2020)*

Introduced in 2015/16 Queensland’s discretionary production attraction incentive has secured 43 productions to the state and is forecast to contribute over A$1.1 billion into the local economy and create over 13,000 job opportunities for Queensland residents. An additional A$53 million was provided over two years for the production attraction strategy, which increases the total funding between 2015/16 and 2022/23 to A$153 million.[19] The incentive has attracted productions to shoot in Queensland, including *Elvis* (2022), *Wizards!* (2023), and *Young Rock* (2021-2022).

Victoria unveiled its new Victorian Screen Incentive (VSI) in November 2020 to attract international and interstate screen projects. This incentive replaced the state’s previous attraction incentive, the Production Incentive Attraction Fund (PIAF). Unlike other Australian states that offer an incentive with a discretionary fund, the VSI offers a grant of up to 10% on qualifying production expenditure in Victoria.[20] *La Brea* (2022-), *Foe* (2023), *Better man* (2023) have all been attracted to shoot in Victoria.

In September 2022, Western Australia opened its A$20 million WA Production Attraction Incentive. The fund was part of an election commitment from the McGowan Government in 2021, along with a commitment to building a film studio in Perth. The fund is designed to attract footloose productions to the western coast of Australia and create a “pipeline of WA productions [that will] increase the capability and capacity of the local industry and suppliers”.[21]

Increasingly, states are incorporating production ‘attachments’ as a condition of state funding to upskill Australian crew and respond to growing global crew capacity concerns. These schemes require productions receiving funding to provide a set number of paid production attachment positions for each production to early or mid-career professionals based in the state. In Queensland, one attachment is required for projects receiving under A$200,000 in funding, two attachments for projects receiving funding between A$200,000 – A$299,999 and three attachments for projects receiving more than A$300,000 in funding.[22] Screen NSW has similar attachment requirements as Queensland, but also requires projects receiving more than A$200,000 to hire two attachments and ensure one is female and at least one is from a

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[19] *2020-21 Financial Year Overview.* Screen Queensland. Accessible at: https://screenqueensland.com.au/app/uploads/2021/10/Annual-Review-Screen-Queensland-2020-21-web.pdf

[20] *Film Victoria Announces New Victorian Screen Incentive – AU$33.8 Million.* Ausfilm, 12th November 2020. Accessible at: https://www.ausfilm.com.au/news/film-victoria-announces-new-victorian-screen-incentive-33-8-million-for-physical-post-vfx-animation-games/

[21] *WA Rolls Out Red Carpet for Film and TV Projects with $20m Fund.* Government of Western Australia, 26th August 2022. Accessible at: https://www.mediastatements.wa.gov.au/Pages/McGowan/2022/08/WA-rolls-out-red-carpet-for-film-and-TV-projects-with-$20m-fund.aspx

[22] *Screen Queensland Attachment Program.* Screen Queensland. Accessible at: https://screenqueensland.com.au/investment-support/sq-attach/

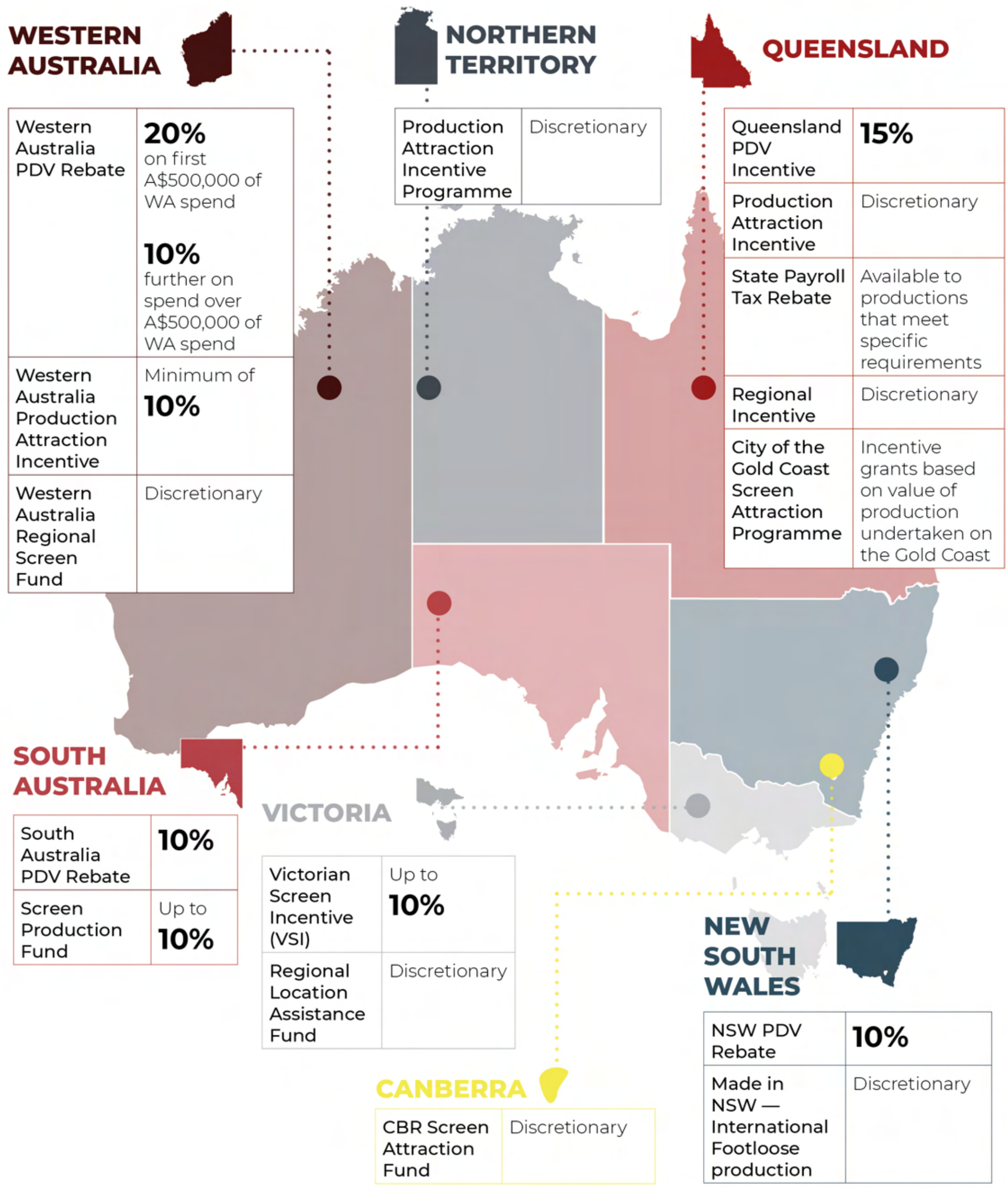
priority group.[23] Screen Australia, VicScreen, South Australia Film Commission, Screenwest, Screen Tasmania, Screen Territory, and Screen Canberra all include attachments as conditions of funding.

There has been an increase in state-level PDV incentives over the past five years. Since unveiling its PDV rebate offer in December 2017, South Australia has established itself as a post-production and VFX hub and now captures approximately 16% of Australia's PDV expenditure.[24] Queensland followed with its own 10% PDV incentive in October 2018 and increased it to 15% in 2021. NSW unveiled its 10% PDV incentive in July 2019 and both Western Australia and Victoria now also offer non-discretionary PDV incentives to qualifying productions. These state-level PDV incentives can all be combined with the national 30% PDV Offset, offering productions a total rebate between 40% and 50%.[25] These incentives have stimulated growth in PDV activity across the states.

State-level funding has shown to be a strong motivator of attracting production – both domestic and international – to a particular state, but only in coordination with the federal level offsets. SPI's research suggests that these state incentives are not sufficient to attract footloose productions in the absence of a competitive federal Offset, nor do they exist at such a scale as to make the Location Offset attractive, in the absence of the Location Incentive top-up grant.

[23] Priority groups include Aboriginal and Torres Strait Islander people (ATSI), culturally and linguistically diverse (CaLD), Disability, LGBTQI, Western Sydney and Regional NSW. More information accessible at: https://www.screen.nsw.gov.au/funding/industry-support/create-nsw-attachment-register
[24] *Robust Screen Sector Hits New Highs in South Australia.* South Australian Film Corporation, 10th November 2022. Accessible at: https://www.safilm.com.au/latest-news/robust-screen-sector-hits-new-highs-in-south-australia/
[25] Western Australia offers a 20% PDV rebate on the first A$500,000 in Western Australian spend. The rate adjusts to 10% for any additional spend.

Figure 6 – State and Territory Incentive Schemes



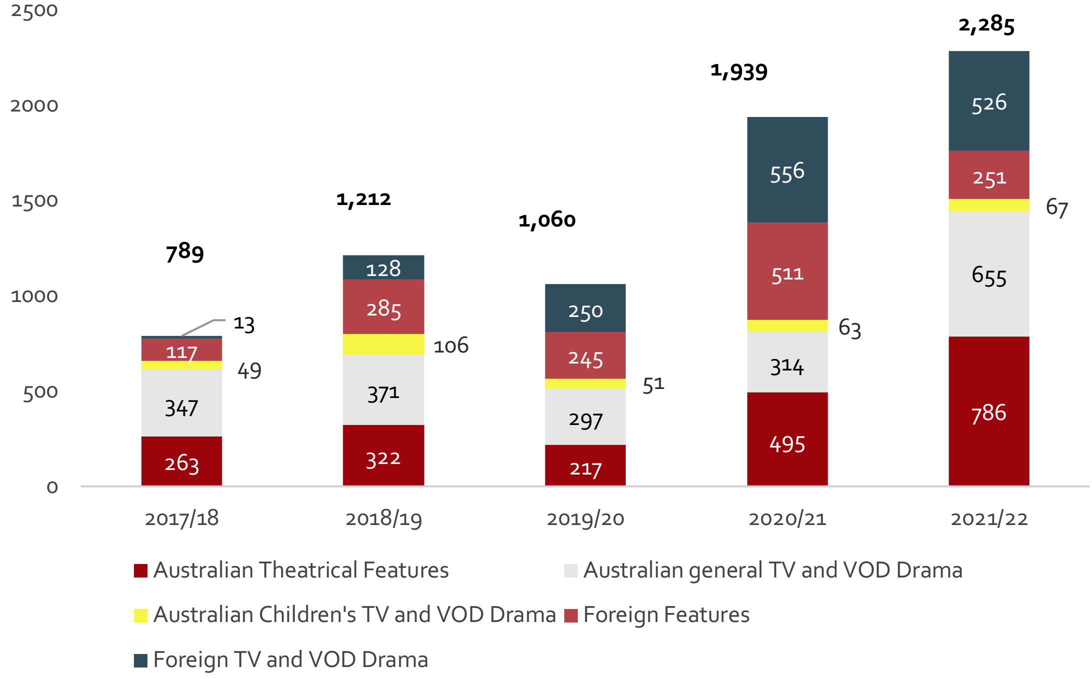
Source: Ausfilm[26]

2.4. Total Expenditure, 2017/18 to 2021/22

Since the introduction of the Offsets, expenditure in Australia has grown, culminating in over A$2.2 billion in total production expenditure in 2021/22.

[26] *Australian Screen Incentives Factsheet.* Ausfilm, October 2022. Accessible at: https://www.ausfilm.com.au/wp-content/uploads/2022/10/Incentives-Factsheet-OCT-2022-1.pdf

Figure 7 – Total Expenditure in Australia, 2017/18 – 2021/22 (A$m)



Source: Screen Australia Drama Report 2021/2022

This growth has been driven by a number of changes in the nature of the screen sector. The increasingly footloose nature of global production has enabled Australia to increasingly attract large international productions such as *Thor: Love and Thunder* (2022), *Godzilla Vs Kong* (2021), *Nautilus* (2023), *La Brea* (2021-) and *Shantaram* (2022).

Australia's relatively COVID-free status in 2020, particularly compared to the US and Europe, enabled productions to shoot through the pandemic with greater certainty and very few disruptions.

The combined Location Offset and Incentive, especially when combined with state-level incentives, is an attractive offer and underlines Australia's strength as a production location. However, the uncertainty of whether a production will qualify for the Location Incentive, on top of the base Location Offset, is a notable concern for international producers and a weakness of the current Location Offset policy in the international market.

Local and international streamers, such as Stan, Netflix, Disney+, Paramount+ and Amazon Prime Video, are expanding their local content slates in Australia. In 2021/22, 29 productions for subscription TV and SVOD services entered production.[27] This was a 222% increase on the previous year, where nine titles went into production. This increase was supported by a recent change to the Producer Offset, with certain titles that began production after 1st July 2021 now accessing a higher incentive rate of 30%, rather than the previous 20% offered under the system.

Furthermore, the Producer Offset's 40% incentive rate for feature films released theatrically has played an integral role in increasing investment in tentpole Australian features such as *Furiosa (2024), Elvis (2022)* which receive funding from international studios. Total expenditure

[27] Screen Australia's Drama Report allocates expenditure based on the first release platform and therefore this may not include all titles produced by SVOD and subscription TV services.

attributed to Australian features in 2021/22 amounted to A$786 million, a 58% increase on expenditure in 2020/21 and almost 200% more than 2017/18.

Section Two:

Impact of the Australian Production Incentives

Image credit: Bonnie Elliot ACS at work on a virtual production set.

Vizion Studios courtesy of VHS ©2022

3. SUMMARY OF METHODOLOGY

3.1. Methodology and Limitations

This study employs an Input-Output (I-O) approach to economic impact modelling. It uses production expenditure data to drive a specially developed economic model. The model uses national data sources to model the interconnections between the screen production industry and other industries and the relationships between key metrics including as output, GVA and FTE jobs.

The methodology is based on a large number of sector studies SPI have undertaken around the world and it is consistent with international best practice, including studies in the UK, many US states, New Zealand and previous Australian studies. A full detailed methodology can be found in Section 0 (Appendix 1).

As there is no comprehensive, consistent source of data on Offset payment and production expenditure covered by offsets in Australia, it has been necessary to build a picture from a set of different sources. Production and Post-production, digital and VFX Expenditure data for international productions is available – providing required information on expenditure for the Location Offset and incentive and the PDV offset. Good data is available on Producer Offset covered expenditure. These expenditure figures drive the economic model. To determine the ROI,[28] offset payment amounts is required. For the Location Offset and Incentive and PDV, these are not systematically published, therefore, it has been necessary to estimate these amounts based on a set of assumptions. For full details of the approach see Section 12 (Appendix 2).

This study estimates the economic activity supported by each offset. The total economic impact is the sum of the following three effects:

- **Direct impacts** are the economic uplift in terms of output, value created (GVA) and FTE jobs within the film and television sector resulting from the increase in production and postproduction expenditure
- **Indirect impacts** are the output, value created (GVA) and FTE jobs effects observed in sectors that supply goods and services into the screen production sector
- **Induced impacts** are the output, value created (GVA) and FTE jobs uplift created as a result of the wage effects of those working in the production sector.

SPI's approach to estimating jobs is based on a full-time equivalent, year-round conception of jobs. This means that if one person is working full time on a three-month contract, this would be counted as 0.25 FTE. We adopt this approach as it enables comparison across industries and countries. The FTE jobs estimates in SPI's approach differ from those estimated in the Bureau of Communications, Arts and Regional Research (BCARR)'s assessment of the overall economic impact of the screen incentive in Australia which counts job opportunities which is a headcount measure and counts short term contracts as one 'job opportunity'.

As with any study of this nature there are limitations to the methodology and the practical application. Input-Output modelling relies on a static model which assumes no supply side constraints, constant return to scale and a fixed input structure. As mentioned, the data gaps in offset payment data required assumptions to be made and the self-reported nature of the additionality survey increases the variability of the results. These assumptions are explored and tested in the sensitivity analysis (see Section 13).

[28] ROI is the GVA generated per dollar of net investment in the offsets. The net investment is the cost of the offset minus direct tax return associated with the offset.

3.2. Additionality

Additionality describes the extent to which an observed change or impact can be attributed to a particular intervention. In this case, it describes how much of the production expenditure can be attributed to the presence of the Offsets[29] and the additionality percentage quoted in this report is the amount of production expenditure that can be attributed to the incentive. Evidence of additionality was gathered from extensive industry consultation and a survey which was sent to all major international producers that undertook productions in Australia between 2018/19 and 2021/22. It was also distributed by Screen Producers Australia to its domestic membership.

The additionality survey contained several questions that explore what production companies would have done if the Location Offset and Incentive, Producer Offset, and the PDV Offset were not available.

The overall response rate from the foreign production companies was strong. Foreign spend on production in Australia is driven by a relatively small number of large international companies such as NBCUniversal, Netflix, Amazon Prime Video, Disney, Warner Bros. and Paramount. There were ten respondents, which included key decision makers from all the major international production companies, covering 88% of international expenditure. This makes the results on the Location Offset and Incentive robust.

Despite best efforts by the research team and partners (including financial incentives provided by SPI to undertake the survey), there were 19 responses from domestic production companies. This included some of the larger companies, however, it clearly does not cover the full range of companies in Australia. Further consultation work is being undertaken to strengthen the picture around additionality on the domestic side. However, the responses from the survey we do have, plus information from the consultations, indicate the current answers are likely to be solidly representative of opinions of all the producers who were sent the survey.

[29] As discussed in the methodological appendix, this study focuses on the role of the Offsets in attracting production expenditure to Australia (i.e., the additionality of expenditure), it does not seek to estimate the dynamic effects on the supply side of the economy if significant production expenditure was withdrawn.

4. COMBINED IMPACT OF THE AUSTRALIAN PRODUCTION OFFSETS

4.1. Expenditure

Australia is experiencing a boom in film and television production. In the Screen Drama Report, Screen Australia indicate that in 2021/22, drama production expenditure reached A$2.2 billion, with a record expenditure by Australian titles of A$1.5 billion.

This study focuses specifically on the role of the production offsets. Therefore, the economic models and results presented in this chapter are driven not by the overall drama expenditure, but the production expenditure which is eligible for the offsets. Overall, the expenditure covered by offsets is lower than the total production expenditure in Australia as there is some expenditure not covered by or qualifying for incentives. The proportion of qualifying expenditure varies across the different offsets.

Unlike some other major production markets such as the UK, the Australian Government does not release uniform information on offset payments, effective incentive rates or associated expenditure due to tax secrecy laws. For this study, it has been necessary to gather relevant information from the following sources:

- Screen Australia Drama Reports for 2020/21 and 2021/22
- Screen Australia annual reports for each financial year since 2016/17
- Government announcements on Location Incentive data
- Department of Infrastructure, Transport, Region Development and Communications annual reports
- Ausfilm announcements on Location Incentive data
- The Bureau of Communications, Arts and Regional Research's Economic *Assessment of the Location Incentive on Australia's Screen Sector*. BCARR, February 2022

Once the best available data was gathered from these sources, gaps were identified. To calculate estimations to plug the data gaps, it has been necessary to make a number of assumptions. The full methodology including caveats and assumptions are set out in Chapter 12.

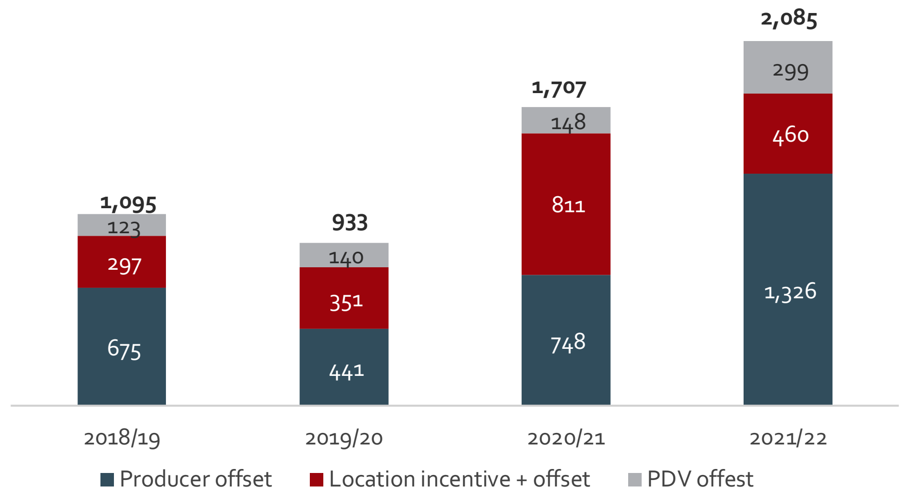
Overall, SPI aims to err on the side of caution and when a decision about an assumption arises, SPI opts for the realistically conservative option. Key assumptions are tested through sensitivity analysis in Chapter 13. Expenditure data for expenditure associated with the Location Offset expenditure and the Producer Offset is counted in the year in which principal photography commenced. For PDV, the expenditure aligns to the actual year activity occurred.

In line with the overall industry pattern, the estimated amount of production expenditure associated with all the production offsets (Producer Offset, Location Offset and Incentive and the PDV Offset) has exhibited strong growth from around A$1.1 billion in 2018/2019 to A$2.1 billion in 2021/2022, as shown in Figure 8.[30] Source: SPI Calculations based on data from Drama Report and BCARR Report

Figure 9 displays the estimated total offset payment associated with each year's expenditure, this has also grown in line with industry expenditure from A$297 million in 2018/19 to A$633 million in 2021/22.

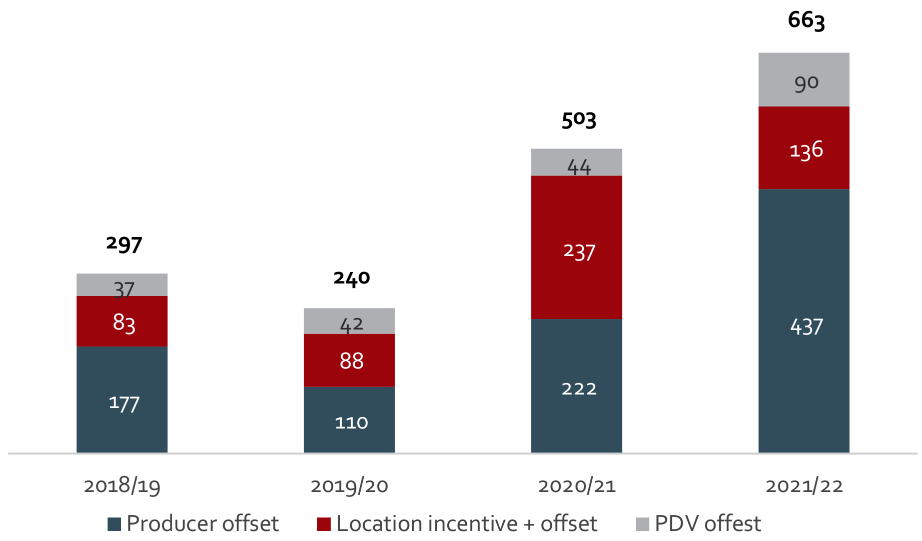
[30] Unless otherwise stated, when aggregated figures are quoted for the whole period 2018/19 to 2021/22, they are in 2022 prices. When results are displayed for individual years separately, including in charts, they are nominal i.e., the price year corresponds to the data year.

Figure 8 – Estimated Expenditure Associated with All Offset-supported Productions 2018/19 – 2021/22 (A$m, nominal)



Source: SPI Calculations based on data from Drama Report and BCARR Report

Figure 9 – Estimated Combined Offset Payments 2018/19 – 2021/22 (A$m, nominal)



Source: SPI Calculations based on data from Drama Report and BCARR Report

4.2. Additionality

Overall, the survey results and the consultation evidence available to date show a high degree of additionality across all three offsets. They are the key decision considerations for producers bringing productions and post/production projects to Australia as well as being valuable for domestic productions in ensuring that they are financially viable.

The additionality rate for the Location Offset and Incentive is estimated to be 100% - meaning that all eligible expenditure can be attributed to the presence of the Offsets and/or Incentive. The PDV Offset additionality rate is currently estimated to be 93.6% and the Producer Offset additionality rate calculated from the survey responses is 85.8%. This chapter presents combined results for all the Offsets, incorporating these additionality rates.

The detailed additionality results for each Offset are explored in detail in Chapters 5.4, 6.3, and 7.3.

All economic impact results for output, GVA, FTE jobs, tax and ROI presented are net, in that the impact from expenditure that would have occurred in Australia without the incentives, often referred to as 'Deadweight', has been removed.

4.3. Summary of Economic Impact Results

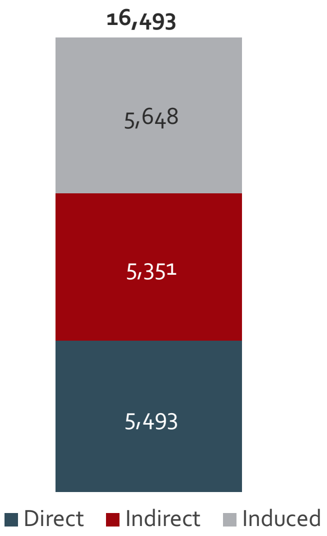
The results presented in this section are the combined impact of all the Offsets for the four years between 2018/19 and 2021/22 unless otherwise stated.[31]

Between 2018/19 and 2021/22, all the Offsets expenditure in Australia has contributed a total of A$16.5 billion in economic output. This includes A$5.5 billion of direct output, A$5.4 billion in indirect output and A$5.6 induced output.[32] In terms of GVA, all the Offsets contributed a total of A$5.9 billion. This is broken down into A$2.0 billion of direct GVA, A$1.9 billion in indirect and A$2.0 billion in induced GVA. All the Offsets are responsible for supporting 7,100 direct FTE jobs in 2021/22, 6,900 indirect and 6,600 induced FTE jobs.

The economic activity generated by production spend leads to tax receipts for government at the state and local level. This study estimates the tax receipts through applying a tax to GVA ratio from the Australian Bureau of Statistics Taxation Revenue data release for 2020/21 – more detail of the approach can be found in Chapter 11. All the Offsets supported an estimated combined A$1.7 billion in taxes. All the Offsets were associated with A$563 million of direct taxes, with A$548 million indirect and A$578 million induced taxes.

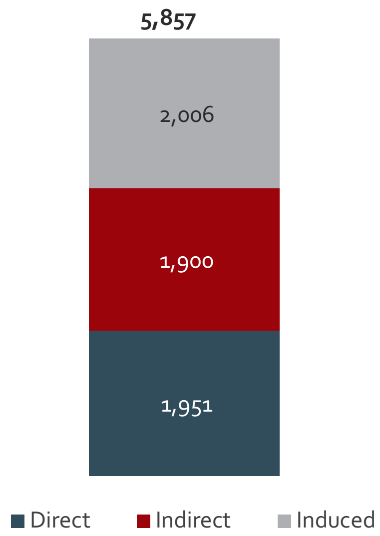
[31] When combined across years, the results are presented in 2022 prices (real).
[32] Numbers may not sum due to rounding.

Figure 10 – Output Supported by All Offsets Combined 2018/19 – 2021/22 (A$ million, real)



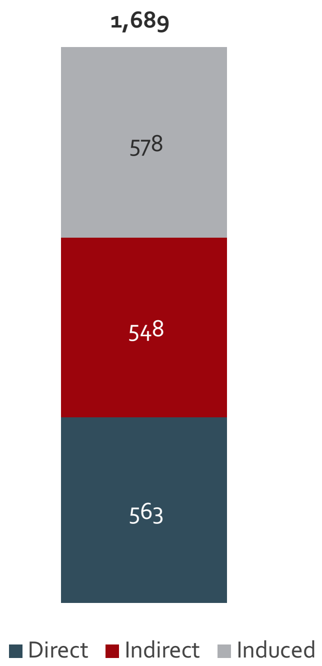
Source: SPI Analysis (2022)

Figure 11 – GVA Supported by All Offsets Combined 2018/19 – 2021/22 (A$ million, real)



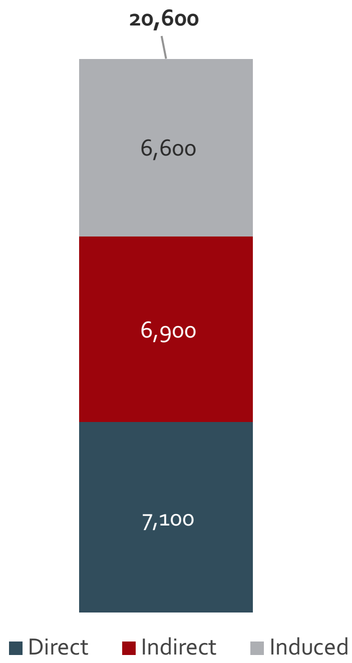
Source: SPI Analysis (2022)

Figure 12 – Tax Receipts Supported by all Offsets Combined 2018/19 – 2021/22 (A$ million, real)



Source: SPI Analysis (2022)

Figure 13 – FTE Jobs Supported by all Offsets Combined 2018/19 – 2021/22



Source: SPI Analysis (2022)

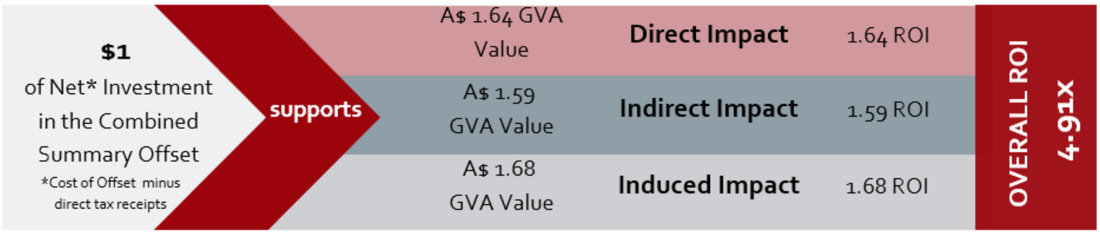
4.4. Return on Investment

The economic return on investment (RoI) is a measure of how much economic value is supported by A$1 of net investment in the Offsets by the Australian government. The net investment is the cost of the Offsets minus the direct tax return associated with the offsets.

In the case of all the offsets combined, for every A$1 invested through the programmes, A$4.91 in additional economic value is supported. Out of this A$4.91, A$1.64 is from direct effects, A$ 1.59 is from indirect sources and A$1.68 is from induced effects.

Figure 14 – Combine Offset Return on Economic Investment (Direct, Indirect and Induced), 2018/19 – 2021/22

Attributed to the Combined Summary Offset
between FY 2018/19 – 2021/22

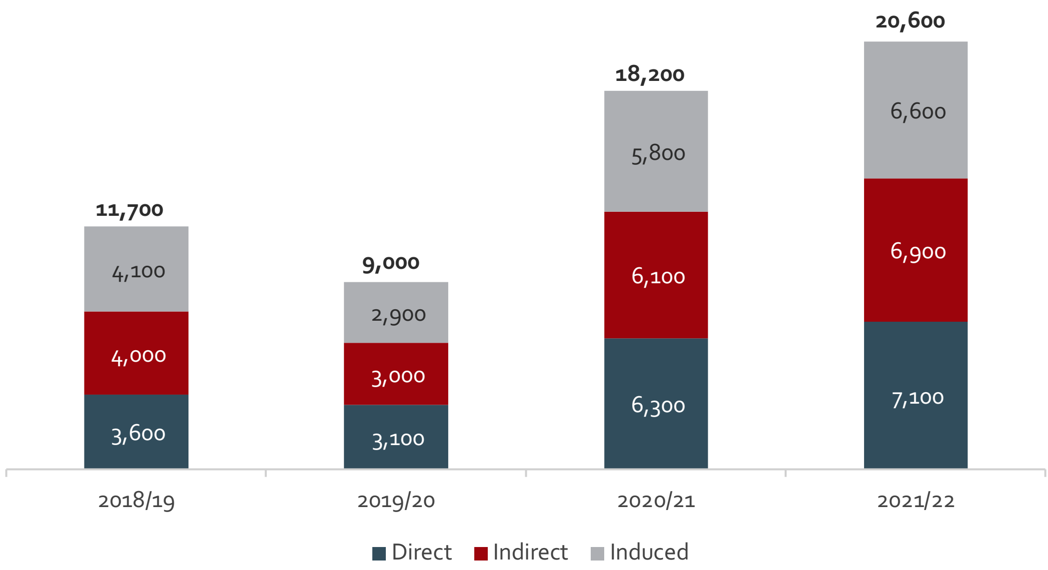


Numbers may not sum due to rounding

4.5. Impacts by Year

As per the production expenditure, the economic impact of all the offsets has exhibited strong growth in the period of 2018/19 – 2021/22. The FTE jobs supported by the offsets grew by 76% during the four years, peaking at 20,600 FTE jobs in 2021/22, shown in Figure 15. Table 1 offers a more detailed breakdown of the economic impact that all the offsets have had. This shows strong overall growth in output, GVA and tax associated with the offsets, mirroring the pattern for employment. There was a slight dip in economic impact during 2019/20 reflecting covid restrictions and associated temporary drop in production expenditure. The total economic impact is made up of direct, indirect and induced impact each contributing roughly a third of the total.

Figure 15 – FTE Jobs Supported by all Offsets by year, 2018/19 – 2021/22



Source: SPI Analysis (2022)

Table 1 – Combined Offset Economic Impact Results by Year, 2018/19 – 2021/22 (nominal)

Indicator	Year	Direct	Indirect	Induced	Total
Output (A$m)	2018/19	991	941	971	2,904
	2019/20	861	844	896	2,602
	2020/21	1,591	1,559	1,655	4,805
	2021/22	1,878	1,840	1,953	5,671
GVA (A$m)	2018/19	356	338	349	1,043
	2019/20	310	304	322	936
	2020/21	561	550	584	1,695
	2021/22	662	649	689	2,000
FTE jobs	2018/19	3,600	4,000	4,100	11,700
	2019/20	3,100	3,000	2,900	9,000
	2020/21	6,300	6,100	5,800	18,200
	2021/22	7,100	6,900	6,600	20,600
Tax (A$m)	2018/19	103	98	101	303
	2019/20	87	85	90	262
	2020/21	163	160	169	492
	2021/22	192	188	200	580

Source: SPI Analysis (2022)

5. IMPACT OF THE LOCATION OFFSET AND INCENTIVE

5.1. Overview

In 2007 the Government of Australia introduced the Location Offset to attract international footloose film and television productions to shoot in the country and enable it to remain competitive in the global screen sector. The Location Offset was intended to encourage foreign investment and sustain Australian jobs and businesses in the screen sector.

Originally introduced at 15%, the Location Offset now offers an incentive rate of 16.5% on Qualifying Australian Production Expenditure (QAPE). The Offset is aimed at large film and television productions, within a minimum QAPE spend of A$15 million for feature films and a minimum average of at least A$1 million per hour for television.[33] There is no cultural or content test required for the Location Offset. Unlike the Producer Offset, which has a cultural remit, the Location Offset is fundamentally an economic driver, aimed at building capacity and investment in Australia.

In order to access the Location Offset, an applicant must obtain a certificate from the Minister for the Arts, after which, the applicant can claim the offset in its income tax return in the income year in which the final QAPE is expended. The Australian Taxation Office (ATO) credits the Location Offset against any existing income tax liabilities and refunds the remainder.[34]

The Location Offset can be combined with the Location Incentive grant (see Section 5.2) to increase the incentive rate to 30%, and may also be combined with state, territory and local government incentives. However, as the federal tax offsets are mutually exclusive, it cannot be combined with the PDV Offset or Producer Offset.

Australia's Location Offset and Location Incentive, in combination with the country's management of the COVID-19 pandemic, world-class crew, sound stages and locations have successfully enticed productions to Australia over the past five years.

However, while the combined Location Offset and Location Incentive may offer a competitive 30% incentive rate, the need to apply separately for the Location Offset and Location Incentive adds a degree of uncertainty to the process. Further, as the Location Incentive is a limited fund, and has been extremely successful in attracting large productions, it raises questions for international producers about the availability of the Location Incentive and whether producers can reliably access the 30% incentive rate.

In comparison, competitors such as Georgia (US) and the UK offer a steady and uncapped incentive to incoming production. Georgia's Entertainment Industry Tax Credit has a base incentive rate of 20% and 10% uplift for productions that include the Georgia promotional logo in the end credit roll of the production. The UK's Creative Sector Tax Reliefs offer a 25% incentive on 80% of core expenditure used or consumed in the UK.[35]

Canada offers incentives at both the federal and provincial level. The federal Film or Video Services Tax Credit has an incentive rate of 16% on qualifying Canadian labour expenditure. While the headline federal rate in Canada is in line with Australia's 16.5% Location Offset rate,

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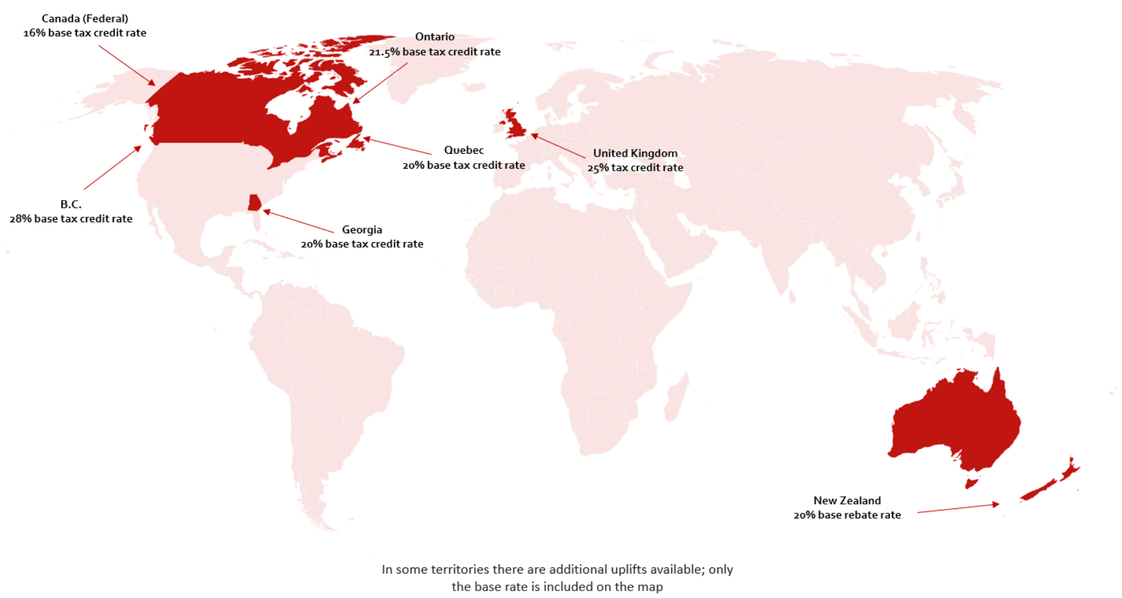
[33] The average QAPE p/h is calculated by dividing the total QAPE by the duration of the series measures in hours.
[34] For full details on the Location Offset application process and eligibility, see the 2022 guidelines here: https://www.arts.gov.au/documents/location-offset-guidelines
[35] HM Treasury announced a consultation of the UK screen sector tax reforms in November 2022. An area to be examined includes the potential removal of the 80% cap on qualifying expenditure, with the caveat that 'the government will explore removing the cap, but this may necessitate a lower overall credit rate to avoid a substantial additional cost to the taxpayer. Any reforms that come out of this consultation period are expected to be implemented from Spring 2024. For more information, see: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1118361/5082_consultation_audio_visual_reliefs_reform.pdf

the provincial tax credits are automatic, unlike the selective production attraction incentives available through most of Australia's states and territories. British Columbia's Production Services Tax Credit has a base of 28%, whereas Ontario's Production Services Tax Credit has a 21.5% base incentive for qualifying production expenditure. These provincial incentives can be stacked with the federal Canadian incentive, resulting in an incentive rate of up to 44% in British Columbia and 37.5% in Ontario on qualifying Canadian expenditure.

Figure 16 – Incentive Rates in Competitor Markets, 2022



Source: SPI Analysis (2022)[36]

5.2. The Location Incentive

The Location Incentive is a merit-assessed grant for incoming footloose productions. The programme was initially introduced in May 2018 to replace the discretionary top-up funding used to compensate for the Location Offset's weakness when compared to global competitors. With an incentive rate of 13.5%, when combined with the Location Offset, it increases the incentive offer for eligible large budget productions to 30%.

The programme was introduced with a A$140 million fund over four years from 2019/20. Per the original announcement, the Location Incentive was introduced to ensure Australia's screen industry remains vibrant and competitive, and will showcase local talent, both on screen and behind the scenes, to the rest of the world.[37]

In 2020, an additional A$400 million was added to the Location Incentive fund and the programme was extended by four years to 2026/27 to extend the pipeline of production coming to Australia and create additional jobs and training opportunities for Australians. Minister Paul Fletcher, then Minister for Communications, Cyber Safety and the Arts, stated

[36] For full details on competitor incentives, see: https://www.o-spi.com/news/november-2022-update-of-spis-global-incentives-index

[37] *$140 Million Boost for Australia Screen Industry Jobs.* Australian Government: Department of Infrastructure, Transport, Regional Development, Communications and the Arts, 4th May 2018. Accessible at: https://www.arts.gov.au/departmental-news/140-million-boost-australian-screen-industry-jobs

that "the Location Incentive is an economic multiplier. It will sustain the vitality of Australian screen production and support jobs and local businesses."[38]

> Through this additional commitment, the Government is telling the world that Australia is a desirable destination for screen production – with great locations, skilled crews, world-class talent, post- production expertise and state of the art facilities.
>
> *– Minister Paul Fletcher (2020)*

Designed to complement the Location Offset, the Location Incentive requires productions to meet additional requirements in order to be eligible. As with the Location Offset, the Location Incentive is designed for large international productions, which must:

- meet the eligibility criteria for the Location Offset
- utilise the services of one or more Australian post, digital or visual effects providers, and
- secure support from relevant state or territory governments.[39]

The objective of the Location Incentive is to ensure that Australia remains competitive in attracting large budget footloose international film and television productions, thereby providing opportunities for Australian cast, crew, post-production companies and other screen production service providers to participate in production. According to the Government, the Location Incentive will contribute to the development of the Australian screen production industry's capabilities and help ensure its future viability.[40]

Where the Location Offset has no cap or sunset date, unless a further top-up or extension is granted, funding through the Location Incentive programme is finite. As it currently stands, the Location Incentive will run until 30th June 2027 or until the Government advises that the programme has fully committed and expended available funds.

However, most observers believe the funding will be fully allocated well in advance of this date, possibly as early as the first half of 2023.

The government has announced 35 productions under the Local Incentive programme since its introduction in 2018.[41] Twenty-five of these productions followed the announcement of the A$400 million top-up in 2020. Productions announced under the scheme include *Godzilla Vs Kong* (2021), *Blacklight* (2022), *Pieces of Her* (2022), *The Tourist* (2022) and *The Wilds* season 2 (2022).

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[38] *New $400 Million Incentive to Boost Jobs for Screen Industry.* Scott Morrison and Paul Fletcher, 17th July 2020. Accessible at: https://parlinfo.aph.gov.au/parlInfo/download/media/pressrel/7451405/upload_binary/7451405.pdf;fileType=application%2Fpdf#search=%22media/pressrel/7451405%22

[39] *Australian Screen Production Incentive.* Australian Government: Department of Infrastructure, Transport, Regional Development, Communications and the Arts. Accessible at: https://www.arts.gov.au/what-we-do/screen/australian-screen-production-incentive

[40] Ibid.

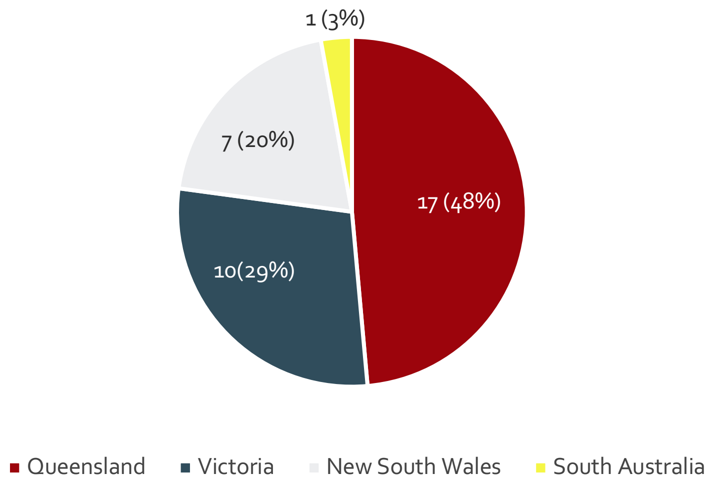
[41] Not all productions that have been announced have entered or completed production as of December 2022.

Pieces of Her. Cr. Courtesy of Netflix © 2022

The productions attracted to Australia come from a range of international streamers, studios and production companies, including Netflix, NBCUniversal, Amazon Studios, Endemol Shine, Warner Bros., Disney and Apple TV.

As evidenced in Figure 17, the majority of productions that have been announced have shot along the east coast in the production hubs in South East Queensland, Sydney and Melbourne, clustered with Australia's primary sound stages and crew hubs. [42]

Figure 17 – Announced Location Incentive Productions by State, 2018 – 2022



Source: SPI Analysis of Ausfilm and Office of the Arts announcements (2022) (n=35)

5.3. Expenditure

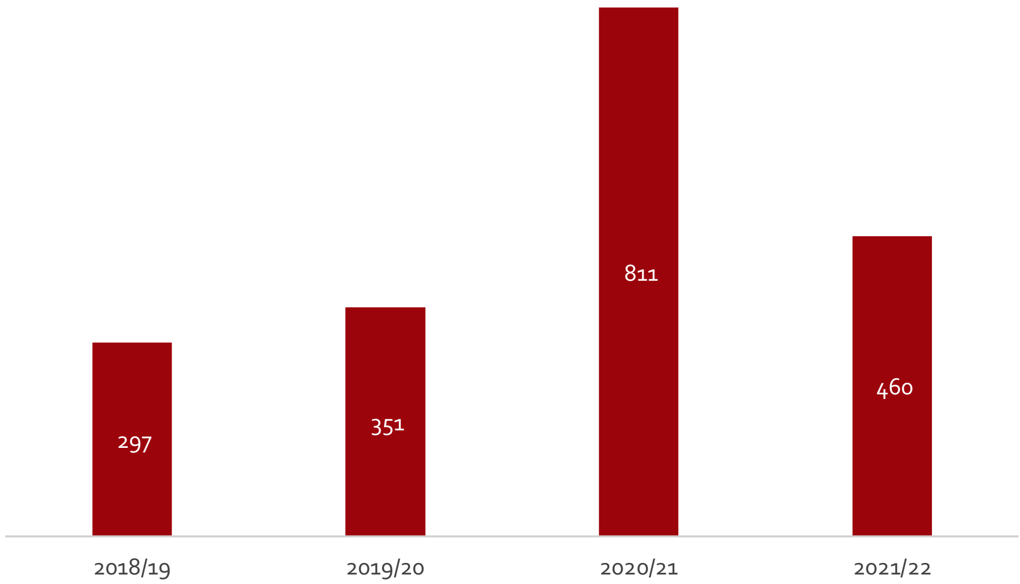
The production expenditure associated with the Location Offset and Incentive as well as the Offset and Incentive payment figures are not disclosed. For this study, data has been gathered

[42] *What International Productions Have Recently Been Secured to Film in Australia?* Ausfilm, 25th April 2022. Accessible at: https://www.ausfilm.com.au/press/location-offset-incentive-grant-international-productions-confirmed-for-australia-since-july-2020/

from a number of sources and where data was missing, assumptions were made to plug these gaps. The full details of SPI's estimations can be found in Appendix 2.

The estimated amount of production expenditure associated with the Location Offset and Incentive has been significant. 2020/21 saw a bumper year for foreign productions – reaching A$811 million, boosted by a COVID-19 rebound effect.[43] It is not unusual for production expenditure to exhibit significant variation year to year, but the overall pattern of expenditure associated with the Location Offset and Incentive is positive over time, with a 55% growth rate between 2018/19 and 2021/22.

Figure 18 – Estimated Expenditure Associated with The Location Offset and Incentive-supported Productions 2018/19 – 2021/22 (A$m, nominal)

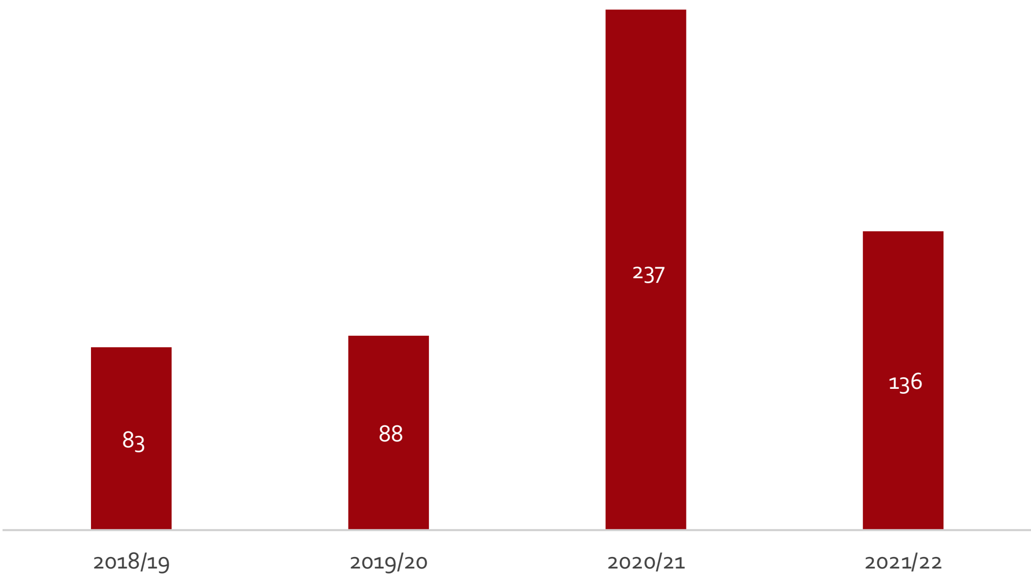


Source: SPI Calculations based on data from Drama Report and BCARR Report

Estimates of Location and Offset Incentive payments indicate that around A$0.5 billion was distributed in support between 2018/19 and 2021/22. There is a trend of growth over the whole period, although as with expenditure, the payments were also lumpy.

[43] Production expenditure is attributed to the financial year in which principal photography commenced.

Figure 19 – Estimated Location Offset and Incentive Payments 2018/19 – 2021/22 (A$m, nominal)

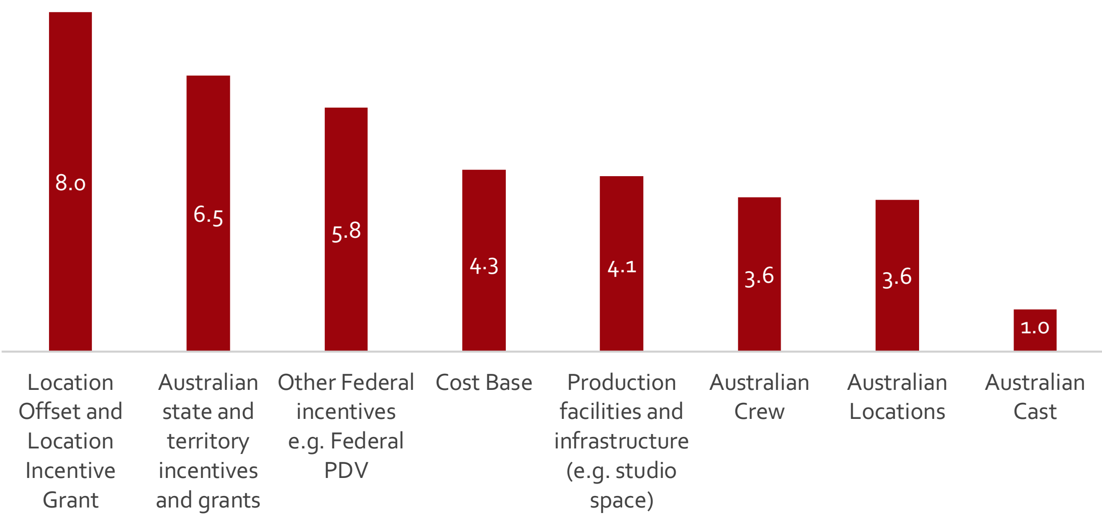


Source: SPI Calculations based on data from Drama Report and BCARR Report

5.4. Additionality

Overall, the survey results indicate a maximum degree of additionality for the Location Offset and Incentive – meaning that none of the production expenditure would have happened without the incentive. There were 10 respondents that received the Location Offset, all of which also received the Location Incentive. These 10 respondents are key decision-makers from large international companies and thus represent 88% of foreign production activity in Australia in the period.

Figure 20 – Importance of Decision Factors in Bringing Production(s) to Australia –Foreign Producers (8 most influential, 1 least influential)



Source: SPI Survey Analysis (n=18)

When asked to rate the importance of the Location Offset and/or the Location Incentive in their decision to produce in Australia, 63% (5 out of 8 respondents) indicated a ranking of 10, which indicates that it was the main factor. The remaining 38% of respondents gave the Offsets/Incentive a ranking of 9.

When asked 'in the absence of the Location Offset or Incentive, how much of the actual Australian spend out have happened in the country', all recipients indicated that no expenditure would have happened in Australia. 87.5% indicated that the productions would have moved ahead in another country and 12.5% said the production would not have gone ahead at all. **This indicates an additionality rate of 100%**.

In considering the interaction between the Location Offset and the Location Incentive, the survey asked how important the additional Incentive provided by Location Incentive Grant was in their decision to produce in Australia. All respondents indicated that it was extremely important and that the productions would not have gone ahead if only the Location Offset was available. This indicates how important the Location Incentive top up is in attracting productions.

All economic impact results for output, GVA, FTE jobs, tax and ROI presented are net – the impact from expenditure that would have occurred in Australia without the incentives has been removed.

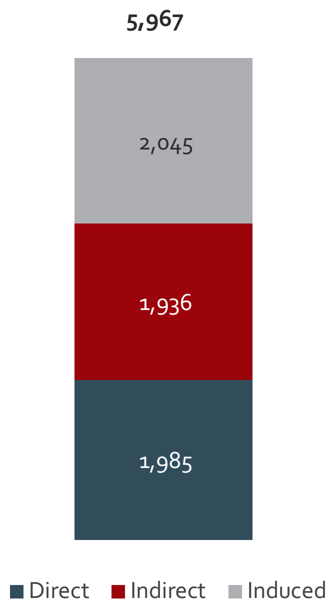
5.5. Summary Economic Impact Results

The results presented in this section are the combined impact of the Location Offset and Incentive for the four years between 2018/19 and 2021/22 unless otherwise stated[44].

Between 2018/19 and 2021/22, the Location Offset and Incentive expenditure in Australia has contributed a total of A$6.0 billion in economic output. This includes A$2.0 billion of direct output, A$1.9 billion in indirect output and A$2.0 billion induced output.[45] In terms of GVA, the Location Offset and Incentive contributed a total of A$ 2.1 billion. This is broken down into A$705 million of direct GVA, A$687 million in indirect and A$726 million in induced GVA. The Location Offset and Incentive supported an estimated A$610 million in taxes. The Location Offset and Incentive was associated with A$203 million of direct taxes, with A$198 million indirect and A$209 million induced taxes. The Location Offset and Incentive is responsible for supporting 1,700 direct FTE jobs in 2021/22, 1,700 indirect and 1,600 induced FTE jobs.

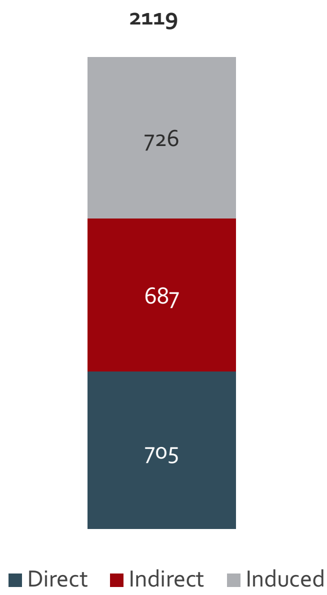
[44] When combined across years, the results are presented in 2022 prices (real).
[45] Numbers may not sum due to rounding.

Figure 21 – Output Supported by the Location Offset and Incentive 2018/19 – 2021/22 (A$ million, real)[46]



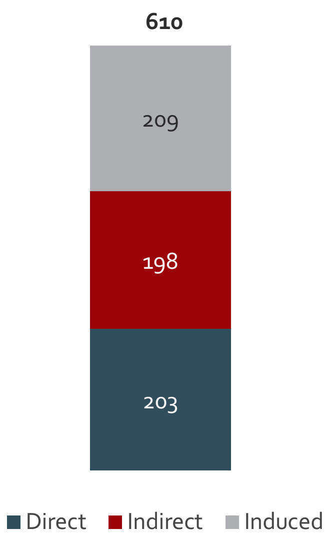
Source: SPI Analysis (2022)

Figure 22 – GVA Supported by the Location Offset and Incentive 2018/19 – 2021/22 (A$ million, real)



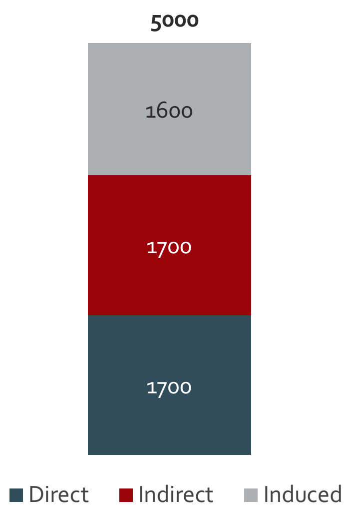
Source: SPI Analysis (2022)

Figure 23 – Tax Receipts Supported by the Location Offset and Incentive 2018/19 – 2021/22 (A$ million, real)



Source: SPI Analysis (2022)

Figure 24 – FTE Jobs Supported by the Location Offset and Incentive 2018/19 – 2021/22



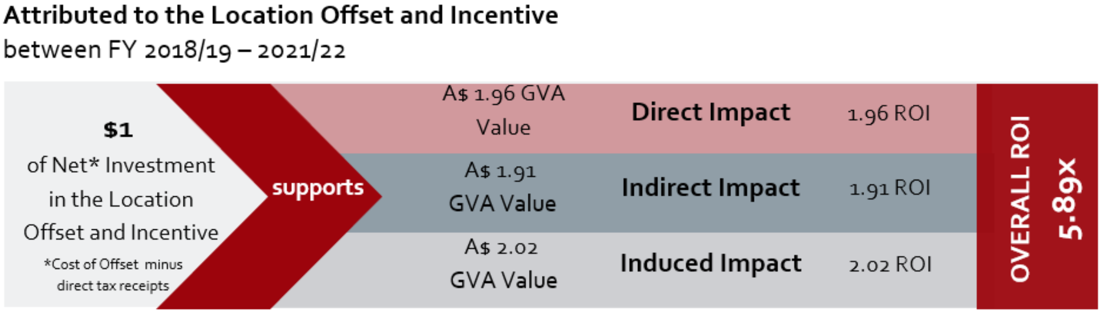
Source: SPI Analysis (2022)

5.6. Return on Investment

The economic return on investment (RoI) is a measure of how much economic value is supported by A$1 of net investment in the Location Offset and Incentive by the Australian government. The net investment is the cost of the Location Offset and Investment minus the direct tax return associated with the offset.

In the case of the Location Offset, for every A$1 invested through the programme, A$5.89 in additional economic value is supported. Out of this A$5.89, A$1.96 is from direct effects, A$1.91 is from indirect sources and A$2.02 is from induced effects.

Figure 25 – Location Offset and Incentive Return on Economic Investment (Direct, Indirect and Induced), 2018/19 – 2021/22



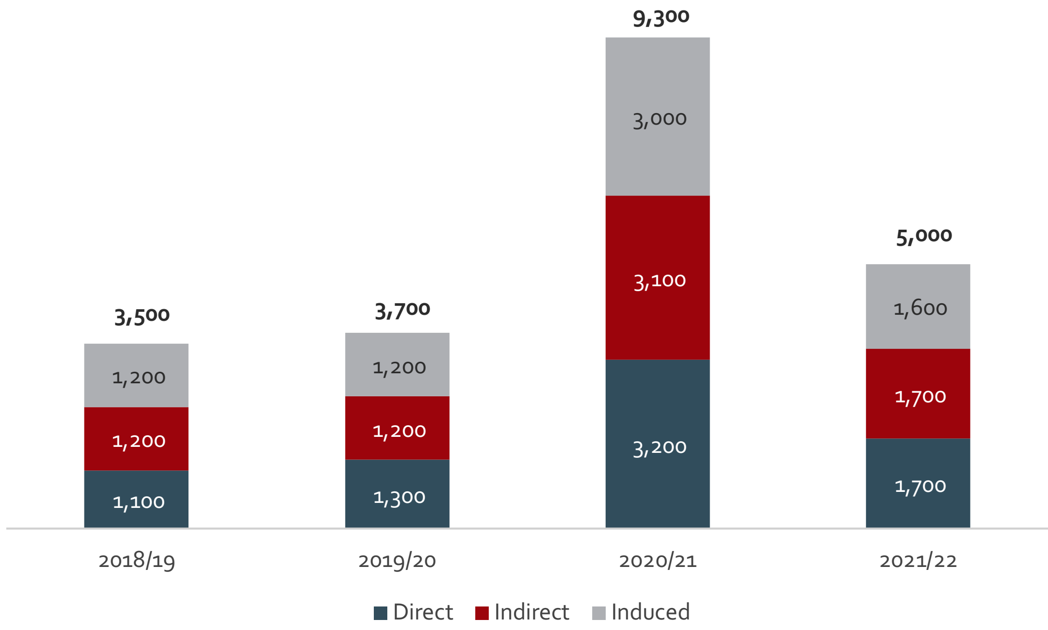
Numbers may not sum due to rounding

5.7. Impacts by year

As per the production expenditure, the economic impact of the Location Offset and Incentive has exhibited overall growth in the period of 2018/19 – 2021/22, although economic impact peaked in 2020/21 reflecting the bumper year for production expenditure. In that year, there were 3,200 direct, 3,100 indirect and 3,000 induced FTE jobs supported by the Location Offset and Incentive, as shown in Figure 26. Table 2 gives a detailed breakdown of the economic impact which shows a similar pattern for the GVA, output and tax as with employment – clear evidence of a COVID-19 bounce. The total economic impact is made up of direct, indirect and induced impact each contributing roughly a third of the total.

[46] Real figures have been adjusted to be presented in a consistent price year to allow for accurate aggregation, in this case 2022 prices.

Figure 26 – FTE Jobs Supported by the Location Offset and Incentive by Year, 2018/19 – 2021/22



Source: SPI Analysis (2022)

Table 2 – Location Offset and Incentive Economic Impact Results by Year, 2018/19 – 2021/22 (nominal)

Indicator	Year	Direct	Indirect	Induced	Total
Output (A$m)	2018/19	297	282	291	870
	2019/20	351	344	365	1,061
	2020/21	811	795	844	2,450
	2021/22	460	451	479	1,390
GVA (A$m)	2018/19	107	101	105	313
	2019/20	126	124	131	382
	2020/21	286	280	298	864
	2021/22	162	159	169	490
FTE jobs	2018/19	1,100	1,200	1,200	3,500
	2019/20	1,300	1,200	1,200	3,700
	2020/21	3,200	3,100	3,000	9,300
	2021/22	1,700	1,700	1,600	5,000
Tax (A$m)	2018/19	31	29	30	91
	2019/20	35	35	37	107
	2020/21	83	81	86	251
	2021/22	47	46	49	142

Source: SPI Analysis (2022)

6. IMPACT OF THE PDV OFFSET

6.1. Overview

The Post, Digital, and Video Effects (PDV) Offset was introduced in July 2007 alongside the Location Offset. Aimed at supporting the development of a post-production, visual effects, and digital animation sector within Australia, this offset originally offered a 15% Incentive. At launch, the minimum spend threshold was A$5 million. This threshold was reduced in July 2010 to the present A$500,000.

In July 2011, the value of the incentive was raised to 30% of QAPE. At present, the Offset value sits at the same 30% of QAPE, with the possibility of stacking an additional amount of funding through state or territory incentives. This additional funding amount varies by state and territory, with the additional amount available ranging between 10% to 20% depending on the state/territory.

According to the 2021/2022 *Drama Report*,[47] Australia witnessed a new record for PDV-only spend, which totaled A$553 million on 57 titles. This number is more than a 70% increase compared to total spend in 2020/21. The *Drama Report* also observed that this number was largely attributable to the high PDV spend on foreign PDV-only titles, which was, as the report noted, "more than double the previous year, and 93% above the 5-year average" – an indicator of the PDV Offset effectively attracting foreign PDV activity into the country. In terms of state-wide distribution of PDV spend across the country, NSW accounted for 48% of PDV expenditure, followed by Victoria (25%), South Australia (16%), Queensland (9%) and other Australian territories (1%).

In line with this, Australian studios and infrastructure companies in Australia regard the PDV Offset as a major reason for increased incoming productions and related investment in Australia.

Blaze © Causeway Films 2022

In line with observations made in a previous impact study of Australia's film and television incentives, the animation industry within Australia continues to be one of the major

[47] *Drama Report 2021-22*. Screen Australia, 10th November 2022. Accessible at: https://www.screenaustralia.gov.au/fact-finders/reports-and-key-issues/reports-and-discussion-papers/drama-report.

beneficiaries of the PDV Offset.[48] Recent years have seen several new animation projects being produced in Australia, such as *Blaze* (2022). The steady growth of the PDV sector in Australia continues to also be evidenced by the continued increase in the scope and scale of VFX work being done within the territory.

This increased influx of international animation projects into Australia coincides with a rise in animation and other PDV infrastructure in Australia. Some of these developments, such as the 2021 Australia launch of renowned international animation studio Bento Box, in collaboration with Melbourne's Princess Pictures,[49] and the recently announced Sydney launch of leading VFX and animation studio, DNEG,[50] are examples of increased international interest in investing in the Australian PDV market. Notably, these are both big budget infrastructure developments, which are recipients of state support, and which have been set up with the aim of, among other things, developing Australia's animation sector, and consequently, Australia's PDV sector, in their respective regions, through generation of employment and development of the talent pipelines. DNEG Studios, for instance, aims to generate 472 direct and 554 indirect jobs by 2024.[51]

Nevertheless, the inability for productions to combine the location incentive with the PDV incentive continues to be an issue, with offshore productions taking their post-production work outside Australia, after completing production within the territory.

6.2. Expenditure

As with the other Offsets, there is limited data on expenditure and payments for the PDV Offset. There is data on foreign PDV-only projects (i.e., those productions that only come to Australia for PDV). The domestic PDV Offset usage and Offset payments are estimated using the approach set out in Appendix 2. Unlike the other Offsets, PDV expenditure is allocated to the actual financial year of spend, not the year of the first day of principal photography.

The estimated amount of PDV expenditure associated with the PDV Offset has exhibited significant growth, particularly in 2021/22, when expenditure reached A$299 million (Figure 27), double the expenditure of the previous year. As the Offset is a set proportion of eligible spend, the Offset payments have grown in the last four years also.

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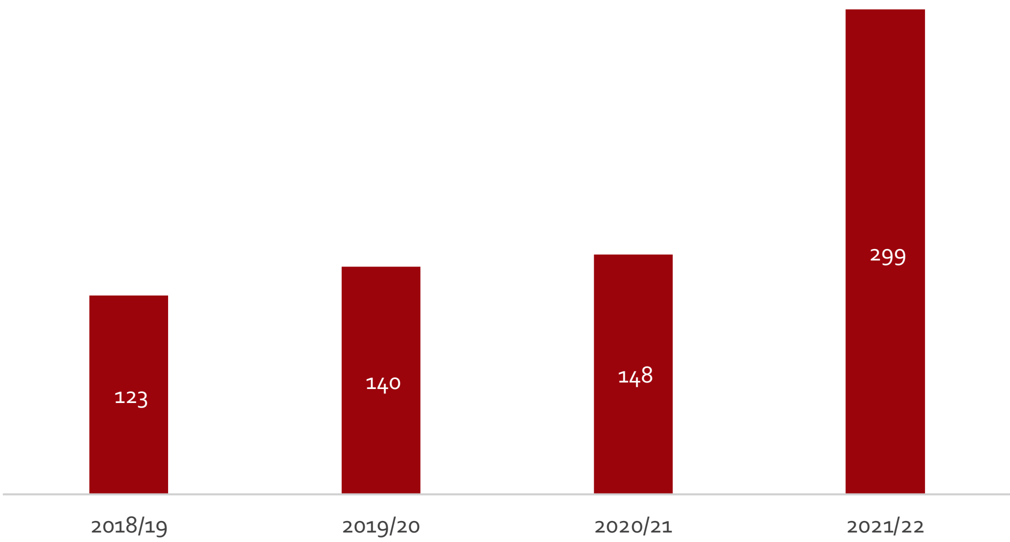
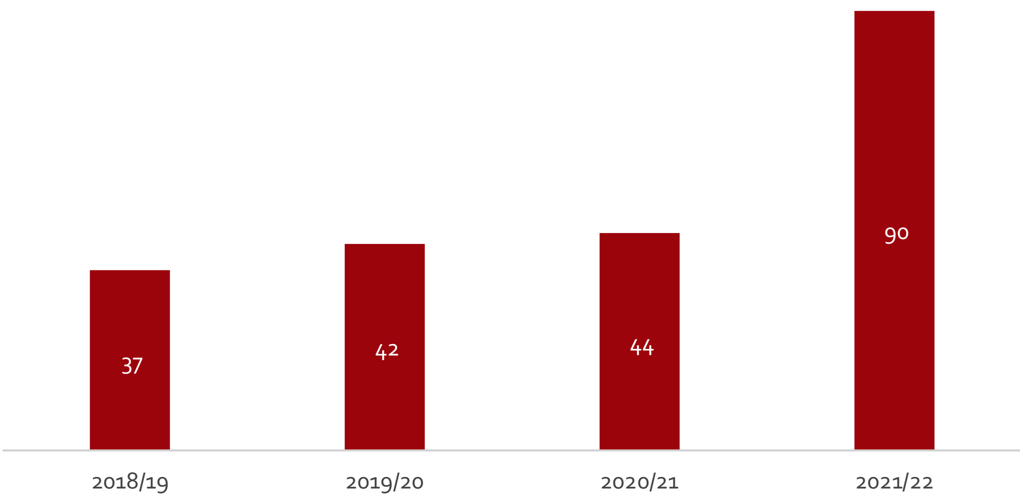
[48] *Impact of Film and TV Incentives*. Olsberg•SPI, 12th March 2018. Accessible at: https://anzsa.film/wp-content/uploads/2019/11/Impact-of-Film-and-Television-Incentives-in-Australia_180507.pdf.
[49] *Princess Bento Sets up Shop in Melbourne*. VicScreen, 19th March 2021. Accessible at: https://vicscreen.vic.gov.au/news/princess-bento-studio-sets-up-shop-in-melbourne.
[50] *UK Visual Effects and Animation Giant to open 500-person Studio in Australia.* Australian Government, Australian Trade and Investment Commission, Investor Updates, 23rd November 2022. Accessible at: https://www.austrade.gov.au/international/invest/investor-updates/uk-visual-effects-and-animation-giant-to-open-500-person-studio-in-australia.
[51] Ibid.

Figure 27 – Estimated Expenditure associated with the PDV Offset 2018/19 – 2021/22 (A$ million, nominal)



Source: SPI Calculations based on data from Drama Report and BCARR Report

Figure 28 – Estimated PDV Offset Payments 2018/19 - 2021/22 (A$ million, nominal)



Source: SPI Calculations based on data from Drama Report and BCARR Report

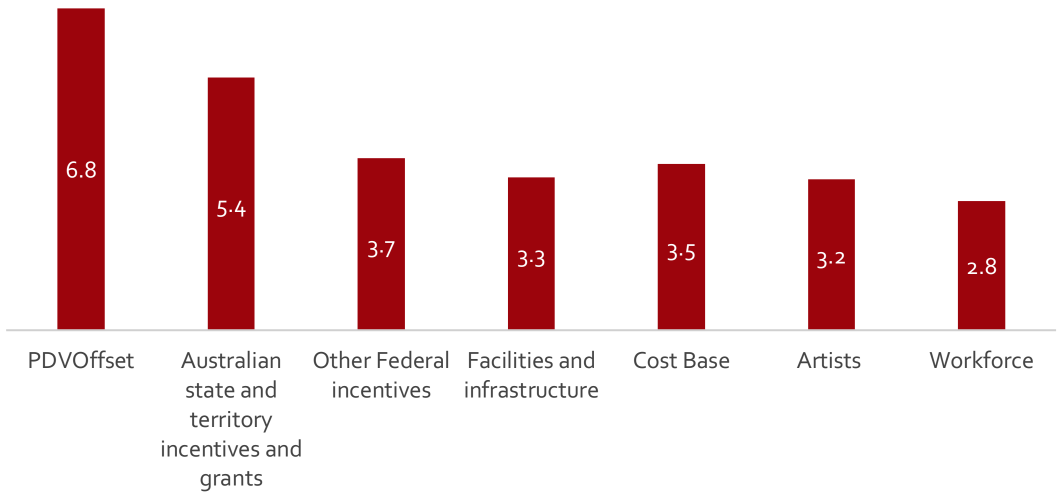
6.3. Additionality

Overall, the survey results indicate a very high degree of additionality for the PDV Offset – meaning that much of the production expenditure would not have happened without the incentive.

There were 14 respondents that received the PDV grant, ten international projects and four domestic projects. While this provides good coverage for all significant international PDV projects, further consultation work is being done to explore additionality of the PDV incentive on the domestic side.

Figure 29 shows how the PDV Offset is the most important factor in the decision to bring post-production projects to Australia. Also at play are the interactions between this Incentive and the Incentives and Grants offered by Australian territories and states. These financial instruments were classified by respondents as more important than the workforce and artists, although all factors do appear to play a role this decision-making process.

Figure 29 – Importance of Decision Factors in Undertaking Post-Production, Digital or VFX Work in Australia (1 least influential, 8 most influential)



Source: SPI Survey Analysis (2022) (n=13)

When asked what would have happened in the absence of the PDV Offset, 10 out of 14 respondents (71%) indicated that in the absence of the PDV Offset, their post-production expenditure would not have happened in Australia. Four (29%) indicated their post-production projects would have happened in Australia but with a lower expenditure – one indicated 30% of expenditure would have happened, one 50%, one 70% and one 90%. When all responses are combined, 6.4% of production expenditure would have happened in Australia without the PDV (weighted average).

Using this data, SPI estimate that **93.6% of the expenditure associated with the PDV Offset can be deemed additional and attributed to the funding.**

All economic impact results for output, GVA, FTE jobs, tax and ROI presented are net - the impact from expenditure that would have occurred in Australia without the incentives has been removed.

6.4. Summary Economic Impact Results

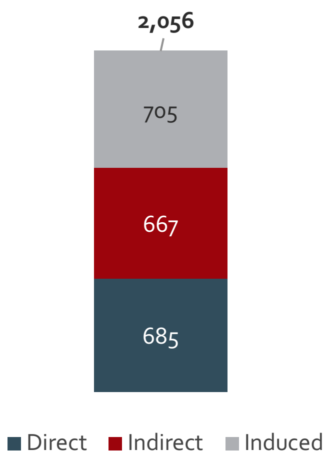
The results presented in this section are the combined impact of the PDV Offset for the four years between 2018/19 and 2021/22 unless otherwise stated.[52]

Between 2018/19 and 2021/22, the PDV Offset expenditure in Australia has contributed a total of A$2.1 billion in economic output. This includes A$685 million of direct output, A$667 million in indirect output and A$705 million in induced output.[53] In terms of GVA, the PDV Offset contributed a total of A$731 million. This is broken down into A$243 million of direct GVA, A$237 million in indirect and A$250 million in induced GVA. The PDV Offset supported an

[52] When combined across years, the results are presented in 2022 prices (real)
[53] Numbers may not sum due to rounding.

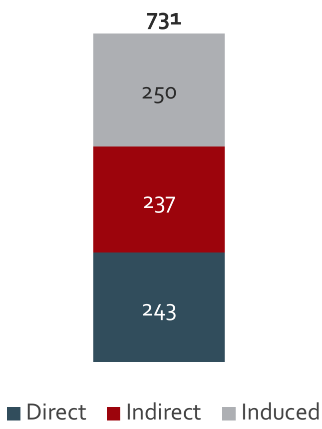
estimated A$210 million in taxes. The PDV Offset was associated with A$70 million of direct taxes, with A$68 million indirect and A$72 million induced taxes. The PDV Offset is responsible for supporting 1,100 direct FTE jobs in 2021/22, 1,000 indirect and 1,000 induced FTE jobs.

Figure 30 – Output Supported by the PDV Offset Payments 2018/19 – 2021/22 (A$ million, real)[54]



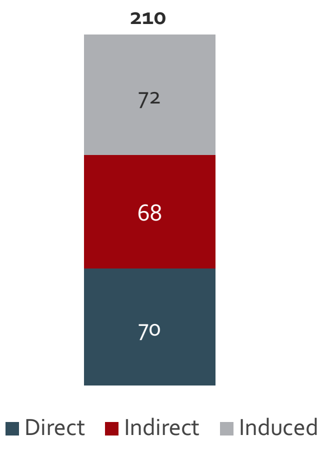
Source: SPI analysis (2022)

Figure 31 – GVA Supported by the PDV Offset Payments 2018/19 – 2021/22 (A$ million, real)



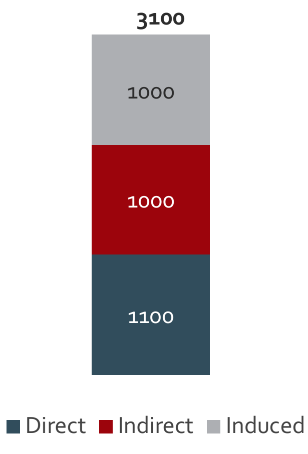
Source: SPI analysis (2022)

Figure 32 – Tax Receipts Supported by the PDV Offset Payments 2018/19 – 2021/22 (A$ million, real)



Source: SPI analysis (2022)

Figure 33 – FTE Jobs Supported by the PDV Offset 2018/19 – 2021/22



Source: SPI analysis (2022)

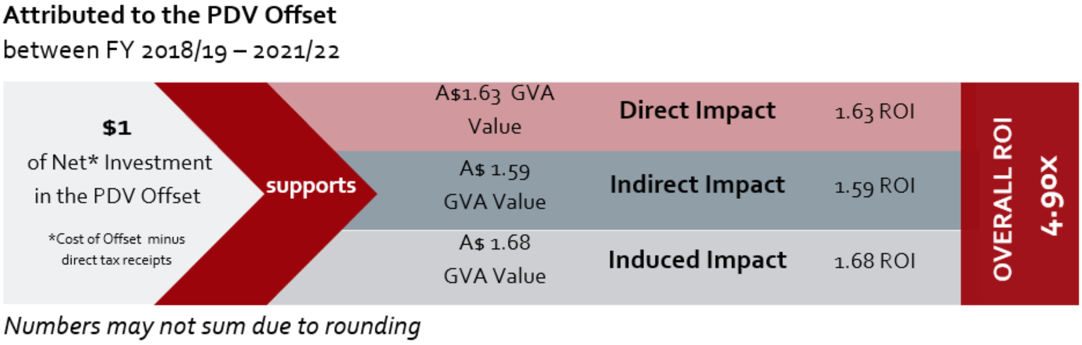
[54] Real figures are present, this means that values have been adjusted to be in a consistent price year to allow for accurate aggregation, in this case 2022 prices.

6.5. Return on Investment

The economic return on investment (RoI) is a measure of how much economic value is supported by A$1 of net investment in the PDV Offset by the Australian government. The net investment is the cost of the PDV Offset minus the direct tax return associated with the offset.

In the case of the PDV Offset, for every A$1 invested through the programme, A$4.90 in additional economic value is supported. Out of this A$4.90, A$1.63 is from direct effects, A$1.59 is from indirect sources and A$1.68 is from induced effects.

Figure 34 – PDV Offset Return on Economic Investment (Direct, Indirect, and Induced), 2018/19 – 2021/22

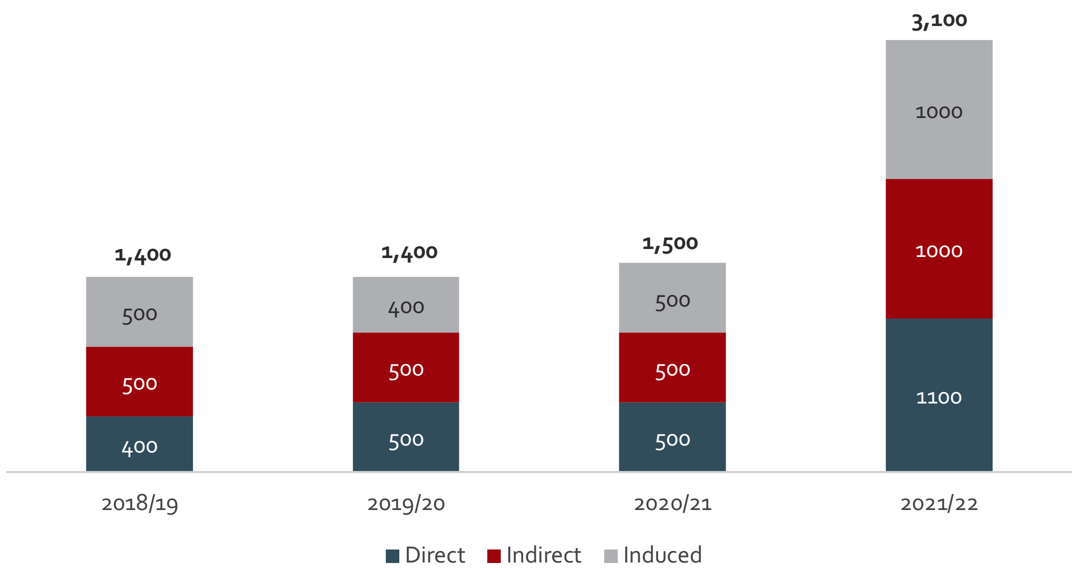


Source: SPI Analysis

6.6. Impacts by Year

As per the production expenditure, the economic impact of the PDV Offset has exhibited growth in the period of 2018/19 – 2021/22, particularly last year, when the number of FTE jobs supported by PDV reached 3,100, shown in Figure 35. Table 3 shows a detailed breakdown of impacts by year. Data in Table 3 indicates a significant jump in output, GVA and tax associated with the PDV offset between 2020/21 and 2021/22. There was no marked fall in the impact of the PDV offset due to covid.

Figure 35 – FTE Jobs supported by the PDV Offset 2018/19 – 2021/22



Source: SPI Analysis (2022)

Table 3 – PDV Offset Economic Impact Results by Year, 2018/19 - 2021/22 (nominal)

Indicator	Year	Direct	Indirect	Induced	Total
Output (A$m)	2018/19	115	109	113	336
	2019/20	131	129	137	397
	2020/21	139	136	144	418
	2021/22	280	274	291	845
GVA (A$m)	2018/19	41	39	40	121
	2019/20	47	46	49	143
	2020/21	49	48	51	148
	2021/22	99	97	103	298
FTE jobs	2018/19	400	500	500	1,400
	2019/20	500	500	400	1,400
	2020/21	500	500	500	1,500
	2021/22	1,100	1,000	1,000	3,100
Tax (A$m)	2018/19	12	11	12	35
	2019/20	13	13	14	40
	2020/21	14	14	15	43
	2021/22	29	28	30	86

Source: SPI Analysis (2022)

7. IMPACT OF THE PRODUCER OFFSET

7.1. Overview

The Producer Offset was introduced in 2007 as part of the Australian Government's strategy to boost the screen sector. It is a refundable tax offset for qualifying production spend in Australia or by an Australian company that is geared towards elevating and supporting Australian content. In a 2017 report reviewing the incentive system, 87% of respondents to a survey conducted stated that the Producers Offset directly contributed to their ability to consistently make content.[55]

Peter Rabbit 2: The Runaway © Animal Logic Entertainment & Columbia Pictures 2021

The Offset is based on the Australian income tax legislation and is underpinned by the requirement for any considered project to meet the Significant Australian Content (SAC) test administered by Screen Australia. Stated in Chapter 376-70 (1) of the Income Tax Assessment Act 1997 (ITAA) are the elements against which projects are measured as part of the SAC test, which include:[56]

- The subject matter of the film
- The place where the film was made
- The nationalities and places of residence of the persons who took part in the making of the film
- The details of the production expenditure incurred in respect of the film, and
- Any other matters that we consider to be relevant.[57]

The Screen Australia committee examines how a project measures against each element and if, in its entirety, it can be considered a piece of significant Australian content.

Provisional certificates are granted for projects that meet the requirements, following which reassessments are conducted and final certificates need to be applied for and then issued. Producers must have relevant credits for prior titles and, if eligible, can receive 40% of total Qualifying Australian Production Expenditure (QAPE) for a feature film, with a minimum

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[55] *Skin in the Game Report*. Screen Australia, November 2017. Accessible at: https://www.screenaustralia.gov.au/getmedia/cbd7dfc8-50e7-498a-af30-2db89c6b3f30/Skin-in-the-game-producer-offset.pdf

[56] *Producers Offset*. Screen Australia, 2022. Accessible at: https://www.screenaustralia.gov.au/funding-and-support/producer-offset

[57] *Producer Offset Guidelines.* Screen Australia, 2022. Accessible at: https://www.screenaustralia.gov.au/getmedia/70b2fae6-232c-4a48-be6d-e970aead20d9/Guidelines-producer-offset-2022.pdf

budget level of A$1 million or 30% of total QAPE on episodic content and documentaries, with a minimum budget level of A$500,000.

The Producer Offset has no cap or sunset clause and can be a beneficial source of financing as producers can access the funding upfront, as payment is usually distributed within four weeks from issue of the final certificate, or source other funding and cash flow against an approved Offset.[58] Although the issuing of the final certificate can take longer than outlined, the provisional process of the Offset application has been highlighted as being advantageous for producers in negotiating further funding and has been noted to be a valuable tool in building out and securing full financing for a project. This also encourages foreign financiers to produce Australian films. The Producer Offset has also been successful in bolstering the production of local content through its ability to be combined with other state and territory government incentives.[59]

In 2021, the Federal government raised the percentage rate for television drama and documentary QAPE from 20% to the current 30% to not only bolster the industry and sustain the high industry demand following the COVID-19 production boom, but to also further support and attract domestic producers to shoot projects locally as opposed to looking to other countries with similar or more favourable incentives and comparable locations and workforce offerings.[60] The rate was raised in an effort to remain competitive in the global market, with other regions set within similar ranges, such as the UAE's 30% cash rebate, the UK at 25% and New Zealand at 20% for international features and television,[61] as well as safeguard local Australian jobs and the screen sector businesses. Since the rate increase, there has been a positive uptick in local television production.

7.2. Expenditure

As with the other offsets, there is limited data on expenditure and payments for the Producer Offset. The Screen Australia Drama Report 2021/21 sets out data on the Producer Offset 'contribution' to production budgets which can be used to estimate the overall footprint of expenditure from the offset payment. Note that these figures are taken from the finance plan for each title. As Screen Australia requires only 90% of anticipated Offset to be included in the finance plan for drama features and television projects, the Offset contribution figure and the overall production expenditure for Producer Offset is likely to be underestimated. Expenditure is attributed to the year in which the first day of principal photography occurred.

The estimated amount of expenditure associated with the Producer Offset has doubled since 2018/19, reaching a peak of A$1.3 billion in 2021/22 (Figure 36). As the Offset is a set proportion of eligible spend, the Offset payments have grown significantly in the last four years also.

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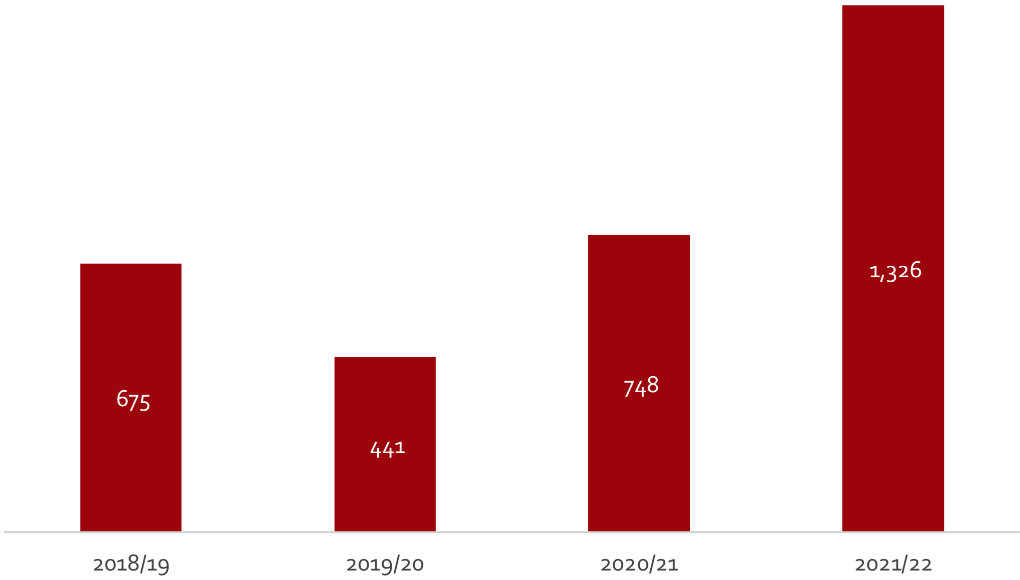
[58] *The Producer Offset*. AusFilm, 2022. Accessible at: https://www.ausfilm.com.au/incentives/the-producer-offset-and-co-production-treaties/

[59] *Skin in the Game Report*. Screen Australia, November 2017. *Ibid.*

[60] *Australia Extends Production Incentives to Help Local Industry*. Variety, 11th April 2021. Accessible at: https://variety.com/2021/film/asia/australia-extends-production-incentives-1234949183/

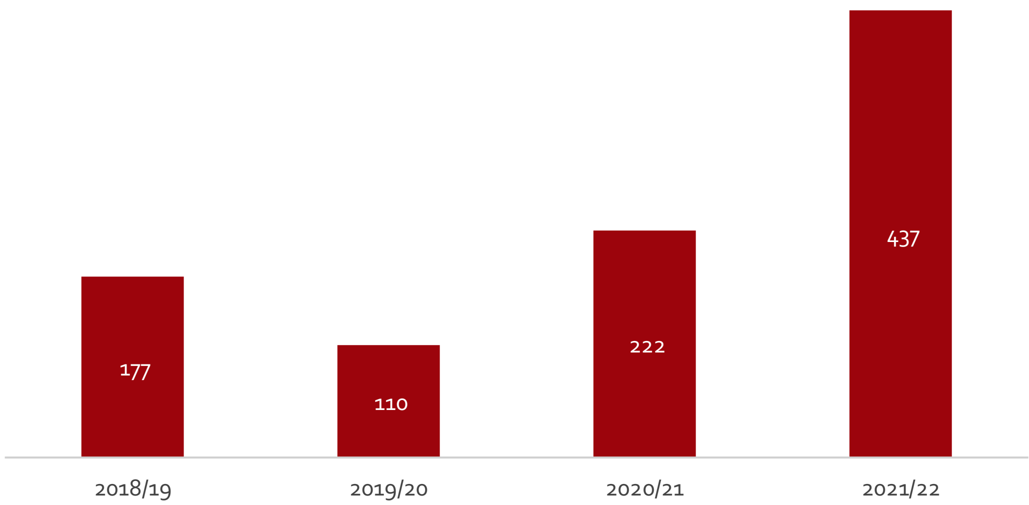
[61] New Zealand also offers a 5% uplift for productions with significant economic benefits to New Zealand. A 40% cash rebate is also available for eligible domestic films and television productions.

Figure 36 – Estimated Expenditure associated with the Producer Offset 2018/19 – 2021/22 (A$ million, nominal)



Source: SPI Calculations based on data from Drama Report and BCARR Report

Figure 37 – Estimated Payments Associated with the Producer Offset 2018/19 – 2021/22 (A$ million, nominal)



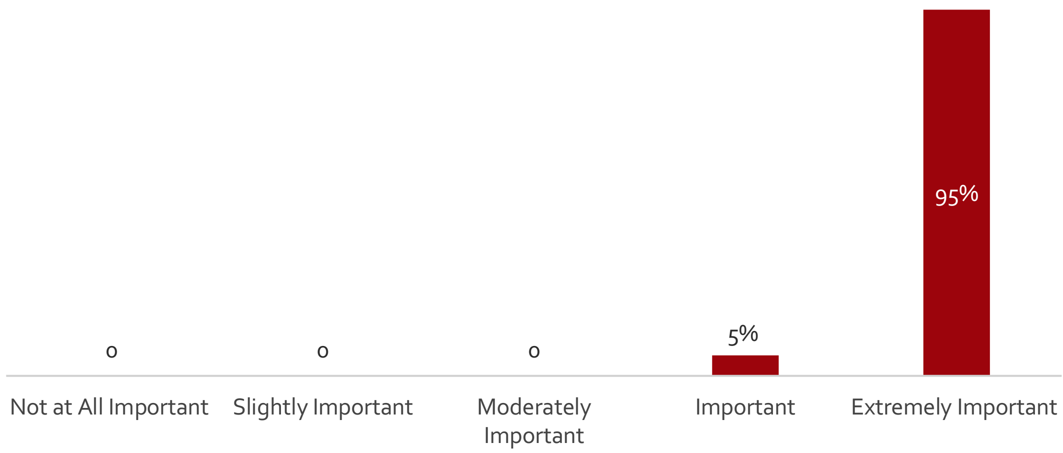
Source: SPI Calculations based on data from Drama Report and BCARR Report

7.3. Additionality

Overall, the survey results indicate a very high degree of additionality for the Producer Offset– meaning that much of the production expenditure would not have happened without the incentive. Nineteen respondents to the survey received the Producer Offset, 14 were domestic producers and five were international producers.

As Figure 38 indicates, when asked how important the Producer Offset was in making the production financially viable, all respondents indicated that it was either important, meaning without the grant the production may not have gone ahead, or extremely important, meaning without the grant, the production would not have gone ahead.

Figure 38 – How Important was the Producer Offset in Making the Production Financially Viable (Producer Offset Recipients only)? [62]



Source: SPI Survey (2022) (n=19)

When asked what would have happened in the absence of the Offset, 11 out of the 19 respondents (58%) indicated that in the absence of the Producer Offset, their production would not have gone ahead. Four (21%) respondents indicated that the production would have moved to a different country or jurisdiction. Four respondents (all domestic producers) indicated that their production(s) would have gone ahead without support from the Producer Offset. Two indicated that it would have gone ahead with 60% of the budget, one at 70% of budget and the one at 80% of the budget. The weighted average of all the scores is 14%, indicating that 14% of production expenditure would have happened in the absence of the incentive.

Using this data, SPI estimate that **86% of the expenditure associated with the Producer Offset can be deemed additional and attributed to the funding.**

All economic impact results for output, GVA, FTE jobs, tax and RoI presented are net - the impact from expenditure that would have occurred in Australia without the incentives has been removed.

7.4. Summary Economic Impact Results

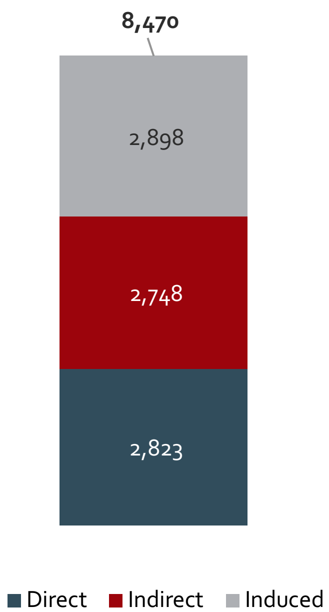
The results presented in this section are the combined impact of the producer offset for the four years between 2018/19 and 2021/22 unless otherwise stated.[63]

Between 2018/19 and 2021/22, the Producer Offset expenditure in Australia has contributed a total of A$8.5 billion in economic output. This includes A$2.8 billion of direct output, A$2.7 billion in indirect output and A$2.9 induced output.[64] In terms of GVA, the Producer Offset contributed a total of A$3.0 billion. This is broken down into A$1 billion of direct GVA, A$976

[62] Not at All Important defined in survey as 'without the Producer Offset, the production(s) would have gone ahead', Slightly Important defined as 'without the Producer Offset, the production(s) is likely to have gone ahead', Moderately Important defined as 'without the Producer Offset, the productions may have gone ahead', Important - without the Producer Offset, the production(s) is unlikely to have gone ahead and Extremely Important, defined as without the Producer Offset, the production(s) would not have gone ahead.
[63] When combined across years, the results are presented in 2022 prices (real).
[64] Numbers may not sum due to rounding.

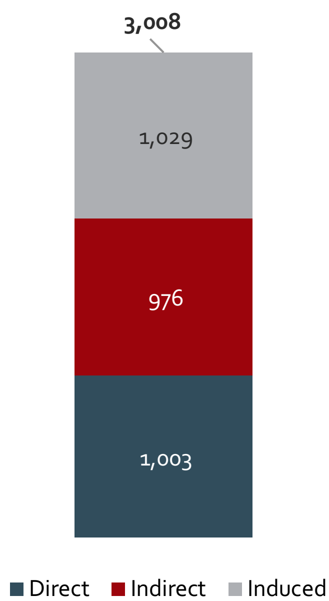
million in indirect and A$1.0 billion in induced GVA. The Producer Offset supported an estimated A$868 million in taxes. The Producer Offset was associated with A$289 million of direct taxes, with A$282 million indirect and A$297 million induced taxes. The Producer Offset is responsible for supporting 4,300 direct FTE jobs in 2021/22, 4,200 indirect and 4,000 induced FTE jobs.

Figure 39 – Output Supported by the Producer Offset, 2018/19 – 2021/22 (A$ million, real)[65]



Source: SPI Analysis (2022)

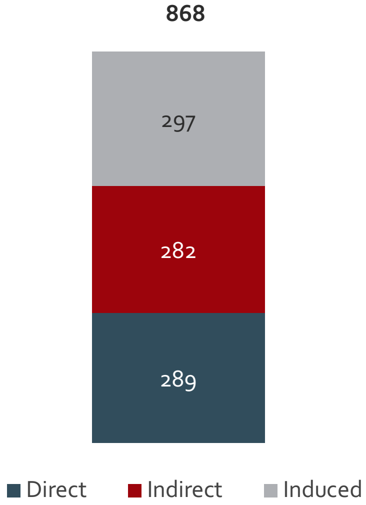
Figure 40 – GVA Supported by the Producer Offset, 2018/19 – 2021/22 (A$ million, real)[66]



Source: SPI Analysis (2022)

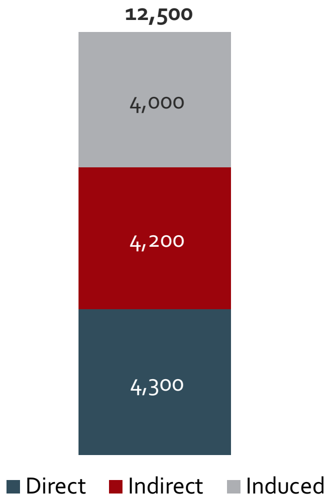
[65] Real figures are present, this means that values have been adjusted to be in a consistent price year to allow for accurate aggregation, in this case 2022 prices.
[66] Real figures are present, this means that values have been adjusted to be in a consistent price year to allow for accurate aggregation, in this case 2022 prices.

Figure 41 – Tax Receipts Supported by the Producer Offset, 2018/19 – 2021/22 (A$ million, real)



Source: SPI Analysis (2022)

Figure 42 – FTE Jobs Supported by the Producer Offset, 2018/19 – 2021/22



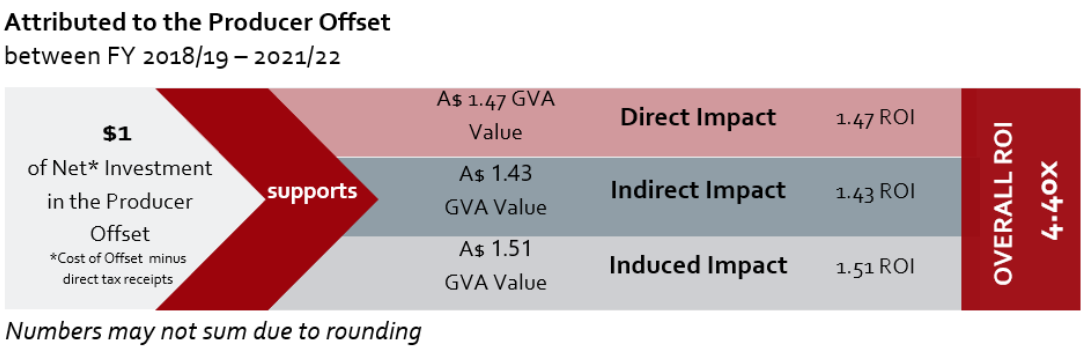
Source: SPI Analysis (2022)

7.5. ROI

The economic return on investment (RoI) is a measure of how much economic value is supported by A$1 of net investment in the Producer Offset by the Australian government. The net investment is the cost of the Producer Offset minus the direct tax return associated with the offset.

In the case of the Producer Offset, for every A$1 invested through the programme, A$4.40 in additional economic value is supported. Out of this A$4.40, A$1.47 is from direct effects, A$1.43 is from indirect sources and A$1.51 is from induced effects.

Figure 43 – Producer Offset Return on Economic Investment (Direct, Indirect, and Induced), 2018/19 – 2021/22



Source: SPI Analysis

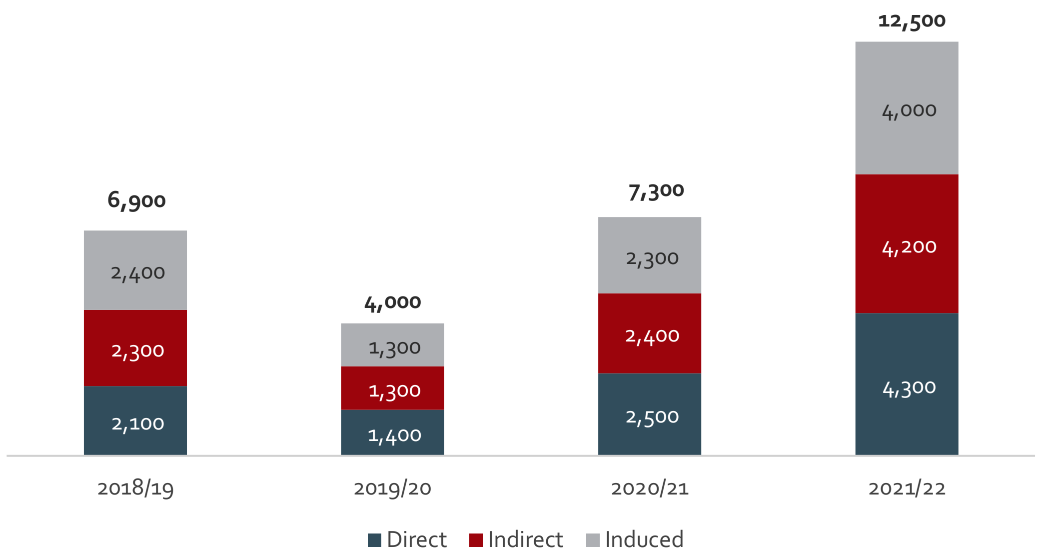
7.6. Impacts by Year

As per the production expenditure, the economic impact of the Producer Offset has increased significantly between 2018/19 and 2021/22. In terms of FTE jobs, these nearly doubled from 2,100 direct FTE jobs in 2018/19 to 12,500 in 2021/22.

Figure 44 shows a detailed breakdown of impacts by year.

This shows strong overall growth in output, GVA and tax associated with the producer offset, mirroring the pattern for employment. There was a slight dip in economic impact during 2019/20 reflecting COVID-19 restrictions and associated temporary drop in production expenditure. The total economic impact is made up of direct, indirect and induced impact each contributing roughly a third of the total.

Figure 44 – FTE Jobs Supported by Producer Offset by year, 2018/19 -2021/22



Source: SPI analysis (2022)

Table 4 – Producer Offset Economic Impact Results by Year, 2018/19- 2021/22 (nominal)

Indicator	Year	Direct	Indirect	Induced	Total
Output (A$m)	2018/19	579	550	568	1,697
	2019/20	379	371	394	1,144
	2020/21	641	629	667	1,937
	2021/22	1,138	1,115	1,183	3,436
GVA (A$m)	2018/19	208	198	204	610
	2019/20	136	133	142	411
	2020/21	226	222	235	683
	2021/22	401	393	417	1,212
FTE jobs	2018/19	2,100	2,300	2,400	6,900
	2019/20	1,400	1,300	1,300	4,000
	2020/21	2,500	2,400	2,300	7,300
	2021/22	4,300	4,200	4,000	12,500
Tax (A$m)	2018/19	60	57	59	177
	2019/20	38	37	40	115
	2020/21	66	64	68	198
	2021/22	116	114	121	352

Source: SPI analysis (2022)

8. MICRO IMPACTS

8.1. Overview

Although this study focuses on key macro-economic effects that are attributed to the screen sector's economic activity, further research was done into the additional value of productions outside of screen production-specific expenditure. This is the micro-economic effect that impacts a range of other business sectors in and around the area where the production expenditure takes place.

Film and TV production involve specialist processes which require a range of inputs. These include countless workers – varying in creative, technical, logistical and support roles – as well as equipment, facilities, infrastructure and services.

8.2. Ripple Analysis

While some of the expenditure being made is unique to the production process, there is significant spend and subsequent economic impact in other areas of the economy, such as real estate and hospitality services that are not exclusive vendors for the screen sector but often see notable value from the presence of projects.

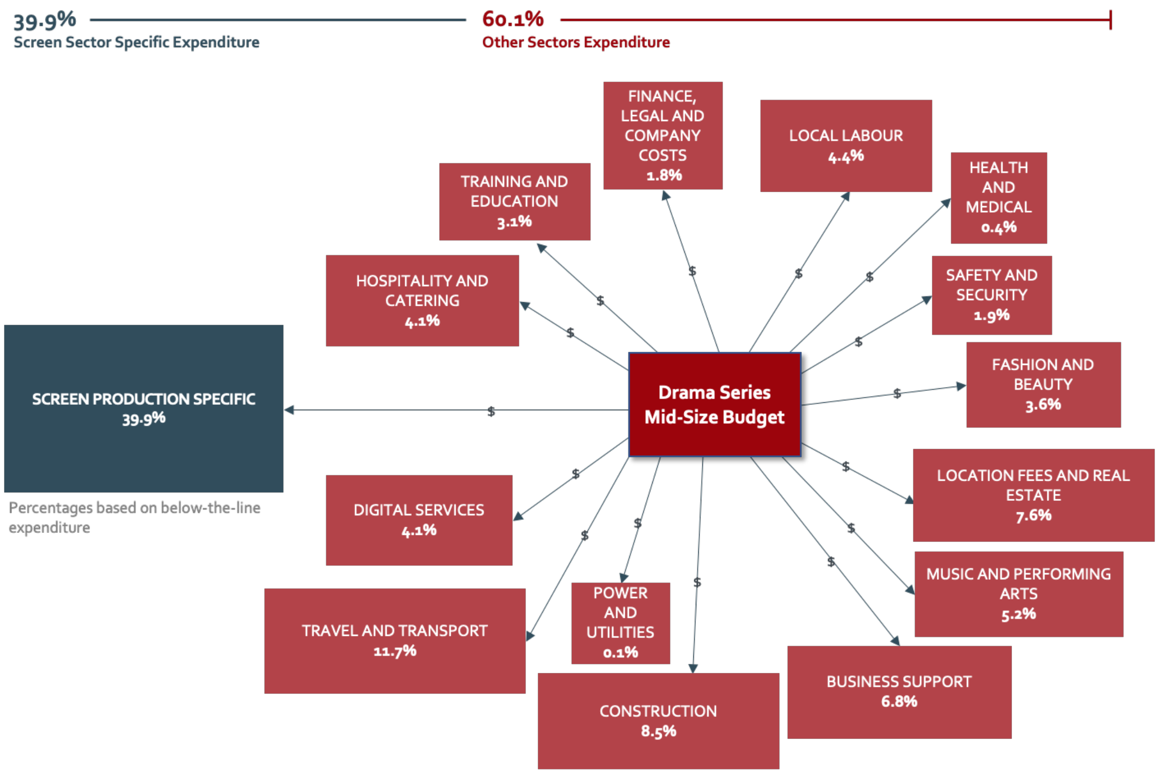
To understand this impact, a project's expenditure is analysed and categorised according to several business sectors that typically supply goods and services to productions. The analysis is primarily on 'below-the-line'[67] production expenditure to exclude the effect of payments to major creative talent that could imbalance the analysis. Although the percentages can be lower, expenditure can also be found in critical service areas, such as safety and security, and health and medical.[68]

A ripple analysis was completed on an Australian high-end television series with a mid-sized budget. As illustrated below in Figure 45 just below 40% of production expenditure took place within screen sector businesses.

The remaining 60% of expenditure for this project was spread across a variety of other sectors, including over 8% going towards construction, almost 12% towards travel and transport, 4% to hospitality and catering, and almost 7% going to business support.

[67] Above-the-line (ATL) and below-the-line (BTL) relate to film and television production workforce and the different types and seniority of roles across talent, cast, and crew: ATL refers to key talent, including directors, writers, and actors; BTL refers to other crew, for example in technical production roles.
[68] For a longer description of the ripple analysis, see Chapter 11.3

Figure 45 – Drama Series Ripple Analysis, Mid-Size Budget



Source: SPI analysis of Mid-Size Budget Drama Series (Australian-based)

8.3. Vendor Spend Heat Map

In addition to the ripple analysis, SPI engaged with an Australian production company to assess the impact of their productions on the screen sector supply chain. Analysis was conducted on three television drama series to determine where the spend landed in terms of geographic location. This analysis covered spend across the whole country, but separate research was performed on spend in different states.

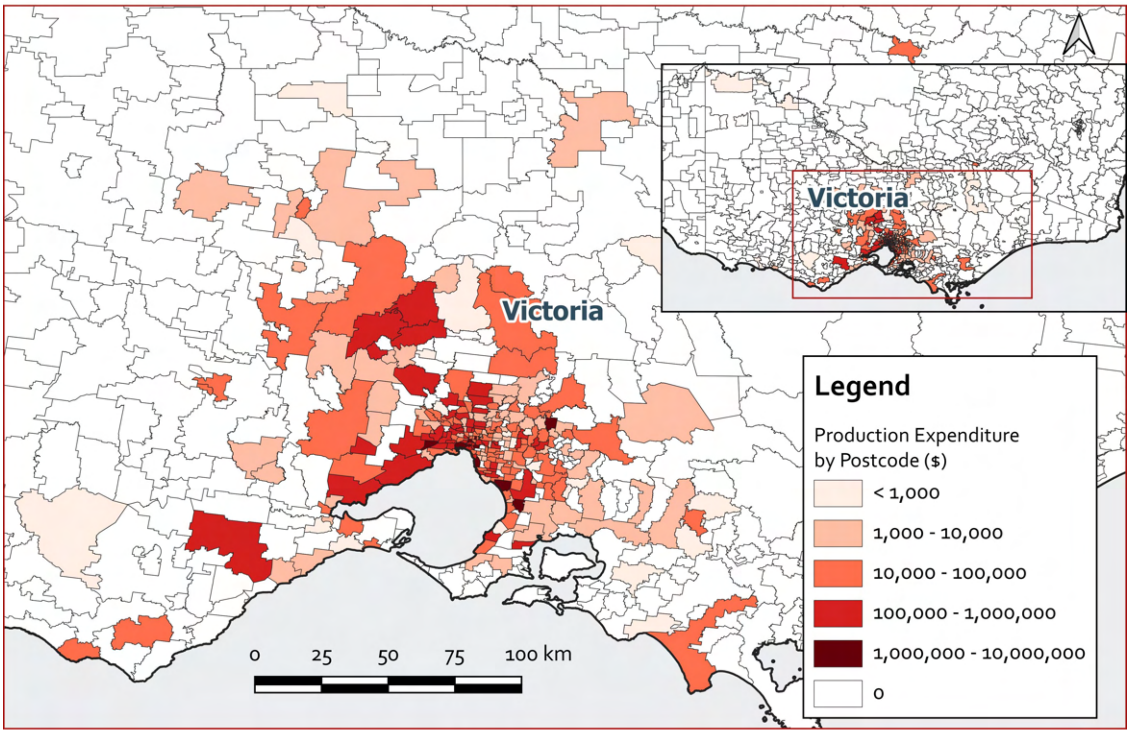
Across the three productions, over A$72 million was spent in Victoria, New South Wales, Queensland, Western Australia, South Australia and Tasmania.

8.3.1. Expenditure within States

Figure 46 - Figure 49 show vendor expenditure by postcode for six states where expenditure took place for the three productions for which data was provided, however the bulk of production and post-production took place in Victoria, New South Wales and Queensland. In addition to the spend documented in the four charts below, a further A$305,000 in expenditure for the three productions also took place in Western Australia and Tasmania.

These maps show how expenditure is concentrated around the key urban centre – Melbourne in Victoria, Sydney in New South Wales and Brisbane and the Gold Coast in Queensland.

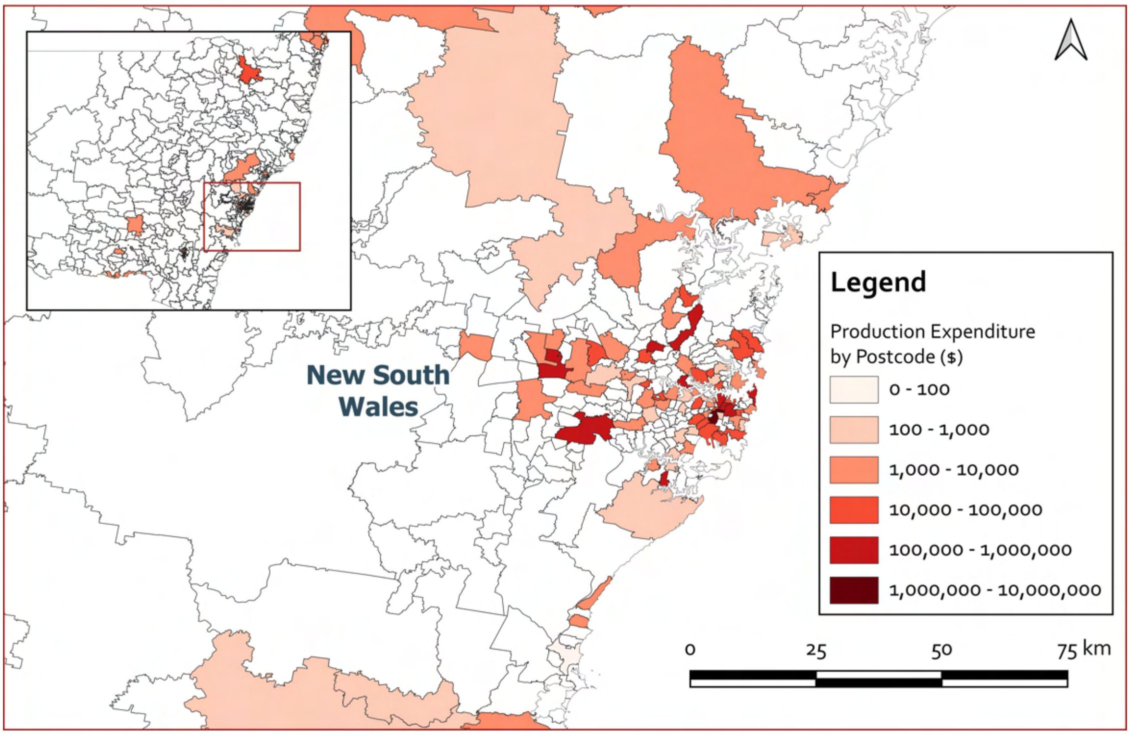
Figure 46 – Expenditure in Victoria by Postcode, Across Three Drama Productions



Source: SPI analysis of Three Australian Drama Series

Expenditure in Victoria across all three productions amounted to over A$50 million. Expenditure was centred around Melbourne city and spread towards Ballarat and Geelong.

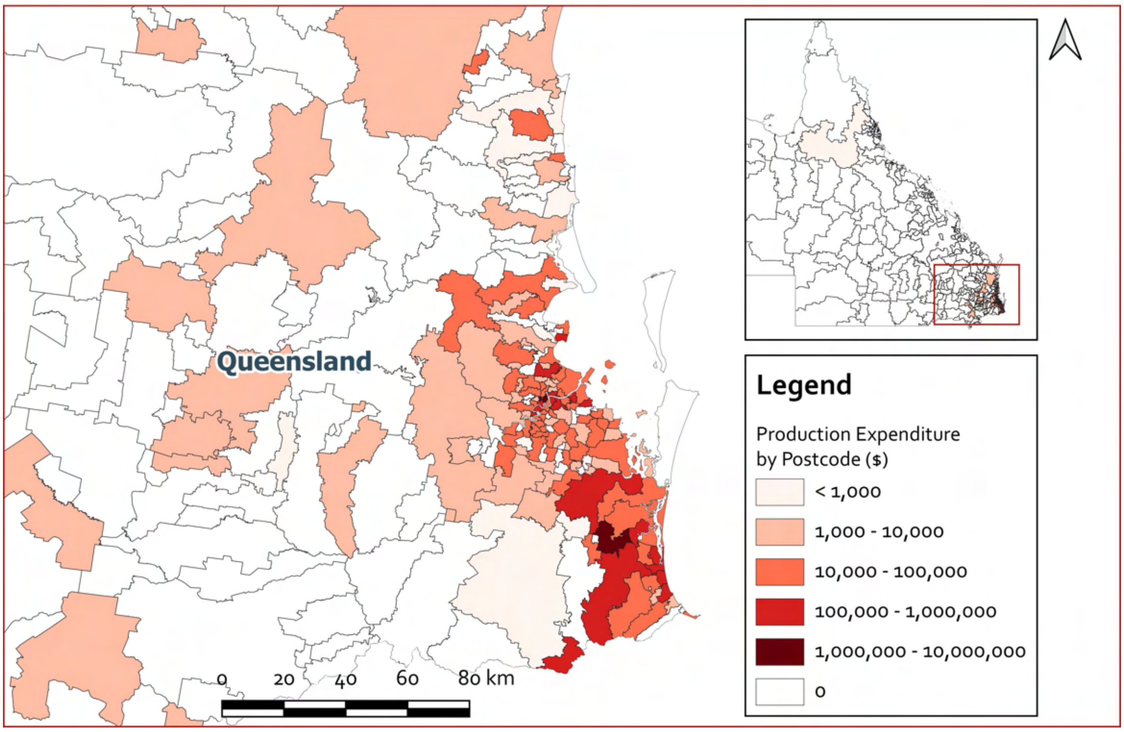
Figure 47 – Expenditure in New South Wales by Postcode, Across Three Drama Productions



Source: SPI analysis of Three Australian Drama Series

Almost A$7 million in expenditure was spent in New South Wales across all three productions. The spend is concentrated around Sydney, with some additional mid-level spend occurring further north in the state.

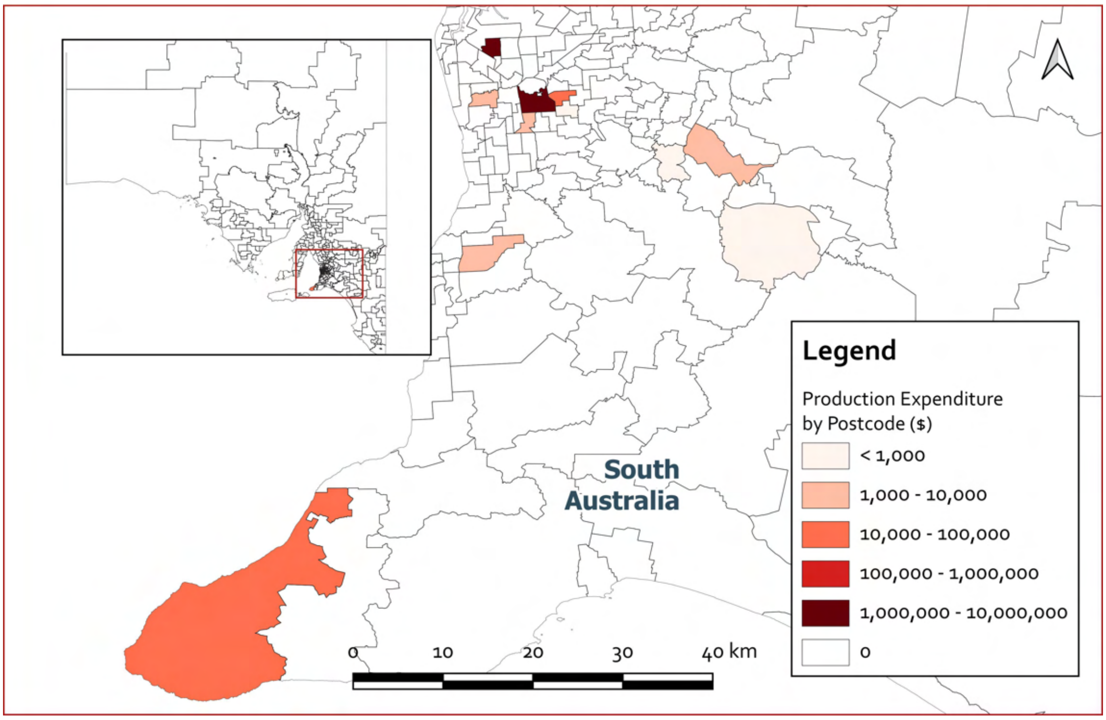
Figure 48 – Expenditure in Queensland by Postcode, Across Three Drama Productions



Source: SPI analysis of Three Australian Drama Series

Expenditure in Queensland amounted to A$11 million across all three productions. The spend is primarily centred in South East Queensland, across the major cities and production hubs in Brisbane and the Gold Coast.

Figure 49 – Expenditure in South Australia by Postcode, Across Three Drama Productions



Source: Source: SPI analysis of Three Australian Drama Series

Approximately A$3.5 million was spent in South Australia across all three productions, concentrated across Adelaide and the Western coast of the Fleurieu Peninsula.

9. WIDER STRATEGIC IMPACTS OF THE OFFSETS

9.1. Overview

Beyond micro-economic impacts, a range of other impacts in various sectors and areas of development can be identified as spillovers from production activity. These broader social and economic effects – on areas like training, skills transfer, and infrastructure – are generated and supported by the presence of an active production industry.

Such benefits include boosting tourism through highlighting a region's locations or by attracting followers of a certain franchise, for example, as well as the investment in and development of varied infrastructure. Key examples of wider strategic impacts generated from production activity are outlined in this section.

9.2. Infrastructure Investment

To study the impact of the offsets on Australia's production infrastructure, SPI has looked at changes and developments to Australia's existing screen production sites. This includes focus on infrastructure changes and developments, types and scale of projects supported, among other things.

9.2.1. Existing Studio Infrastructure in Australia

Australia currently offers seven production studios with sound stages across four states (see Figure 50). Australia's primary studios are located across the country's east coast, with Village Roadshow Studios (VRS) in Queensland, Disney Studios (formerly Fox Studios) in NSW and Docklands Studios (Docklands) in Victoria.

VRS and Disney Studios are both equipped with nine sound stages each, with a size range of 4,000 sq. ft to 48,000 sq. ft, and 7,326 sq. ft to 41,902 sq. ft., respectively. Docklands, on the other hand, is home to six sound stages, ranging between 8,000 sq. ft to 40,000 sq. ft in size. Notably, the sixth 'super stage' at Docklands opened in March 2022 and was touted to have expanded the Docklands site by 60%. All three studios are equipped with water tanks: VRS has three water tanks, while Disney has one interior water tank, and Docklands has two stages with waterproof pits for water filming.

Being home to some of Australia's biggest stages, VRS typically hosts large incoming feature productions. Since 2018, this site has hosted productions like *Dora and the Lost City of Gold* (2019), *Godzilla v. Kong* (2021), and *Elvis* (2022).[69] *Young Rock Season* 2 (2022),[70] *Nautilus*,[71] and *Irreverent* (part)[72] are examples of big recent projects produced at VRS. Notably, the Location Offset and Location Incentive have been critical in attracting all of these productions to the state and VRS, other than Elvis which utilised the Producer Offset.

Docklands Studios largely hosts incoming and domestic high-end television drama. Past productions include *Clickbait* (2021), and *La Brea* seasons one and two (2021-2022) among

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[69] *Previous Productions.* Village Roadshow Studios. Accessible at: https://villageroadshowstudios.com.au/about/previous-productions.

[70] *NBC Smash Hit Back for Round Two in Queensland*. Screen Queensland, 13th October 2021. Accessible at: https://screenqueensland.com.au/sq-news/media-centre/nbc-smash-hit-young-rock-back-for-round-two-in-queensland/.

[71] *Epic Disney+ Sci fi Adventure Series Nautilus Sets Sail for Queensland. Screen Queensland,* 24th August 2021. Accessible at: https://screenqueensland.com.au/sq-news/latest-news/epic-disney-sci-fi-adventure-series-nautilus-sets-sail-for-queensland/.

[72] *Village Roadshow Studios Remains Queensland's Home to Film & TV Production*. Ausfilm, 23rd March 2022. Accessible at: https://www.ausfilm.com.au/news/village-roadshow-studios-remains-queensland-home-to-film-and-television-production/.

others. More recent productions include *Shantaram* (2022)[73] and *Better Man*.[74] Docklands has recently attracted the *Metropolis* series, which is expected to occupy the space for the next 36 months and will includes a A$12.5 million investment from the Andrews Labor Government to build two LED volume stages.[75]

Sydney's Disney Studios has previously been home to large international productions, with the most recent big-budget production being the *Kingdom of the Planet of the Apes*, which is not only a recipient of the Location Incentive, but also funding from Screen NSW's 'Made in NSW' scheme. The production is expected to inject more than A$128 million into the screen industry in Australia.[76] In line with the filming of *Kingdom of the Planet of the Apes*, Disney's takeover of Fox Studios is likely to generate continued filming and production of Disney-backed projects in the region.

Smaller studios in Australia include South Australia's Adelaide Studios, Screen Queensland Studios (SQ Studios) and Pinnacle Studios in South East Queensland, and Byron Studios in Northern NSW.

SQ Studios, Adelaide Studios, and Byron Studios all offer two sound stages. Of the three, SQ Studios has a larger total stage size of 64000 sq. ft, while Adelaide's stages offer a size range of 4,305 to 10,763 sq. ft., and Byron Studios (which opened in 2020 and is currently closed for expansion) offers relatively smaller stages with a size range of 1,614 sq. ft. to 8,611 sq. ft. In contrast, Pinnacle Studios offers three sound stages, and have a size range of up to 16,479 sq. ft.

In terms of incoming productions, SQ Studios is marketed for low to mid-size feature films and series, such as *Love and Monsters* (2020), *Young Rock* Season 1 (2021) and *Joe vs Carole* (2022). Adelaide Studios predominantly services small to mid-size productions, including the series, *The Tourist (*2022), with some large feature productions occupying the space, such as *Mortal Kombat* (2021), which was partially shot at the studio. Byron Studios hosted part of the production of the Netflix series, *God's Favorite Idiot* (2022), which also received funding via the Location Incentive. Pinnacle typically serves as a studio space for local productions, including mid-size and independent productions, and does not typically see much international production activity. In the past, Pinnacle has been home to local productions such as *Occupation Rainfall* (2020), *Possessed* (2021), and *Blacksite* (2022).

[73] *Made in Victoria: First Look at Shantaram for Apple TV+.* Ausfilm, 30th August 2022. Accessible at: https://www.ausfilm.com.au/news/made-in-victoria-first-look-at-shantaram-for-apple-tv/.
[74] *Victoria Lands Robbie Williams Biopic.* Vic Screen, 3rd December 2021. Accessible at: https://vicscreen.vic.gov.au/news/victoria-lands-robbie-williams-biopic/.
[75] *Metropolis Comes to Melbourne*. Docklands Studios, 15th April 2022. Accessible at: https://www.dsmelbourne.com/2022/04/15/metropolis-comes-to-melbourne/.
[76] *20th Century Studios' Kingdom of the Planet of the Apes Reigns in Sydney*. Ausfilm, 10th October 2022. Accessible at: https://www.ausfilm.com.au/press/20th-century-studios-emkingdom-of-the-planet-of-the-apes-em-reigns-in-sydney/.

Figure 50 – Australia's Current Studio Offer

Source: SPI analysis (2022)

In attracting continued international production activity, VRS and SQ Studios both benefit from their locations – particularly Queensland's proximity to other Asia pacific regions and the USA, and its crew, which is seen as one of the most capable and talented and experienced crew bases in the country.

While the Location Incentive combined with Australia's COVID-19 response made the country an attractive filming location, encouraging the influx of multiple large international productions, the insufficiency of Australia's existing infrastructure has been a concern among industry stakeholders. Almost all of Australia's production sites are understood to be operating at full capacity, with crew in each of these regions working at capacity as well. This has prompted several studios to consider expanding their existing sites and, in some cases, even consider executing new partner deals with other studios in order to make the most of the infrastructure that currently exists. Some of these expansions are detailed below.

9.2.2. Proposed Studio Infrastructure in Australia

Announcements of studio expansions or upcoming development of new studio facilities are typically seen as indicators of increased production activity, signaling a surge of incoming investment. While Australia has recently seen a lot of increased production activity, developments in infrastructure have been relatively slow in catching up.

Most of the incoming productions have fully occupied existing studio spaces, and although there have been both announcements and speculation about several upcoming infrastructure developments, including the development of new sites and expansions on existing sites, most of these lack concrete plans. Announcements regarding more certain infrastructure developments have been tabulated in Table 5 below.

Importantly, private investors considering studio expansions and new builds are concerned about the stability of the Location Offset and Location Incentive (and other funding available to incoming projects). This concern is inhibiting positive investment decisions in Australia. Our research contained in Section 10 further details comparative trends in infrastructure development in other jurisdictions, where more certainty around the availability of incentives has contributed to considerable investment, which is largely missing in Australia.

Table 5 – Studio Developments Announced in Australia

Announced Infrastructure Projects	Location	Details
WA Government's New Studio Development	Perth, Western Australia	• New site spanning 16 hectares • This is aimed to be WA's first dedicated studio facility • Construction on the site is slated to begin by the end of 2023
Byron Studios New Home Site	Byron Bay, NSW	• Projected stage size range of 800 – 2,500 sq. m • Including facilities such as an office space, workshops, extensive backlot area (including a quarry lake) and other relevant facilities • This is slated to open in 2023
Screen Queensland New Development	Cairns, Queensland	• Previously set to complete construction and open by mid 2022 • Now slated opening date for early 2023 • The site maps a 69,965 sq. ft. space • Situated on a 4.8-hectare area

9.3. Screen Tourism

Screen Tourism is dependent on audiences' interest in certain productions becoming a motivator for them visiting a location as well as a location's ability to capitalize on a production associated with that area, which can range from behind-the-scenes tours to exhibitions and screenings. Screen tourism in Australia has been well-documented and the screen industry highlighted as an important driver for tourism across the country. The impacts are often challenging to quantify but through a survey on screen-induced tourism, A$725 million in tourism expenditure was associated with broad screen content for 2014/15.

Screen tourism can depend on productions featuring a country in such a way as to attract visitors. Australia's diverse and internationally revered landscapes are an established draw for visitors, with both scripted and non-scripted content having played a significant role in highlighting a distant destination for many international audiences. *Crocodile Dundee* (1986) is not only one of Australia's most successful films internationally but has been noted as the base from which the relationship between the production industry and tourism grew.[77]

Through a survey conducted in 2016, the film franchise was identified as having a significant impact on how international audiences understood and recognized Australia and found the country to be more accessible through seeing it featured in the context of the films.[78] Beyond their entertaining and educational aspects, natural history programmes were also identified as

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[77] *Crocodile Dundee Turns 30: How Paul Hogan Changed Tourism in Australia*. Travel and Leisure, 26th September 2016. Accessible at: https://www.travelandleisure.com/culture-design/tv-movies/crocodile-dundee-australia-tourism

[78] *Measuring the Cultural Value of Australia's Screen Sector*. Olsberg•SPI, 2016. Accessible at: https://www.screenaustralia.gov.au/getmedia/1dce395e-a482-42d1-b5a9-47bb6307f868/Screen-Currency-Olsberg-SPI-Nov2016.pdf

contributing to travel decisions with their ability to showcase the diverse natural Australian landscapes, as seen with landmark shows such as the *Blue Planet* series. Other non-scripted productions, such as *Bondi Rescue (2017)*, which is in its 12th season and distributed to around 130 countries, have attracted significant visitors to Bondi Beach.[79]

Tourism Australia has further successfully aligned the country's celebration of the production industry with tourism through their strategic investment in their global tourism campaigns over the past decade. Chris Hemsworth was announced as the global ambassador for 2016, while in the middle of the *Avengers* movie saga releases and filming *Thor: Ragnarok* (2017) in the country. Most recently, Tourism Australia launched a campaign that is a series of short films with an animated ambassador, voiced by actress Rose Bryne. 'Come and Say G'day' is a multi-market and mass awareness campaign that capitalises on screen content's ability to promote a location[80].

Alignments with franchises and productions that are more fantasy-based, use studio sets or double Australian locations for other parts of the world, such as those in the Marvel Universe, are interesting as those films do not specifically highlight Australia visually but it is rather their associations with the productions that attract audiences as tourists. This has the potential to further expand the scope of screen tourism, through exhibitions, studio tours and other experiences and events, as with the 'Marvel: Creating the Cinematic Universe' exhibition at the Queensland Gallery of Modern Arts.

9.3.1. Case Study – GOMA Marvel: Creating the Cinematic Universe Exhibit

The Marvel Universe has garnered a vast international following and expanded beyond a film franchise into television series, immersive experiences, a range of merchandise and exhibitions. Public interest in productions beyond simply attending the cinema has surged with the variety of engaging experiences being available – from fans being able to follow cast members while in specific shooting locations through social media to experiences and exhibitions that allow audiences to immerse themselves in the world of their favourite film. The franchise's ability to draw a crowd can be demonstrated through the hundreds of people who took to the streets of Brisbane to see the final scenes of *Thor: Ragnarok* (2017) being filmed in 2016. Queensland has a robust screen sector, having supported a range of both local and international projects.

Although the majority of these films do not directly highlight Queensland as a location, with many scenes taking place at the studios in front of a green screen or dubbing the streets of Brisbane for New York, the association with the Marvel franchise has resulted in a range of spillover attractions in the state.[81] One example is the record-breaking success of the 'Marvel: Creating the Cinematic Universe' exhibition, which celebrated more than 270,000 visitors to Brisbane's Gallery of Modern Art (GOMA) between 27th May and 3rd September 2017, making it the most popular ticketed event at the gallery.[82] The Premier and Minister for the Arts at the time, Annastacia Palaszczuk, praised the exhibition for significantly contributing to attracting thousands of visitors to the state and helping to further bolster the tourism industry and positively impact job creation.

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[79] *Tourism and Exports: The Screen Industry is a Major Contributor*. Screen Australia, 18th January 2017. Accessible at: https://www.screenaustralia.gov.au/sa/screen-news/2017/01-18-tourism-exports-and-the-screen-industry

[80] *Tourism Australia Introduces 'Come Say G'day' Global Campaign*. Forbes, 22nd October 2022. Accessed at: https://www.forbes.com/sites/micheleherrmann/2022/10/22/tourism-australia-introduces-new-come-and-say-gday-global-tourism-campaign/?sh=6b81b5ad74ef

[81] *See Marvel's Latest Production, a Massive Museum Exhibit in Australia*. Dujour, 2017. Accessible at: https://dujour.com/culture/marvel-film-sets-museum-exhibit-australia/

[82] *Marvel Proves Record Breaking Success for GOMA*. Arts Queensland, 2017. Accessible at: https://www.arts.qld.gov.au/arts-and-cultural-snapshots/north-west-queensland-councils/workflow/marvel-proves-record-breaking-success-for-goma

> *The exhibition was an outstanding addition to our state's world-class events calendar which draws thousands of visitors a year to Queensland and helps grow our tourism industry and deliver jobs.*
>
> *– Premier Annastacia Palaszczuk (2017)*

The potential for additional impact was seen through a further 18,000 visits to 'Marvel' film screenings held as part of the Australian Cinémathèque programme that ran parallel to the exhibition.[83] Support for the franchise has not waivered and one of the most recent instalments, *Thor: Love and Thunder (2022)*, has been celebrated as a landmark 'Made in Australia' film – from individuals involved in the production through the state and national-level support. This culminated in a special film screening event attended by the film's stars Chris Hemsworth (*Thor*) and Taika Waititi (Director and character *Korg*).[84] This was regarded as one of the most coveted film premiere tickets and resulted in crowds gathering at and around the event in Sydney as well as hosting informal screening events across the country.

Thor: Love and Thunder. Photo by Jasin Boland. ©Marvel Studios 2022. All Rights Reserved.

9.4. Business Acquisitions and Investment

Increased production activity in Australia, spurred by the various incentives, has been complemented with several business acquisitions, and investments in Australian companies.

Disney's acquisition of Fox Studios was a significant business transaction for the Australian landscape. While Disney's acquisition of Sydney's Fox Studios was part of Disney's global

[83] *Queensland Art Gallery Annual Report 2017-18*. QAGOMA, 17th August 2018. Accessed at: https://www.qagoma.qld.gov.au/cdn/files/aa1b87e89852278e24f9dcb7a92da0bee738eb16.pdf
[84] *Made in Australia: Thor: Love and Thunder*. Ausfilm, 30th June 2022. Accessed at: https://www.ausfilm.com.au/news/made-in-australia-thorlove-and-thunder/

acquisition of 20th Century Fox, which was completed in 2019,[85] the Sydney-based studios formally changed their name from 'Fox Studios' to 'Disney Studios' in October 2022.[86] This acquisition is key for the Australian production sector, given its likelihood of further stimulating Disney-backed or Marvel franchise productions in Sydney.

Other key production investments and acquisitions include ITV's acquisition of majority stakes in Sydney-based Lingo Pictures,[87] and Banijay's announcement of its acquisition of Australian distribution company Beyond International in October 2022.[88] Reportedly, Beyond International has a portfolio amounting to about 8,000 hours of IP, spanning distribution titles from both in-house and third-party productions, which is likely to benefit Banijay, as a result of the acquisition.[89]

In a similar vein, new film businesses that have set up base in Australia have contributed to existing business activity in the region, with the newly established Global City Group acquiring Queensland-based Every Cloud Productions.[90] Every Cloud Productions, which is known for production titles such as *SeaChange* (2019), *Eden* (2021), and *Miss Fisher's Murder Mysteries* (2012-15), will now come under Global City Group's leadership and reportedly already have titles slated for production.

Australia's animation space has seen a number of key acquisitions and investments as well. Some of this has been streamer led – with Netflix acquiring Sydney-based Animal Logic in July 2022.[91] Other investments and acquisitions in animation include the USA-based toy company, MGA Entertainment's (MGA) acquisition of Pixel Zoo animations.[92] This acquisition is reportedly part of MGA's global expansion into the content industry, with the launch of MGA Studios.

Notably, there have also been outward investments made by Australian companies in animation studios outside the country – for instance, Princess Pictures acquired Dublin-based animation studio Boulder Media in 2022.[93] Boulder Media is known for producing titles such as *My Little Pony* (2021) and this acquisition is set to expand Princess Pictures' animation catalogue. This is also likely to complement the work of *Princess Bento*, the globally focused animation studio set up in Victoria, as a result of a joint venture between Princess Pictures and Fox Studios' Bento Box.[94]

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[85] *Disney's Acquisition of 21st Century Fox Will Bring an Unprecedented Collection of Content and Talent to Consumers Around the World.* Walt Disney Company, 19th March 2019. Accessible at: https://thewaltdisneycompany.com/disneys-acquisition-of-21st-century-fox-will-bring-an-unprecedented-collection-of-content-and-talent-to-consumers-around-the-world/.
[86] *Disney Officially Renames Sydney's Fox Studios*. ABC News, 10th October 2022. Accessible at: https://www.abc.net.au/news/2022-10-11/disney-officially-renames-sydneys-fox-studios/14080558.
[87] *ITV Buys Majority Stake in Lingo Pictures*. Deadline, 2nd November 2022. Accessible at: https://deadline.com/2022/11/itv-studios-buys-upright-producer-lingo-pictures-australia-1235160967/.
[88] *Banijay Confirms Proposed Acquisition of Beyond International Limited*. Banijay, 5th October 2022. Accessible at: https://www.banijay.com/blog/2022/10/05/banijay-confirms-proposed-acquisition-of-beyond-international-limited/.
[89] Ibid.
[90] *Global City Group Acquires Every Cloud Productions*. If, 31st October 2022. Accessible at: https://if.com.au/global-city-group-acquires-every-cloud-productions-appoints-jo-dillon-as-ceo/.
[91] *Netflix Acquires World Leading Studio Animal Logic*. Netflix, 19th July 2022. Accessible at: https://about.netflix.com/en/news/netflix-acquisition-animal-logic.
[92] *Toy Giant MGA Entertainment Takes Aim at Content and Gaming with Studio Launch, Pixel Zoo Animation Acquisition*. Variety, 14th November 2022. Accessible at: https://variety.com/2022/biz/news/lol-surprise-mga-studios-rainbow-high-pixel-zoo-1235431233/.
[93] *Princess Pictures Expands with Boulder Media Acquisition*. If, 2nd November 2022. Accessible at: https://if.com.au/princess-pictures-expands-with-boulder-media-acquistion/.
[94] *Princess Bento Sets up Shop in Melbourne*. VicScreen, 19th March 2021. Accessible at: https://vicscreen.vic.gov.au/news/princess-bento-studio-sets-up-shop-in-melbourne.

Australia has also seen investments and acquisitions in the factual and documentary films sector of the industry. In June 2022, Canadian entertainment company, Amcomri Entertainment Inc. acquired documentary film distributor, Flame Media.[95] Flame Media's key factual and documentary titles distributed include *Outback Truckers* (2012-21) and *Life in Colour with David Attenborough* (2021), among others.

[95] *Amcomri Entertainment Acquires Assets of Flame Media for C$3 Million*. Amcomri Entertainment, 9th June 2022. Accessible at: https://amcomrientertainmentinc.com/uncategorized/flame-media-acquisition/.

Section Three:
Future Forecasting

10. FUTURE FORECASTING

10.1. Introduction / Context

The purpose of this chapter is to consider the possible future trends in production activity in Australia and, in particular, identify the main factors that might affect total production figures of the type that have been analysed here. This means production activity that is directly related to the suite of offsets that are the subject of this report.

10.1.1. Location Offset/Incentive Related Production

Looking at the different levels of production in recent years across the offsets, it is noticeable that production associated with the Location Offset/Incentive was at an historically high level in 2020/21 (A$811 million). This partly reflected the fact that Australia's COVID-19 response had successfully increased its attraction as a production location when compared to competitor destinations. But a more important factor was the availability of refreshed funding in excess of A$400 million for the Location Incentive.

As the world recovered from these unusual circumstances, Australia still hosted A$460 million of production in 2021/22, a 31% increase over the pre-pandemic year of 2019/20. Although the impact of the pandemic did not precisely match the end of June cut-off for each year, our research underpins this recovery performance and we expect continued growth for future years, although with the current uncertainties we cannot put an actual percentage increase on this figure.

10.1.2. Producer and PDV Offset Related Production

Production associated with these Offsets (covered in detail in chapters 6 and 7) demonstrated a strong growth curve in recent years. Growth in production levels from 2020/21 to 2021/22 were as follows:

- Producer Offset 77%
- PDV Offset 102%

In its research and consultations programme, SPI did not identify any serious impediments to continued growth in these sectors, although the general uncertainty around economic results, and the fact that a new government is looking at regulatory updates, make it hard to accurately estimate future activity which SPI has not sought to do in this report.

10.2. Factors Affecting Future Levels of Offset Production in Australia

There are several factors that could affect the levels of future production activity connected to the Offsets. These include global factors and those that are particular to the Australian context. What follows is a brief identification of such factors with a comment anticipating how changes could affect production levels. These are not listed in any order of importance.

10.2.1. Global Economic Uncertainty

It is not the purpose of this report to analyse the shifting global forces that are creating uncertainty for virtually all economic sectors. After two years where the pandemic was the primary contributor to economic conditions, that element has diminished in importance. Instead, the global economy is held hostage by the conflict in Ukraine and the allied looming recession. The depth and length of the recession will vary considerably. At the time of writing the expectation is the US recession should be relatively mild but Europe's more intense.

The effect in Australia is also relatively unknown, although the country managed to avoid a recession for 30 years until the pandemic hit. In October 2022, according to Reuters, the Australian economy will likely avoid a recession despite the world economy being in "a dangerous place right now", Treasurer Jim Chalmers said ahead of the new Labour government's first budget. Speaking to reporters, Chalmers warned the global economy was heading for a substantial downturn and Australia would not be "immune" from that. However, it was not the government's expectation that Australia's economy will go backwards.

This portends well for the domestic production market.

10.2.2. The Future of the Location Offset/Incentive

Research[96] shows that best practice in incentive design and operation involves systems that deliver the greatest certainty and predictability, especially concerning the amount, and length of time, available to support the incentive as well, of course, as the percentage rate that applies to qualifying production costs.

It is well-evidenced that the favourable return Australia achieves from the Location Offset/Incentive system follows from the assurance that funds are available at an appropriate level to handle demand, over a decent period of time (especially for the Location Incentive). At the time of writing the uncertainty surrounding the available budget is a serious constraint to growth.

Furthermore, the uncertainties surrounding whether the Location Incentive is available are enhanced by the selective nature of the process. It is particularly harmful when decisions are delayed because access to the incentive is unknown, yet firm decisions have to be made about locating a production.

Australia has lost business due to this process and the limited funding available for the system. This negative position is likely to continue unless the Location Offset/Incentive is more aligned with competitors.

A further disadvantage of the current system is that it does not encourage private investment in greatly needed facilities such as stages. Research shows that, in other markets where the incentive system is predictable and generates confidence (such as the UK and Canada) the private sector is more likely to make the investments so clearly needed in Australia.

The industry has suggested the Location Offset be increased to a more competitive level of 30% (in line with most other Offsets), at the same time eliminating the Location Incentive structure. This is likely to encourage the much-needed investment in stages that is holding back this sector. It is SPI's view that making this change, allied with sufficient funding for future demand, is likely to generate the greatest growth in production levels, with the consequent economic impacts described elsewhere.[97]

If the current Location Incentive is not renewed with adequate funding this is likely to almost completely remove demand from international producers. History shows that leaving only the 16.5% Offset without any aligned top-ups or incentives is likely to result in virtually no activity, as happened in 2017/18.

A simplified and more predictable approach is likely to optimise production levels in the future, depending, of course, on what happens with other elements discussed in this chapter.

10.2.3. Change in Government Policy for the Arts

There is an active debate being conducted concerning the development of a new National Cultural Policy that will potentially include new regulations requiring a minimum level of investment in production by international streaming companies operating in Australia. We

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[96] *Best Practice in Screen Sector Development*. Olsberg•SPI, 13th September 2019. Accessible at: https://static1.squarespace.com/static/5f7708077cf66e15c7de89ee/t/602a5d97da388b185d66d688/1613389210265/AFCI-Best-Practice-Study-2019-09-13-Final-Cover+%282%29.pdf

[97] See also section 11.2.6 for an analysis of other markets' growth in stages aligned to predictable incentive systems.

have not explored this potential change in policy, but future demand for production capability may be affected.

10.2.4. Changes in the Factors that Affect Producer Location Decisions

Australia's future incoming production volume will to a large extent depend on its ability to meet the requirements producers have when deciding where to base their production. SPI has analysed these factors when major productions are able to choose from several potential markets ("portable" or "runaway" productions) but many of these factors are also relevant for smaller, independent productions.

The factors include:

- Where an ***automatic incentive***[98] has become a successful public policy tool
- Currently, because of the global production boom, the ***availability of both sound stages***[99] ***and top-quality crew*** *have* also become determining factors, especially for larger tentpole films and sizeable TV series
- For most projects, the primary consideration will be the ***creative specifics*** of the project such as a requirement for urban and/or rural locations, whether the setting is period, contemporary or futuristic, and the ethnic look of the cast
- Next in importance will be the ***actual budgeted costs*** in the different competing markets
- The likely future currency ***exchange rates*** will be an important element
- These will be adjusted for the ***effect of the relevant incentive*** being offered in order to determine the true net cost of production.

Broadly speaking, the factors described below are taken into account next, once the above primary considerations have been factored in, usually leaving a smaller number of markets to compete:

- The ability of the market to offer a ***safe and secure environment*** for production and a jurisdiction's ability to deal with the current pandemic has made this a significant decision factor
- The perceived "***film-friendliness***" of the market becomes highly significant and the ability to deal quickly and effectively with permits, importing of crew and equipment, and ease of dealing with regulatory obstacles
- ***Access to the country*** via international airlines will have been considered during the budgeted stage (calculating travel costs) but the ease and availability of direct flights and the time zone differences will be taken into account
- Similarly, the ***internal communications and transport*** infrastructure will be assessed including proximity to international airports and ease of moving around to different locations
- Also, relevant here will be the reliability and speed of ***broadband systems***
- Finally, but not least important in the case of Australia, the ***lifestyle offer*** for key talent and creatives can often be a determining factor, especially if the production is heavily influenced or controlled by A-list actors or directors.

[98] Incentives have become increasingly available as governments recognise that screen production plays a unique role in delivering economic value, in part because of the way that large sums are rapidly spent, spreading throughout an economy, when this fast-paced 'specialised manufacturing' activity takes place.
[99] Alternative, temporary space such as empty warehouses or aircraft hangars can be made available although not completely satisfactory for many productions.

Australia scores well in many of these factors, however the offsets' predictability plus shortages of crew and stages are factors that could inhibit Australia's growth in the future. Sections 10.2.5 and 10.2.6 explore these factors in more detail.

10.2.5. Capacity within Australia's Production Infrastructure – Workforce

Below-the-line workforce is at virtually full capacity particularly for the level of A-grade crew which are in demand for major productions. The burden at this level has had a knock-on effect, increasing pressure down to all grades of crew serving international and domestic productions.

As the demand for Australia's production offer has grown, there have been more major-budget productions happening concurrently. The economic benefits of this are highly desirable, and Australia's global competitors have thrived from being able to handle the volume. However, with capacity under strain, the Australian production sector has had limited ability to synchronise its offer to simultaneous large productions.

Work is underway federally and within the states to deal with this problem but Australia's ability to grow the sector will be dependent upon the success of these measures.

10.2.6. Capacity within Australia's Production Infrastructure – Stages

Our research and consultations with key players in the sector discloses an additional inhibiting factor, which is the lack of available purpose-built sound stages.

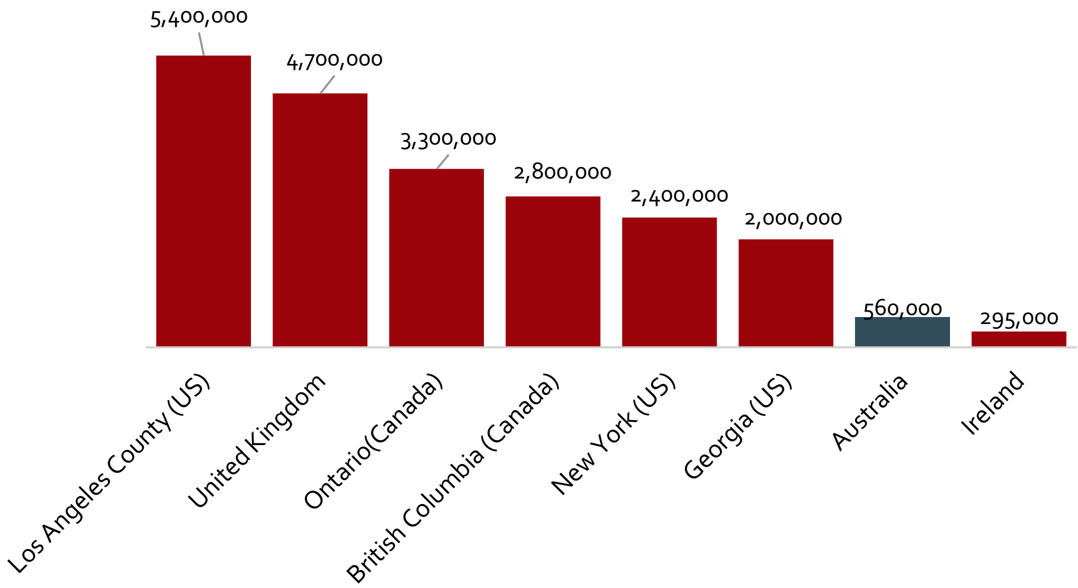
As production in Australia expanded in 2020 and 2021, studio capacity became a growing concern. Due to the pandemic, productions were able to utilise convention centres and empty warehouses as temporary stage space, including *Spiderhead* (2022)[100] which shot at the Gold Coast Convention Centre and *Blacklight* (2022)[101] which shot at the Melbourne Convention and Exhibition Centre. In a November 2020 article by Screen Daily, Jon Kuyper noted that there is a "mad scramble for any and every warehouse space in Australia."[102] However, many of these options were removed as the pandemic wound down.

Additionally, Australia's stage capacity is impacted not only by the increased number of projects, but the scale of productions. As large, tentpole productions increasingly choose Australia as their production location, Australia's purpose-built sound stages are quickly filled. The production of *Aquaman* (2018), which shot at Village Roadshow Studios, used all 9 sound stages including lockups, 6 construction areas and wardrobe areas and water tanks between January and December 2017.[103]

Figure 51 demonstrated Australia's sound stage position compared to its competitors as of 2020.

[100] *Location Spotlight: Queensland Starring in Netflix's Escape from Spiderhead.* Ausfilm, 16th March 2021. Accessible at: https://www.ausfilm.com.au/news/location-spotlight-queensland-in-escape-from-spiderhead/
[101] *Melbourne Lighting the Way in Virtual Production.* Vic Screen, 22nd February 2021. Accessible at: https://vicscreen.vic.gov.au/news/melbourne-lighting-the-way-in-virtual-production
[102] *Australia Production Focus: A New Gold Rush.* Screen Daily, 11th November 2020. Accessible at: https://www.screendaily.com/features/australia-production-focus-a-new-gold-rush/5154864.article
[103] *Aquaman – Case Study.* Village Roadshow Studios, 2021

Figure 51 – Dedicated Production Stages in Key Markets (2020), ft²

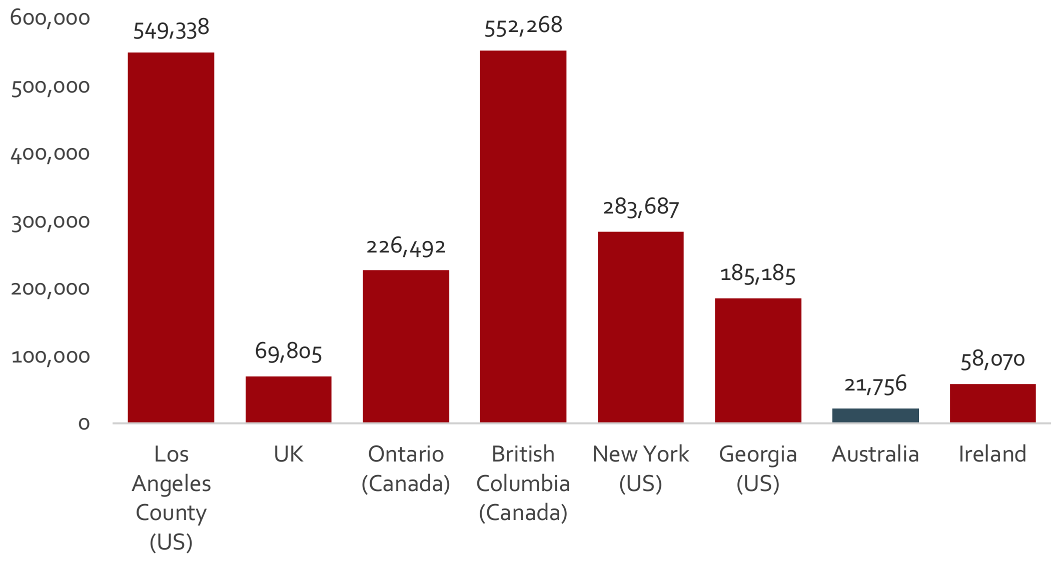


Source: FilmLA (2022)[104], Ausfilm, Screen Ireland, New Zealand Film Commission, SPI (2022)[105]

As seen below in Figure 52, when the current provision of sound stages is compared against the population of each territory, the gap in Australia's current studio provision compared with international competitors becomes more glaring. In the County of Los Angeles and British Columbia, there is over 500,000 sq. ft of sound stages per 1 million inhabitants. Georgia and New York in the US, and Ontario are all above 150,000 sq. ft of sound stages per 1 million inhabitants. Australia, in comparison, has just over 21,000 sq. ft of sound stages per 1 million inhabitants.

[104] *Sound Stage Production Report 2020.* FilmLA, 1st April 2022. Accessible at: https://filmla.com/wp-content/uploads/2022/03/FilmLA-News-Release-2020-Sound-Stage-Report-040122-Distribution.pdf
[105] Key markets only account for current stage provision, and do not include proposed developments or expansions. FilmLA data tracks studio levels in 2020, figures will not include new studios or expansions opened in 2021 or 2022. All figures have been rounded and are not exact.

Figure 52 – Dedicated Production Stages in Key Markets (2020), ft² per 1 million inhabitants



Source: SPI Analysis (2022)

Studio capacity is not only a concern in Australia. As production has increased over the past five years, the provision of purpose-built stages suitable to meet demand is a concern being addressed in most mature production markets. A 2018 report from PwC estimated that the UK was potentially losing the equivalent of eight blockbuster features – or almost £1 billion in production expenditure - each year due to a lack of studio capacity.[106] A 2021 report from Lambert Smith Hampton estimates that at least 2.3 million sq. ft of new stage space will be required in the UK by 2033 to meet production demand.[107]

In 2020, the British Film Commission received £4.8 million over a three-year period to expand their work to promote the UK as a destination of choice for studio space investment. This followed a particularly strong production year where inward investment spend from major international productions topped £3.0 billion. Then Culture Secretary Oliver Dowden stated that the funding would "help drive inward investment and grow our talented sector."[108]

Ontario has also recognised the need for expansion, particularly in the Greater Toronto area. In November 2021, Toronto Mayor John Tory announced the CA$250 million Basin Media Hub in Toronto's Port Lands, which will include sound stages and offices to alleviate capacity concerns. [109]

[106] *Review of the UK Film and High-End TV Production Facility Market*. PwC, 2018. Accessible at: https://s3-eu-west-1.amazonaws.com/commonplace-customer-files/sheppertonstudios/07.%20Review%20of%20the%20UK%20film%20and%20high-end%20TV%20production%20facility%20market.compressed.pdf

[107] *Sites, Camera, Action.* Lambert Smith Hampton, 13th July 2021. Accessible at: https://www.lsh.co.uk/explore/research-and-views/research/2021/july/film-studios-research-report-2021

[108] *Budget 2020: British Film Commission Receives £4.8 Million Boost.* British Film Commission, 12th March 2020. Accessible at: https://britishfilmcommission.org.uk/budget-2020-british-film-commission-receives-4-8-million-boost/

[109] *City of Toronto Experiencing Record Expansion of Screen Production Industry.* City of Toronto, 17th November 2021. Accessible at: https://www.toronto.ca/news/city-of-toronto-experiencing-record-expansion-of-screen-production-industry/

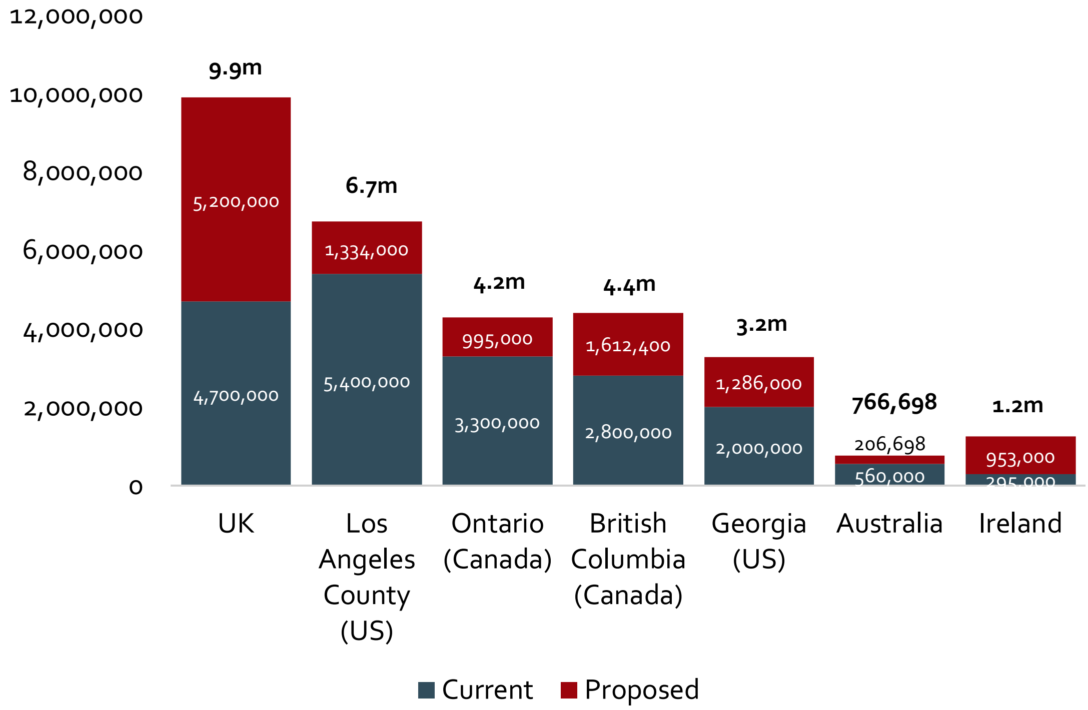
> *The City's decision to put a City-owned, 8.9-acre parcel of land on the market for studio development recognizes the economic and cultural value of the screen sector and acknowledges that the global demand for space in Toronto surpasses current capacity.*
>
> *– Mayor John Tory (2021)*

According to the same announcement, Toronto is expected to see a 63% increase in sound stages to a total of 5.3 million sq. ft by 2025. This would include expansions to existing studios and new studio builds. This will have a significant impact, not only in alleviating capacity concerns, but creating new job opportunities and economic benefits for Toronto and Ontario. According to a 2021 Nordicity report for the City of Toronto, adding one million sq. ft of soundstage space to the current supply in Toronto could lead to an additional CA$610 million in production volume and 12,000 additional workers supported (6,370 FTEs).[110]

Figure 53 below shows a conservative estimate of studio expansion in key production markets. Proposed studio expansions and developments in the UK are expected to add an additional 5.2 million sq. ft in stages, while the County of Los Angeles and British Columbia have announced over one million sq. ft in new sound stages. Ireland has proposed a substantial increase in their sound stage provision, including Hammerlake Studios in Mullingar and Greystones Media Campus in Greystones, which propose to add 236,000 sq. ft (phase one) and 270,000 sq. ft in sound stages respectively.

[110] *Toronto Screen Industry Workforce Study.* Nordicity, 29th March 2021. Accessible at: https://www.toronto.ca/wp-content/uploads/2021/06/8fca-Toronto-screen-industry-workforce-study-2021.pdf

Figure 53 – Existing and Proposed Soundstage Offer in Key Markets, ft²

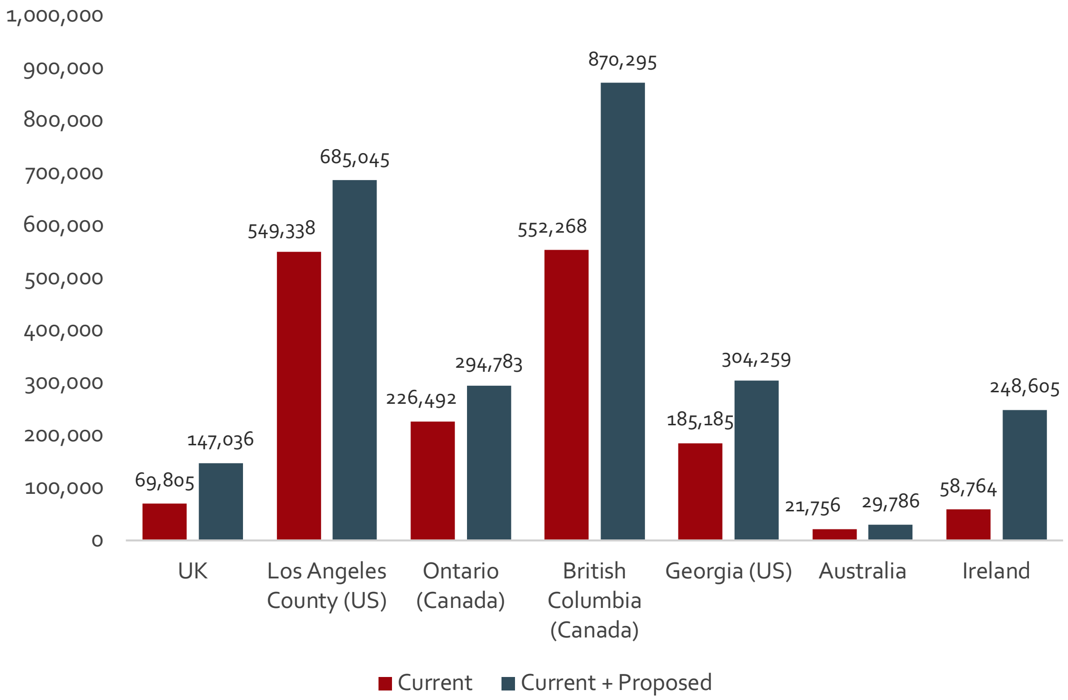


Source: Olsberg•SPI's analysis of FilmLA Sound Stage Production Report 2020, Studio Announcements[111]

Figure 54 below shows the potential growth in key markets, measuring sq. ft per one million inhabitants. Compared with Figure 52, it's evident that territories that previously had a lower level of sound stages per inhabitant (for example, the UK and Ireland) have committed to greatly increase their provision over the next few years. While not every studio proposed will go through to the next planning stages or even be built and opened, this is indicative of these territories recognising the need and benefit of investing in studio infrastructure.

[111] Figures for proposed studios are drawn from 2021 and 2022 studio announcements and are therefore approximate. Studio announcements without sound stage estimations have not been included, therefore figures in this chart are indicative of studio growth in territories but not exhaustive. Not all studios that go to proposal or planning stage will be built and opened. Australia's proposed studio developments include estimates for the Western Australia, Screen Queensland Cairns and Byron Studios developments.

Figure 54 – Existing and Proposed Production Stages in Key Markets, ft² per 1 million inhabitants



Source: SPI analysis (2022)

As Figure 53 and Figure 54 demonstrate, proposed studio growth in Australia is far behind global competitors. Although in the last year there have been a few announcements made regarding smaller facilities coming to the market (including in Cairns and Perth) these will not be sufficient to plug the current gap.

The increase in production to Australia has resulted in some production investment, typically involving public investment or support. Docklands has recently attracted the *Metropolis* series, which is expected to occupy the space for the next 36 months and will include a A$12.5 million investment from the Andrews Labor Government to build two LED volume stages.[112]

In 2016, the Queensland state government partnered with Village Roadshow Studios and the Gold Coast 2018 Commonwealth Games Corporation to deliver a loan of A$16.5 million towards building a new soundstage at the Gold Coast VRS site – the ninth soundstage at the VRS site. The sound stage was built to house the squash competition at the Gold Coast Commonwealth Games in 2018: however, development of the site was fast-tracked to ensure the stage could first be used for the film *Thor: Ragnarok* in 2016.

Data from the UK[113] and elsewhere evidences the fact that the necessary private sector investment in stages is almost impossible to achieve unless the incentive system supporting production is regarded as predictable, reliable, permanent and substantial. Private investors considering studio expansions and new builds are concerned about the stability of the Location

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[112] *Metropolis Comes to Melbourne*. Docklands Studios, 15th April 2022. Accessible at: https://www.dsmelbourne.com/2022/04/15/metropolis-comes-to-melbourne/.

[113] *Screen Business.* Olsberg•SPI, December 2021. Accessible at: https://static1.squarespace.com/static/5f7708077cf66e15c7de89ee/t/61b7aa232d2d7d68cbe9cc85/1639426599505/screen-business-full-report-2021-12.pdf

Offset and Location Incentive (and other funding available to incoming projects). This concern is inhibiting positive investment decisions in Australia.

As addressed in Section 10.2.4, Australia's future incoming production volume will to a large extent depend on its ability to meet the requirements producers have when deciding where to base their production. As the gap widens between Australia's studio offer and other competitive markets, Australia's capacity to compete will lessen. A decrease in production levels will likely lead to Australia's talent moving to other markets where work is more certain, consistent and well-compensated. Without high volumes of consistent production, investment into the screen sector will also likely decrease.

Section Four: Appendices

11. APPENDIX 1 – METHODOLOGY

11.1. Economic Impact Methodology

To develop this analysis, SPI undertook a series of key steps. These are based on methodological approaches for similar studies in a range of countries, including Ireland, the UK, several US states, and Australia.

11.1.1. Expenditure and Offset data

As there is no one comprehensive, consistent source of data on Offset payment and production expenditure covered by offsets in Australia, it has been necessary to build a picture from a set of different sources. The approach to data gathering and where necessary estimation is set out in detail in Chapter 12.

11.1.2. Key Data Sets and Sources

The following data sets were accessed and analysed:

- Australian Bureau of Statistics, Australian National Accounts: Input Output Tables, for 2019/20 (latest release, published May 2022)[114] and 2018/19.
- Australian Industry Annual Estimates for 2020/21, 2019/20 and 2018/19 (latest release May 2022)[115]
- Screen Australia Jobs estimates for audio visual sector, estimates from census data for 2016[116]
- Australian Bureau of Statistics, Taxation Revenue Data 2020/21, latest release April 2022[117]

11.1.3. Input-Output Methodology

This study employs an Input-Output (I-O) approach to economic impact modelling. It uses production expenditure data to drive a specially developed economic model, which uses national data sources to build a picture of the interconnections between the screen production industry and other industries and the relationships between key metrics such as output, GVA and FTE jobs.

The methodology is based on a large number of sector studies SPI have undertaken around the world and it is consistent with international best practice including studies in the UK, many US states, New Zealand and previous Australian studies.

I-O determines the total economic impact of a particular investment or activity. This total is the sum of the direct, indirect and induced effects:

- **Direct** – that element of impact which occurs directly within the element of the sector being studied (i.e., for film production, the value generated by the direct hiring of cast and crew, and other direct spending);
- **Indirect** – the impacts associated with the purchasing of goods and services from non-screen sector companies (for example, legal advice, financing, catering, and transport associated with productions); and,

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[114] *Australian National Accounts: Input-Output Tables.* Australian Bureau of Statistics, 27th May 2022. Accessible at: https://www.abs.gov.au/statistics/economy/national-accounts/australian-national-accounts-input-output-tables/latest-release

[115] *Australian Industry.* Australian Bureau of Statistics, 27th May 2022. Accessible at: https://www.abs.gov.au/statistics/industry/industry-overview/australian-industry/latest-release#data-download

[116] *Employment in Each Industry by State 1971 – 2016.* Screen Australia. Accessible at: https://www.screenaustralia.gov.au/fact-finders/people-and-businesses/employment-trends/summary/each-industry-by-state

[117] *Taxation Revenue Data 2021/21.* Australian Bureau of Statistics, April 2022. Accessible at: https://www.abs.gov.au/statistics/economy/government/taxation-revenue-australia

- **Induced** – impacts generated as a result of the additional economic activity resulting from the re-spending of wages earned in the direct and indirect phases, which increases economic activity across the broader economy.

11.1.4. Calculating Multipliers - Analysis of Australian I-O Tables

The I-O tables for Australia are released annually in May. The most recent data release in May 2022 provided supply and use data for the year end June 2020 (i.e., the 2019/20 financial year).

SPI used the 'Inter-industry transactions' sheet (Table 2) from the published I-O tables. From this, SPI calculated the matrix of coefficients and the Leontief Inverse Matrix for the whole economy. The calculations for Type I multipliers included only the industry, while the calculations for the Type II multipliers also included household income and expenditure. For a particular industry, the multipliers are the sum of the Leontief Inverse coefficients. Type 1 multipliers the final demand corresponds to the direct + indirect effects. For Type II multipliers, this final demand corresponds to direct + indirect + induced effects.

For this study, SPI have used the multipliers which correspond to ANZIC 55 'Motion Picture and Sound Recording Activities'. I-O data for Australia (as with most other countries) are only available for 2-digit ANZSICs, therefore it is not possible to calculate more specific multipliers.

Table 6 indicates the 3-and 4-digit SIC which are included in in ANZSIC 55.

Table 6 – Summary of Screen Sector Industrial Codes

551 Motion Picture Activities	5511	Motion Picture and Video Production
	5512	Motion Picture and Video Distribution
	5513	Motion Picture Exhibition
	5514	Post-production Services and Other Motion Picture Activities
552 Sound Recording Activities	5521	Music Publishing
	5522	Music and Other Sound Recording Activities

Although this sector definition does not align perfectly with the screen production activity, it is close enough to provide useable multiplier estimates. On this, it should be noted that

- The other activity within 55 is around the distribution and exhibition of screen content (although broadcasting has a separate SIC code). It is not possible to remove this for estimating multipliers, but this activity is not included in expenditure.
- It is common practice in other parts of the world to use multipliers from this sector (or something closely aligned) in studies of the impact of the screen sector and the approach used here is consistent with such studies in New Zealand, US states, UK and Ireland.

The focus of this study is on production and post-production activities. It is clear that there are some activities within 55 which fall outside this scope. It is important to note that when we use data for 55 Motion Picture and Sound Recording, we are using this information to inform ratios and multipliers. The overall economic impact is driven by the expenditure on screen production activity only.

Across all areas, the I-O analysis produces multipliers which allow us to assess the impact of spending associated with the sectors studied in three areas, reflecting the three phases of economic activity in a standard impact study:

Type I multipliers calculate the direct + indirect effect and Type II are used to calculate the total effect (direct + indirect + induced)

Table 7 displays the output multipliers calculated through this method.

Table 7 – Output Multipliers for Motion Picture and Sound Recording Activities

	Type 1	Type 2
2018/19	1.95	2.93
2019/20	1.98	3.02
2020/21	1.98	3.02
2021/22	1.98	3.02

Source: SPI calculations based on IO Tables

Note that I-O data is only available to 2019/20, therefore for 2020/21 and 2021/22, it is assumed that the multipliers are consistent with 2019/20.

Data from Table 4 of the National Accounts: Input Output Tables was combined with data on FTE jobs by industry in Table 20 of the same release to generate the multipliers for FTE jobs and income. The FTE job multipliers are displayed in Table 8.

Table 8 – FTE Jobs Multipliers for Motion Picture and Sound Recording Activities

	Type 1	Type 2
2018/19	2.14	3.37
2019/20	2.20	3.37
2020/21	2.20	3.37
2021/22	2.20	3.37

Source: SPI calculations based on IO Tables

Note that I-O data is only available to 2019/20, therefore for 2020/21 and 2021/22, it is assumed that the multipliers are consistent with 2019/20.

11.1.5. Other Variables

In addition to the multipliers, the economic model also utilises key ratios and relationships that estimate direct GVA, direct income and direct FTE jobs from direct output. Data from Australian Industry Annual Estimates for 2020/21, 2019/20 and 2018/19 (latest release May 2022)[118] were used to calculate the GVA to Output Ratio and the FTE jobs per $1 million output figures. The tax figures were calculated with reference to ABS Taxation Revenue data release for 2020-21, Table Number 6, release data 26th April 2022. These ratios are summarised in Table 9 below.

[118] *Australian Industry Annual Estimates 2020-21.* Australian Bureau of Statistics, May 2022. Accessible at: https://www.abs.gov.au/statistics/industry/industry-overview/australian-industry/latest-release#data-download

Table 9 – Key Economic Ratios

	GVA to Output Ratio	FTE Jobs per $1 million output	Total tax as a % of GDP/GVA
2018/19	0.36	4.62	28%
2019/20	0.36	4.60	29%
2020/21	0.35[119]	5.00	29%
2021/22	0.35[120]	4.80[121]	29%

Source: SPI Calculations of Data from Australian Industry Annual Estimates and Taxation Revenue both release by Australian Bureau of Statistics (2022)

To translate from headcount jobs to Full-time equivalent (FTE) jobs requires a ratio connecting the two – this is standard practice in studies of this type. Data on Employment by Sector within the National Accounts data release for 2019-20 indicates that for the section 55 Motion Picture and Sound Recording Activities, there are a total of 44,005 headcount jobs and 34,656 FTE jobs. This makes a FTE= 0.78 x headcount.

11.1.6. Application of I-O Multipliers

To begin determining the impact of screen production expenditure, SPI first used the output multipliers to determine the indirect and induced output effects. This approach effectively uses expenditure as a proxy for turnover.

GVA ratios and multipliers were applied to these results, allowing the determination of the value added in each of the phases of economic impact, and thus the direct, indirect, and induced contributions from the screen sector to the broader Australian economy.

FTE job analysis was undertaken by first applying an FTE job-to-output ratio to the output generated by the sector which provided an estimate of the direct footprint associated with production expenditure. I-O FTE job multipliers were applied to the results of this analysis to determine the indirect and induced FTE jobs arising from this activity.

11.1.7. Note of Estimating FTE Jobs and Comparisons with Other Studies

SPI's approach to estimating jobs is based on a full-time equivalent, year-round conception of jobs. This means that if one person is working full time on a three-month contract, this would be counted as 0.25 FTE. We adopt this approach as it enables comparison across industries and countries. In this study, as with most other similar studies, these are estimated using ratios obtained from national statistics rather than counting from the production figures up, unless specific data from a body that administers the incentive is available.

The FTE jobs estimates in SPI's approach differ from those estimated in the Bureau of Communications, Arts and Regional Research (BCARR)'s assessment of the overall economic impact of the screen incentive in Australia. The BCARR research finds that between 2018/19 and 2020/21, the incentive created an estimated 39,100 job opportunities, of which 27,800 are full time equivalent. This data usefully shows the scale of positions provided by productions. However, it uses a different methodology from the measurement approach adopted by Olsberg•SPI. The BCARR report counts each individual position (short term or longer) on a

[119] GVA data for the sector for 2020/21 in the Australian Industry data release comes with a note to indicate a lower degree of accuracy for that year. To overcome this, SPI as assumed that the GVA to Output ratio for 2020/21 is three-year average for the preceding years.
[120] Data not yet available for 2021/22, estimated to be a three-year average of 2017/18, 2018/19 and 2019/20.
[121] Data not yet available for 2021/22, estimated to be an average of the two previous years due to the impact of covid on 2020/21.

production as one job opportunity, rather than our approach of counting FTEs which includes the year-round adjustment. It means that the job estimates in two reports will not be directly comparable.

SPI has been developing our approach over the last 4 years, in line with international best practice. This study uses a different and more sophisticated approach to estimating jobs.

The 2018 previous study looked at impact across the production, distribution and exhibition activities. It used employment data for the ANZSIC 55 Motion Picture and Sound Recording activities and assumed that all the employment activity associated with this code is attributed to the Offset activity. Note that this industry code includes production and post-production activity along with exhibition and distribution. The previous study did not use the expenditure approach to pinpoint the employment impact of the offsets specifically

This study uses data from the ANZSIC 55 sector to calculate multipliers and ratios (such as output to FTE). This is the most granular level of detail for the sector available for input-output data and the associated data. These multipliers and ratios are then applied to the production expenditure figures, rather than the aggregated output or employment numbers for the ANZSIC 55. This is because in this study, SPI focused only on production and post-production activities, therefore the other non-production and non-post activities are excluded from the impact (although ratios and multipliers for the wider ANZSIC code 55 are applied as no more granular level data is available).

The jobs figures in this study and the 2018 SPI study are not comparable. Using the methodology of the previous study would lead to the follow jobs figures for 2019/20 (the most recent year data is available):

Direct Jobs FTE 34,656
Indirect Jobs FTE 33,616
Induced Jobs FTE 32,230
Total FTE jobs 100,502

11.1.8. Estimating the Return on Investment

The GVA Return on Investment figure in the report is calculated using the following formulae, where Net refers to the impact adjusted for additionality (see section 11.2).

$$RoI_{GVA} = \frac{Net\ GVA}{Cost\ of\ Offset - Net\ Direct\ Tax\ Receipts}$$

Where:

$$Net\ GVA = GVA\ x\ additionality\ factor$$

$$Net\ Direct\ Tax\ Reciepts = Direct\ Tax * additionality\ factor$$

The whole cost of the offset is included as this is the cost of the incentive, whether or not production expenditure can be attributed to it or not.

The additionality for each element (direct, indirect and induced) are calculated separately. The overall GVA ROI is the total for direct, indirect and induced. However, some policy makers may be interested only in the direct GVA ROI figure.

11.1.9. General Limitations of Input-Output Approach

Input-Output Analysis is a commonly used method of establishing the economic contribution or economic impact of a particular firm, investment or wider sector. It is used around the world by government and the private sector to communicate the significance of a sector and the effect of investments and policies. SPI's approach to undertaking Economic Impact Studies is aligned to international best practice.[122]

As with all modelling approaches, there are limitations to the approach. Specifically Input Output Analysis makes the following assumptions:

- **No supply constraints.** I-O assumes there are no restrictions on inputs, raw materials and employment. This means that modelling a change in the industry, needs to be undertaken sensitively to when this assumption might not hold.
- **The model is not dynamic.** There are no embedded feedback loops or price effects dampening demand. I-O does not account for counteracting or balancing effects of a change being offset or counter acted by a change in another industry.
- **Constant returns to scale**. The same quantity of inputs is needed per unit of output, regardless of the level of production.
- **Input structure is fixed**. It is assumed that changes in the economy will affect the level of inputs and outputs but not the mix.

If the offsets and the associated expenditure was removed, some of the current employment and productive capacity would transfer to other industries however, this analysis is focused on the current contribution of the Offsets to the Australian economy and it not within the scope of this project to model this balancing effect.

In addition, this study does not seek to compare the investment in Offsets with other public policy expenditure programmes or interventions. Investing money in any sector will have some impact, but this study does not seek to systematically test the alternative spending decisions

11.1.10. Caveats to this study

This study uses best available methods for determining the footprint of production activity and the Offsets As with all studies of this kind, there are limitations and caveats to the approach.

- The modelling is based on estimated production expenditure data of the offsets. As set out in Appendix 2, while this is based on the best available evidence, the estimation relies on a number of assumptions.
- The GVA was calculated using the relationship between output and added value for ANZSIC 55 in the I-O tables. SPI understands that this is not a perfect sector match for screen production expenditure. SPI's general approach is to err on the side of conservativism in our assumptions, preferring underestimations than overestimations. On balance, SPI feel there is an argument that the GVA to output ratio would be higher for the production activity than for all the activities in J55 – as jobs are more skilled and wages are typically higher in screen production activities than they are in say cinemas. Therefore, this assumption may lead to an underestimation of GVA.
- The additionality was estimated through a self-reporting survey (see section 11.2). While we have tried to reduce this risk of positive response bias by the framing and ordering of the questions, it is not possible to reduce the risk of bias to zero. SPI have undertaken sensitivity analysis (see Section 13) to study the impact of varying additionality assumptions.

[122] For example, *Evaluating the effectiveness of state film tax credit programs: Issues that need to be considered.* Ernst & Young, 2012. Accessible at: https://deadline.com/wp-content/uploads/2012/05/motion-picture-assoc-film-credit-study__120510071748.pdf

11.2. Further Detail on Additionality

To assess the contribution of the Offsets, it is important to remove from the calculation any production activity that would have occurred in the absence of the grant. Additionality is the amount of expenditure and impact that can be directly attributed to the offset. Effectively it is the total production expenditure (or impact) minus the production expenditure that would have happened if the offset was not available. The expenditure that would have happened without the grant is sometimes referred to as the deadweight.

Estimating additionality of production expenditure can be a challenge for all studies of policy interventions and is a challenge in this case. First, since the incentive is automatic, it is not possible to use an experimental or quasi-experimental approach (e.g., difference-in-difference) that compares productions which receive the Offsets to those productions in Australia which do not. Second, as this type of automatic incentive is prevalent in almost all countries with significant film and television production sectors, it is not possible to make an international comparison to a jurisdiction with similar attributes to Australia, but that does not have a production incentive.

As noted above, one limitation of the I-O approach is that it does not enable a long-term analysis of the knock-on effects that would result from removing the offsets and the associated production expenditure from the economy (i.e., how would labour and capital resources be reallocated). There are no recent examples of studies elsewhere in the world which attempt to overcome this issue.

This study estimates and accounts for additionality of production expenditure only. To do this, we have used a combination of key informant interviews and an industry survey to construct a rate of additionality for both Australia domestic productions and international productions.

This type of survey could be open to the critique of response (and non-response) bias. There is also the possibility that respondents over-inflate positive sentiment to reduce the risk of loss. To account for this as much as possible, the surveys have been designed in such a way to reduce this risk through ensuring other decision factors are considered before the impact of the incentive is tested. Also, high response/coverage rates have been achieved to minimise response bias. The methodological approach adopted is in line with international best practice for such studies.

The overall response rate from the foreign production companies was strong. Foreign spend on production in Australia is driven by a relatively small number of large international companies including, for example, NBCUniversal, Netflix, Amazon, Disney, Warner Bros and Paramount. There were ten respondents, which included key decision makers from all the major international production companies, covering the vast majority of international expenditure. SPI estimates that 83% of spend supported by the Location Incentive is covered by responses. This makes the results on the Location Offset and Incentive robust.

There were 15 respondents to the domestic survey. Current work is underway to undertake further consultations to explore additionality with domestic producers through a qualitative approach. Thus, results for the Producer Offset are less robust.

The survey contained three key additionality questions, addressing:

- The factors drawing the project to Australia. The incentive was one of the factors listed along with elements such as locations and talent (to reduce the risk of framing bias), and the respondent was asked to rate the importance of each.
- The specific importance of the incentive in drawing the project as an individual rating; and
- How much lower Australian production spend would have been without the availability of the incentive.

Each offset was treated separately in the survey.

The final survey question asked international production respondents 'to the nearest 10%, please rate from 0% to 100% what proportion of the project would have been made in Australia in the absence of the Offset (where 0% indicates no expenditure in Australia and 100% indicates the same level of expenditure as occurred)'. Using the proportion of respondents that indicated 10%, 20%, 30% and so on, we calculated an average percentage of project that would have happened without the incentive for productions using a weighted average.

For the Producer Offset international productions, 12 out of 16 (75%) said no production would have happened in Australia without the Producer Offset, 2 out of 16 (12.5%) said 60% of production expenditure would have happened without the Offset, 1 out of 16 said 70% and 1 said 80%.

$$\begin{aligned}&Average\ production\ expenditure\ without\ Producer\ Offset \\ &\quad = (0 \times 12) + (0.6 \times 2) + (0.7 \times 1) + (0.8 \times 1) = 0.245\end{aligned}$$

Therefore, 24.5% of production expenditure would have happened without the incentive. Therefore, 75.5% is additional.

$$\begin{aligned}&Additionality\ rate_{international} \\ &\quad = 1 - Average\ production\ expenditure\ withouth\ NZSPG = 92.7\%\end{aligned}$$

A similar, but slightly tweaked version of the question was asked to about the Location Offset/Incentive and PDV Offset.

This additionality rate is similar to research results in other countries. For instances for *Screen Businesses* 2021, the rates of additionality in the UK were found to be 92% for film production, 84% for high end television production, 50% for animation and 40% for children's productions.

11.3. Ripple Analysis Methodology

11.3.1. Overview

Film and TV production are specialist manufacturing processes which require a wide variety of inputs. These include a large number of workers – spanning creative, technical, logistical and support roles – as well as equipment, facilities, infrastructure and services.

While some of these inputs will be sourced directly from the screen sector – i.e., from individuals or vendors who only work in film and television production – normally a larger proportion of expenditure is made in other areas of the economy. SPI refers to this as the "Ripple Effect" – i.e., the micro-economic impacts that each production generates for other business sectors.

To demonstrate this impact, forensic analysis of an anonymous production's budget is undertaken. Here, production costs are allocated to the business sector into which the money is spent. The analysis is focused on below-the-line production expenditure to exclude the effect of payments to major creative talent that could imbalance the analysis.

As noted above, producing and manufacturing a typical film or television drama series involves drawing on a wide range of personnel, skills, services, facilities, and infrastructure from other industries, both from the creative economy and more general business sectors.

11.3.2. Breadth of Impact Across Business Sectors

The Ripple Analysis investigates production spend in the following business sectors:

- Screen production-specific
- Business support
- Construction
- Digital services

- Real estate
- Travel and transport
- Hospitality and catering
- Finance and legal
- Fashion and beauty
- Music and performing arts
- Power and utilities
- Safety and security
- Training and education
- Health and medical
- Local labour miscellaneous.

These are described further below:

Screen Production-Specific

The proportion of production spend on wages of crew and companies supplying services that exclusively work in the film and television production sector. These suppliers do not participate in other sectors of the economy and therefore do not contribute to the Ripple Effect.

Business Support

Like any economic activity, film and TV production uses the services of general business equipment, services and supplies sector in many ways. This could involve purchases of office equipment, printing and copying services. Producers also purchase or rent a large number of miscellaneous items, such as storage containers and marquees, especially when a significant production goes on location, when producers will rely heavily on being able to access local supplies as they set up temporary bases.

Construction

Much of a production's construction expenses could be classified as screen production-specific; a film set is normally only of any use to a specific type of production. The construction department, however, will reach out to the wider construction sector to hire equipment and specialists, for example earth diggers and heavy lifting equipment; such costs have been allocated here.

Digital Services

This sector is heavily dependent on-screen production, and the bulk of such costs in most budgets will be allocated to the category specific to screen production. There is, however, some crossover of skills between this sector and the other key digital industries, in particular the video games sector, and the costs of such persons and suppliers have been allocated to this category.

Real Estate

The costs of renting space from purpose-built or adapted studios have been included in the screen production-specific category but, when productions are on location, they may rent buildings that also serve other sectors of the economy.

Travel and Transport

A key expense of production is the cost of bringing above- and below-the-line personnel into and around where the production is located. Furthermore, a moving unit requires considerable transport back up – whether that is by road, train or air. The spend is normally higher on location-based productions rather than largely studio-based shows.

Hospitality and Catering

These costs relate to accommodating and feeding substantial numbers of talent and crew, especially when a production is using locations at a distance from where the workforce is permanently based. Consequently, the hotel and accommodation sector is an important supplier to productions, regardless of whether they are largely studio-based or predominantly moving between different locations.

Catering for the working unit is usually provided by mobile catering companies, but the quality and availability of restaurants are also important to those having travelled to the location of the production.

Finance and Legal

Like any business sector, screen production has many requirements for this expertise, with a plethora of standard and specialised contracts to be negotiated. The accounts department of a production also has a crucial role, especially as so many projects involve funding sources that require external audits.

Fashion and Beauty

For many contemporary productions, much of the on-screen costume requirement is simply purchased from high street shops, while period or futuristic shows on the other hand will require considerable work by skilled cutters, tailors and dressmakers. Specific costume hire spend has been allocated to the screen-production specific category.

Equally, hair and make-up look to the general 'beauty' sector for both their products and skilled practitioners – wig makers are a good example of the screen production world interacting to mutual benefit with the broader fashion and beauty sector.

Music and Performing Arts

It is sometimes challenging to differentiate between these two sectors and screen production-specific. Almost all the creative roles are filled with people who have either moved in the past or continue to move between theatre, musicals and the visual arts. In the design area, for example, the 'concept' artists who bring the designer's work to life will also work in the exhibition field and in theatre. Actors move continuously between live theatre and screen. Producers are constantly looking to the live theatre scene for new talent, and writers often move between live theatre and screen.

Musicians and singers who work in orchestras and opera companies will often be found in recording studios providing musical background for screen productions.

Power and Utilities

As with any major business sector, screen production is a considerable consumer of power and general utilities. While on location, production units will use generators to power their lighting rigs and location bases. However, the sector is increasingly looking to adapt to more environmentally responsible ways of consuming power and other utilities, and major financiers are constantly interested in mitigating their environmental impact.

Safety and Security

Risk assessments for screen productions can be very specific, so specially trained health and safety advisors are common and of more importance in recent years because of the COVID-19 pandemic. Stunt work, for example, calls for close co-operation between the production, the stunt co-ordinator, and health and safety officers.

Security, particularly on location, can be co-ordinated by the production but will require considerable support from the local community, and close contact between the production and a local security operation is often a huge asset to both sides.

Training and Education

Many countries have adopted a variety of training initiatives, internships and apprenticeship schemes to enable pathways for diverse kinds of training across many disciplines.

Health and Medical

This is becoming an even more crucial sector in the wake of the COVID-19 pandemic and has therefore gained far greater significance. Trained medical staff attend sets and construction sites, providing immediate health cover and medical aid. Screen production also relies on the medical community in several ways, including the health checks that all key staff undergo – this has increased substantially because of pandemic issues and protocols. Special training of such staff has become necessary across the industry since the advent of the COVID-19 pandemic, with considerably increased costs in this category as a result.

Local labour Miscellaneous

In the analysis there were some labour costs where it was not sufficiently clear to which expenditure category they belonged. These costs have therefore been allocated to a miscellaneous category.

12. APPENDIX 2 – ESTIMATING ACTUAL EXPENDITURE AND PRODUCTION OFFSET DATA

12.1. Introduction

There is no one comprehensive source of data on offset payments and production expenditure covered by offsets in Australia. Unlike some other major production markets such as the UK, the Australian Government does not release detailed or aggregated information on offset payments and associated expenditure.

This creates a challenge, as in order to determine the economic impact of the offsets, it is essential to ascertain estimated figures for production expenditure and incentive payments associated with each of the offsets.

This paper sets out the data which are available, and the approach taken by Olsberg•SPI ("**SPI**") to estimating values where data are not available. It references key source material, highlighting limitations in data and where assumptions are necessary to plug the data gaps. The pattern and narrative behind the story within the data is not explored here but will be in the final research report.

12.1.1. Approach

For data collection, the following sources have been reviewed:

- Screen Australia Drama Reports for 2020/21 and 2021/22
- Screen Australia annual reports for each financial year since 2016/17
- Government announcements on Location Incentive data
- Department of Infrastructure, Transport, Region Development and Communications annual reports
- Ausfilm announcements on Location Incentive data
- The Bureau of Communications, Arts and Regional Research's Economic *Assessment of the Location Incentive on Australia's Screen Sector*. BCARR, February 2022

Unfortunately, these sources do not contain everything we need and therefore we have concluded that assumptions need to be made. Overall, SPI aims to err on the side of caution and when a decision about an assumption arises, SPI opts for the realistically conservative option. Key assumptions will also be tested through sensitivity analysis in the economic impact modelling.

The economic impact model SPI has created is driven by expenditure covered by each of the offsets. This means expenditure which is influenced by the offset. Overall, the expenditure covered by offsets is lower than the total production expenditure in Australia as there is some expenditure not covered by or qualifying for incentives. The proportion of covered expenditure varies across the different offsets.

The following formula is used to estimate gaps in offset payment data:

Total Production Expenditure in Australia[123] x Effective Grant Rate = Grant Amount.

In some instances (e.g., for the Producer Offset), the Effective Grant Rate is disclosed. When it is not disclosed, this analysis assumes an Effective Grant Rate is equal to the published grant rate for qualifying spend. The justification for this assumption is set out in the relevant sections below (sections 12.2, 12.3, 12.4) covering each offset in turn. This is one of the assumptions that will be tested in sensitivity analysis.

[123] Qualifying and non-qualifying expenditure

12.1.2. Summary Expenditure and Offset Payments

Table 10 presents a summary of expenditure and offset payments related to the Producer Offset, the Location Offset and Incentive (combined) and the PDV Offset. These are based on best available data; where data are not available, estimation methods have been employed to plug gaps, as explained previously. There is more detail on how each of these are calculated in the relevant sections below (sections 12.2, 12.3, 12.4) which considers each offset in turn.

Table 10 – Summary of Expenditure and Offset Payments (A$m)

Year	Producer Offset		Location Offset + Incentive		PDV	
	Expenditure	Offset	Expenditure	Offset	Expenditure	Offset
2018/19	675	177	297	83	123	37
2019/20	441	110	351	88	140	42
2020/21	748	222	811	237	148	44
2021/22	1326	437	460	136	299	90
Degree of certainty in figures	Reasonable	High	High	Reasonable	High	Reasonable
Source:	Calculations from Drama Report	Drama Report pages 13 and 30	Drama Report page 29, with minor calculations	Data from BCARR report for Incentive and calculations from Drama Report with significant assumptions made	Drama Report page 34 with minor calculations	Calculations from Drama Report with significant assumptions made

Implications of data gaps and uncertainty. The economic model is driven by expenditure figures. We have good data for expenditures against each offset and therefore confidence in the overall economic impact results (FTE jobs, gross value added [GVA], output, etc). The offset payments data are required to undertake return on investment (ROI) estimates. While reasonable estimates have been made for this data, given some uncertainty remains, it is prudent to undertake some sensitivity analysis on the ROI figures to understand how this uncertainty impacts the results.

12.2. Producer Offset

There are high quality data released on Producer Offset payments. There are also published data that enables the expenditure covered by the Producer Offset to be calculated with a good degree of accuracy.

The Producer Offset provides funding for productions that qualify under requirements that applicant projects either have significant Australian Content or they are an official co-production. For theatrical feature films it provides a rebate of 40% for productions with qualifying expenditure of A$500,000. Since 1st July 2021, for non-theatrical releases it provides 30% for productions above a certain spend threshold; prior to this, the rate was 20%.

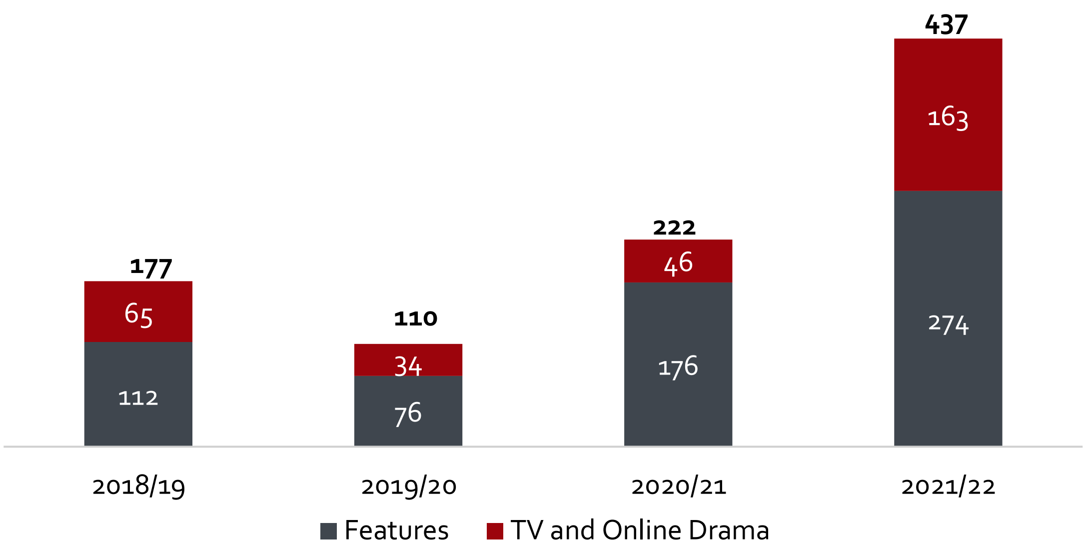
The Screen Australia Drama Report 2021/21 sets out data on the Producer Offset 'contribution' to production budgets. This means that in financial year 2021/22 A$437 million was paid out in Producer Offsets. Note that these figures are taken from the finance plan for each title. As Screen Australia requires only 90% of anticipated Offset to be included in the finance plan for drama features and television projects, the Offset contribution figure and the overall production expenditure for Producer Offset are somewhat underestimated.

Table 11 – Producer Offset Contribution (A$m) 2016/17 – 2021/22

Financial Year	Aus Feature	Aus TV and Online Drama	Total
2016/17	102	53	155
2017/18	93	53	146
2018/19	112	65	177
2019/20	76	32	110
2020/21	176	46	222
2021/22	274	153	437

Source: Drama Report 2021/22, Pages 13 and 30

Figure 55 – Producer Offset Payments for Australian Productions (A$m) 2018/19 – 2021/22



Source: SPI calculations on Drama Report 2021/22, Pages 13 and 30

The Drama Report also indicates the percentage of the Producer Offset to the total Australian budget (see Table 12 below).

Table 12 – Producer Offset Contribution as a Percentage of Total Finance

Producer Offset Payment Year	Australian Feature	Australian TV and online drama
2016/17	29%	12%
2017/18	33%	13%
2018/19	32%	13%
2019/20	28%	9%
2020/21	34%	12%
2021/22	35%	22%

Source: Drama Report 2021/22, Pages 13 and 30

Combining these indicators, it is possible to estimate the production expenditure in Australian features associated with the Producer Offset – see Table 13 below. For Australian TV and online drama, a slightly different approach is needed.

As many domestic TV shows will not be eligible for the incentive due to the budget requirements and/or being eligible for other incentives (Location or PDV) which exclude them from being eligible for Producer Offset, calculating the scale of production expenditure covered by the offset requires an assumption about the effective intervention rate.

Assumption 1: As the intervention rate for eligible TV and online drama production was 20% up to 2020/21 and 30% in 2021/22, we assume for Australian TV and online drama, that this is the effective intervention rate.[124]

Table 13 – Estimated Production Expenditure Associated with Producer Offset (A$m)

Financial Year	Aus Feature	Aus TV and Online Drama	Total
2016/17	352	265	617
2017/18	282	265	547
2018/19	350	325	675
2019/20	271	170	441
2020/21	518	230	748
2021/22	783	543	1326

Source: SPI Calculations based on Drama Report 2021/22

That the amounts in Table 13 only refer to the amount covered by the Producer Offset and are therefore lower than the total domestic drama slate quoted in the Screen Drama report. For 2021/22, the estimated production expenditure associated with the Producer Offset is 75% of the total domestic TV and online drama expenditure, implying that $3 out of $4 spent were not eligible. The comparative figures for earlier years indicate even more domestic TV and online

[124] Change from 20% to 30% in the Producer Offset rate for television content came into effect for productions that commenced principal photography or post, digital and visual effects activity on, or after 1st July 2021. https://www.infrastructure.gov.au/sites/default/files/fact-sheet-screen-production-funding-and-incentives-reforms_2.pdf

drama spend was out of scope of the Producer Offset (with the lowest % found in 2019/20 when only 49% of spend was covered by the Producer Offset).

The significant rise in 2021/22 indicates the significant year for Australian domestic production. *Furiosa*, *Better Man* and *Foe* accounted for a significant proportion of the total Australian theatrical feature expenditure for titles commencing production in 2021/22, with some spend estimated, as work is ongoing.

12.3. Location Offset and Incentive

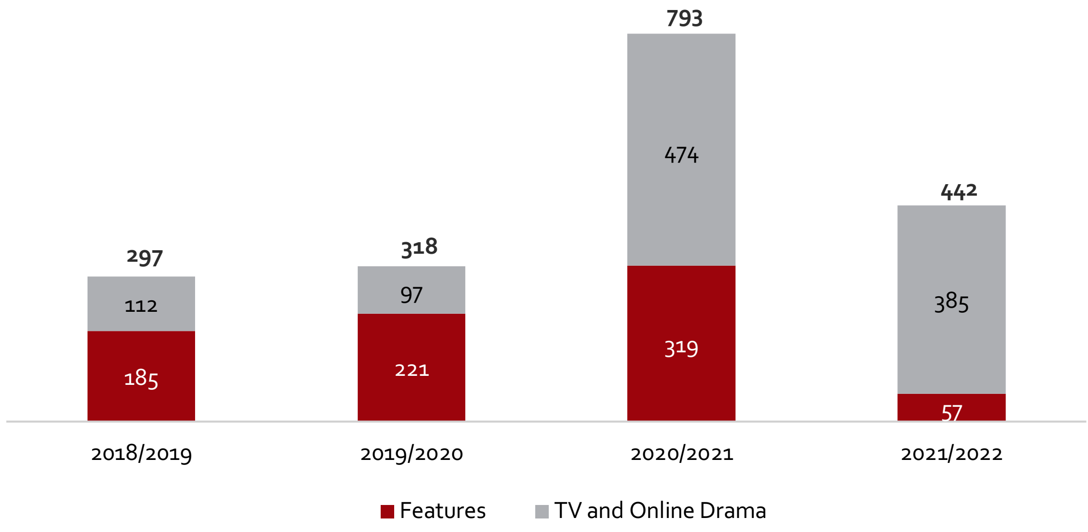
It is assumed that all international production is covered by the Location Offset. Data are available on Location Incentive payments, but not on Location Offset. Location Offset payment estimates are generated through assuming that all foreign productions receive 16.5% of expenditure as an offset payment. There is a small amount of domestic production covered by the Location Offset for which both the offset and covered expenditure is estimated.

The Location Offset and Incentive aims to attract international productions to Australia. The Location Offset offers a 16.5% tax rebate on the Qualifying Australian Production Expenditure. In 2018/2019, the Location Incentive was introduced. This offers an additional grant of up to 13.5% for those productions which are genuinely 'footloose' and meet other requirements. To qualify, a feature film must spend at least A$15 million or an average for at least A$1 million per hour. The BCARR report indicates that the effective incentive rate for the Location Incentive is 12.4%, i.e., less than the 13.5%, published rate; however, since actual data is available on the Location Incentive payments, it is not necessary to use the effective rate to estimate the Location Incentive payments.

12.3.1. Foreign Location Offset and Incentive Productions

The production expenditure associated with the Location Offset and Incentive as well as the Offset and Incentive payment figures are not disclosed. However, the Drama Report contains data on foreign production expenditure (summarised in Figure 56 below). This is expenditure associated with productions that commenced principal photography in that financial year.

Figure 56 – Expenditure in Australia Associated with Foreign Productions (A$m, 2018/19-2021/22



Source: Screen Drama Report 2021, page 35

These figures are likely to include some small foreign productions which have not qualified for the Location Offset and/or Incentive. The budgets associated with these productions are small enough that they will not significantly impact the calculations. For example, the South Korean film *Road to Boston*, which shot in the 2019/2020 financial year, was expected to spend approximately A$4.1 million in total while shooting in Victoria.[125] This represents around 0.5% of the total expenditure on foreign productions.

Assumption 2: All foreign productions are eligible and receive the Location Offset and that the small foreign productions which have not qualified for the Location Offset and/or Incentive are insignificant compared to the overall size of foreign expenditure.

12.3.2. Location Offset Payments

As no total Offset figures are disclosed, SPI must make an assumption to estimate the Location Offset payment. The Location Offset scheme is comparatively inclusive in terms of what qualifies for eligible expenditure and there is not a cap on the scheme. Evidence from producers also indicates that their actual Australian spend is very close to their qualifying spend under the Location Offset. This evidence supports the assumption that the effective incentive rate is close to the actual incentive rate.

Assumption 3: That all foreign productions receive a Location Offset payment of 16.5% of their expenditure in Australia.

Table 14 displays the estimated Location Offset payments based on this methodology. This 16.5% rate assumption will be tested in the sensitivity analysis.

Table 14 – Location Offset Payment Estimates (A$m)

Financial Year	Features	TV and Online Drama	Total
2016/17	86	6	92
2017/18	2	1	2
2018/19	31	18	49
2019/20	36	16	52
2020/21	53	78	131
2021/22	9	64	73

Source: SPI estimates

12.3.3. Location Incentive Payments

The Location Incentive commenced on 1st July 2018. As with the Location Offset, the total payments are not consistently disclosed. However, the Department of Communications and the Arts' Annual Report does contain aggregate numbers for some years.

[125] *Cameras Roll as Ballarat Stars in Road to Boston.* Vic Screen, 16th January 2020. Accessible at: https://vicscreen.vic.gov.au/news/cameras-roll-as-ballarat-stars-in-road-to-boston

Table 15 – Location Incentive Payment Estimates and Actual (A$m)

Financial Year	Number of projects	Offset Amount $m	
2018/19	5	34[126]	Estimated
2019/20	5[127]	30	Disclosed
2020/21	13	103	Disclosed
2021/22	15	60	Disclosed

Source: Department of Communication and the Arts, Annual Report (2018/19, 2019/20, 2020/21, 2021/22)

Table 16 presents the estimated Location Offset and Location Incentive payments together. Before the Location Incentive was introduced in 2018/19 discretionary, top up funds were given to some international footloose production. No data is released about these payments, so estimates are included.

Table 16 – Total Estimated Location Payments (A$m)

Financial Year	Location Offset Payments (estimated)	Location Incentive Payments	Total Estimated Payment
2016/17	92	75[128]	92
2017/18	2	2[129]	2
2018/19	49	34[130]	83
2019/20	52	30	83
2020/21	131	103	234
2021/22	73	60	133

Source: Department of Communication and the Arts, Annual Report (2018/19, 2019/20, 2020/21) and Ausfilm announcements on Location Incentive data.

12.3.4. Australian Location Offset Productions

While the vast majority of Location Offset-funded productions are international footloose productions, there is some evidence from the Drama Report 2021/22 (page 30) that there is a small amount of expenditure from domestic productions being supported through the Location Offset. Payment data for the Location Offset is combined with PDV Offset payment data for domestic television and VOD productions, therefore an assumption has to be made to disaggregate the data.

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[126] This figure is not disclosed in annual reports; however, it is possible from desk research to estimate some of these gaps. SPI research found that four of the 2018/19 productions were identified (*Preacher S4, Reef Break S1, Godzilla v Kong, Love and Monsters*). Based on a detailed review of public announcements, it is estimated that these productions received A$34.3 million in Location Incentive payment.

[127] There is a discrepancy in the number of reported number of productions supported within the DIT… Annual Report. On page 5 it indicates that there have been 10 agreements, whereas on page 120 it indicates that there were 5 projects funded to a tune of $30.4 million. The number of projects is not a driver of the model.

[128] Estimated discretionary payment – rate of 13.5% used.

[129] Estimated discretionary payment – rate of 13.5% used.

[130] Data not available from annual report, it has been estimated by reviewing public announcements on Location Incentive funded productions in 2018-2019.

Assumption 4: Half the domestic TV combined Location Offset and PDV payments were for Location and half for PDV in the years 2019/20 – 2021/22. As the domestic TV PDV and Location Offset payments are small compared to the payments to foreign productions (2.3% of total in 2021/22), this assumption has little impact on the overall results.

Table 17 summarises the estimated Australia Location Offset payments and associated expenditure. This uses the assumption that the effective intervention rate is 16.5%.

Table 17 – Australian Production Location Offset Payments and Expenditure – Estimated (A$m), 2019/20 – 2021/22

Financial Year	Offset Payment	Expenditure
2019/20	5.5	33
2020/21	3	18
2021/22	3	18

Source: SPI estimates

There are two productions in the 2021/22 Drama Report announced as Location incentive projects, which have been counted as Australian drama. One is a film and the other is a series. It is likely that at least some of the series expenditure and offset is covered by the data in Table 17. However, the film expenditure will not be. Given uncertainty about the scale of this expenditure, we do not seek to include it here, but we estimate that that the likely Offset amount for the film is less that $4 million and therefore small (around 3% of the total Location Offset/Incentive expenditure).

12.4. Post Digital and VFX (PDV)

Data on foreign PDV-only[131] expenditure is available. It is assumed that all foreign PDV productions received the PDV Offset at the rate of 30% and estimated Offset payments are calculated on this basis. There is a small amount of PDV activity for domestic productions which is covered by the PDV. For this, both the Offset and covered expenditure are estimated.

The PDV Offset provides a rebate of 30% for productions with a qualifying expenditure of $500,000 or higher undertaking PDV in Australia. It cannot be combined with a Location or Producer Offset but can be combined with state PDV incentives. Productions do not need to be filmed on location in Australia. Eligible productions must have a total Qualifying Australian Production Expenditure related to PDV activities of at least A$500,000.

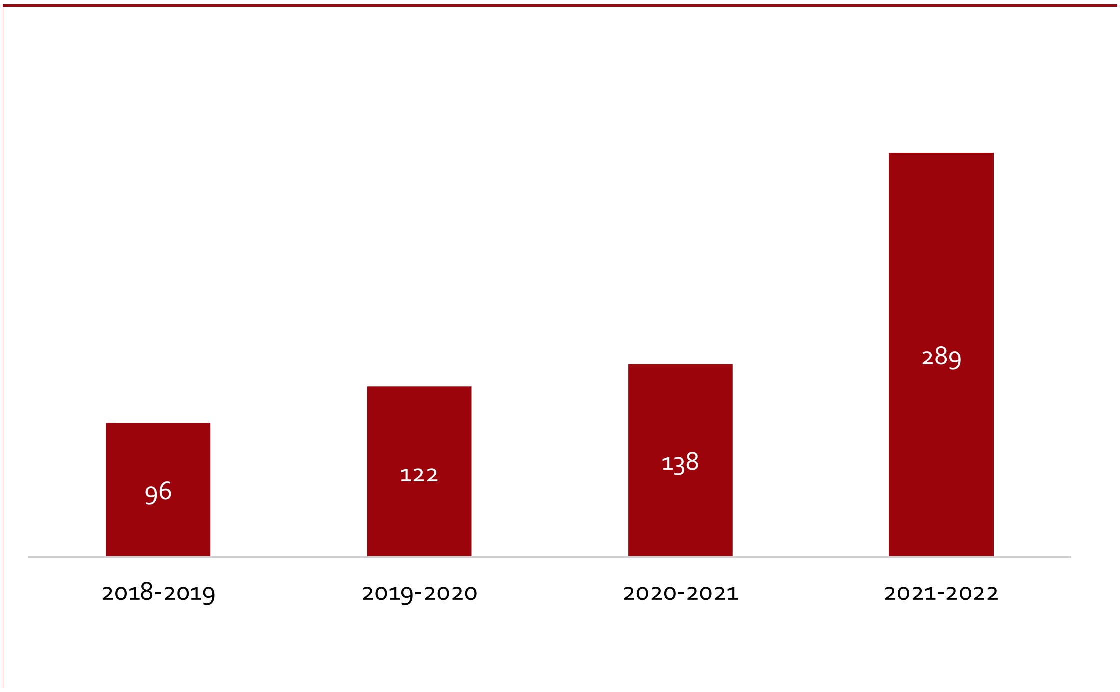
12.4.1. Foreign PDV

The production expenditure associated with the PDV Offset is not disclosed. However, the Drama Report contains data on foreign PDV expenditure (summarised in Figure 57 below). This is for productions which only undertook PDV activity in Australia. Offset expenditure is allocated to the year in which the activity took place (not all allocated to the year in which principal photography commenced as is the case with the Location Offset data).

[131] Productions are 'PDV only' if they only come to Australia for PDV activities and do not undertake production activities within the country.

Assumption 5: All foreign PDV-only activity is covered by the PDV Offset.

Figure 57 – PDV Expenditure in Australia Associated with Foreign PDV only (A$m) 2018/19 – 2021/22



Source: Drama Report 2020/21, p40

There is no PDV Offset payment data published in a consistent manner to the expenditure data published in the Drama Report. To overcome the issue, SPI makes the following assumption, which will be tested through sensitivity analysis.

Assumption 6: All foreign PDV-only expenditure receives the 30% PDV Offset.

The estimated PDV Offset Payments are set out in Table 18.

Table 18 – Foreign PDV Offset Payments (A$m)

Financial Year	Foreign Productions (Estimated)[132]
2016/2017	38
2017/2018	31
2018/2019	29
2019/2020	37
2020/2021	41
2021/22	87

Source: SPI calculations on Drama Report 2021/22, page 34

12.4.2. Australian PDV

The vast majority of domestic PDV activity will not be eligible for the PDV incentive, which focuses specifically at bringing international PDV activity to Australia. However, according to the Drama Report, there is a small amount of expenditure from domestic productions being

[132] Note that this is an estimated PDV Offset payment value of 30% of the total PDV only spend.

supported through the PDV Offset. PDV Offset payment data is combined with Location Incentive payment data for domestic productions, therefore an assumption must be made to disaggregate the data.

Assumption 7: Half the Offset payments were for PDV and half for Location in the years 2019/20 – 2021/22. As the domestic PDV and Location Offset payments are small compared to the payments to foreign productions (3.5% in 2021/22), this assumption has little impact on the overall results.

Table 19 summarises the estimate of PDV payments to Australia productions.

Table 19 – Australian Production Location Offset Payments and Expenditure – Estimated (A$m), 2019/20 – 2021/22

Financial Year	Offset Payment	Expenditure
2019/20	5.5	18
2020/21	3	10
2021/22	3	10

Source: SPI estimates (2022)

13. APPENDIX 3 – SENSITIVITY ANALYSIS

As with all economic impact modelling, the results are sensitive to variables within the model. Sensitivity analysis enables us to study how uncertainty about a particular variable ultimately impacts the results or findings.

In this section, two different sensitivity analyses are undertaken to account for uncertainty around the offset payments and the different additionality rates.

13.1. Sensitivity to Test Uncertainty in Offset Payments

As set out in Chapter 12 (Appendix 2), it has been necessary to estimate the total value of offset payments based on best available data. This only impacts the return on investment (ROI) figures, and not the overall economic results. Sensitivity tests how variable the ROI results are to error in estimation of the offset payments – modelling scenarios in the expenditure is estimated as if expenditure on offsets was 10% lower than estimated and 10% higher than estimated.

Table 20 – Total Return on Investment – Estimation of Offset Payments

	Total Return on Investment		
	Offset Payments at estimated level	Offset payment at 10% lower than estimate	Offset payments at 10% higher than estimate
Location Offset and Incentive	5.89	6.99	5.10
PDV Offset	4.89	5.73	4.26
Producer Offset	4.40	5.13	3.85

Source: SPI estimates (2022)

Table 20 shows that even if offset payments are 10% higher than the estimated amount presented in the main body of the report, all offsets provide a strong, positive total ROI of 3.85 for the Producer Offset, 4.26 for PDV Offset and 5.10 for the Location Offset and Incentive. Table 21 shows that under all tested scenarios, the direct ROI is also positive.

Table 21 – Direct Return on Investment – Estimation of Offset Payments

	Total Return on Investment		
	Offset Payments at estimated level	Offset payment at 10% lower than estimate	Offset payments at 10% higher than estimate
Location Offset and Incentive	1.96	2.32	1.70
PDV Offset	1.63	1.91	1.42
Producer Offset	1.47	1.71	1.28

Source: SPI estimates (2022)

13.2. Sensitivity to Test the Additionality Rate

One of the key variables driving the results of the economic impact's return on investment assessment is the additionality factor. As set out above, SPI has developed additionality factors based on primary research both through a survey and through consultations with industry. We are confident that the rate of additionality matches what the industry is telling us would happen in the absence of the grant, especially given the real-life experiment we witnessed in 2017/18 when only the Location Offset was available and foreign production expenditure dropped from A$557 million in 2016/17 to A$14 million in 2017/18, a fall of 97.5%.

Nonetheless, given the potential for reporting bias, SPI have undertaken some sensitivity analysis for the GVA ROI calculations, varying the additionality rate. Varying additionality rates are presented in Table 22 and Table 23 below. SPI have tested the 50% additionality rate here for completeness only, it is far lower than the additionality figure that is supported by research evidence and is therefore only used for illustration.

Table 22 – Total Return on Investment – Testing Additionality Rates

	Reported additionality rate	Total RoI		
		Additionality at reported rate	Additionality at 75%	Additionality at 50%
Location Offset and Incentive	100%	5.89	3.87	2.30
PDV Offset	94%	4.89	3.59	2.14
Producers Offset	86%	4.40	3.65	2.18

Source: SPI estimates (2022)

Table 23 – Direct + Indirect Return on Investment – Testing Additionality Rates

	Reported additionality rate	Direct RoI		
		Additionality at reported rate	Additionality at 75%	Additionality at 50%
Location Offset and incentive	100%	3.87	2.55	1.51
PDV Offset	94%	3.22	2.36	1.41
Producers Offset	86%	2.90	2.40	1.43

Source: SPI estimates (2022)

This indicates that the total ROI results remain positive (i.e., above 1) even when 50% of the expenditure is excluded from the analysis.

Some policymakers may wish to focus only on the direct + indirect GVA ROI. This is still positive when only 50% of production expenditure is assumed to be attributable to the offsets.

Overall, this sensitivity analysis supports the assertion that all offsets provide a positive return on investment.

14. APPENDIX 4 – ABOUT ANZSA

Australia New Zealand Screen Association (ANZSA) represents the film and television content and distribution industry in Australia and New Zealand. Its core mission is to advance the business and art of film making, increasing its enjoyment around the world and to support, protect and promote the safe and legal consumption of movie and TV content across all platforms.

This is achieved through education, public awareness and research programs, to highlight to movie fans the importance and benefits of content protection. ANZSA has operated in Australia since 2005 (and was previously known as the Australian Federation Against Copyright Theft and the Australian Screen Association).

ANZSA works on promoting and protecting the creative works of its members. Members include: Village Roadshow Limited; Motion Picture Association; Walt Disney Studios Motion Pictures; Netflix Inc.; Paramount Pictures; Sony Pictures Releasing International Corporation; Universal International Films, Inc.; and Warner Bros. Pictures International, a division of Warner Bros. Entertainment Inc., and Fetch TV.

15. APPENDIX 5 – ABOUT OLSBERG•SPI

Olsberg•SPI is an international creative industries consultancy, specialising in the global screen sector.

SPI provides a range of expert consultancy and strategic advisory services to public and private sector clients in the worlds of film, television, video games and digital media. Formed in 1992, it has become one of the leading international consultancies in these dynamic creative screen industries.

The firm's expert advice, trusted vision and proven track record create high levels of new and repeat business from a diverse group of companies and organisations, including:

- National governments, including culture and economics ministries
- National film institutes and screen agencies l Regional and city development agencies and local authorities
- Multi-national cultural funds and authorities
- National and regional tourism agencies
- Established studios and streamers
- Independent companies at all points of the screen business value chain
- National and international broadcasters
- Trade associations and guilds
- Training and skills development organisations
- Publishers and conference organisers.

With expertise in all areas of the fast-moving global creative sector, SPI offers a wide range of services, including:

- Analysis and strategic advice for building healthy and sustainable national and regional industries, and recommendations for public policies to support this
- Mapping and assessment of physical infrastructure, services and workforce
- Delivering economic impact studies of whole sector activity or of incentives
- Advice on the creation of fiscal incentives for screen productions
- Helping businesses and governments interpret the strategic implications of digital media innovations
- Business development strategies for content companies
- Feasibility studies, marketing and business strategies for small and large-scale studio facilities
- Evaluations of publicly-funded investment schemes
- Acquisition and divestment advice for owners or managers of SMEs
- International cost comparisons for small and large film and television productions
- Strategic advice on inward investment and exports for national and regional public bodies
- Analysing and explaining the links between growth in tourism and a nation's film and television output
- Providing strategic advice for screen commissions, including business and marketing plans
- Keynote speakers at industry events.

Further information on SPI's work can be found at www.o-spi.com and within the SPI Company Brochure.

Please **contact Kayleigh Hughes** on kayleigh@o-spi.com for further information about this study.

australia new zealand screen association

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